Meeting of the Board
13 – 16 March 2023
Songdo, Incheon, Republic of Korea
Provisional agenda item 11

GCF/B.35/02/Add.03/Rev.01

2 March 2023

Consideration of funding proposals - Addendum III

Funding proposal package for FP201

Summary

This addendum contains the following seven parts:

a) A funding proposal titled "Adapting Philippine Agriculture to Climate Change (APA)";
b) No-objection letter issued by the national designated authority(ies) or focal point(s);
c) Environmental and social report(s) disclosure;
d) Secretariat's assessment;
e) Independent Technical Advisory Panel's assessment;
f) Response from the accredited entity to the independent Technical Advisory Panel's assessment; and
g) Gender documentation.

It is noted that some modifications have been made in gender documentation to reflect the revised language.

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Funding Proposal

Project/Programme title:	Adapting Philippine Agriculture to Climate Change (APA)
Country(ies):	Philippines
Accredited Entity:	Food and Agriculture Organization of the United Nations (FAO)
Date of first submission:	*2022/04/08*
Date of current submission:	*2022/12/29*
Version number:	V.14

GREEN CLIMATE FUND

Contents

Note to Accredited Entities on the use of the funding proposal template

- Accredited Entities should provide summary information in the proposal with cross-reference to annexes such as feasibility studies, gender action plan, term sheet, etc.
- Accredited Entities should ensure that annexes provided are consistent with the details provided in the funding proposal. Updates to the funding proposal and/or annexes must be reflected in all relevant documents.
- The total number of pages for the funding proposal (excluding annexes) **should not exceed 60**. Proposals exceeding the prescribed length will not be assessed within the usual service standard time.
- The recommended font is Arial, size 11.
- Under the GCF Information Disclosure Policy, project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Accredited Entities are asked to fill out information on disclosure in section G.4.

Please submit the completed proposal to:
fundingproposal@gcfund.org
Please use the following name convention for the file name:
"FP-[Accredited Entity Short Name]-[Country/Region]-[YYYY/MM/DD]"

A. PROJECT/PROGRAMME SUMMARY

A.1. Project or programme	Project	**A.2. Public or private sector**	Public
A.3. Request for Proposals (RFP)	Not applicable		

A.4. Result area(s)

*Check the applicable GCF result area(s) that the overall proposed project/programme targets below. For each checked result area(s), indicate the estimated percentage of **GCF and Co-financers' contribution** devoted to it. The total of the percentages when summed should be 100% for GCF and Co-financers' contribution respectively.*

	GCF contribution	Co-financers' contribution[1]
Mitigation total	Enter number %	Enter number %
☐ Energy generation and access	Enter number %	Enter number %
☐ Low-emission transport	Enter number %	Enter number %
☐ Buildings, cities, industries and appliances	Enter number %	Enter number %
☒ Forestry and land use	15.4 %	20.8 %
Adaptation total	Enter number %	Enter number %
☒ Most vulnerable people and communities	59.6%	59.2 %
☒ Health and well-being, and food and water security	25 %	20%
☐ Infrastructure and built environment	Enter number %	Enter number %
☐ Ecosystems and ecosystem services	Enter number %	Enter number %

A.5. Expected mitigation outcome *(Core indicator 1: GHG emissions reduced, avoided or removed / sequestered)*	*4.38 MtCO2-e*	**A.6. Expected adaptation outcome** *(Core indicator 2: direct and indirect beneficiaries reached)*	6.25 million total beneficiaries	
			1.25 million direct beneficiaries	5 million indirect beneficiaries
			1.2% of the total population of the Philippines	5% of the total population of the Philippines
A.7. Total financing (GCF + co-finance[2])	39,254,450 USD	**A.9. Project size**	Small (Up to USD 50 million)	
A.8. Total GCF funding requested	26,273,510 USD *For multi-country proposals, please fill out annex 17.*			

[1] Co-financer's contribution means the financial resources required, whether Public Finance or Private Finance, in addition to the GCF contribution (i.e. GCF financial resources requested by the Accredited Entity) to implement the project or programme described in the funding proposal.

[2] Refer to the Policy of Co-financing of the GCF.

A.10. Financial instrument(s) requested for the GCF funding	*Mark all that apply and provide total amounts. The sum of all total amounts should be consistent with A.8.* ☒ Grant 26,273,510 ☐ Loan Enter number ☐ Guarantee Enter number ☐ Equity Enter number ☐ Results-based payment Enter number		
A.11. Implementation period	7 years	**A.12. Total lifespan**	20 years
A.13. Expected date of AE internal approval	17 March 2021	**A.14. ESS category**	B
A.15. Has this FP been submitted as a CN before?	Yes ☒ No ☐	**A.16. Has Readiness or PPF support been used to prepare this FP?**	Yes ☐ No ☒
A.17. Is this FP included in the entity work programme?	Yes ☒ No ☐	**A.18. Is this FP included in the country programme?**	Yes ☒ No ☐
A.19. Complementarity and coherence	*Does the project/programme complement other climate finance funding (e.g. GEF, AF, CIF, etc.)? If yes, please elaborate in section B.1.* Yes ☒ No ☐		
A.20. Executing Entity information	Food and Agriculture Organization of the United Nations (FAO) The Government of the Philippines acting through the Philippine Department of Agriculture (DA), the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) and the Philippine Bureau of Treasury (BTr).		

A.21. Executive summary (max. 750 words, approximately 1.5 pages)

The Philippines is one of the countries most vulnerable to the impacts of climate change in the world. Ranked 4th on the Long-Term Climate Risk Index (2000 to 2019), the country is continually exposed to increasingly more frequent and more catastrophic extreme weather events, such as tropical cyclones, droughts, floods, and irregular precipitation. Most areas of the country and over 70 percent of the population are at risk and vulnerable to climate disasters (GFDRR, 2012). Disaster risk levels rise with the occurrence of more intense tropical storms, including heavy rainfall and floods, as well as El Niño-related droughts, which have a negative impact on the country's complex agro-ecological zones. Consequently, rural and agricultural systems are becoming increasingly exposed to climate risks and the losses and damages associated with extreme weather events.

As part of project preparation, analysis of future climate impacts on agriculture and farming communities indicates that large parts of the country will face further exposure to increased temperatures. The northern and central regions of the country are expected to experience drier dry seasons and wetter rainy seasons, whereas drought-prone areas in the south will be further impacted by decreased precipitation. Climate change (CC) predictions for cyclones are less certain but suggest an increase in intensity rather than frequency.

Through the baseline study and intensive stakeholder consultation, a range of climate-resilient agriculture (CRA) options were examined for the most exposed agricultural systems in the region's most vulnerable to the impacts of climate change. The crop- and system-specific CRA options identified draw on a number of examples and models, including indigenous food production systems, which have shown emerging success and viability. They also point to the need for investments in more integrated farm systems as well as for farmers to adopt CRA practices that are relevant to the local context.

Agricultural production must shift from its baseline state characterized by extreme vulnerability to losses and damages from extreme weather events and by the low adaptive capacity of highly exposed farmers to an alternative paradigm in which stakeholders (government, private sector, and farming communities) are able to understand and monitor short-term and long-term climate risks and engage in a continuous process of managing these evolving risks. This requires target farming communities to be organized and to develop enterprises to sustain CRA practices and pursue an economy of scale.

The objective of this project, "*Adapting Philippine Agriculture to Climate Change" (APA),* is to increase the resilience of rural men and women in areas vulnerable to climate change who depend on agriculture for their livelihoods, while transforming the country's agricultural system toward climate resilience. This will be achieved through improv farmers' capacity to develop CRA enterprises and adopt financially and economically viable CRA practices, as well as the government and private sector's capacity to build supporting systems for scaling up. The project aims to achieve the following three **outcomes**:

- Outcome 1: Increased institutional capacities for the development and provision of climate information and Climate Resilient Agriculture services
- Outcome 2: Adoption of Climate Resilient Agriculture through enterprises by farmers (female and male); and
- Outcome 3: Strengthened regulatory framework, market, and knowledge management for mainstreaming and scaling up Climate Resilient Agriculture.

The proposed project will build on the Adaption and Mitigation Initiative in Agriculture (AMIA) of the Government of the Philippines (GovPH). It will provide a systematic approach to climate change adaptation (CCA) for the long-term implementation of the National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP) in the entire country while supporting integrating agriculture into the National Adaptation Plan (NAP Ag).

Through the CRA enterprise development approach, the project will help vulnerable farmers, including women, youth, and indigenous communities, and the private sector to access climate information and technical services and to overcome input and market barriers to CRA adoption, while building on the strength of existing systems and new partnerships along value chains. This will be achieved through the complementary bundling of CRA practices, appropriate finance and risk transfer, and the use of innovative emerging digital technologies.

The APA project, the AMIA, and another proposed GCF project, *"Accelerating adoption of climate-resilient agricultural production through integrated landscape approach to manage climate risks"* (PILAR),[3] which is being developed with the Land Bank of the Philippines (Land Bank) as the GCF Direct Access Entity (DAE), will work together in a program approach for a climate- resilient agricultural transformation in the Philippines. This is in line with the Department of Agriculture (DA) One DA Framework , which emphasizes "new agriculture is climate- resilient agriculture" that is financially and economically viable and profitable.

The project activities will be delivered in at least nine provinces in five regions that have been identified as the most vulnerable climate change hot spots based on climate change projections. These regions are home to 60 percent of the Philippine rural population (20 million out of 31.3 million rural people). More than half of the rural population most likely to be affected by the impacts of climate change reside within the project areas. **At least 1.25 million, mainly poor farming household members (half of whom are women) in the nine target provinces are expected to directly benefit from the project, as farmers improve awareness of risks and risk reduction measures and incorporate climate-resilient and low-emission technologies into agricultural practices to adapt to climate change impacts.**

Over 5 million people living in the area will also benefit indirectly from enhanced information systems and strengthened institutional capacity, which will create an enabling environment for the widespread adoption of CRA.

The project is expected to mitigate climate change, producing an estimated reduction of 4.38 MtCO2-e over 20 years as a result of the application of CRA practices and better land use. It will also have economic co-benefit in the form of increased household income from participation in CRA enterprises, while promoting gender equality and indigenous communities' resilience.

[3] Project "Accelerating adoption of climate-resilient agricultural production through integrated landscape approach to manage climate risks" (PILAR) is in the design phase, currently being formulated by Land Bank.

B. PROJECT/PROGRAMME INFORMATION

B.1. Climate context (max. 1000 words, approximately 2 pages)

Country context and background

1. With a population of over 100 million people, the Republic of the Philippines (the Philippines) is the world's 12th most populous country, but it is also among the most vulnerable to the impacts of climate change. The country is ranked 4th on the Long-Term Climate Risk Index (2019 to 2000), and over 70 percent of the population is vulnerable to climate disasters (GFDRR, 2012). The country's geography is highly diverse and complex and spreads over 7,600 tropical islands, comprising both mountain ranges reaching as high as 3,000 meters and highly productive lowlands, resulting in a large diversity in projected climate change impacts and adaptation responses.

2. The agricultural sector is highly exposed to climate risks and variability in the form of floods, droughts (including those induced by El Niño), and severe tropical cyclones (typhoons). On average, more than 10 percent of arable land in the country is affected every year, and a recent trend analysis shows a steady increase in economic impacts over the last two decades (OECD, 2017). From 2003 to 2018, droughts accounted for about 12 percent of agricultural damages by climatological hazards, while the rest is attributed to tropical cyclones, floods, and storm surges. Droughts do not affect agriculture every year as they are associated with El Niño, but their impacts can be devastating when they do happen, accounting for as much as one half of annual agricultural damages (Compendium of Philippine Environment Statistics 2020, 2016, and 2014). Damages to the agricultural sector from disasters between October 2019 and February 2020 (three earthquakes, two typhoons, and the phreatic eruption of the Taal Volcano near Manila) are valued at US$283 million, the majority of which being attributed to typhoons (World Bank and ADB, 2021. Climate Risk Country Profile: Philippines).

3. Up to 85 percent of the country's agricultural land could be affected by typhoons, floods, and droughts, according to a spatial analysis of projected climate change impacts (World Bank and ADB, 2021. Climate Risk Country Profile: Philippines). Agricultural smallholders are particularly vulnerable to weather-related hazards and climate-related disasters, which have a direct impact on the food security of rural households and the wider local economies. For example, poverty increased in regions affected by Typhoon Haiyan – one of the most powerful and devastating tropical cyclones on record. Recently, the country was hit by also powerful Typhoon Rai, known in the Philippines as Typhoon Odette, which swept through several regions. The initial estimate of the damage was over US$ 200 million, with more than 163,000 affected farmers and fishers. Indigenous agricultural practices in upland areas, where most of the country's indigenous communities live, have been shown to be robustly resistant to climate shocks; yet these systems are under increasing pressure as communities adopt modern agricultural methods and non-agricultural livelihoods.

4. In 2018, agriculture accounted for 8 percent of the country's GDP, while industry and the service sector contributed approximately 34 percent and 58 percent respectively. The agriculture sector is key to the livelihoods of a large share of the population, providing income for one-third of the total labour force, mainly small-scale farmers and fishers. Subsistence and semi-subsistence production remains widespread, and 30 – 50 percent of farmers are poor (PSA, 2015). Apart from income generation, the agricultural sector is essential for food security and self-sufficiency and is thus a national priority. Women are widely engaged in agricultural activities, but they have less control over resources and are particularly vulnerable to shocks.

5. The COVID-19 pandemic and the current Ukraine's war triggered Food, Fuel, Fertilizer, Feed and Finance (5F) crisis have widespread impacts on the agri-food production, supply and distribution systems in the Philippines. The ongoing economic consequences of the crises adversely affect farmers' lives and access to credit, while restrictions limit consumer access to agri-food markets. Almost 60 percent of consumers reported having reduced their food consumption during the height of the COVID-19 pandemic lockdowns, with the poorest and most marginalized sections of the population suffering disproportionately, also because of rising unemployment and significant reductions in incomes. These effects have further intensified the vulnerability of many poor rural communities already struggling to cope with high exposure to climate risk and variability across the agri-food systems.

Climate change trends and impacts

6. The Philippines has experienced rising temperatures over the last 50 years (PAGASA, 2011) and is predicted to see continued increases in the future (Daron et al., 2018; Villarin et al., 2016), especially during spring (March–May). Historical precipitation trends show a tendency towards a drier dry season (January–March) and a wetter rainy season (July–September), especially in the northern and central regions of the country (Villafuerte et al., 2014). At the same time, extreme heavy-rainfall events have increased in recent decades. Projections of future precipitation suggest an increase in the northern regions and a decrease in the south of the country, while in other regions, future changes in rainfall patterns remain uncertain (PAGASA, 2011; Daron et al., 2018).

7. Drought events, which are highly associated with El Niño, occur in the Philippines periodically. However, there is an increasing trend in the number of days without rain in some provinces. An overall trend of decreasing rainfall has also been seen during the Southwestern monsoon season over the western Philippines in the last decades (Cruz et al., 2013). Regional climate models suggest a reduction in annual mean rainfall and a decrease in soil moisture in Mindanao (larger changes), and also in Luzon and Cordillera (smaller changes) (Annex 1). There is high confidence of an increase in extreme- heat days as well as in annual mean temperature in the future (PAGASA, 2011). These factors combined suggest that any dry spell (regardless of its cause - ENSO, monsoons, or anthropogenic climate change) is highly likely to be drier, with worse impacts, in the future.

8. Although tropical cyclone (TC) records suggest no significant change in the total number of cyclones, they indicate an increase in cyclone intensity (Cinco et al., 2016), causing significant damage in recent years. In addition, the southern regions of the country have experienced TCs, despite not having been impacted by such events historically. The country's agri-fishery sector has been hit hard by tropical cyclones in recent years, particularly by consecutive Typhoon Rolly and Typhoon Ulysses in 2020, which left 20,000 households in need of food assistance. According to projections, tropical cyclones are likely to become even more intense in the future (UK MET office, 2016); at the same time, sea-level rise will exacerbate storm surges and increase storm surge height.

9. These analyses are supported by the most recent IPCC Sixth Assessment Report (AR6), which states that there will be an increase in the proportion of category 4–5 (the highest categories) tropical cyclones and in associated rainfall. The latest climate projections, available on the IPCC AR6 Interactive Atlas, also indicate a significant future increase in rainfall for the northern part of the Philippines and a small, non-significant future reduction in the south.

10. Long-term, slow-onset climate change and the changing intensity and frequency of extreme events are predicted to have a negative impact on agricultural systems, with major food crops in tropical and temperate regions experiencing decreased yields due to temperature increases of more than 2 ºC (IPCC, 2014). Recent studies on the Philippines indicate that total crop production could decrease by 1.7 percent by 2050 due to climate change (Cruz et al., 2017), while cereal yields could decrease by 6.1 percent on average, including a decline of 13 percent for maize and 3.2 percent for rice (Rosegrant et al., 2016; Thomas et al., 2016). These reductions would particularly affect rainfed areas (FAO, 2015) that are typical of marginal farming systems. Figure B.1.1 shows the spatial distribution of the expected impacts in terms of 1) increased temperatures coupled with reductions in precipitation, 2) increased precipitation due to intense cyclones, and 3) the combined effects of climate change under RCP 8.5 (lower-emission pathways also indicate similar impacts). In summary, analysis suggests that the negative impacts of climate change and related disasters on agriculture are likely to intensify in farming systems and areas important for both food production and livelihoods of the poor, including upland areas with indigenous peoples. These analysis results are also supported by the WMO-GCF platform (climateinformation.org); see Appendix 1.

11. The Philippines emits an average of 1.98 metric tons of carbon dioxide equivalent per capita in 2020 (NDC, 2021). Philippines' agricultural emissions are mainly from rice cultivation (33.8 MtCO2e) (62 percent of agricultural emissions). Emissions are also from digestive processes in animals (12 percent), livestock manure (13 percent), and the use of synthetic fertilizers (9 percent) (Climate Transparency, 2021). The 1.5oC compatibility means that methane emissions (mainly enteric fermentation) need to decline by 10 percent by 2030 and by 35 percent by 2050 (from 2010 levels). Nitrous oxide emissions (mainly from fertilizers and manure) need to be reduced by 10 percent by 2030 and by 20 percent by 2050 (from 2010 levels) (ibid).

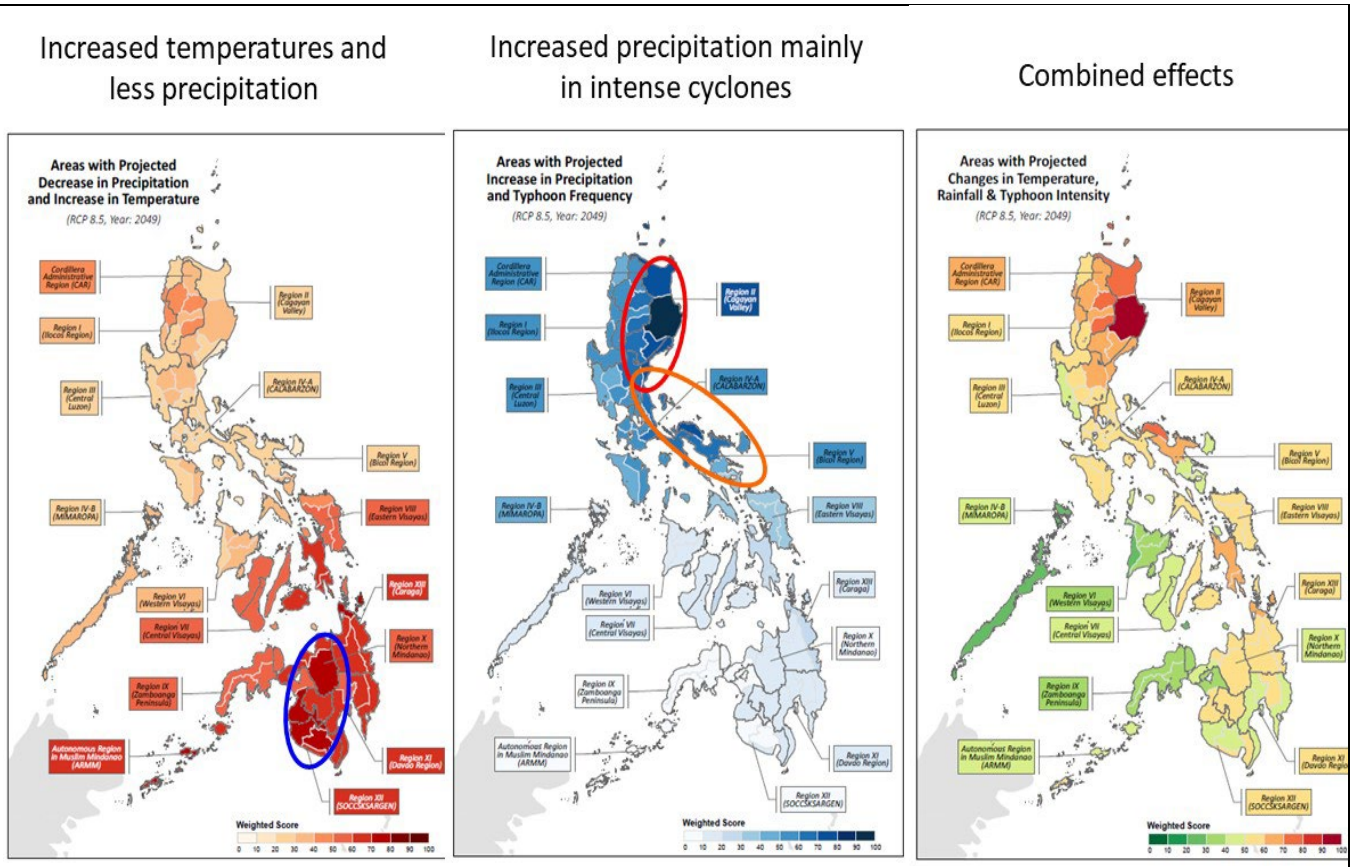

Figure B.1.1: Projected Climate Change Trends across the Philippines

12. As a result of the agro-ecological diversity of the Philippines, key climate change impacts are region-specific, and the effects on existing baseline farming systems differ. For each region, the expected impacts are summarized below and are mapped against the predominant baseline farming systems.

Climate considerations and selected project target areas

13. Project support will be delivered in *100 most vulnerable municipalities, located in nine Provinces across five Administrative Regions (out of 18 Administrative Regions), across four agroecological zones* in the country. Box B.1.1 below presents a summary of the final criteria used for selecting project target areas. Further details on the selection criteria and process are provided in Appendix 4 and Annex 2.9. In brief,

- **Agro-ecological zones** were assessed against 2 climate change criteria: 1) decrease in rainfall and increase in temperature, and 2) increase in rainfall and tropical cyclone risks. Four most climate change-impacted agro-ecological zones were identified.
- **Project administrative regions (05) and provinces (09)** were identified from the most climate change-impacted agro-ecological zones to ensure the prioritisation of the most vulnerable agricultural systems and farmer groups, as well as of areas of agro-climatic and agro-ecological representativeness. We used a multi-criteria analysis based on: (i) likely climate trends and impacts; (ii) climate resilience profiles (CRPs); and (iii) weighted score of general socio-economic and poverty status, and other indicators.
- **Municipalities (100)** will be jointly identified during the project inception phase and as part of the participatory CRA strategic planning process, which builds on climate resilience and vulnerability assessments (CRVAs) at the provincial level.
- **The CRVAs** will help identify priority farming systems and farmer groups, which are the most vulnerable to climate change, and thus beneficiary groups for CRA enterprise development training and investments. The data generated through the CRVAs will serve to not only identify target municipalities and project beneficiaries but also establish part of the baseline for project monitoring and further strengthen the targeting for social protection support by the public sector. The CRVAs will be the basis for the Provincial CRA Strategic Plan and

the Investment Plan of the enterprises, which will include environmental and social risk mitigation measures of selected CRA options/practices.

14. Table B.1.1, Figures B.1.2 and B.1.3 present the project's target agro-ecological zones, regions, and provinces.

Table B.1.1. Project Areas

Agroecological Zones	Administrative regions/No of provinces	Project selected Administrative Regions	Project Provinces	Number of target municipalities
North East Luzon (CC increasing precipitation, intensifying cyclones)	Region I (Ilocos region) Region II (Cagayan Valley) Region III (Central Luzon) *Number of provinces: 16*	Region II – Cagayan Valley	1. Cagayan 2. Isabela	100
Cordillera (high CC combined effects)	Cordillera *Number of provinces: 6*	Cordillera Autonomous Region (CAR)	3. Apayao 4. Ifugao 5. Kalinga	
Eastern Seaboard (CC intensifying cyclones, increasing precipitation)	Region IV-A (Calabarzon) Region V (Bicol region) Region VI (Western Visayas) Region VIII (Eastern Visayas) *Number of provinces: 23*	Region V – Bicol	6. Camarines Norte; 7. Camarines Sur	
Western and Central Mindanao (CC decreasing precipitation, increasing temperatures)	Region X (Northern Mindanao) Region XII (Soccksargen) Region XIII (Caraga) *Number of provinces: 14*	Region X – Northern Mindanao	8. Bukidnon	
		Region XII – Soccsksargen	9. North Cotabato	

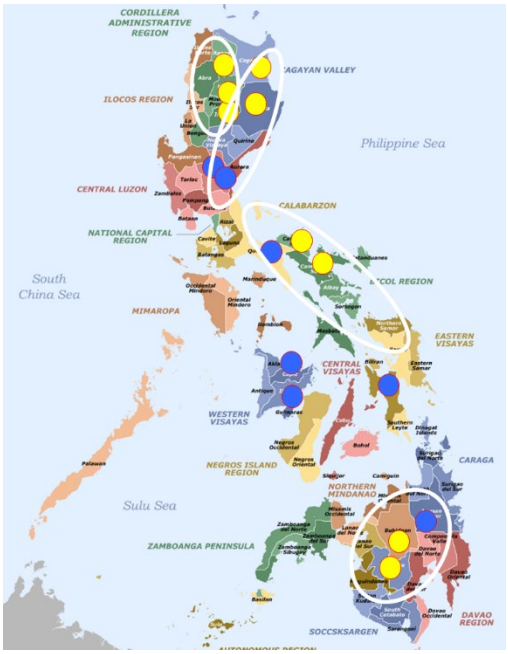

Figure B.1.2: Project target provinces - prioritized provinces (yellow) and provinces with significant CC risk that would benefit from scaling up (blue)

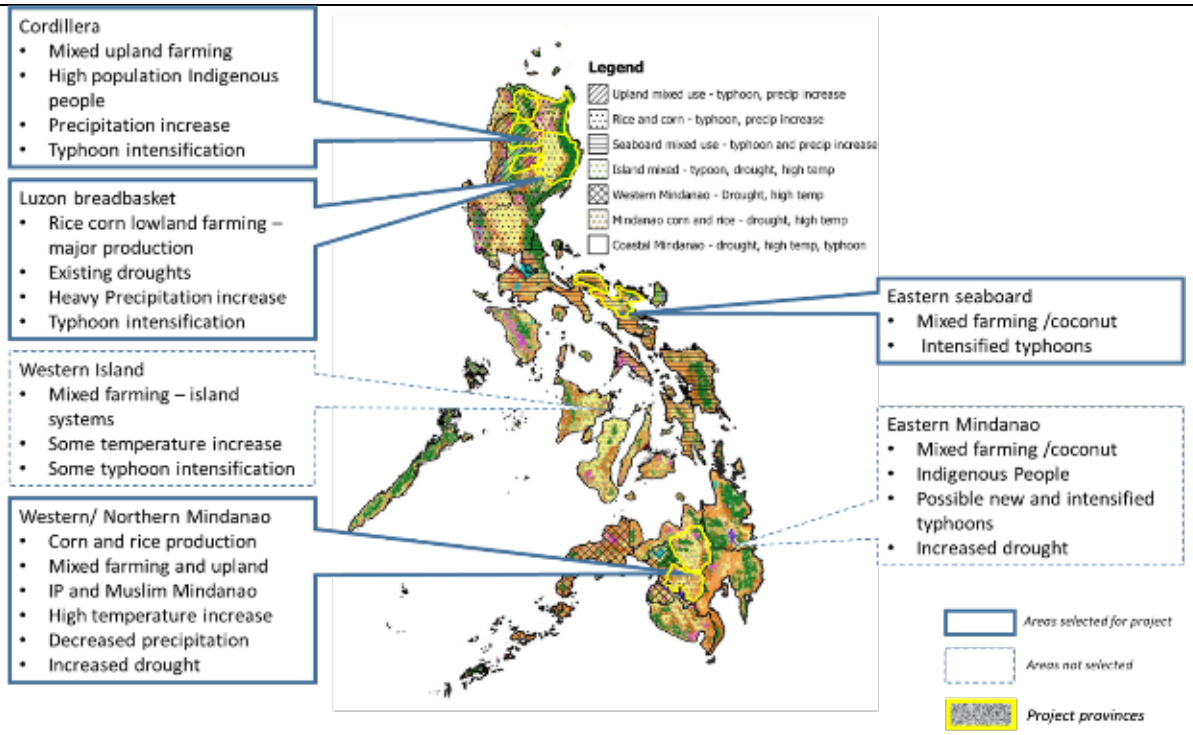

Figure B.1.3 Climate change impacts and farming systems in the locations of proposed interventions (other, second-priority climate impact areas, not selected, also shown)

Box B.1.1 Project target site selection criteria

In addition to climate change criteria (decrease in rainfall and increase in temperature; increase in rainfall and tropical cyclones), a combined non-CC indicator was used to prioritize administrative regions and provinces. Some of the data used are:

- agricultural loss and damage
- deforestation rate
- malnutrition rate
- poverty incidence
- number of farmers and fishers
- regional DA capacity for coordination in project implementation

Municipalities within the provinces will be selected against the following criteria during project implementation:

- climate risks and vulnerabilities
- climate justice
- willingness to contribute support and counterpart
- integration of CC and disaster risk reduction (DRR) in local policies and budget
- expressed commitment to operation and maintenance (O&M) for scaling up
- relevant past and ongoing initiatives to build on

Beneficiaries within the municipalities will be selected against the following criteria:

- CC-vulnerable farming systems
- CC-vulnerable farmer groups
- Small- scale farmers
- Agrarian reform beneficiaries
- Women farmers
- Young farmers
- IP groups
- Special Area for Agricultural Development Program (SAAD) or same criteria on poverty and food security
- Willingness to commit to CRA enterprise approach

15. Each of these regions and provinces has distinct geographical, agricultural, and demographic characteristics. Table B.1.2 summarizes project target regions, their farming systems, socio-economic and

geographical features, and expected climate change impacts. See more information in Appendix 2 - Climate risks in different regions and farming systems, and adaptation interventions that will address the risks.

Table B.1.2 Baseline farming systems and climate change impacts in priority regions targeted by the project

High-impact areas and project target regions	Major baseline vulnerable farming systems	Socio-economic and geographical features	Expected climate change impacts
High-impact Area: Northeast Luzon Project focus: Cagayan Valley - Region II	Rice (irrigated and rainfed; 12% of national production, ranked 2nd) and corn (maize; 21% of national production, ranked 1st) for subsistence and national staple food supply.	Large number of small-scale farmers and agricultural workers. High rural population density. In project provinces, number of farm households: 420,000; number of rural poor: 510,000; poverty rate: 18%.	Increase in flooding and damage due to heavy precipitation and tropical cyclones. Increase in temperature damage, and droughts from combined effects of extreme heat, lower precipitation, and lower soil moisture.
High-impact Area: Cordillera Project focus: Cordillera Administrative Region	Upland and mountain farming (rice and corn), agroforestry, often subsistence. Indigenous food production systems. Commercial vegetables in more accessible areas (ranked 1st for potato and cabbage, and other vegetables).	Relatively low population density, with the majority of the population being indigenous peoples. High levels of poverty. In project provinces, number of farm households: 80,000; number of rural poor: 160,000; poverty rate: 30%.	Increase in damage due to increased heavy precipitation and resulting landslides. Increase in temperature damage, and droughts from combined effects of extreme heat, lower precipitation, and lower soil moisture.
High-impact Area: Eastern Seaboard Project focus**:** Bicol – Region V	Coconut-based and other mixed farming systems, largely rainfed (6th largest producer in country). Some irrigated areas.	High densities of poor small-scale farmers. Small areas of indigenous peoples in upland areas. In project provinces, number of farm households: 170,000; number of rural poor: 782,000; poverty rate: 31%.	Increase in tropical cyclone intensity. Increase in wind damage and likelihood of cyclone-related floods. In coastal areas, increase in likelihood of storm surges.
High-impact Area: Western and Central Mindanao Project focus: Northern Mindanao - Region X and SOCCSKSARGEN - Region XII)	Rainfed corn and rice, some irrigated areas. Mixed upland farming, cash crops (e.g. coffee and cacao), and agroforestry. (Together, ranked 2nd in corn production)	High densities of poor small-scale farmers. Various groups of indigenous peoples especially in upland areas. Muslim communities in the western provinces. In project provinces, number of farm households: 270,000; number of rural poor: 1.24 million; poverty rate: 44%.	Increase in temperature and reduced precipitation; droughts from combined effects of extreme heat, lower precipitation, and lower soil moisture. New areas possibly exposed to damaging tropical cyclones with extreme rain events.

16. Based on the background analysis provided in Section 2.1 and 2.2 of Annex 2, the Climate Resilient Profiles (Appendix 2.2 of Annex 2) present climate change impacts on predominant baseline crops/farming systems and related value chains in project regions, as well as potential CRA and adaptation options along the value chain and barriers to their adoption. Importantly, analysis indicates that climate change is expected to have a negative impact on most of the key farming systems in the Philippines; it is likely to adversely affect the lives of an estimated 31 million people, in particular those who are poor and most vulnerable in the project target regions.

Existing national and sector policies, strategies, and programmes

17. The Government of the Republic of the Philippines (GovPH) recognises the need to address climate change and vulnerabilities, including in the agricultural sector, while increasing economic opportunities for small farmers, ensuring food security, and enhancing sustainability and resilience. Its ambitions are stipulated in the Nationally Determined Contribution (NDC), which emphasizes adaptation and building institutional and technical capacities to generate and use climate science for risk-informed development planning (See Annex E.5.1 and Section 2.4 of Annex 2).

18. In addition, the government has also been active in setting out policies and high-level plans for addressing climate change, such as the National Climate Change Action Plan (NCCAP), the Joint Roadmap of the Cabinet Cluster for Climate Change Adaptation and Mitigation and Disaster Risk Reduction (CCAM-DRR, 2018–2022), and related laws. The Philippine Commission on Women recognises the impact of climate change on women, as does the NCCAP.

19. In its 2021 NDC, the Philippines commits to a projected GHG emission reduction and avoidance for the 2020–2030 period of 75 percent, of which 2.71 percent is unconditional and 72.29 percent is conditional, representing the country's ambition for GHG mitigation in the agricultural, waste, industrial, transport, and energy sectors. This commitment is referenced against a projected business-as-usual cumulative economy-wide emission of 3,340.3 MtCO2e for the same period.

20. Climate change considerations are also increasingly mainstreamed into sectoral policies, strategies, and plans. Both the Philippine Development Plan (PDP, 2017–2022) and the National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP, 2018–2023) highlight the need for better information for climate-related actions. The NAFMIP provides a vision for the agri-fisheries sector, reorienting major "banner" programmes to deliver results that drive climate change adaptation processes in their respective work streams. This emphasizes the shift to CRA as a key development strategy in the country, which involves alignment of government expenditure in support of sustainable agriculture, building on and scaling up the DA's successful experiences in the context of the urgency of the climate crisis. Some of the most relevant and recent initiatives and approaches are highlighted below, which have been instrumental in the design of this project.

21. The DA launched the Adaptation and Mitigation Initiative in Agriculture (AMIA) proramme in 2014. AMIA is a science-based framework with significant institutional support and linkages to key technologies related to climate change adaptation and mitigation, as well as access to financial products and services. AMIA supports key national legislations, policies, and strategies, including the Agriculture and Fisheries Modernisation Act (1997), Disaster Risk Reduction and Management Act (2010), the Philippines Nationally Determined Contribution (NDC), and others. The DA has so far established 57 AMIA villages in 15 regions of the country; the NGO Rice Watch Action Network (RWAN) has established an additional 20 villages. The AMIA village approach has proven to be a viable model for scaling up climate actions, building resilient agri-food livelihoods, and contributing to rural transformation. The AMIA village approach integrates scientific and local knowledge and provides holistic institutional support from national, regional, provincial, and LGU (local government units) institutions, private sector, and civil society. The DA is in the process of establishing community- level research and development centres in 17 pilot sites with the aim of providing a suite of support in a highly integrated manner, in terms of ICT, financial services, CRA practices and technologies in agri-food crop system adaptation and transformation, livelihood development (processing, marketing, and nutrition- promoting practices), among others.

22. The project design has also benefited from several projects implemented by the DA and other public, private, and civil society institutions with support from international partners, including FAO. These projects have typically aimed to (a) identify risks and vulnerabilities; (b) test adaptation technologies, insurance products, and social protection schemes; and (c) make agri-fisheries communities more climate-resilient. These aims are of direct relevance to the objectives of the APA. However, many initiatives require further investments to be mainstreamed and scaled up beyond the initial level of studies and pilot projects. For example, the DA has developed mapping and climate resilience and vulnerability assessment tools, which are being rolled out across the country, including in areas most vulnerable to the impacts of climate change. In addition, there are on-going and pipeline agricultural and rural development projects with the WB, ADB, and other donors. See Appendix 7 and Section 2.4 of Annex 2.

23. Further, the Agricultural Credit Policy Council (ACPC, under the DA) and the Land Bank have developed some credit products to address the needs of small-scale farmers vulnerable to, or affected by, climate risks. However, their uptake (for example, through the Land Bank branches) remains limited – See Section 2.8 of Annex 2. The APA has envisaged working closely with the Land Bank and ACPC microfinance programmes to facilitate wider access of vulnerable and resource-poor farmers to these and other financial products and services.

24. Other government agencies also implement CCA programmes that benefit agriculture. The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) —one of the agencies attached to the Department of Science and Technology (DOST) —is the National Meteorological and Hydrological Services (NMHS) agency of the Philippines, mandated to provide technological services in meteorology, hydrology, climatology, astronomy, and other geophysical sciences. PAGASA has been implementing its Modernization Programme (Republic Act No. 10692 or the PAGASA Modernization Act), which enhances its capability in

providing services to protect the people and the environment and to ensure economic security against natural hazards. The PAGASA Modernization Act mandates the upgrade of physical resources and operational techniques through the acquisition of state-of-the-art instruments, equipment, and facilities to enable timely and reliable forecasting across the country. Yet, there is room for improving climate information services for agriculture.

25. The climate resilience of the agricultural sector in the Philippines relies on the development of systemic adaptive capacity to link farmers, farming communities, and critical support institutions in a regular feedback mechanism. This will require strong program prioritisation analysis and planning that incorporate climate considerations, monitoring and assessment, participatory review, and a means of channeling farmers' experiences to inform operations. Aspects of this work are being initiated, for example through AMIA; however, there are identified gaps, challenges, and barriers, which the proposed project seeks to address.

B.2 (a). Theory of change narrative and diagram (max. 1500 words, approximately 3 pages plus diagram)

Barriers inhibiting the transition from baseline to climate-resilient systems

26. In the process of designing the proposed project, the DA and FAO, with the support of the International Centre for Tropical Agriculture (CIAT), examined climate scenarios and identified barriers in the context of Philippine agriculture (Annex 2, Sections 2.3 and 2.5). This analysis indicates that the impacts of climate change will further reduce the resilience of farmers and farming systems, thus exacerbating food insecurity and poverty. The findings also deepen the analysis of the Philippine Climate Change Assessment Working Group II on Impacts, Vulnerabilities and Adaptation (Cruz et al., 2017, submission to IPCC) and emphasize the need to integrate climate change actions into the implementation of the Philippines Development Plan (PDP) and the NAFMIP. In future climate change-related projects, the Philippines must address the following key barriers:

27. **Weak and incomplete localised climatic information for agriculture.** Addressing the limited availability of and access to key information on climate risks and vulnerabilities in agriculture is critical for regions facing the impacts of climate change. Based on consultations and studies (Annex 2, Sections 2.6 and 2.8), there is a considerable need to generate and translate data into more locally relevant short- and medium-term agriculture-related advisory and information, and to develop mechanisms for use of such information in production decisions and across affected value chains. Early-warning products have been developed, some with pilots for anticipatory action, but these need to integrate agricultural needs and longer-term forecasts and trends more systematically and on a large scale. Existing information products remain mostly centralized and inaccessible to the majority of farmers, government extension agents, or value chain actors and other private sectors including banks, micro-financing institution s, and insurance companies. More vulnerable farmers – including women, indigenous, and youth farmers – typically have even less access to such critical information and advisory.

28. **Incomplete agrometeorological climate data generation** is a cause of the above-mentioned barrier. There are critical gaps on the information supply side. The generation of appropriate local data is limited by inadequate weather stations in critical climate change- impacted areas (Annex 2, Sections 2.6 and 2.8). A detailed inventory of stations and their operation and maintenance (O&M) was done by PAGASA to support the design of this project, in the context of the agency's long-term Modernization Programme. Previous projects have set up stations, including Automatic Weather Stations (AWS). However, these lack sufficient connectivity, consistency, and positioning to generate the agrometeorological data needed to assess long-term trends and complete local networks of stations that would provide a range of short-term forecasting for agriculture. In addition, there has not been strategic coordination and information flow between the DA and PAGASA for the development and operation of such a system. Given the anticipated impacts of climate change, such gaps in the agrometeorological system must be urgently rectified.

29. **Institutional capacity and coordination for climate information services require strengthening**. 1) Roles and responsibilities among government agencies are not clear in terms of data collection and agrometeorological advisory issuance. Established processes and communication channels exist for certain extreme weather events through the National Disaster Risk Reduction and Management Council (NDRRMC) but not for normative climate information services. Climate service providers operate rather independently, and collaboration and communication are bilateral at best within the limited framework of projects. Climate information is disseminated through various channels but in a top-down approach, and information often flows indirectly and slowly. There is limited understanding of client needs because the uses of information are not usually assessed, and there is no effective process for users and disseminators to provide feedback to the producers of climate

information. 2) Weather and climate information is not sufficiently translated into agriculturally relevant information at local levels, in local languages. Information on smaller spatial scales is needed. Interdisciplinary stakeholders and those at local levels and intermediaries are not involved in designing climate information products. 3) There are not enough personnel who are skillful in agronomy, climatology, and agrometeorology.

30. **Weak access to appropriate adaptation and mitigation technologies**. Knowledge and awareness of appropriate adaptation and mitigation options are generally low, not just among farmers but also among extension service providers and private sector actors operating along the relevant value chains. This is a recurring issue observed in all stakeholders. Information on climate risks, matched with tailored agronomic responses, has only been produced on a limited scale and has rarely been developed as localized packages that also indicate the required financing, insurance, and links to market demands. In addition, systems to ensure farmers' access to seeds and propagules for stress-tolerant varieties are poorly developed (Annex 2, Sub-section 2.8.3). The suitability of known adaptation practices needs to be examined in different regions, farming systems, and user groups. Advisory services for CRA practices need to be tailored to localised climate risks and information.

31. **Limited systems for extension and outreach on agriculture and climate change**. As part of the project design, a study (Annex 2, Sections 2.7 and 2.8) was conducted to assess information flows and farmers' capacity to use climate change information in different types of extension including farmer field schools (FFS). The study found limited consideration of climate information and limited flexibility in incorporating farmers' adaptation and resilience needs into extension activities. The Philippines has significant experience with FFS, which have evolved into Climate Resilient Farmer Schools (CRFS), with a more comprehensive set of topics and innovative methodological approaches based on several capacity development efforts over the years. However, the FFS and the more comprehensive CRFS approaches are not always adopted for CRA- related capacity development initiatives. Furthermore climate data and related products and services developed by PAGASA and other national institutions are not used at the farm-gate level. Significant efforts are required to improve the capacity of extension services to disseminate CIS and transfer CRA practices and technologies, as well as support, to municipalities and provinces for climate- resilient agri-food value chain development. The APA considers capacity development for service providers essential to CRA adoption at scale and sustainability.

32. **Lack of climate change focus in local agricultural plans and programmes, agriculture-related budgets, extension and advisory services.** A number of programmes with large outreach provide extension and investment support to farmers. These include the DA's "banner" programmes for major crops (rice and corn, which are allocated the highest budgets) , as well as for high- value crops such as vegetables, tree crops, and certain organic crops. These form the core of government expenditure on agriculture. Such programmes flow from the DA's central offices to regional offices and LGUs for implementation and extension with farmer groups. Despite the vision of the DA's NAFMIP to make the country's agricultural sector become resilient, these programmes do not yet systematically incorporate CRA. Nor do they take into account predicted climate change and the implications for local agriculture. Hence, tailoring to local circumstances is limited. This is compounded by the lack of appropriate climate risk information and CRA advisory services noted above, as well as by the limited capacities of LGUs to provide appropriate extension services on which the programmes depend for delivery. Options to complement CRA with social safety net schemes for the poor and more vulnerable groups must be pursued. With new revenue laws allocating more development funds to LGUs in the coming years (in accordance with the "'Mandanas' ruling"), it will be even more important to strengthen the capacity of and support for LGUs in planning CRA and the appropriate use of funds.

33. **Limited access to market, finance, and risk- mitigation tools ; limited private sector engagement for climate actions in agricultural value chains, including in the supply of stress- tolerant varieties.** Poorer farmers require access to market, credit, and insurance to alleviate risks and increase their willingness to invest in CRA practices. However, access remains limited despite the selected existing schemes. A report of the Agriculture Credit Policy Council (ACPC) in 2014 highlighted the credit gap of PHP 364 billion (USD 7.88 billion) for priority commodities. The Agriculture Guarantee Fund Pool (AGFP) has a policy to provide 85 percent guarantee cover on agricultural production loans granted by accredited private financing institutions and other lending entities against all types of risks of non-repayment by farmer-borrowers, nevertheless, coverage has been limited. According to DA and ACPC, loan demand from small farmers is projected to grow by more than 30% over 5 years: from PHP 148 billion in 2019 to 194 billion PHP in 2024 on the low estimate, and from PHP 318 billion to 416 billion on the high estimate (2020 State of Agriculture Finance - see Appendix 2.8.1 in Annex 2). There are many barriers for uptake of insurance when not obligatory to obtain a loan. The percentage of farmers who have availed of PCIC insurance increased to 15 percent in 2018 from 11 percent in 2015. However, most of the growth in uptake is for special program insurance products with 100 percent subsidy for the insurance premium (Annex 2, Sub-section 2.8.4). Low uptake of credit and insurance is mostly due to providers' low confidence and limited

market knowledge. This is compounded by farmers' low awareness, low financial and technical capacities, and the general lack of information on risks (especially climate-related) that is required to develop appropriate products. The private sector plays a critical role in supporting farmers to access inputs and markets but is only marginally engaged in climate change adaptation and mitigation. Private sectors' awareness and engagement in relevant programmes need to be enhanced both centrally and locally. Systems to ensure farmers' access to seeds and propagules for stress- tolerant varieties are poorly developed (Annex 2, Sub-section 2.8.3). Although not stipulated by law, many financial institutions require co-signature from a woman's husband for her to take out loans, making it difficult for female-headed households to access credit and insurance. Many indigenous peoples also face difficulties as they are not registered at birth and lack official documentation.

34. **Unsustainable CRA practice adoption without market and enterprise approaches**. There are several CRA practices that enhance farmers' capacity to minimize climate change impacts on agriculture. However, the additional inputs and labour required to adopt CRA practices would be a burden for farmers, and new knowledge and skills to combat climate change may not be sustained if such a CRA practice is not economically viable.

35. **Unrecognized indigenous traditions; greater disadvantages faced by indigenous communities and women**. Indigenous People (IP) groups and women are rarely served by appropriate extension and advisory services. Existing programmes and policies do not take sufficient account of IP and female farmers' actual and potential contributions, despite their knowledge and skills in agriculture. Many IP face difficulties in getting financial services as they are not registered at birth and lack official documentation. Indigenous communities have long relied on their traditional knowledge of the local weather and climate to operate their food production systems as well as a strong traditional community-based mutual assistance system. However, their knowledge, traditions, skills, and needs are often left unacknowledged. Likewise, indigenous food production systems, despite their proven track record of resilience against external shocks and thus playing a key role in accelerating the adaptation process in the context of a fast-changing climate, are not yet widely and firmly recognized. In addition, these food systems' resilience and sustainability have diminished due to rapidly changing environmental and socioeconomic conditions. While modernization and climate change have reduced the use of traditional knowledge in agriculture, it is nonetheless an integrated element of indigenous systems. Indigenous contributions in this regard must be acknowledged and strengthened.

36. **Compounding shocks of climate disturbances, COVID-19, and other crises**. Vulnerable areas faced aggravated shocks as COVID-19 and the associated restrictions, the current Food, Fuel, Fertiliser, Feed and Finance (5F) crisis due to the Russia-Ukraine war, along with the onset of the typhoon season in 2020 and La Niña, hurt agricultural supply chains and livelihoods. Climate information and advisory services for agriculture must be regarded as an essential service in efforts to deal with a wider range of shocks, and should be institutionalized as part of preparations for potential future crises. Marginalized populations, including women, indigenous peoples, and youth, have suffered disproportionately from COVID-19 disruptions in terms of income and personal safety. Although unemployment rates are not available for indigenous peoples, the rate for persons aged 15–24 was nearly three times that for the total population in 2020.

Proposed Project Approach

37. Building on past and ongoing government projects/programmes, the project will strive to help the DA drive climate-resilient agri-food systems transformation in the Philippines. It will use the proven successful experiences and approaches of the AMIA programme and the CRFS while remaining flexible to accommodate emerging information and systems. The project will empower farmers, especially women and Indigenous Peoples (IP), to use climate information services (CIS) tailored to their needs; strengthen access to technologies, finance, and market to develop CRA enterprises and implement CRA options that are economically and socially viable and agro-ecologically positive; and promote resilient livelihoods. The project outputs will help mainstream CRA services, practices, and decision support tools into DA banner programmes, disaster risk reduction and management (DRRM) systems, agrarian reforms, and other government programmes. Farmer groups under the project shall be integrated into the AMIA Village network. Awareness-raising, knowledge-sharing and farmer-to-farmer learning about CRA, coupled with the development of supportive financial instruments by Land Bank, ACPC microfinance programmes, and other financial institutions, will enable farmers and LGUs within and beyond the project's target regions to sustainably adopt and scale up climate change adaptation and mitigation measures and to take advantage of economies of scale.

38. **Climate Information Services (CIS)** will be provided through institutionalized, inter-sectoral, coordinated collection and analysis of climate, agromet, and other data (such as data on soil, water, evapotranspiration,

phenology, plant and vegetation conditions; agro-ecological and socio-economic, and vulnerability-related information). CIS aid in the integration of remote sensing and other big data and indigenous knowledge, as well as in the use of weather forecasts and climate information to produce localized agro met and farm advisories and early warnings based on maps, visualized potential impacts and vulnerabilities.

39. The improved and localized CIS will both benefit private sectors in particular in "de-risking" financial and other agricultural businesses and inform climate-responsive programmes of DA, LGUs, and other relevant sectors, while working with DA and LGUs to develop services to support CRA adoption. This includes, amongst others, Land Bank's loan and crop insurance and DA's support to farmers under its banner programmes.

40. **Climate Resilient Agriculture (CRA) Services** include efforts to: support organization of farmer groups; provide capacity building; identify climate risks; support pioneering CRA options within farmers' fields; provide access to digital platforms and decision support tools; support adoption of CRA through provision of farm inputs and equipment and farm advisories based on climate and weather outlook; coordinate with partners (LGUs, academia, civil society organizations [CSOs], and the private sectors); link farmers to markets, value chains, financing and insurance services; support production and post- harvest facilities; provide technical assistance for business development; promote innovations such as Participatory Guarantee System (PGS)[4] and Geographical Indicators (GI)[5] and conduct monitoring and evaluation. The project envisages the development of CRA services that are based on the specific needs of each project site, are appropriate to the relevant agro-ecological zone and farming systems, as well as the needs and priorities of target beneficiaries. In keeping with the proven notion that "one size does not fit all." This is more importantly to ensure that CRA products and services fully reflect local and indigenous knowledge. FAO in its capacity as AE and EE shall ensure that the project implementation benefits from tested and tried approaches within and outside the country, with a particular focus on participatory approaches.

41. Based on research by the DA, FAO, and CIAT and further cost–benefit analysis, a range of *CRA options* piloted in AMIA villages, along with other initiatives, have been identified that would help farmers in the project regions/provinces become more resilient (Table B.2.1). These CRA options have important cross-cutting characteristics that offer both climate change adaptation and mitigation benefits (Table B.2.2), often resulting from emerging good soil and water management and integrated and diversified systems, which will need to be scaled up in order to achieve a paradigm shift towards a more long-term, input-oriented approach. Livestock play a role alongside crops in these integrated farming systems (See Appendix 2 - Summary of key climate change risks [past and future] , proposed adaptation interventions to address the risks, and their benefits, for each agro-ecological region and associated farming systems; and Appendix 5 - Selected CRA practices and technologies by crop and farming system that would be further localized). Additionally, studies show the critical importance of value chain adaptation activities for farmers, including activities to safeguard input systems, such as seed storage (typically done by women), and improve local post-harvest technologies and storage facilities to maximize returns even during extreme events. Section 2.2 of Annex 2 and Appendix 2.2 – Climate resilient profiles, provide the analysis that underpins these recommended CRA options and practices/technologies along the value chains in each region.

42. Identification of these CRA options is also based on stakeholder consultations that reflect smallholders' perception of climate change impacts and adaptation options (Annex 2.2), as well as a thorough analysis of gender issues in climate-resilient agriculture and issues of indigenous food systems including land tenure, access to finance and other productive resources, indigenous coping mechanisms against climate change, and options to strengthen the resilience of indigenous farming systems (Annex 2.3). Recommended actions considered in the CRA options and their further adaptation as part of the project implementation include increasing awareness of indigenous food production systems, indigenous weather/climate knowledge, and the relevance of indigenous agriculture in climate change adaptation; strengthening DA's capacity to connect with indigenous farmers; increasing the availability of effective inputs and the efficiency and equity of value chains of indigenous products.

[4] PGS is a low-cost, locally based system of quality assurance with a strong focus on social control and knowledge building. This system is based on active participation of farmers, consumers, rural advisors, local authorities: they come together in order to make decisions, visit farms, support each other and check that farmers are producing according to the Organic Standard An Introduction to Participatory Guarantee Systems (PGS) | FAO.

[5] GI are signs which identify a good as originating in a particular region or locality, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin. GIs help foster new markets by directing consumers to identify the distinct qualities of local products, ensuring certain quality standards are met by producers, and typically apply environmentally-sound practices https://www.fao.org/geographical-indications

Table B.2.1 – CRA options for project target areas

Project Region	Province	Crop/Farming System	Climate Risk addressed by CRA	CRA Options	Mitigation of GHG emissions
Cagayan Valley (Region 2)	Cagayan Isabela	Rice irrigated Rice rainfed Corn	Cyclone/ Heavy rainfall damage	Submergence-tolerant Rice Variety	
				AWD	✓
				Rice Organic	✓
				Corn Organic	✓
				Corn SALT	
Cordillera Administrative Region (CAR)	Apayao, Kalinga, Ifugao,	Vegetables Upland Farming Systems	Dry Period / Drought	SWIP (Small Water Impounding Project)	
			Cyclone/ Heavy rainfall damage	Protected Vegetable Cultivation	
Bicol (Region 5)	Camarines Norte	Coconut	Cyclone/ Wind damage	Coconut-Cacao Intercropping	
Northern Mindanao (Region 10)	Bukidnon	Rice Corn	Reduced rainfall / Dry Period / Drought	Rice-Onion Crop Rotation	
				AWD	✓
				Rice Organic	✓
				Corn Organic	✓
SOCCSKSARGEN (Region 12)	North Cotabato	Rice Corn	Reduced rainfall / Dry Period / Drought	Rice-Onion Crop Rotation	
				AWD	✓
				Rice Organic	✓
				Corn Organic	✓

Table B.2.2 Climate change adaptation and mitigation benefits of combined Climate Resilient Agriculture options

CRA Practice	Adaptation benefits	GHG related effects
Blight-resistant white potatoes-green cabbage crops rotation and construction of rainwater-harvesting tank for irrigation purposes.	Adaptation to droughts, typhoons, and onsets of potato diseases.	Decrease the use of Potassium, which decreases CO2 emissions (from production, transportation, storage, and transfer) and offsets the additional emissions from the construction of water- harvesting tank .
Rice-onion crops rotation with early maturing rice cultivars.	Adaptation to droughts. Expected increase in soil health	The project will introduce early- maturing rice cultivars, which will reduce the cultivation period from 180 days to 150 days. With a daily emission factor held constant, a reduction in the cultivation period will reduce the overall methane emissions.
Yellow corn-peanuts (groundnuts) rotation with drought-resistant yellow corn cultivars. Additional introduction of Sloping Agricultural Land Technology (SALT).	Adaptation to droughts, typhoons, and increase in soil fertility. Expected decrease in soil erosion due to SALT. Expected positive spillover effect to biodiversity	Considering that SALT aims to improve soil health, this intervention was classified as improved agronomic practices (as there will be an increase in soil carbon from this intervention). The rate of soil carbon sequestration is 0.24 tC/ha/yr (Smith et al., 2005) and the intervention will hence sequester carbon in the soil .

Organic rice cultivation (2 rotations per year) with alternate wetting and drying irrigation-System of Rice Intensification (SRI).	Adaptation to droughts, typhoons, and reduction in flooding. Increase in soil fertility. Expected increase in biodiversity	SWIS and alternate wetting and drying allow for better water management before the cultivation and will lead to an overall reduction of methane emissions.	
Coconuts-bananas intercropping	Adaptation to onsets of typhoons, heavy winds, and drought.	Through the conversion to an alley cropping system, the intervention will increase the overall carbon-sequestration capacity of the perennial system.	
Intercropping of coffee with peanuts (groundnuts) and Sloping Agricultural Land Technology (SALT) for Robusta coffee production	Adaptation to onsets of droughts, heavy rains, winds, and typhoons. Expected decrease in soil erosion and increase in soil fertility	No impact (or very little impact, such that cannot be quantified with EX-ACT) on C-sequestration rates. Thus carbon-balance of this intervention will be 0.	
Introduction of cocoa-coconuts intercropping (organic production)	Adaptation to onsets of typhoons, heavy winds, and droughts.	Increase overall carbon-sequestration capacity of the perennial system.	

43. **CRA Enterprises** will be developed with target farmer learning groups, which will eventually be clustered to form a part of the AMIA Village network. The CRA Enterprise development process is based on the formation and evolution of farmer groups in the country and the region over several decades, with most of them aiming to improve economies of scale in production, access to services and markets. CRA Enterprise development will draw on the strengths of and lessons learned from tested approaches in the Philippines, namely (i) Farmer Field School (FFS) – focused on production; (ii) Farmer Business School (FBS) – focused on market orientation, access, and entrepreneurship; (iii) Climate Field School (CFS) – focused on climate change awareness and integration; (iv) Climate-Resilient Business School (CRBS) – integrating aspects of climate change awareness and business practices; and most recently (v) Climate-Resilient Field School (CRFS) – integrating aspects of production, business, and climate awareness (see Section 2.7 of Annex 2).

44. CRA Enterprise development under the APA adopts the CRFS approach as well as the guidelines /steps of establishing AMIA Villages, adding several other components to link up with institutionalized CIS and CRA services and to emphasise the value chain and the commercial aspects of farming enterprises, hence facilitating vertical integration. Some key characteristics of CRA Enterprises :

a. Each farmer learning group would be composed of around 30 members – this number has been tested by many DA and FAO projects and has proven to be very effective in developing farmers' capacity. The highly successful CRFS also has similar numbers in each group.
b. Three to five farmer learning groups will be clustered to form an enterprise/AMIA Village to meet the criteria that each AMIA Village covers 100 hectares under CRA practices.
c. Each enterprise will focus on one or more products with attractive market and income potential.
d. The CRA Enterprises/AMIA Villages will build on and contribute to scaling up of smallholder-based innovations that transform the agri-food systems such as local seed production, Participatory Guarantee System (PGS) and Geographical Indicators (GI).
e. Participation in the groups is voluntary to ensure farmers join peers with whom they can effectively collaborate. CRA enterprises are specific to agro-ecological zones and the socio-economic characteristics of target beneficiaries. This is also to ensure that women, youth, and indigenous groups are not sidelined.

45. CRA enterprise development will build on cooperative development experiences and in partnership with cooperative apex organizations and farmer networks such as the MASIPAG and the Philippine Cooperative Centre (PCC)—a member of the International Cooperative Alliance—not least of all to tap into the Cooperative Development Authority (CDA) services. Section 2.10 of Annex 2 reviews the legal and policy framework and supporting systems for farmer organization/cooperative development in the Philippines, as well as cooperatives' performance, success factors, and challenges and their presence in the project target regions/provinces. This provides a strong rationale for the project's proposed approach in developing CRA enterprises.

46. The selection of farming systems and formation of farmer groups will be carried out during the provincial CRA strategic planning. The CRA Enterprise business and investment planning will inform the re-orientation of DA banner programmes' support to farmers toward adaptive and climate-resilient inputs, which, together with catalyst GCF support will enable the implementation of the CRA Enterprises investment plans. The AMIA Villages that are successful in developing a CRA Enterprise will serve as hubs for learning, mainstreaming, and scaling up beyond the project target areas.

Box B.2.1 – Continuous trial, learning, and feedback in developing farmer enterprises – key for sustainable adoption of Climate Resilient Agriculture

The Philippines must continuously adapt to market opportunities as well as constantly changing climatic conditions and increasing seasonal unpredictability due to climate change . This means that while important practices have been identified, farmers and communities in general must be able to choose from a range of options what is appropriate at the farm, agroecological, and market levels, to assess requirements and access support as well as investments on an ongoing basis. Improved resilience also relies on increased diversification of household livelihoods, including livestock husbandry and commodity processing, activities particularly undertaken by women. CRA options must address economic viability and environmental and social benefits to be sustainable. Therefore, the proposed project will focus on enabling farmers and farmer groups, through CRA enterprises, to continuously adapt and adopt CRA options that would lead to sustainability and economies of scale . The feedback system through farmer peer learning, CIS Centres, CIS Platform and National CRA Monitoring System will enable knowledge-sharing and learning.

47. **Leveraging finance for sustainable CRA adoption**. The APA project design, particularly Output 2.1 - CRA Enterprise development and investment and Output 3.2 - Facilitating CRA value chains and supportive financial instruments - are geared toward this objective. The training and investment planning process of CRA enterprise development includes facilitation of access to financial services in order to complement the catalyst support by the project and to scale up CRA practices. The project also envisages significant engagement of Land Bank, the Agriculture Credit Policy Council, and other rural financial service providers to address the credit gap and support CRA adoption. This includes: 1) increasing the private sectors and financial institutions' understanding of the benefits of CIS and CRA services (Outcome 1); and 2) bridging the information gap between farmers and financial service providers, thereby reducing the risks of moral hazard, improving the supply of and demand for financial products including loans and insurance (Outcome 2); that would lead to Land Bank, ACPC and other financial institutions' ability to improve existing products (such as the Land Bank's CRA Finance Programme) or developing new risk-informed financial products (Outcome 3). These financial services will be accessible to APA beneficiary farmers and enterprises. Furthermore, through its demonstration effects and CRA awareness-raising nation-wide as well as the mainstreaming of CRA into improved, relevant national policies and programmes (Outcome 3) the APA is likely to increase the adoption of CRA practices and associated demand for financial services beyond the project areas.

48. **Mainstreaming CRA** will be instrumental for sustainability and scaling up. During its implementation, the project will shift major agricultural investments under the DA banner programmes toward supporting CRA practices and CRA Enterprises, while integrating CRA into other national and LGU policies and programmes, developing a CRA Monitoring and Evaluation system, and expanding farmer outreach at scale through knowledge sharing. It will work with Land Bank and other private sectors to develop adaptive financial products and businesses. Additionally, farmer group capacity- building and CRA Enterprise development will encourage farmers, LGUs, and private sectors to up take credit, and Land Bank and other financial institutions to finance sustainable CRA adoption and scaling up.

APA and PILAR linkage

49. Adapting Philippines Agriculture to Climate Change (APA) will be implemented in parallel to GCF sister project "Accelerating adoption of climate-resilient agricultural production through integrated landscape approach to manage climate risks" (PILAR) for CRA transformation in the Philippines. The PILAR project is being prepared by Land Bank, a GCF Direct Access Entity, in collaboration with the International Rice Research Institute (IRRI) and the World Agro-forestry (ICRAF). It aims to support smallholder farmers at risk of climate change with: (1) the development of investment packages for scaling up CRA practices and technologies; (2) accelerated uptake of finance; and (3) strengthened capacities and knowledge management.

50. Figure B.2.1 presents APA and PILAR linkages. APA's CIS and CRA services and CRA Enterprise investment planning will provide fundamental information and learning for PILAR CRA investment planning (Component 1) as well as value chain development in Component 2. As PILAR is being prepared, APA is working with Land Bank on the use of CIS, improving Land Bank CRA Finance Programme to be accessible by APA beneficiary farmers/farmer organizations. At the same time, activities under APA Outcome 3, aimed at enabling CRA adoption, will also help Land Bank build the capacity to develop new, more climate-responsive financial packages and use those in PILAR's design and implementation. Both projects will ensure coherent information sharing and knowledge management in promoting CRA.

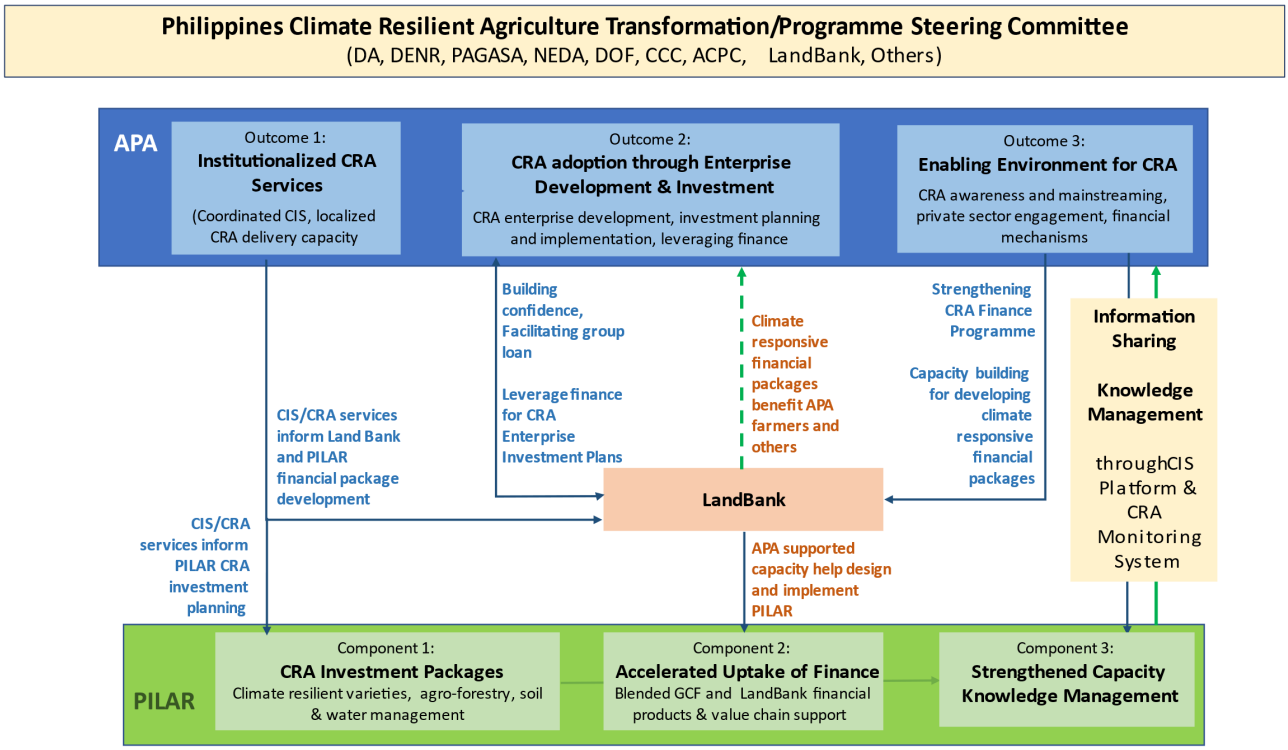

Figure B.2.1 - Synergies of APA and PILAR projects under the programme approach for Philippine CRA Transformation

51. APA's geographical focus will complement that of PILAR, with little overlap. PILAR is expected to work with farmers who practice agroforestry and rice production systems along both the upstream and downstream of three river basins (Pampanga, Bicol, and Agusan). Bicol is the only region where both APA and PILAR will be present; even so, the two projects shall not target the same municipalities. Under the programmatic approach, these two projects will develop complementary CRA know-how for different agro-ecological zones in the Bicol region and use these experiences to develop a closer partnership in other regions where only one of the projects will be operating. In terms of crops, the APA project will focus on mixed farming/coconut production, while the PILAR project will work on flood and drought risk management through CRA and agroforestry. Hence the two projects will complement each other with different CRA practices, technologies, and learnings. Furthermore, the co-benefits of the two projects shall be carefully assessed to avoid double counting of indirect beneficiaries.

52. Even though the two projects are operationally separate, sufficient coordination at the central (steering committee), regional (regional coordination centre), and provincial levels has been envisaged to ensure strong synergies are built, in particular with regard to CRA adoption at scale and access to information-rich financial products and services. Key stakeholders from PILAR, in particular the Land Bank, will be part of the APA Steering Committee and vice versa. Both projects are part of the DA-led national CRA Monitoring and Evaluation system, thus ensuring coherent monitoring, impact measurement, learning and knowledge sharing. Table B.2.3 further illustrates how the two GCF sister projects complement each other, build synergies and innovations, and deliver higher-level impacts.

Table B.2.3– APA and PILAR synergies and innovations in the programme approach

Elements	APA Contributions to LandBank & PILAR	PILAR Feedback/Contribution	Joint Governance	Expected High Impacts
CIS, CRA Services and delivery capacity	Inform and enable PILAR's CRA investment plans	Complementary CRA options covering different agriculture systems and agro-ecological zones Integrated CRA and sustainable NRM	CRA Transformation Steering Committee CIS Platform (Regional and provincial CIS Centres) Harmonized selection criteria of target municipalities/farmer groups Common CRA Investment Indicators LandBank and ACPC climate responsive/CRA-supported Financial Programmes M&E (with common indicators, aligned with National CRA M&E system)	Enhanced common CIS/CRA services and delivery capacity Strengthened coordination across within agriculture and with other sectors for CRA adoption Integrated land use, agriculture and NRM for low carbon and climate resilient agriculture Innovative, climate-responsive financial mechanisms to sustainably finance CRA Sustainable CRA adoption at scale through value chain/enterprises CRA Monitoring, Impact Measurement, Verification Knowledge sharing
CRA Investment Plans	Provincial CRA Strategic Plans based on CVRA, informing PILAR's community-based CRA investment plans	Climate responsive land use planning Feedback to the Provincial CRA Strategic Plan Complementarities of CRA Enterprise Investment Plans and Community-based CRA Investment Plans		
CRA Enterprises, Value chain development	CRA enterprise development training Building private sector capacity for CRA value chain development	Feedback/learning from Business development training Joint effort/learning on CRA value chain development		
Financial inclusion Innovative Financial Mechanisms	Support LandBank (and ACPC) de-risk/improve regular financial programmes Capacity building of farmers/FO to leverage these financial programmes	Development of new/innovative financial mechanisms that will become LandBank's regular programmes that and benefit APA farmers/FOs and beyond		
Enabling Environment IEC, mainstreaming CRA, Knowledge Management	IEC materials, CRA campaigns Mainstreaming CRA Capacity building of private sectors and Banks/financial institutions Knowledge Management	Peer learning, Experience sharing Joint IEC campaigns and advocacy Knowledge Management		

53. **Theory of Change (TOC):** Drawing on the learnings from the AMIA Village approach and the findings of the PhilCCAP working group on adaptation in the agricultural sector and stakeholder feedback on policy challenges in implementing adaptation measures (Section 2.2 and 2.4 of Annex 2), the project will address the following **Key Strategic Pillars in Mainstreaming CRA**:

- Make CRA services, tools, capacity, and processes from the Government and private sectors available to climate- vulnerable farmers' communities to make CRA adoption economically viable;
- Generate credible localized agrometeorological information systems as well as advisory services on how to use the outputs and match them with the right agricultural responses at local levels;
- Build capacities and mechanisms to support farmers in addressing barriers, adopting a range of technologies and practices for CRA, and bolstering resilience to unpredictable future scenarios;
- Shift DA's funding priorities towards CRA through knowledge and skill dissemination;
- Ensure the integration of climate information, CRA options, and related support (e.g. extension services and inputs) into local and national plans and budgets, and build institutional capacities to implement those plans, including for outreach to farmers at scale;
- Improve access to finance and strengthen value chains in developing CRA services;
- Support and provide CIS to the private sectors that will be assisting climate- vulnerable farming communities in developing CRA enterprises; and
- Mainstream and scale up government investments in CRA enterprise development.

54. The project TOC is based on the climate rationale presented in section B.1 and the above key strategic pillars in mainstreaming CRA. The project activities respond to the multifaceted barriers to implementing these strategic pillars and transforming agriculture toward climate resilience and low emission, which again are: (i) Weak and incomplete localized climatic information for agriculture; (ii) Lack of climate change focus in local agricultural plans, programmes, budgets, extension; (iii) Limited systems for extension and outreach on agriculture and climate change; (iv) Weak access to appropriate adaptation and mitigation practices; (v) Limited access to finance and risk- mitigation tools and limited private sector engagement for adaptation in agricultural value chains and livelihoods; (vi) Unrecognized indigenous traditions and greater disadvantages among marginalized groups; and (vii) Compounded shocks of climate disturbances, COVID-19, and other crises. The CRA enterprise development approach and institutional capacity building for support systems that are part of this project will address the biggest risk, which is that farmers will not adopt CRA in a sustainable manner.

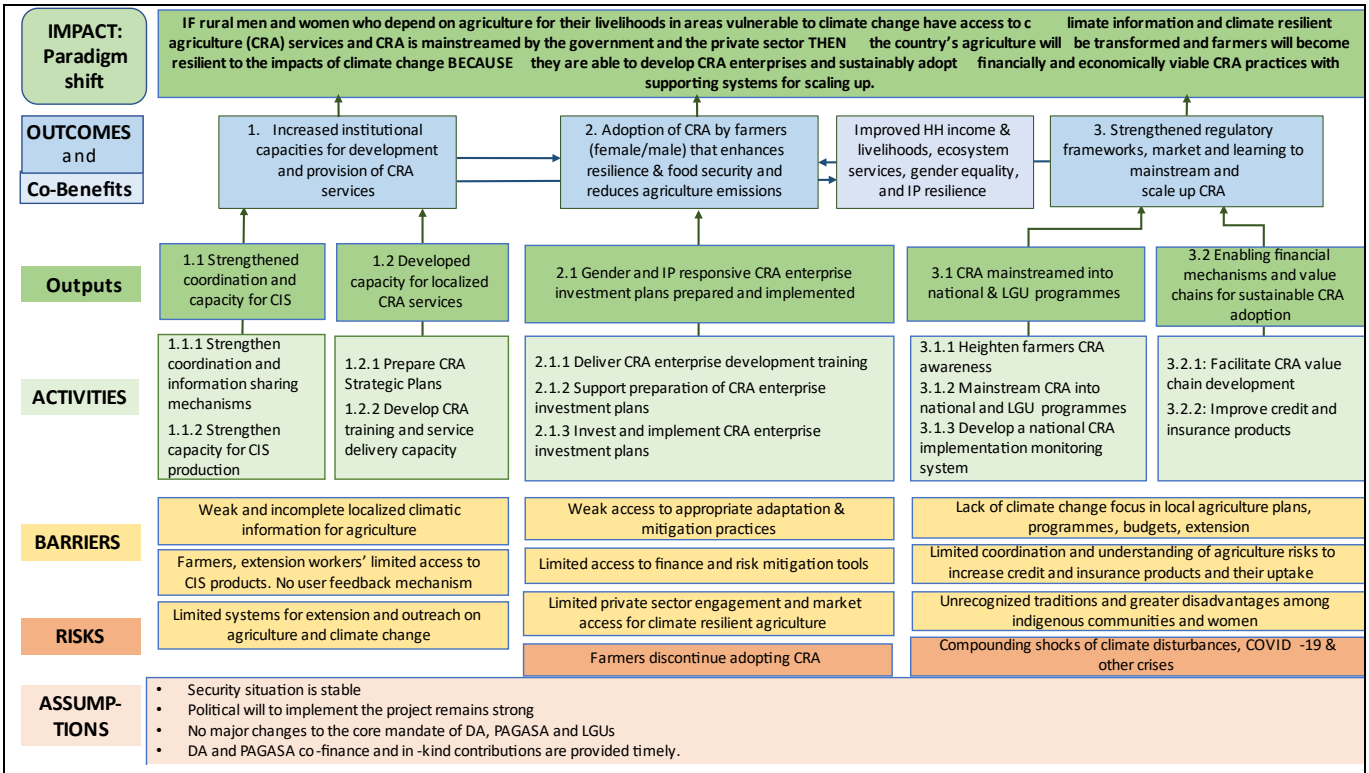

Figure B.2.2 - Theory of Change

55. The push factor to transform the prevailing baseline and create a paradigm shift toward CRA will be driven by inter- connected investments to achieve each of the 3 Outcomes: (i) Increased institutional capacity for development and provision of CRA services; (ii) Adoption of CRA by farmers (female/male) through CRA enterprises; and (iii) Enabling environment for mainstreaming and scaling up CRA. By investing in the institutionalized coordination and information- sharing mechanisms and capacities needed to develop and deliver localized CIS and CRA services (Outcome 1), the project will strengthen the capacities of farmers, extension networks, LGUs, and the agricultural sector for climate risk- informed planning and decision making. This, together with building farmers' capacity for preparing and implementing CRA enterprise investment plans, will result in adoption of economically viable climate- resilient technologies and practices that will make agriculture systems and communities less vulnerable to climate change impacts and enable them to adopt more resilient livelihoods (Outcome 2). The dissemination of CIS and CRA services as critical public goods will raise awareness beyond the project target areas, support the mainstreaming of CRA into GovPH and DA programmes, while also encouraging private sector and financial actors to use such services to enhance resilient value chains and supporting financial products. This enabling environment (Outcome 3), in turn, will sustain CIS and CRA services, CRA enterprise development in the project areas while supporting learning, replication, and scaling up nation-wide.

56. The project outcomes are aligned with and contribute to the following GCF fund-level outcomes:

- **Reduced emission and increased resilience:** ARA1 – Vulnerable people and communities; ARA2 - Health, well-being, food and water security and MRA4 – Forestry and land use

- **Enabling environment**: Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low- emission, climate- resilient development pathways in a country-driven manner; Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation; and Core Indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards

57. The project's contribution to the desired outcomes and achievement of outputs are subject to assumptions, which include: (i) security situation remaining stable; (ii) continued strong political commitments to the project; (iii)

no major change to the core mandate of key institutions, DA and PAGASA; and (iv) timely provision of co-finance by DA and PAGASA.

58. The project has high levels of Replicability and Sustainability given its medium scale of interventions. Table B.2.4 below presents paradigm-shifting agricultural pathways, the corresponding interventions proposed by the project, and the drivers of such paradigm shift.

Table B.2.4 Project's contributions to Agriculture Pathway to Climate Resilience

Pathway	Interventions	Description
1. Promoting resilient agroecology	Promote transformational planning and programming through CRA strategic planning based on CIS and CRVA and embedding of CRA into national programmes	• Training on the development and use of CIS and CRA services • Facilitate foresight planning, using CIS and CRVA to prepare CRA Strategy and Action Plan for the project's 9 target provinces that represent four agro-ecological zones of the Philippines. The participatory planning process will identify climate risks and vulnerabilities (including those driven by ecosystem degradation), the current prevailing farming practices, target municipalities, as well as localized CRA options to be supported and associated services to be developed.
	Catalyzing innovation - CRA enterprise development as a new business model for sustainable adoption of economically viable and profitable CRA practices	• Provide CRA enterprise development learning including business development, financial literacy, use of RuralInvest for investment/business plan development. • Facilitate farmer organizations' development of CRA enterprises and investment plans based on CRA Strategy and Action Plan, mobilization of resources for implementation • Provide catalyst support, blended with DA co-finance and farmers' contributions, to implement on-farm CRA practices while supporting DA and LGUs in reorienting their programmes towards supporting CRA
	Mobilization of finance for CRA adoption at scale	• Support FOs in mobilizing budget from LGUs for CRA enterprise investment plan implementation • Work with Land Bank, DA-ACPC, and other financial actors to implement other bankable climate-resilient measures identified in the CRA investment plans. • Build the capacity of private sectors and banks/financial institutions to support CRA and climate-resilient value chains
	Mainstreaming CRA for replication and scaling up	• Raise awareness and understanding of CRA nation-wide • Mainstream CRA and CRA enterprise development into national and LGU programmes • Build the capacity of private sectors and banks/financial institutions to support CRA and climate-resilient value chains • Promote learning and knowledge sharing through CIS Platform and National CRA M&E system.
2. Facilitating climate-informed advisory & risk management services	Institutionalized, coordinated development and provision of CIS and CRA services; promotion of their use in planning and decision making	• Establish TWG and strengthen capacities of DA and PAGASA and other actors to - generate/manage agromet data, - provide weather forecasts, climate information, and CRA advisories at all levels, and - support adoption of CRA practices, demonstrating benefits and promoting peer learning for replication. • Develop functional CIS Platform with Regional and Provincial Centres to ensure improved access, use, and feedback.
3. Reconfiguring food systems	Promote enterprise approach and engage private sectors for transformational agri-food value chains	• CRA enterprise development • Strengthen capacity of the private sector to use CIS and CRA services to shift toward resilient value chains and provide support to CRA. • Promote PPP dialogues through CIS Platform and training/workshops for private sectors and financial actors.

B.2 (b). Outcome mapping to GCF results areas and co-benefit categorization

Outcome number	GCF Mitigation Results Area (MRA 1-4)				GCF Adaptation Results Area (ARA 1-4)			
	MRA 1 Energy generation and access	**MRA 2** Low-emission transport	**MRA 3** Building, cities, industries, appliances	**MRA 4** Forestry and land use	**ARA 1** Most vulnerable people and communities	**ARA 2** Health, well-being, food and water security	**ARA 3** Infrastructure and built environment	**ARA 4** Ecosystems and ecosystem services
Outcome 1	☐	☐	☐	☐	☒	☐	☐	☐
Outcome 2	☐	☐	☐	☒	☒	☒	☐	☐
Outcome 3	☐	☐	☐	☐	☒	☐	☐	☐

If any co-benefits have been identified in section B.2(a), fill in the Co-benefit table below to map each co-benefit to the corresponding category as defined in the FP guidance note.

Co-benefit number	Co-benefit					
	Environmental	**Social**	**Economic**	**Gender**	**Adaptation**	**Mitigation**
Co-benefit 1	☐	☐	☒	☐	☐	☐
Co-benefit 2	☐	☐	☐	☒	☐	☐
Co-benefit 3	☒	☐	☐	☐	☐	☐

59. See Annex 2.9 for identification of Adaptation Results and Annex 16 for Mitigation Results. The project will deliver the following co-benefits: (i) economic co-benefit, in the form of increases in annual household income as a result of better yields of CRA crops; and (ii) gender equality and women empowerment.

B.3. Project/programme description (max. 2500 words, approximately 5 pages)

Project Objective

60. The project **objective** is to **increase the resilience of rural men and women who depend on agriculture for their livelihoods in areas vulnerable to climate change**. This will be achieved through **improving** farmers' **capacity to develop CRA Enterprises and adopt financially and economically viable CRA practices, and the Government and private sectors' capacity to build supporting systems for scaling up**.

61. The project aims to achieve the following three **outcomes**:

- Outcome 1: Increased institutional capacities for the development and provision of climate information and Climate Resilient Agriculture services
- Outcome 2: Adoption of Climate Resilient Agriculture by farmers (female/male) through enterprises; and
- Outcome 3: Strengthened regulatory framework, market, and learning for mainstreaming and scaling up.

62. The project's objective and outcomes will be achieved by improving the DA, PAGASA, and LGUs' capacity and institutional coordination, especially at regional and local levels, by upgrading CIS, developing CRA service packages and delivering these services to farmers and other users, especially private sectors (Component 1). The project will also work with key partners, such as local support agencies, to enhance their capacity to use CIS and CRA services for decision-making. The project will work directly with a large number of CC-vulnerable farmers and their groups to develop CRA Enterprises , strengthening farmers' capacity to utilize services and adopt CRA

practices in general while ensuring that women and indigenous peoples benefit from options tailored to their needs and existing knowledge (Component 2). While the project's benefits are directed towards farmers in target areas, the mechanisms to support its outcomes are specifically designed for scaling up in all climate change-vulnerable areas of the country (Component 3) - through mainstreaming into key national policies and programmes, developing innovative financial mechanisms (together with the PILAR project), and strengthening CRA monitoring and evaluation as well as knowledge management and learning. The project directly addresses the vision of a climate risk-resilient Philippines (National Framework Strategy on Climate Change 2010–2022) and a resilient agriculture under DA's NAMFIP and One DA Strategy.

Target Beneficiaries

63. The project aims to **directly benefit 1.25 million most vulnerable farming household members** (250,000 households) in the nine target provinces and **indirectly benefit 5 million people** in five regions. The 250,000 direct beneficiary farming households will benefit from capacity development, improved CIS for action, access to innovative CRA practices, technologies, and financial services, as well as investments in community nature-based solutions/risk-reduction assets to enhance the resilience of their livelihoods, food security, and ecosystems. Out of these direct beneficiary farming households, 45,000 poorest, most vulnerable and food-insecure households, especially women-headed and indigenous, will also benefit from CRA enterprise development training and a critical CRA package to enable them to engage in and drive climate-resilient and sustainable agri-food system transformation. 205,000 vulnerable households will benefit from awareness raising, capacity building, peer learning from the CRA enterprises and also catalytic support through DA parallel finance. The project will also target farmer organizations and farmer networks to support farmers' CRA adoption. Professional beneficiaries – staff of DA and PAGASA, LGUs, and other relevant agencies (such as DAR, DENR, and other departments) at municipality, provincial, and regional levels will benefit from intensive capacity development to enable the provision of sustained and effective CIS, CRA, and related services. The farmers and professional beneficiaries will be facilitated to engage with the private sectors - staff of agri-businesses (seeds, equipment, tools, etc.), banks, financial institutions, and insurance providers in using CIS and CRA services to make supply chains more resilient, support farmers in adopting CRA through market approaches, manage risks, make financial products more accessible to farmers and farmer organizations to implement CRA enterprise investments.

Table B.3.1 – Project target beneficiaries

Direct beneficiaries	Project interventions	Target number
Farmers *(female/male, indigenous people)*	CRA Enterprise development learning, investment plan development and implementation (Output 2.1)	45,000
	CRA awareness raising, training, peer learning, farmer exchanges (Output 3.1)	205,000
Farming HH members *(female/male, indigenous people)*	Benefiting from increased HH resilient livelihoods, well-being, food and water security	1.25 Million (250,000 x 5 members/HH)
CRA Master Trainers, CRA Enterprise Development Facilitators	CRA training and service delivery capacity development (Output 1.2) Heighten CRA awareness (Output 3.1)	200
Farmer Organisations	CRA Enterprise development learning, investment plan development and implementation (Output 2.1)	500
Professional beneficiaries – staff of DA, PAGASA, LGUs and other agencies	Capacity building for CIS, CRA service development and delivery and CRA mainstreaming	Tbd during project inception
Indirect Beneficiaries		
Farmers/rural population in 5 target regions	CIS and CRA awareness raising, knowledge sharing	5 million

64. Appendix 4 provides selection criteria of each type of direct beneficiaries, which will be finalized during the project inception phase and used. Section 2.9 of Annex 2 provides more information on the assumptions used in identifying the beneficiaries including demography, land use, exposure and vulnerability of the project target regions and provinces, as well as the assumptions used in identifying the professional beneficiaries.

Project Components, Outputs and Activities

65. The project objective will be achieved through three complementary outcomes that comprise its three components. Figure B.3.1 below summarizes how the components relate to each other and create synergies in building capacity of beneficiaries and target institutions to remove identified barriers to CRA adoption. The project will deliver strategic climate information and CRA services, and mainstream CRA enterprise development in planning and implementation to transform CC-vulnerable agriculture in the Philippines and achieve climate resilience among farmers.

Component 1: Institutional capacities for Climate Resilient Agriculture services development

66. Activities under this Component aim to address the capacity gaps identified in implementing the AMIA and other DA programs. These gaps are in localized CIS, tailored CRA technologies, agri-business capacities, and effective delivery and feedback system of information and services. The activities will ensure PAGASA and DA collaboratively collect and analyze relevant climate and agricultural information, develop localized CIS and make them available for wider use by farmers and others at appropriate times. The project will provide tools and training to government staff at national, regional, and LGU levels so that they deliver timely, relevant, and accurate CIS and CRA service packages to farmers, the private sectors, and other stakeholders. FAO's big data lab, climate risk assessment tools such as Climate Risk Resiliency and Vulnerability Assessment (CRVA), crop yield estimate tools such as PyAEZ, remote sensing technologies developed under the partnership with Google, FAO's investment planning tool (e.g. EarthMap using Landsat, MODIS, Sentinel data), and RuralInvest will be introduced. The Philippines is able to continue using remote sensing products made available through EarthMap, Google Earth Engine and other sources beyond the project lifetime. They form a part of the datasets that will be used for the climate information services, and for the CIS platform which will be fully owned and maintained by DA and PAGASA through TWG.

67. This component will develop institutional capacity from national to municipality levels for the production, communication, and utilization of localized CIS and CRA services. It will establish and institutionalize inter-agency mechanisms (such as Technical Working Groups [TWG] and CIS platforms) that support the sustained production and delivery of services across different levels; it will also furnish coordination and two-way communication with key beneficiary stakeholders and other users. Farmers', in particular indigenous peoples', knowledge and perspectives are a key input in the development of information products, and farmer involvement will be part of the process from the start. The project envisages regular consultations and an active feedback process with indigenous groups and other farmers to ensure their knowledge and experiences in CRS and related practices and technologies are fully reflected in the capacity development efforts – training material, methodology, and other products and services.[6]

68. The localized CIS and CRA services will be rolled out under Component 2 for CRA adoption through enterprise development. Ultimately, the improved CIS will be available to all CC-vulnerable farmers, including under PILAR, and users outside of project areas to improve decision making (such as in developing and modifying credit and insurance products); such services will also inform the policies, planning and investments of a wide range of Government agencies in order to stimulate the mainstreaming of CRA and progress towards resilience in the country (Component 3).

Output 1.1: Strengthened capacity and coordination for Climate Information Services (CIS)

[6] Given the extent of project coverage, indigenous knowledge systems and associated farming practices across the project's sites are varied and locally specific. Local farms are diverse, faced with different challenges and exposed to different climate risks, thus perspectives and strategies cannot be generalized. A deeper discussion on indigenous knowledge systems is an intrusive exercise which requires FPIC from leaders based on the Philippine Indigenous Peoples Act. The plan is to have, per project site, at the start of project implementation, a detailed analysis, or groups of communities observing the following approaches: 1. The project will secure FPIC for the discussion and/or documentation of indigenous knowledge systems and associated farming systems, recognizing that these systems are dynamic and evolving and that such knowledge and practices might be classified under community intellectual property rights. 2. Under existing laws, the project is mandated to recognize and uphold these indigenous knowledge systems and practices. 3. Project interventions will recognize and be guided by the ancestral domains management plan, which also contains agricultural and biodiversity information, farming practices, and community plans for agricultural development. 4. Initial activities will be a) Scoping of indigenous food production systems, their level of recognition and continuing practice in the community; b) Discussion with communities on how these systems are used to adapt to current climate risks, identifying challenges and ways to strengthen such practices; c) Sharing of identified resilient farming practices with other smallholders through farmer field schools or farmer-to-farmer exchanges.

Activity 1.1.1: Strengthen coordination and information- sharing mechanisms

Sub-activities:

1.1.1.1 [DA] Establish TWGs and CIS Platform
1.1.1.2 [PAGASA] Facilitate TWGs and CIS Platform to produce and disseminate CIS
1.1.1.3 [FAO] Provide training and technical support for TWGs and CIS Platform
1.1.1.4 [DA] CIS development by National Support Specialists

69. **Establish Technical Working Groups for CIS and CRA services.** Under the Programme Steering Committee, DA will lead the establishment of Technical Working Groups (TWGs) at the central and regional levels with FAO technical support and PAGASA inputs. The TWG is a technically specialized institutional coordination mechanism between DA, PAGASA, and other key stakeholders in developing and disseminating localized CIS and CRA products and services. Existing regional TWGs may be expanded and their capacities will be enhanced.

70. The regional TWGs will invite representatives from the beneficiary provincial and municipal LGUs. These beneficiary LGUs may choose to constitute their own local TWGs (at provincial and municipality levels) to mirror the processes taking place at the regional level. These may be attached to and made to work under the PAFES center/unit or through similar mechanisms at their provincial or municipal agricultural offices.

71. All the CIS and CRA products and services developed by the TWGs will fully reflect local contexts, farmer needs and priorities, as well as local and indigenous knowledge and practices. Through the CIS Platform and CIS Centres at the regional and provincial levels (see below), a feedback mechanism shall be stablished to ensure a continuous two-way information and feedback flow between farmers, TWG members, and other users of CIS, which would reflect the dynamics of climate change and the local context on a continuous basis.

72. The TWGs will consolidate and update a core set of national, regional, and local climate, agricultural, and other related information, with PAGASA technical support, as well as CIS and CRA training modules and farming advisory products for major farming systems. FAO will introduce its big data lab and new tools developed for climate change modeling and remote sensing under partnership with Google among TWG members. The TWGs will ensure the integration of remote sensing and other big data, local agro-ecological and socio-economic information, as well as indigenous knowledge in their analysis. The TWGs will also maintain an updated understanding of requirements for CIS and CRA services in order to continuously improve production, delivery, and application at different levels by users. CRA services will draw on AMIA as well as proven national and international CRA experiences while incorporating adaptation from strategic foresight planning (see Activity 2.1.1).

73. The Central TWG will be hosted by the DA-Field Programs Operational Planning Division (FPOPD) and members will be drawn mainly from PAGASA, relevant units/bureaus of DA, relevant departments such as the DENR, DAR, and NEDA, and other partners and stakeholders such as Land Bank, PhilRice, academia, and private sectors. Collaboration will be established with oversight agencies like CCC and the NDRRMC. The Regional TWGs will be hosted by DA-RFO. Its members, in addition to the regional counterparts of the membership at the central level, will also include Provincial Agriculture Offices, LGUs, and farmer organizations' representatives. The TWGs are operational coordination mechanisms with regard to climate and agricultural services. The Central TWG provides advice to DA-RFOs and its Regional TWGs on the technical soundness of and potential improvements to agromet monitoring and advisories, provides expert advice on CIS and CRA practices, and addresses any technical issues raised by regional offices and local government units. The members of the TWGs belong to agencies that continue to finance their time. CIS and CRA services are public government services and are not fee-based.

Table B.3.2 Types of CIS that will be developed

		Timescale	Frequency	Responsible office	Example of products
Weather and climate forecasts, Early Warning		Short (daily, weekly, monthly, seasonal)	Monthly or more frequent; as necessary for Extremes such as typhoon	PAGASA and localized by PAGASA-RSD	Weather forecasts and seasonal climate forecasts for temperature, rainfall and other meteorological variables. El Nino, Typhoon, Flood, meteorological drought.
Agromet services	**Agromet monitoring and information**			TWG (PAGASA and DA) and localized by RFO	Monitoring and forecast of evapotranspiration, agricultural drought, soil moisture, crop water stress, NDVI, surface water, growing degree days, pest degree days.
	Agromet advisories			DA and localized by RFO, LGU, RFU	Irrigation amount and timing. Adjustment of fertilizer application. Pest and disease alerts. Nutrient, weed, and pest management. Prepare food value chain for climatic conditions and extreme events (e.g. post-harvest storage and processing, transport) Selection of crops and varieties. Timing of sowing and harvesting. Pre-season farmland preparation.
Agroclimatic information		Long (yearly, decade (a few yrs to 10 yrs), decades	Reviewed every few years with new data and information	TWG (PAGASA and DA)	Trends and projections of climate, extreme weather events, agro-climate indices (e.g. drought risk). Crop suitability changes. CC impacts on crops and food value chain. CC impacts and vulnerability of agriculture sub-sectors.
CRA advisories				DA	CRA practices adapted to climate change (farming system, crops and varieties, crop resistance to climate risks, on-farm management, seeds systems, agriculture infrastructure, machinery, irrigation requirements, food value chain). Including training materials.

74. **Establish climate information service (CIS) platform. CIS Platform** will be developed for sharing and disseminating standardized climate, agrometeorological advisories, and CRA services produced by TWGs, PAGASA, and DA. A web-based information platform, functional at central, regional, and local levels, to share information and disseminate CIS and CRA service products, including communication and training materials, the CIS Platform will be the key climate information and CRA service and advisory hub in the country.

75. At the central level, the DA Field Programs Operational Planning Division (FPOPD) will set up and manage the CIS platform, hosted by the facilities of FPODP's Disaster and Climate Information Office (DCIO), while the DA RFOs will have a specific page to store and share region-specific data and information. PAGASA Central Office, guided by the Central TWG, will generate and pass weather and climate forecasts on broader spatial scales to PAGASA's Regional Services Division, which in turn generates and provides localized forecasts and agromet monitoring to the Regional TWG hosted and managed by DA-RFO in each corresponding region, which will then translate the information into localized agromet advisories and CRA services.

76. The CIS Platform will also include a mechanism for sharing and communicating various information products to other government agencies, academia, CSO, and the private sector. The mechanism includes communication channels, with feedback loops and periodic forums on various topics related to CIS and CRA.

77. **Five Regional and Nine Provincial CIS Centers** will be established and/or improved that are connected to the CIS Platform to provide information to provincial and municipal LGUs, farmer groups, and other local users. The Regional CIS Centers will be located in DA-RFOs, while Provincial CIS Centers will be at the Office of the Provincial Agriculturalists, in coordination with LGU DRR centers. The project will invest in capacity building and some equipment while DA and LGUs will provide human resources to make the Regional and Provincial CIS Centers a critical node for bringing together weather and agricultural data collected by LGUs to complement forecasts, agromet monitoring and advisories at the central and regional levels and to produce and communicate localized advisories and early warnings. They will be responsible for their region-specific page of the CIS Platform, ensuring smooth flows of information and service products, generating localized agromet advisories and providing these to the provincial and municipal (beneficiary) LGUs. The Regional CIS Centres and also regional TWGs will be in the 5 project administrative regions (Region II – Cagayan Valley, Cordillera Autonomous Region, Region V – Bicol, Region X - Northern Mindanao, and Region XII – SOCCSKSARGEN). The Provincial CIS Centers: Cagayan and Isabela Provinces (Region II); Apayao, Ifugao, and Kalinga Provinces (CAR); Camarines Norte and Camarines Sur Provinces (Region V); Bukidnon Province (Region X); North Cotabato Province (Region XII).

78. The Regional and Provincial CIS Centres not only track local weather conditions, monitor, and record localized extreme weather events relevant to agriculture, but also provide broader communities with important detailed information on agriculture and climate trends. They will also serve as CRA learning hubs and provide feedback for product improvements by linking regional offices of PAGASA, DA, and LGUs with extension workers, farmer organizations, and other users including the private sector. Where relevant, they will be directly supporting the PAFES extension and research coordination system.

79. The experience of local agromet centers piloted and run successfully in Gerona (Region 3), Dumangas (Ilo-ilo Region 6), and Sorsogon (Region 5), anchored by LGUs with PAGASA, DA, and NGO support, along with various AMIA experiences, will inform further development of the CIS platform and Regional and Provincial CIS Centers.

Activity 1.1.2: Strengthen capacity to produce Climate Information Services

Sub-activities:

1.1.2.1. [PAGASA] Upgrade agromet data, deliver training and lead TWGs to produce improved CIS
1.1.2.2 [FAO] Provide technical support and quality assurance of CIS products
1.1.2.3 [PAGASA] Operation & Maintenance of agromet network

80. **Integrate and upgrade agromet data collection network and data archiving and sharing**. This activity will ensure that data on additional agrometeorological variables such as soil moisture and temperature, which is presently very inconsistently collected, is available in order to monitor the agronomic condition and produce localized farm advisories.

81. The project will support PAGASA in upgrading its agro-meteorological stations in high-risk areas (see Table B.3.2 below) where there are critical gaps (see maps Section 2.6 and 2.8 of Annex 2 on Agromet systems). Upgrading existing or planned weather stations with additional agromet sensors will enable collected data to be immediately sent to the central database for archiving and sharing, to be validated and utilized by the TWG and agromet personnel at the national, regional, and local levels through the CIS platform. Safeguards on any sitting of stations in sensitive areas will be applied, including information dissemination and consultation with community members to ensure buy-in and involvement.

Table B.3.3 – Sites of agro-met station upgrade and project interventions

Agro-Met Station Sites	Project Intervention
Apayao, Alabat, Cabarroguis, Banaue, Kalinga, Kidapawan, TBD by PMP (Mountain province), Bayombong	Upgrading from synoptic station to synoptic and agromet station
Cagayan-isabela (ISU), Pili-CBSU	Only training, building on existing agromet stations
Agusan del sur, Malanay, Garchitorena	Upgrading AWS to agromet+AWS
Bukidnon	Re-opening agromet station

82. Extra PAGASA staff recruited under the PAGASA Modernization Program will be trained on data quality check, data processing and analyses, operation and maintenance (O&M), as well as calibration of upgraded weather stations. Where appropriate, the functional capacity of DA and LGUs to support the O&M of new and upgraded agromet stations, as well as data collection and quality assurance, will be strengthened. Training will cover how to involve farmer groups in basic monitoring and maintenance of equipment grounds.

83. The project will finance initial O&M cost to ensure full functionality and streamlining of new procedures and advanced roles and capacities at the national and regional levels, including financing by the DA where necessary. Starting in project Year 4, PAGASA will fully undertake O&M functions and costs as well as further expand weather stations into other areas in priority, high CC-impact regions using its own budgetary resources, in line with its Modernization Programme.

84. **Produce improved CIS**. The activity will produce improved CIS at various temporal and spatial scales, including weather and climate forecasts, agromet monitoring, agromet and CRA advisories and early warning products, as a regular operation of PAGASA and DA. The TWGs will ensure the relevance of information produced by PAGASA vis-à-vis practical daily farming by co-producing relevant agro-climate information. The type and format of CIS products and services in demand shall be determined in close consultation with the farmer groups, indigenous people, LGU agricultural officers, DA regional offices and extension officers under the technical supervision of TWGs.

85. The upgraded system will also improve El Niño/La Niña monitoring and forecasts, seasonal climate forecasts, drought and flood monitoring and typhoon tracking, while producing long-term agro-climate information beyond the seasonal time scale. As products develop, a number of climate parameters and information products (such as those related to heat stress, extreme precipitation events, trigger levels for disease and pest outbreaks, and their relevance and applications to other systems such as livestock and aquaculture) will be fine-tuned and fed in the CIS Platform. The project builds upon on-going publication of seasonal climate outlook and advisory in some provinces, and in others, also of special farm weather outlook and advisory (for tropical storms) and 10-day farm weather outlook and advisory. It provides:

- More seamless agromet advisories across time scales (daily to seasonal, with an emphasis on daily to weekly scales where current capacities may not be sufficient);
- More standardized approach and capacities to produce advisories at regional level for different agroecosystems, also down to provincial and municipal levels;
- Finer spatial resolution and better accuracy of forecasts;
- Pest and disease alerts and associated management advisories based on weather monitoring and forecasts; and
- Closer linkages with improved forecasting and early warning capacities of PAGASA; more timely advisories in case of heavy rains and typhoons.

86. DA-RFO and LGU technical staff, through the Regional TWGs, will translate the improved PAGASA weather/climate forecasts and early warning information into locally relevant practical farming advisories, then deliver to end users, “reaching the last mile.” They will be trained to interpret and tailor agromet and CRA advisory products to the scale most relevant for use by farmers, ultimately enabling farmers to improve daily farming decision making and practices (Component 2) based on the received timely advisories.

Box B.3.1 Training modules for developing PAGASA and DA capacity for agromet forecasting

1. Training on calculation of agrometeorological indices (1 week):
   - crop growth potential and actual evapotranspiration;
   - soil water balance ;
   - agrometeorological indices such as growing degree days; and
   - practical computation of agromet info introduced in the first training.

Trainee: PAGASA climate and agromet services staff (national), DA national. Total 20 people

2. Training on drought monitoring and forecasting, particularly agricultural drought (1 week)
   - DA to issue drought advisories weather and climate forecasts for agriculture

Trainee: PAGASA climate and agromet services staff (national), DA national. Total 20 people
Follow-up On-the-job training with an international expert (1 month)

87. The production of long-term agro-climate information beyond the seasonal time scale (annual to decadal) and locally, using the latest downscaled climate projections and impact models for crops and other agricultural sub-sectors, will upgrade existing knowledge and adaptation capacities in the country. The information will be used to enhance DA’s color-coded maps and CRVA that will be critical for CRA mainstreaming (Component 3) and addressing ongoing and future climate change trends and impacts.

Box B.3.2 Capacity development on longer-term agro-climate information

Training on decadal climate prediction (1 week)
- This will contribute to medium- to long-term agriculture development plans

Trainee: PAGASA climate and agromet services staff (national), DA national. Total 20 people

Follow-up On-the-job training with an international expert (1 month)

88. The CIS capacities of PAGASA, as well as weather- monitoring and data-collection infrastructure, will be strengthened in full alignment with the PAGASA Modernization Programme. This ensures that provision of the enhanced CIS services will be sustainable and the monitoring network will be maintained as part of PAGASA's regular operational services.

Output 1.2: Develop capacity for localized CRA services

Activity 1.2.1: Prepare Climate Resilient Agriculture strategic plans

Sub-activities:

1.2.1.1 [DA] Facilitate participatory CRA strategic planning
1.2.1.2 [FAO] Support the preparation of CRA Strategic Plans and identification of CRA practices
1.2.1.3 [DA] CRA strategic plan development by national specialists

89. This activity will prepare the CRA strategic action plan for the nine selected provinces, using participatory approaches to ensure inputs from all relevant stakeholders. The provincial CRA strategic plan aims to promote agro-ecology and climate-resilient enterprise development based on available tools, methodologies, and experiences from within the country and the region. The participatory planning process will identify climate risks and vulnerabilities, review the prevailing farming practices, define locally relevant CRA options and potential enterprises and the required enabling policies, regulations, and capacities for implementation. The provincial CRA strategic plan will also map key ongoing and planned public and private sector initiatives, with a view to mainstreaming CRA and building synergies with the APA. The APA will support the implementation of the CRA Strategic Plan in its target a municipalities in each province (Output 2.1) while promoting wider implementation of the plan through CRA awareness raising, farmer to farmer learning and building capacity of LGU to mainstream CRA into local programmes and budgets (Output 3.1) as well as facilitating the development of CRA value chains and supportive financial instruments (Output 3.2). The provincial CRA strategic plan is expected to help provincial and national institutions to mainstream CRA, identify resources for CRA implementation, and upscale the APA approach in municipalities not covered by the project.

90. The process will identify the project's 100 target municipalities, villages, and farmer organizations, ensuring the participation of other key actors such as local DAR, active finance and value chain actors, indigenous leaders, women's organizations, and above all farmers representing climate change- vulnerable groups. That the CRA options and services identified reflect farmers' different needs and experiences must also be ensured.

91. The CRA strategic plan will be a living document to be adjusted by LGUs based on the changing environment, lessons learned from the project activities as well as other DA programmes. It will inform higher-level planning and policies on future directions in agriculture and will be reviewed before the end of the project to provide guidance on the sustainability of its efforts.

92. The results of the feasibility study conducted for the project preparation suggest that water- and watershed- related actions play an important role for climate resilience (see Section 2.5 of Annex 2). To ensure sustainability as a key part of CRA, hydrological, watershed, and wider natural resources management actions should be systematically dealt with by the project, together with DENR and, National Irrigation Agency (NIA), especially for indigenous peoples. Thus, CRA strategic plans will include sizable packages of interventions such as ecosystem-based flood risk reduction infrastructure, natural disaster risk management especially for typhoons and droughts, community-based seed and nursery systems, micro- watershed and water harvesting, etc. as part of CRA enterprise investments under Component 2 to provide comprehensive options for building resilient communities.

93. Household gardens are critical for household subsistence and serve as an important source of food. Studies have found backyard gardens enabled supported households to better withstand shocks related to the pandemic, as it providing a source of food during market disruptions and lockdowns and, reducing food costs, and lockdowns, and while families could also sell excess produce to neighbours. Such gardens are also considered an important tool for strengthening resilience to climate change, as they can also support households into buffering climate-related shocks, which could otherwise have particularly strong adverse impacts on food security and nutrition. Attention should be paid to ensuring the adoption of sustainable climate-resilient and organic practices within household gardens as well as, including also promoting diverse production systems.

94. The CRA strategic planning will build on and further promote PGS initiatives in the Philippines such as PGS in Isabela province of rice, vegetables, fruits; Quezon PGS of eggplant, squash, beans, tomato, papaya, snap beans, kena, cucumber, bitter gourd, sweet potato, kale, lettuce, arugula, coriander, cherry tomato, citrus, cacao, rice, swamp cabbage, pepper, ginger, spinach; Lanao de Norte PGS of rice or Davao city PGS of vegetables, livestock, cacao, roots (https://pgs.ifoam.bio/). Similarly, GIs will also be promoted. Identified commodities as potential GIs are Bicol Pili, Davao Pomelo, Cordillera Heirloom Rice; Camiguin Lanzones; Davao Cacao; Kalinga Coffee; Antique's Bagtason Loom; Aurora's Sabutan Weave; Samar's Basey Banig; Basilan and Zamboanga's Yakan cloth; and, most recently, the Masbate beef and Baguio Strawberry https://www.fao.org/philippines/news/detail/en/c/1507602

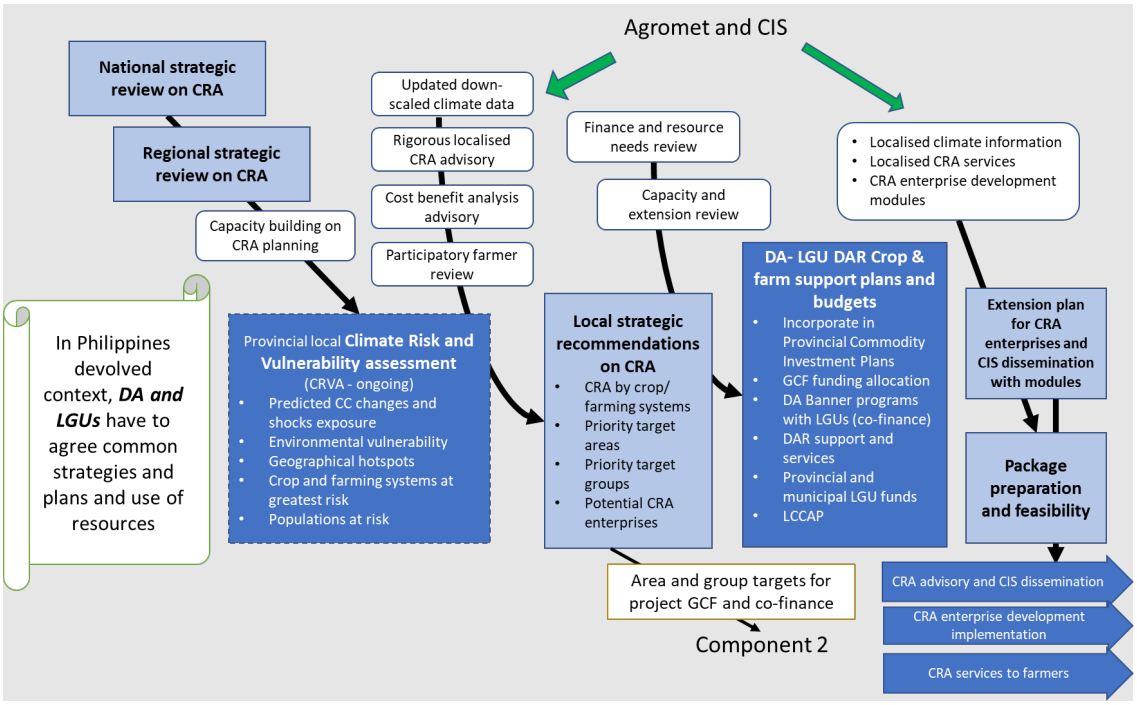

Figure B.3.1 Flow of risk and vulnerability assessment to develop provincial CRA strategic plan and identify target farming systems and target beneficiaries

95. With inputs from selected municipalities and key stakeholders, the strategic planning process will also assess locally suitable and appropriate financial products, as well as critical technical support. These are very important for sustainable CRA enterprises as farmers and the private sector will need to continuously develop new CRA practices for emerging situations. It will also include cost-benefit or feasibility assessments to assess appropriateness and specifications (e.g., tailoring to ecological and socioeconomic conditions; catering to women, youth, and indigenous farmers). Additionally, the activity will identify data gaps and financial service needs at the provincial and local levels. This process will lead to the identification of capacity development and technical support needs and the relevant credit and insurance products for target farmers.

96. The participatory CRA provincial strategic plan and detailed assessment of the project municipalities are intended to identify capacity development needs including in terms of CRA practices, value chain development, marketing, enterprise management, financial literacy and access to rural finance services, environmental and social safeguards, gender equality and social inclusion, and SEAH risk mitigation. This shall in turn inform the required skills and technical training to be developed and provided under Component 2 as well as activities to mainstream CRA under Component 3. As envisaged in the capacity development strategy, CRA master trainers and CRA enterprise development facilitators are to be identified and trained under Activity 1.2.2, then provide training to CRA Enterprises based on the successful experiences of CRFS and AMIA.

97. The strategic plan will be delivered to target municipalities with advisory services and detailed operational plans for CRA enterprise development. The project and DA-RFOs, together with agencies such as the Department

of the Interior and Local Government (which oversees local governments), will assist the target municipalities to digest, implement, monitor, and refine the strategic plans.

Activity 1.2.2: Develop Climate Resilient Agriculture training and service delivery capacity

Sub-activities:

1.2.2.1 [DA] Develop and deliver CRA training
1.2.2.2 [PAGASA] Strengthen PAGASA capacities for CRA
1.2.2.3 [FAO] Technical support for CRA capacity development
1.2.2.4 [DA] CRA capacity and service development by Regional Support Specialists
1.2.2.5 [PAGASA] CRA capacity and service development by Regional Technical Specialists

98. This Activity will develop the capacity of (i) DA Central, TWGs, DA-RFO, and LGUs; (ii) Master Trainers; and (iii) CRA Enterprise Development Facilitators to develop and deliver climate information and CRA services according to local needs.

99. CRA services and advisory products produced by the TWGs will be translated into extension materials and training packages that would be easy for LGUs, Master Trainers, and CRA Enterprise Development Facilitators to use. Under the supervision of TWGs, the project will work with DA-Agricultural Training Institute (ATI) to improve existing materials, such as the training packages prepared by the Enhanced Climate Smart Farmers' Field School (2016) under the Philippine Climate Change Adaptation Project (PhilCCAP). Training programme and module contents will be developed in close consultation with LGUs, farmers and farmer organisations, women's groups, indigenous representatives, provincial and municipal agricultural extension officers, and other relevant stakeholders. The design of the training materials and methodology shall fully reflect experiences from the FFS and the CRFS, as well as indigenous peoples' knowledge, gender equality and social inclusion principles, and the specific needs of youth in food systems. The different needs and priorities of these groups will also be taken into consideration, and there will be flexibility to enable the fit-for-purpose CRA options that take into account these differences. The standard modules will be closely aligned with the CRA options (Box B.2.1 and Appendix 5) prioritized in the CRA Strategic Plans (Activity 1.2.1).

100. **Master Trainers,** mainly from DA, LGUs, established training and research institutions, farmer networks, and NGOs, shall be selected using the criteria presented in Appendix 4. Preferred characteristics of candidate master trainers include: (i) to the extent feasible, should be based in the target province or region to ensure continuation of support; (ii) have experience and familiarity with FFS and/or CRFS; and (iii) possess at least 3 years of relevant work experience and at least a Bachelor's degree in their field of expertise. The master trainers are expected to perform the following functions: (i) attend training and orientation courses; (ii) consult with farmer groups, LGUs, and other relevant municipal institutions/individuals to assess the efficacy of training material and provide feedback to TWGs to revise/develop training material; (iii) provide training and coaching to LGU and municipal agricultural officers and CRA enterprise development facilitators on the use of CIS, CRA enterprise management, value chain development, business plan development and management, CRA practices, financial management and access to financial services, gender equality and social inclusion, SEAH risk mitigation, and environmental and social safeguards, among others; (iv) regularly monitor CRA enterprise development learning and provide coaching and additional training when needed; and (v) provide a two-way feedback between farmers/local agricultural officers and the TWGs to ensure training material and methodologies remain context-specific and reflect latest developments as well as the differentiated needs of male and female farmers, indigenous peoples, and other beneficiaries. The training will also include tools that FAO has developed and tested in many countries, e.g. RuralInvest toolkit and participatory business plan development. The project intends to train at least 100 Master Trainers.

101. **CRA Enterprise Development Facilitators** will be trained by Master Trainers, with the help of DA-ATI and external experts. The role of graduated CRA Enterprise Development Facilitators is to train, coach farmer groups, help develop CRA enterprises, prepare CRA enterprise investment plans (with the aid of RuralInvest) that link production systems to market and facilitate their implementation, and assist in accessing additional resources and credit (Output 2.1). In addition to monitoring CRA Enterprises, CRA Enterprise Development Facilitators shall coach and monitor other farmers in the municipality or province.

102. Candidates would include extension agents from the provincial (PAO, DAR) and municipal offices (MAO, MARO), as well as community- selected facilitators and agriculture technicians from locally active NGOs and young undergraduates with an interest in agriculture. The project will ensure the selection of women, indigenous people, youth, and extension agents working in the relevant designated SAAD. Consistent with One DA Framework, the

project will also engage professionals (business/farm managers, bookkeepers, and accountants) to serve as CRA Enterprise Development Facilitators. See Appendix 4 and Annex 2, section 2.9 for selection criteria.

103. Training will focus on production and delivery of climate information, agromet advisories, natural disaster risk management, and CRA services. FAO will also train selected government officials, especially TWG members, on its big data lab and relevant tools in climate and agromet data collection and remote sensing. TWG members who are not familiar with agromet information and data will also be trained by PAGASA on this subject. The training content will also include materials prepared for the CRVA: the necessity of gender equality and social inclusion (in particular of indigenous peoples and youth), mainstreaming SEAH risk mitigation, environmental and social safeguards, as well as farmers' enterprises development.

Box B.3.3 – Core training on agrometeorology

Basic training in agrometeorology (1 week)

Topics

- (Data) Agromet elements and their observation , and data management/collection
- (Data) Monitoring of farm conditions, crop growth, phenology, and pest/disease
- (Info) Statistical analysis of agromet data and production of information
- (Data and Info) Application of remote sensing and GIS
- (Advisory) Interpreting agromet information for the users, and communicating agromet information, including forecasts, for agricultural decisions

Trainee: PAGASA climate and agromet services staff (national), PAGASA regions, DA national, Provincial agriculture staff (where AWS is located). Total 30 people

Follow-up: On-the-job training with international experts (1 month)

Training on development of agromet advisories

1. Training on crop yield forecast (1 week)
Trainee: PAGASA climate and agromet services staff (national), DA national.

2. Training on pests and disease occurrence and alerts (1 week)
Trainee: PAGASA climate and agromet services staff (national), DA national.

3. Training on sectoral impact modelling for agriculture sector (crop-specific impacts and vulnerabilities) (1 week)
Trainee: PAGASA climate and agromet services staff (national), DA national.
Follow-up On-the-job training with international experts (3 months)

4. Training on application of Agrometeorology to Aquaculture and Fisheries (1 week)
   - Location-, commodity-specific
   - Aquamet handbook

Trainee: PAGASA climate and agromet services staff (national), DA national and BFAR. Total 30 people
Follow-up On-the-job training with international experts (1 month)

5. Training on production and communication of agromet info and advisories (1 week)
   - Communication of agromet info and advisories (incl. on-farm management such as irrigation, fertilizer, pest contro extensions and farmers, including drafting and publishing agrometeorological bulletins
   - Translating met/climate forecasts into agromet information and advisories that are commodity- and crop-specific, location-specific

Trainee: PAGASA climate and agromet services staff (national), PAGASA regions, DA national, DA province (all project locatio Total 50 people

Follow-up On-the-job training with international experts (3 months)

104. The project will take advantage of digital technologies wherever relevant. Capacities at all levels will be enhanced to:

- Establish a localized weather data collection and advisory dissemination facility in the target municipalities with the advice of PAGASA and DA;
- Train the municipalities in gathering data for submission to provincial- and regional-level PAGASA and DA, thereby strengthening their regional capacities; and

- Strengthen the capacity of LGUs and institutionalize a system within LGUs to provide timely and localized climate- and weather-based advisories directly to farmers.

105. Government and LGU staff, Master Trainers, and CRA Enterprise Development Facilitators will also be trained in the use of ICTs; facilitators will have access to small portable, battery-powered micro-projectors, which can project videos on a house-wall, flipchart paper, or bedsheet. Where connectivity allows, the project will use web-based information as well as mobile phone apps and other ICTs in capacity development for target communities. The use of recent ICT technologies will promote self-learning among farmers, with an aim to encourage learning as a continuous process rather than an occasional occurrence that depends on when training is conducted. Youth will be trained to assist other farmers with less experience in the use of such applications.

106. The training will raise awareness and understanding of CRA, utilizing IEC materials, developed under Activity 3.1.1, while Master Trainers and CRA Enterprise Development Facilitators will also be trained to develop localized IEC materials to be used in their own training sessions and coaching of farmer groups.

Component 2: Climate Resilient Agriculture Adoption through Enterprise Development

107. Activities under this Component will support climate change- vulnerable communities in improving their adaptive capacity while developing farmers' CRA enterprises, thereby enhancing both their resilience and income-generation capacities. As a result, farmers will be able to adopt climate- resilient technologies in a wide range of agro-ecological and socio-economic situations and become economically sustainable by linking themselves to CRA investment opportunities and value chains.

108. This Component will improve farmers' access to climate information, CRA services, and finance, together with quality agricultural inputs and farm equipment, in order to reduce risks and losses, produce enough volume, attain economies of scale, ensure quality and establish a niche market. Farmers will in turn develop into sustainable and resilient clustered community-based entrepreneurs.

109. With a special focus on women, indigenous communities, and youth, activities under this Component will strive to overcome input and market barriers to CRA adoption with complementary bundling of CRA practices with value chain linkages, appropriate finance and risk transfer. The project will use innovative ICT and mobile technologies in providing information and linking CC-vulnerable farmers to CIS and CRA advisories and services. Another particular focus will be on overcoming credit and other financial barriers by helping link farmers/farmer enterprises with local financial institutes such as Land Bank (the DAE), microfinance institutions including credit and multi-purpose cooperatives, and local insurance providers. On the other hand, the project will provide these financial institutions with technical assistance and enhanced capacity to better understand and use CIS services and develop financial products that are supportive of CRA and accessible to smallholders, especially women and IPs. The project will work through apex organizations such as the MCPI, CDA, PCIC, etc. for CIS utilization and feedback (Component 1) and capacity building (Component 3).

110. Bundling technical support and financial services will support farmers and other actors into developing sustainable CRA value chains that will transform agri-food systems. See Figure B.3.2 below.

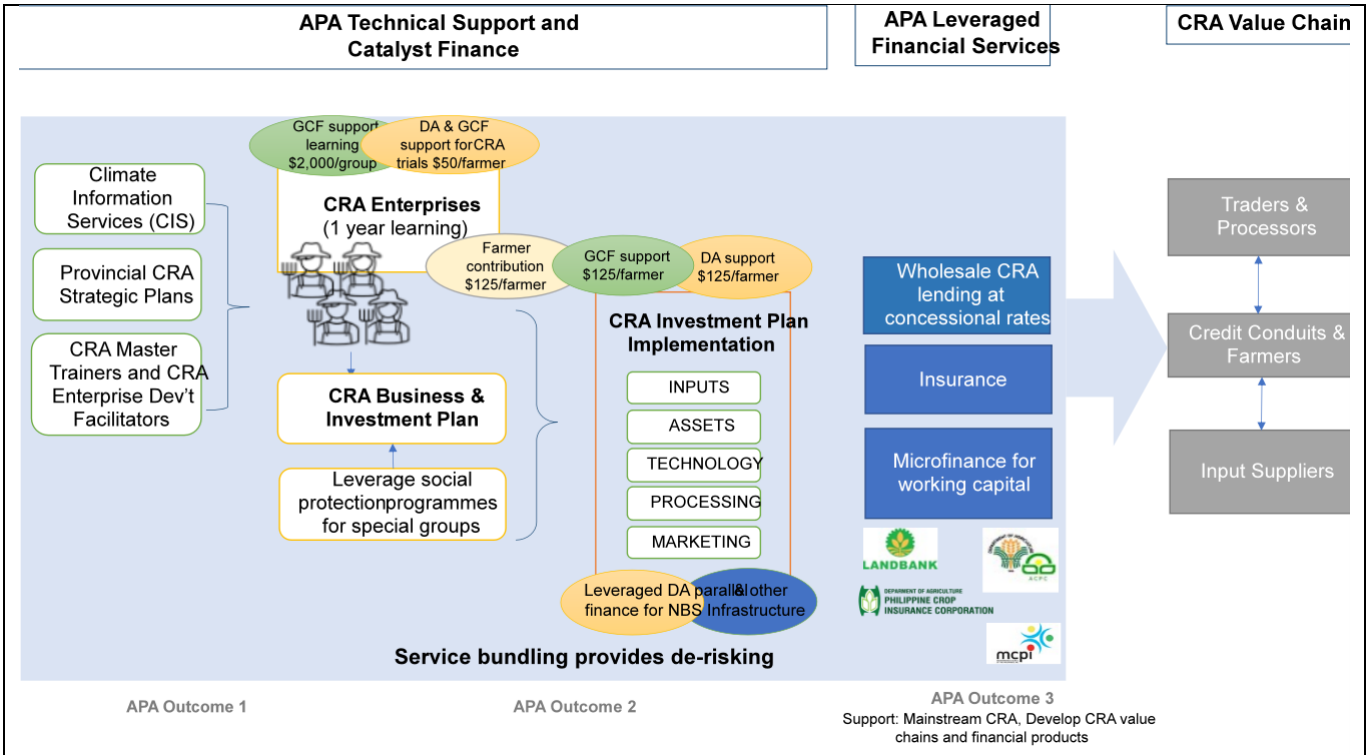

Figure B.3.2 Bundling services to leverage finance through CRA enterprise development

Output 2.1: Climate Resilient Agriculture enterprise investment plans prepared and implemented

Activity 2.1.1: Deliver Climate Resilient Agriculture enterprise development training

Sub-activities:

2.1.1.1 [DA] Deliver CRA enterprise development training
2.1.1.2 [FAO] Design and provide technical support for CRA enterprise development training
2.1.1.3 [DA] Provision of agriculture inputs for CRA practice experiment

CRA Enterprises

111. The project will support DA-RFO teams in the target provinces and municipalities in organizing 45,000 target farmers into groups of 30 members each to engage in a one-year on-site CRA Enterprise development learning. The selection of these direct project beneficiaries follows criteria as described under "Target Beneficiaries" above, with priority given to resource-poor and vulnerable farmers and care taken to ensure social inclusion (50 percent women, indigenous people, youth, and other disadvantaged groups). Commitment to CRA principles and practices is also key to beneficiary selection. Relevant existing cooperatives and previously formed farmer groups under other initiatives shall be considered for integration into the CRA Enterprises. If appropriate and more effective, separate groups for women and indigenous people will be considered.

112. Appendix 4 and Annex 2.9 provide detailed criteria for beneficiary selection, which will be finalized during the project inception phase. Group formation, along with management and training approaches, shall reflect past experiences with FFS, CRFS, AMIA villages, the DA-ATI FFS training system in the Philippines, as well as FAO's relevant experiences elsewhere. Past success factors and lessons learned are used in the following considerations in CRA Enterprise development: (i) Moving beyond climate risk awareness toward capacity building for use of CIS in farm and business decision making; (ii) Reinforcing the integration of climate actions, production, and business through empowered farmers; (iii) Focusing on integrated sustainable, agro-ecologically based and climate- resilient solutions that are gender- responsive, that promote resilient indigenous food systems and

address malnutrition; (iv) Creating a longer learning process (seasonal to year-long); and (v) Integrating learning and on-farm experimentation to enable trial, learning, feedback, and continuous adaptation and transformation.

113. The training programmes and packages developed under Activity 1.2.2 will be used. Master Trainers and CRA Enterprise Development Facilitators (trained and equipped under Activity 1.2.2) will equip farmer learning groups with skills and knowledge to use climate information and CRA services, select and apply CRA technologies, and develop CRA enterprises. This will be central in creating a shift in farmers' sustainable CRA adoption in the target communities.

114. The following process and capacity- building substance for the development of CRA Enterprises are envisaged:

- Establishment of baseline information on beneficiary socio-economic status and agricultural assets, as well as farming systems at municipal level. Significant data already exists but some might need to be collected at household level. This will also support beneficiary selection based on the established criteria.
- Identification of crops and other agriculture-based livelihoods with market and income potential. This is intended to identify and define the enterprises that would be supported in each project location.
- The CRA Enterprise groups elect their leader and treasurer. Each group opens a bank account with their choice of financial service provider, which may be Land Bank or another provider . The group bank account serves to leverage access to financial services, in particular group loans and insurance.
- Capacity development for CRA Enterprises will include: (i) organizational and management skills; (ii) CRA practices with market prospect; (iii) development of value chains (production, processing, and marketing) for the selected commodities; (iv) enterprise planning, financial assessment and coordination; (v) facilitation of access to financial resources from rural financial service providers including the Land Bank; (vi) environmental and social management and consideration of gender equality and social inclusion; and (vii) SEAH prevention and risk mitigation.
- Vulnerable and resource-poor farmers receive some critical inputs to enable the adoption of CRA practices and the necessary farming system diversification.

115. The envisaged training provided to project beneficiaries will be demand- and market-driven, i.e. based on the CRVA results and consideration of market prospects, which show what particular crops or farming systems would be both profitable and suitable with climate change. Following the formation of the CRA enterprises, with technical support and facilitation from extension workers and resource persons with training and enhanced capacities, each group will identify their training needs and priorities. The training content will be on identification of appropriate CRA practices and technologies, CIS use, climate-resilient value chains, financial literacy, access to markets for inputs, outputs, group management, gender equality and social inclusion, and SEAH prevention and risk management. However, the focus of training in each locality and/or group will reflect specific needs, priorities, and accumulated knowledge. Farmers' learning will also include field trials, demonstration plots, and peer-to-peer exchanges. The project, through DA co-finance, will support each group with the needed agricultural inputs and equipment for CRA field learning and demonstration.

116. This will provide farmers with peer-to-peer learning and a testing ground so that they can use agrometeorological and various CRA services to adjust their practices and make their farming systems more climate-resilient and economically viable. It will also raise farmers' needs for additional information and delivery mechanisms, as well as identified options to address key CRA adoption constraints, including input, seeds (see Box B.3.5), market, and finance. The CRA enterprise development learning will already contribute to reducing on-farm risks, thus potentially improving farmers' access to credit products. This effect will be enhanced by the inclusion of specific modules in the training that increase financial and insurance literacy; such modules will cover cash-flow/business management, on-farm risk mitigation, and information on financial service providers in the vicinity and the products they offer.

117. Appendix 5 summarizes the initially selected CRA practices and technologies, which will be localized and prioritized based on CRVA as mentioned above. This analysis of CRA technologies used the Compendium of Climate-Resilient Agriculture Technologies & Approaches in the Philippines (Labios et al., 2019), which summarizes DA and AMIA's CRA technologies by agroecosystems. BSWM implemented several sustainable land management (SLM) practices that are also considered to be good CRA measures. Once specific municipalities are identified at the start of the project, the applicability of the practices below will be reviewed and additional or alternative CRA practices and technologies may be considered.

Box B.3.4 Local seed systems for CRA enterprise development

Seeds make up the bulk of the cash costs incurred by both CRA and traditional users. In potato production, Wang (n.d.) noted that the use of certified good-quality seed varieties can increase yields by 30–50%, as compared to traditional varieties or farmers' own seeds. The increased severity and frequency of both droughts and typhoons necessitate the use of more tolerant varieties, crop rotations and intercropping. Access to improved seed varieties remains a critical challenge for the great majority of smallholder farmers owing mainly to costs and commercialization of agriculture. Certified improved seed variety production, under the Philippines seeds system, is capital intensive and requires longer gestation periods, which renders participation by smallholders highly challenging. Furthermore, climate resilient seed varieties and the associated farming systems have not been fully tested under farmer field conditions in specific localities and agro-ecological zones.

The project addresses the mentioned impediments through the following interventions:

1. In collaboration with the nearest seed grower association, the CRA enterprise development approach will include the use of different annual crop varieties in its experimental plots with a view to demonstrate crop variety resilience and higher yields. The training will include explanations and demonstrations of varietal characteristics in relation to forecasted climate change impacts, as well as of the importance of the use of quality seeds. The experimental plots will also be used to collect performance data of these varieties under specific field conditions and agro-ecological conditions. These will be analysed by the field school participants, which will accelerate adoption of new varieties that perform well under their locality's agro-ecological conditions.

2. By organizing smallholder farmers into CRA enterprises (groups of 100), the project will develop the required economies of scale to enable certified seed production among small holders. The project intends to establish CRA enterprises with a focus on seed production. In addition, it will support some members of the CRA enterprises (e.g. 10-15 members) with contiguous land holdings to focus on seed production. The seed producing CRA enterprises will be provided with training, using FAO's protocol for quality declared seed or quality declared planting material and supported in the establishment, accreditation and with operational cost under the Philippines seeds systems as part of CRA enterprise investment plan implementation. They will become certified seed growers and join seed growers' cooperatives linked to the national seed systems governance framework, including quality assurance, certification and access to new and improved varieties for multiplication.

3. The project intends to build on experiences from past and ongoing community seed system projects in the country. The most prominent among these are the DA's Farmers' Production and Exchange of High Quality Inbred Rice Seeds or Seed Exchange program (SEEDEX) or other initiatives such as community organic seed production (https://www.globalgiving.org/projects/filipinoseedsavers/reports/). These are alternatives to the formal seed systems in the country and designed to target smallholders as they do not require stringent and costly rules and regulations. FAO has also experimented with a number of alternative approaches to facilitate access to quality seeds by smallholder family farms in Asia-Pacific and elsewhere. FAO has also developed a series of toolkits for inclusive seeds systems development with a view to ensure seed security among the small holders, which will be made available to the project beneficiaries. (http://www.fao.org/seeds/en/).

4. The project intends to strengthen the information flow between farmers and the apex public agency for the development of plant industry, seeds and technology development, the DA-BPI (https://www.buplant.da.gov.ph/). A CRA Enterprise/AMIA Village network for local seed production will be established for exchange of information and best practices. Among others, the network will collect all the results of the varietal trials conducted by the CRA enterprises. The network, assisted by experts from research stations, will analyse these data for an evaluation of performance of varieties and their resistance/tolerance for drought, flood, high or low temperatures under different soil type, soil fertility, and other agro-ecological conditions. Results of this evaluation will be shared with the BPI for refining their variety performance description. This is expected to improve the availability and accessibility of appropriate seed varieties hence ensuring seed security in the country.

[1] FAO. 2006. Quality declared seed system. http://www.fao.org/3/a-a0503e.pdf and FAO. 2006 Quality declared planting material; Protocols and standards for vegetatively propagated crops. http://www.fao.org/3/a-i1195e.pdf

118. Trained farmer groups/organisations will assist in monitoring and obtaining feedback on the effectiveness of systems developed under the project. They will also become hubs of CRA enterprises and provide learning places for both government officers and new farmers who wish to develop CRA enterprises, thus contributing to awareness raising and mainstreaming CRA activities (Component 3).

119. For specific training sessions that require specialised knowledge and experience, facilitators may request additional guest trainers from other agencies (e.g. plant protection specialists from DA or research stations). LGUs, with the periodic assistance of Master Trainers, will regularly monitor and report as the farmer learning groups progress through the cropping season. Good CRA practices, suitable local knowledge and technologies, or CC-resilient farming innovations will also be captured in community video-clips (see Activity 1.2.2) for distribution to

other learning groups and for further outreach in non-project areas (see Activity 3.1.1). The project targets communities that are vulnerable to climate-related disasters such as typhoons and droughts; hence the training curriculum will also include disaster risk reduction and management aspects.

Financial inclusiveness and value-chain development

120. The CRA enterprise development training will include support for each farmer group to identify potential financial products to support their CRA adoption and to develop value chains using FAO's inclusive value-chain development approach. Land Bank's CRA financial programme and/or the proposed PILAR's financial products, as well as other related products, will be presented to target farmers. The project will provide financial literacy training, facilitate inclusive value-chain development, and organize meetings with Land Bank as well as other financial product providers and value-chain actors to ensure sustainability of CRA enterprise development. This activity will also assist participating farmers and farmer groups in moving from informal to formal sector operations by opening a bank account, which will allow them access to formal sector loans and credits. The CRA Enterprise Development Facilitators will assist farmer organizations in these activities, particularly in the preparation of documents and transactions with institutions.

Use of Digital Technologies

121. Project beneficiaries will be assisted in their participation in the digital programs of the DA (such as the Digital Farmers Programme, see more details in Annex 2.2) in order to increase ICT literacy and link beneficiaries to government- or private sector- led e-commerce / online marketplaces for the marketing and distribution of their produce.

122. Where connectivity allows, farmer groups and community members will be trained and advised on the production and use of digital-agriculture information as well as on the use of mobile phone apps. Youth in particular will be trained to assist other farmers with less experience in the use of such applications. Social applications may also be tested and used to help farmers network among themselves, and to reach out to and access extension agents, who in turn can share locally relevant news and information.

123. Based on the successful use of digital technologies in the Philippines, and drawing on FAO Digital Village initiative or the Digital Green approach in India and Ethiopia, Facilitators and other field extension agents will be trained to develop video clips using Tiktok-type instant video apps (with guidance from Master Trainers and assistance with their production skills) as an additional cost-effective education tool during their facilitation sessions and in a wide range of extension and outreach situations. Since these videos feature local farmers as actors and narrators, using local languages and terms, they are especially powerful in areas with low literacy rates.

124. Facilitators and other field- level extension agents (especially community resource persons), will have access to small portable, battery-powered micro-projectors, which can be used to project the videos on a house-wall, flipchart paper, or bed-sheet. Video clips will be shown at the beginning of training sessions, then the groups will discuss what they have seen and learnt and pose clarifying questions.

125. DA-ATI will maintain a repository of all video clips produced, to be made available via a dedicated DA-ATI website and the CIS Platform for open- access viewing and downloading during and after the project. A wide range of local extensionists and farmers can watch the se clips repeatedly, even on smart-phones or cheap tablets, and learn from peer-type experiences.

126. Digital technologies introduced by the project will build upon existing initiatives and technologies in the country, in close collaboration with private sectors and with other government programmes with similar digital scope (e.g., Digital Farmers Program of DA), to tap into local expertise.

Box B.3.5 Digital agriculture strategy as part of One DA approach

The project promotes the use of digital technologies. For example, agrometeorological data are collected and archived near real-time from stations, then shared for analysis through the CIS platform. Remote- sensing data (e.g., on meteorology, farm condition, soil, and water) complement station data and reports from the field, all of which are used as inputs for running models to issue meteorological forecasts and compute agromet information and climate-related risks to agriculture.

Agromet information and advisories are communicated in various ways adapted to the needs of diverse users in the food value chain. In addition to traditional media (print, radio, TV), a suite of ICT tools, such as web sites (CIS platform), social media, mobile apps, and videos, will be used so that the relevant data ultimately reach farmers for timely on-farm decision

making. The utility of communicated advisories, for instance through mobile apps, is validated by user feedback, so that information producers (e.g., Regional and Local CIS Centers, TWGs, regional and provincial experts) may continue to improve the products. For each type of value-chain actors, the mode of communication will be carefully selected by engaging users in the design of agromet services to ensure digital equity for all stakeholders. Participatory monitoring and validation of project results will also make use of mobile technologies for data collection and for linkage with national management information systems (MIS).

Activity 2.1.2: Support the preparation of Climate Resilient Agriculture enterprise investment plans

Sub-activities:

2.1.2.1 [DA] Facilitate CRA enterprise investment planning
2.1.2.2 [FAO] Technical support and quality assurance of CRA enterprise investment plans

127. After the one-year group- learning period, the project will help farmer groups evaluate, through a scorecard, if they are ready and able to begin CRA enterprise development. The CRA enterprise scorecard (Box 3.6) will be refined at the project inception, in consultation with all relevant stakeholders. Farmer groups that are able to step up to this level will undergo CRA enterprise investment planning and implementation (Activity 2.1.3), so that they will not only become resilient and economically sustainable but also act as the catalyst for other farmer groups. The purpose of the scorecards is to assess the capacity and capability of the groups to engage in the envisaged CRA enterprise development and subsequently participate in the AMIA village network. The score cards may also serve to assess the efficacy of the project's work with farmer groups.

Box 3.6 CRA Enterprise Scorecards

Drawing on FAO tools, proven successful in other projects and the AMIA programme, the following indicators will be adapted evaluating the farmer organizations in different stages of CRA enterprise development:

Institutional Maturity Rating: General
- Membership Profile: *[organization having detailed membership profile consisting of demography, productive assets, livestock; members having membership card]*
- Regular organizational meetings
- Attendance of the members in organizational meetings *[Check organizational meeting on a specific date and time; check the attendance sheet]*
- Leadership - [please interview some non- leaders]
- Executive Committee: *[Do the members of the management committee rotate after a specific period of time?*
- Governance Accountability Action Plan (GAAP)
- Gender balance in FO holder positions reflects membership base
- Level of services that the FO provides

Account Keeping
- Savings collection
- Daily banking
- Bank Account Management
- Bookkeeping
- Financial Reporting *(Savings, Loan, Receipt payment, Income Expenditure Report, and balance sheet)*
- FO follow Revolving Loan Strategies *(the policy adopted by the organization)*

Adoption of climate-resilient and low-carbon practices
- Dissemination and use of CIS
- No. and suitability of climate- resilient and low- carbon technologies tested and adopted
- Monitoring and reporting on areas under CRA practices
- Increase in productivity
- Reduction in loss and damage from climate hazards

CRA Value Chain Project Rating
- No. of CRA value chain projects /businesses generating revenues for FO [please check cashbook/accounts registrar of particular project]
- Amount of non-project financing mobilised for new or expanding initiatives
- Increase in members' household income
- Linkage with Private Sector
- Service fee for Business Facilitator

The AMIA programme criteria to assess if an AMIA Village can be scaled into AMIA-Climate Resilient Agri-Fishery Technology-based Enterprises (AMIA-CREATE) would also be adapted for use. AMIA-CREATE is the framework used for enterprise development at town/province/region level, promoting the shift from CRA livelihoods to enterprises:
- Level 1 – AMIA Village adopts CRA technologies focusing on production and has initial but minimal enterprise activities within the village

- Level 2 - AMIA Village adopts CRA technologies focusing on production with expanded enterprise activities reaching other parts within municipal level
- Level 3 - AMIA Village adopts CRA technologies with enterprise activities that expand to provincial level and beyond. It promotes a wider scale covering an expansion area of at least 1000 hectares (Graduate to AMIA-CREATE). Regional AMIA team should provide the needed support for farm clustering/consolidation. Professional management and business service provider.
- In case the AMIA village was assessed as under Level 1 or 2, AMIA team should further assist the village in their enterprise development, marketing strategies, and intensification of CRA adoption.

128. The project will endeavour to facilitate the clustering of several farmer groups to form an enterprise and join the AMIA programme. Joining the AMIA programme would provide additional incentives to farmers to access services and support from the DA, learn from others, and improve their capacities. The size of clusters is based on the DA criteria for AMIA Villages (that each should cover a minimum of 100 hectares under CRA practices). Several tools (e.g., RuralInvest) developed by FAO and other institutions will be used to facilitate the preparation of CRA enterprise investment plans. The scorecards will also determine whether the CRA enterprises have developed sufficient capacities to join the AMIA programme, in addition to assessing the efficacy of capacity-development efforts under the project.

129. The preparation of a CRA enterprise investment plan will help farmers to evaluate the financial sustainability and business prospects of a CRA enterprise. The process will also link CRA enterprises with value-chain actors, including processors, marketing agents, and financial service (savings, loans, and insurance) providers. Interactions between the CRA enterprises and the value-chain partners, including financial institutions, will enable a two-way feedback and information exchange, hence improving the supply of appropriate services and demand for these services.

130. Under the NAFMIP, the DA aims to promote commercial agriculture among smallholder family farms. In this regard, the project will support the DA's efforts to target small holder farmers, build economies of scale through group formation and clustering, develop capacities for CRA practices, and empower groups of farmers with direct access to value-chain actors in order to develop value chains . The project approach is highly conducive to the development of sustainable commercial enterprises, which will enable vulnerable and resource-poor farmers to access the public sector's productive social protection schemes, aimed at helping them develop sustainable livelihoods. The project will improve the targeting of these schemes to ensure support is provided to the most eligible and in areas that directly contribute to sustainable livelihoods based on small- and medium-sized commercial farming.

CRA Investment Items

131. The planning process will identify investment items to promote climate-resilient and low-carbon agri-food systems. The investment items would be a comprehensive package including support for transforming production (inputs, equipment, etc.), investments in post-harvest management, processing and group marketing, use of CIS, early warning, as well as strengthened market information, depending on each CRA enterprise/AMIA Village's plan.

132. Depending on the needs of the FO/AMIA Village, utilizing the CRVA and disaster risk management discussions, the investment plan may include critical infrastructure and assets, such as flood risk reduction infrastructure, watershed restoration, small-scale water harvesting, community seed banks and nurseries, collective disaster-proof storage, and small-scale processing. Some of these common assets will be particularly important for farmers for increasing and stabilizing productivity and market access under increased climate variability. See Box B 3.7 and Table B.3.2 below.

133. The project will provide on-site technical support during the investment phase. Thus, all CRA enterprise investment plans would also include a technical assistance component, and enterprise activities will be monitored. The project staff and CRA Enterprise Development Facilitators will keep visiting these groups and provide advice. Groups will also be encouraged to use on line content to keep their knowledge of CRA enterprise development up to date.

Preparation of Investment Plans for Special Groups

134. The project will support the targeted poor farmers and beneficiaries of existing or emerging social protection programmes in leveraging social safety nets and the project's technical support in order to invest in, adopt, and safeguard their CRA activities and strengthen resilient livelihoods. FAO's work on adaptive and shock-responsive social protection and the pilot test of the graduation approach by the Asian Development Bank (ADB) have proven the effectiveness of this approach in enabling vulnerable households to invest in productive assets and capacities and build resilient livelihoods. Examples of such social protection programmes are provided below. Integrating climate vulnerability and risk information in poverty registration and social protection targeting; strengthening climate information and early warning; and bundling technical support and capacity building with social protection benefits are the building blocks in making social protection work for CCA and resilience building (see Box B.3.7).

- **The Risk Resiliency Programme through Climate Change Adaptation and Mitigation and Disaster Risk Reduction (RRP CCAM-DRR):** The program is operationalized through the Cash-for-Work (CFW) modality, which is a short-term intervention that provides temporary employment to program beneficiaries. Through the CFW, beneficiaries are paid 75% of their regional minimum wage in exchange for 10 days of labor in activities that build their community's resiliency. The CFW is designed to encourage participation at the grassroots level through income augmentation to families; and to reduce the impacts of climate change by conducting river desilting, tree planting, communal gardening, and other similar activities. At present, the program is being implemented in 12 regions across the country.
- **The Kabuhayan at Kaunlaran ng Kababayang Katutubo (4Ks) Project**: This project aims to provide assistance to ICCs/IPs in the form of agriculture- and fishery-related livelihood opportunities, investments, and other support services through targeted Community Needs-Assessments (CNAs) and Special Area for Agricultural Development (SAAD), with the aim to alleviate poverty among the marginalised agriculture- and fishery-dependent population, especially female-headed households and upland IP, in the 30 poorest provinces of the country. The project will support the preparation and updates of these groups' Ancestral Domain Sustainable Development and Protection Plan (ADSDPP).

Box B.3.7 Leveraging social protection to support poor and vulnerable households' CRA adoption and strengthen resilience

Since 2017, FAO, together with other UN agencies, has been supporting the development of adaptive, shock- responsive social protection. A Roadmap has been adopted by the Department of Social Welfare and Development (DSWD) and the National DRRM Council. Frameworks to scale up major social protection schemes, such as the Pantawid Pamilyang Pilipino (4P) conditional cash transfer program, to support anticipatory actions and early response to typhoons and droughts have been developed.

Between 2018 and 2020, the DSWD, with support from ADB, also piloted the "graduation approach," providing 1,800 beneficiaries of the 4P with productive assets and training through its Kabuhayan (livelihood) program. This aimed to provide the participating households with a comprehensive, time-bound, and well-sequenced set of interventions tailored to individual needs to give them a big push toward sustainable and resilient livelihoods. The interventions included: (i) a one-time asset transfer for each participant, selected from a list of options identified through a rigorous market assessment in each area; (ii) coaching and life skills training covering social and health issues; (iii) core training in business and financial management; (iv) training on specific livelihoods; and (v) general mentorship by the coaches based on, but in many cases extending beyond, individual household development plans. Each coach supported an average of 110 households. The graduation interventions were layered on top of the government's 4P cash transfer program benefits, paid every 2 months based on meeting health and education conditionalities. Impact evaluation in September 2020 produced positive results. Despite the COVID-19 pandemic, the pilot achieved an average graduation rate of 71%. The approach strengthened household resilience to shocks across a range of dimensions including financial security, food security, and mental health. Beneficiaries of the pilot fared significantly better than those who received only the government cash transfers.

Activity 2.1.3: Finance and implement Climate Resilient Agriculture enterprise investment plans

Sub-activities:

2.1.3.1 [DA] Support CRA enterprise investment plan implementation
2.1.3.2 [FAO] Leverage finance for CRA Enterprise investment plan implementation
2.1.3.3 [DA] Finance for CRA investment plan implementation

135. Under this activity, about 500 CRA Enterprises/AMIA Villages (covering the 45,000 most vulnerable and resource-poor households targeted by the project) will receive a comprehensive CRA support package to implement their CRA investment plans.

136. The project, through GCF finance and DA co-finance, will provide catalyst funding for the implementation of CRA Enterprises/AMIA Villages investment plans, while building their capacity and facilitating their access to other financial sources–LGUs, credit, relevant social protection programmes, as well as complementary government, donor, and NGO programmes and projects in the project areas. Farmers will also provide in-kind contributions in the form of labour and other inputs. In addition, this process will address the specific needs of women-headed households and IP, ensuring gender- and indigenous-appropriate CRA investment plans.

Box 3.8 – Financing CRA Enterprise Investment Plans

The expected budget for on-farm CRA implementation per farmer will be around USD 375. This budget is based on the experiences of FFS, CRFS, and AMIA Programmes (see Annex 2.7).

This budget will be used to provide 45,000 farming households with a comprehensive CRA support package, covering inputs, equipment, services, and capacity building, on a cost-sharing arrangement. The DA co-financing, the farmer contribution (in-kind) and the GCF financing each will provide USD125 per farmer. Procurement and provision of support will be done based on the consolidated budget per CRA Enterprise/AMIA Village.

Drawing on FAO experience in building resilient agricultural livelihoods, the project investment will also include commonly beneficial, community-based small natural resources management assets that will reduce climate disaster (such as flood and drought) risks, restore ecosystem services, and promote integrated pest management (IPM) or local input production (seed, organic fertilizer) in support of the climate-resilient agenda. Each CRA enterprise, when developing their investment plans, shall identify critical needs in adopting CRA practices and transforming basic farming practices into more commercial entities.

GCF finance will provide services and catalyse new technologies and practices, especially those with potentials to produce climate change mitigation benefits, strengthen gender equality, and promote resilient indigenous food systems. DA co-finance will provide the necessary inputs (seeds, fertilizer, and equipment, etc.), which will be oriented toward supporting CRA. The participating farmers' contribution will be in-kind. DA's share of contribution demonstrates how CRA activities are integrated directly into Government programmes, thus ensuring GovPH's continuous support of farmers in the transition from conventional to climate-resilient agriculture.

The CRA enterprises will be supported to mobilize resources from DA regular budget, rural development and natural resources management programmes, LGUs as well as private sectors for implementation of the identified community-based NRM assets.

The project's implementation of this model and learning would help DA (as well as DAR, DENR, LGUs, and other relevant agencies) prepare plans and budgets to sustain and scale up the approach.

137. Investment from the project for CRA adoption will be provided to CRA Enterprises/AMIA Villages when they have: (i) submitted a feasible CRA investment plan; and (ii) demonstrated potential in establishing linkages with value chains. Project technical staff (FAO and DA) will review the investment plans and make investment decisions.

138. The project will support CRA Enterprises/AMIA Villages in tapping into other resources (e.g., LGU funding, other programmes in the area) and improving access to credit. This process will also address the specific needs of women-headed households and IPs to ensure there are gender- and indigenous-appropriate considerations in CRA investment plans.

139. Based on CRA Enterprise Investment Plans, DA and FAO will work closely with CRA Enterprises/AMIA Villages to develop detailed CRA packages together with technical specifications and a procurement plan for each source of finance as per the above-mentioned financial model.

140. The CRA investment items to be supported by DA co-finance (total budget of USD 5.625 million), as agreed upon, will be secured through the DA's annual planning and budgeting process led by DA and LGUs at the provincial level. They will be translated as a part of DA's budget items, primarily under its Banner programmes for rice, corn, high-value crops, etc. The GCF-financed CRA investment items (total budget of USD 5.625 million) will be procured and provided by both FAO and DA.

141. FAO technical standards (for seeds, fertilizer, and other equipment, as well as tools, e.g., IPM, water-harvesting, community-based watershed management) will be applied, in harmonization with Government/DA

standards. These will be identified during the project inception phase and included in the Project Implementation Manual.

Table B.3.2 Examples of CRA packages to be provided and sources of finance

Stage in the Value Chain	DA Co-finance	GCF Finance	Farmers' contribution	Other sources (Land Bank, LGUs, etc.)
Corn including Yellow Corn				
Provision of Input	Seeds: Drought- resistant varieties	Local seed growing Corn transplanter	HH investments	Credit FO-Private sector PPP agreements Facilities Infrastructure Farm to market roads
On-farm Production	Adjusting planting and harvesting calendar Application of GAP (good agricultural practices) Pest management solutions	Early Warning Systems Contour farming (SCoPSA), NVS, SALT) Rainwater harvesting Weeding Water pumps / deep well	Labour	
Harvesting storage & Processing	Post-harvest processing facilities Processing of corn-by products	Technical support for post-harvest processing, reduce food loss	Labour	
Marketing	Price monitoring after harvest Establishments of markets for corn		Labour Group marketing	
Coconut				
Provision of Input	Stress- tolerant seedling varieties	Improved seedling varieties	Land Labour	Credit FO-Private sector PPP agreements Investment for diversification to crops-livestock systems Restoration funds after disasters Insurance cover Marketing costs
On-farm Production	Technical support on: Farming diversification (coconut-banana, coconut cacao) Sanitation and biocontrol measures for pest and disease management	Early warning systems (wind/typhoons)	Diversification to integrated crops and crops-livestock farming Labour	
Harvesting storage & Processing	Early harvesting (based on EWS) Selling of fallen coconut tree s	Value addition technologies for coconut products	Labour Group processing	
Marketing	Market linkages		Group marketing	
Coffee				
Provision of Input	Provision of seedlings and organic fertilizer Accreditation of nurseries	Equipment/ facilities such as/for: - Nurseries	Land Labour and group facilities i.e. for nurseries	Credit Investment for diversification to agroforestry, crops-livestock systems Facilities and infrastructures i.e. farm- to-market roads and bridges
On-farm Production	Technical support for organic fertilizer production	Equipment/ facilities such as/for: - Moisture meters for quality control - Deep-hole planting - Contour farming	Labour (planting, organic fertilizer production, harvesting)	

Harvesting storage & Processing	Storage & warehousing facilities Post-harvest facilities	Community-based forest/watershed management Ventilation systems	Labour and group facilities for construction of crop shelters, planting of windbreakers, etc.	Restoration funds after disasters Insurance cover
Marketing	Organization of agri fairs & expos		Group marketing	Marketing costs

Facilitating access to financial services

142. During the learning and investment- planning process of CRA enterprise development, the project will conduct financial literacy training among target farmers; prepare each of them to open a bank account; and promote savings. FO/AMIA Villages will be linked to financial service providers such as Land Bank, and programmes under the ACPC and others that provide relevant financial products for either working capital or investments to support CRA Enterprise Investment Plans. The project will help interested CRA Enterprises/AMIA Villages build applications for group loans. This will be linked to Activity 3.2.2 – Working with Land Bank, ACPC, and other financial actors to use CIS and CRA services to improve credit and insurance products.

143. The project is expected to generate additional financial support from local (provincial and municipal) funds so that Enterprises /AMIA Villages may implement CRA investment plans, especially critical ecosystem-based flood- and drought-risk reduction infrastructures. Investment and implementation progress will be closely monitored; information will be stored in the CRA M&E system (developed under Activity 3.1.3) and documented and published through the CIS Platform (sub-activity 1.1.1.2).

144. As part of the project Monitoring, Evaluation, Accountability and Learning (MEAL), systems will be developed to facilitate FO/AMIA Villages' monitoring of and reporting on mobilisation of finance, implementation of the CRA Enterprise Investment Plans, as well as results achieved in terms of climate change adaptation and mitigation and contribution to the enabling environment. FAO tools, such as Resilience Index Measurement Assessment (RIMA), Tools for Agro-ecological Performance Evaluation (TAPE), indicator framework of Nature-based Solutions in agricultural landscapes, and digital Knowledge Management System, will be used in developing the MEAL of CRA Enterprise Investment Plan implementation, feeding into the National CRA monitoring system.

145. The project will help CRA Enterprises /AMIA Villages keep the CRA enterprises active under the DA's banner programmes and LGUs' plans. This will in effect accelerate the shift from the existing conventional seed and fertiliser input model of the banner programmes and LGU budget to sustainable funding of CRA. The DA will continue providing these support services beyond project closure, and in other climate impact provinces and regions.

CRA peer learning and mainstreaming

146. CRA mainstreaming has been considered a necessity for CRA adoption at scale in order to cope with the projected climate change scenarios. The project intends to facilitate mainstreaming of CRA and the CRA enterprise approach throughout the country with CRA awareness- raising campaigns and capacity building for CRA mainstreaming (Component 3). Participatory knowledge- and experience-sharing among farmers and agriculture extension workers and across municipalities, provinces, and regions, especially between those with comparable farming systems, will be a key component. The project targets particularly farmer beneficiaries who would benefit from CRA enterprise development and aims to play a key role in said knowledge- and experience-sharing, thus championing CRA adoption and advocacy for mainstreaming. To this end , a series of thematic exchange visits and thematic workshops with relevant government agencies (DA, DAR, NGOs, etc.) and the private sector will be facilitated. Significant existing experiences and technical knowhow in the country will be brought together in a comprehensive package of system support that can holistically address the building blocks of agri-food systems – including inputs (farm inputs and tools, financial products, and information for action at the farm-gate level), production, processing, marketing, nutrition and food safety, food loss and waste, agro-ecological practices, and others. The project also intends to bring together tested and tried technologies and experiences from other countries as a package geared toward adaptation in different socio-ecological contexts, in order to facilitate an agri-food system transformation toward inclusiveness and climate resilience.

147. Knowledge-sharing events and field visits will be one of the instruments in extending to non-project areas while learning from emerging initiatives in other provinces and regions. These events will also help create informal networks of farmers and CRA enterprises. Often, women tend to be better than men at establishing informal networks, and youth, with their social networking, can help accelerate and strengthen farmers' independent capacity development.

148. Monitoring of CRA Enterprise Development training will include a review of the training's effectiveness in terms of usage of agrometeorological services, adoption of CRA practices, as well as engagement with value-chain actors and finance providers (see Activity 3.2.1). Also monitored are the effects of peer learning and knowledge sharing in terms of raising awareness and understanding of CRA beyond the project areas (see Activity 3.1.1) and strengthening national CRA monitoring and evaluation (Activity 3.1.3) in an effort to create an enabling environment for scaling up.

Component 3: Mainstreaming Climate Resilient Agriculture

149. This Component will address the need for sustainability and scaling up of CRA. While Component 2 will directly target farmers within 100 climate-vulnerable municipalities, this Component looks at project impacts on a scale much larger than the targeted areas. It aims to mainstream CRA enterprise development and project approaches into GovPH's agriculture and rural development programmes, at the same time raising awareness of both CC and natural disaster risks and equipping farmers across the country with know-how for CRA enterprise development practices . The project will help private sectors apply and use the CIS and CRA services developed under Component 1 in developing financial products and businesses.

150. This component will also raise awareness, mainstream localized CIS and CRA services, and enhance the extension capacities of non-target LGUs, DAR, and other local actors through working with other national programmes and organizing workshops. It will build on national strategies for strengthening province-led extension systems (PAFES) that are being piloted, supported by Provincial CIS Centers, which provinces in non-project areas can establish using available information from the CIS Platform and DA and PAGASA's capacity building.

Output 3.1: CRA mainstreamed into national and LGU programmes

151. The success of mainstreaming CRA will depend upon the institutionalization of CIS and CRA services in non-project target areas. This will be pursued by making CIS and CRA services available at the national level with user-friendly formats and capacity-building materials that can be customized for regional to local applications.

Activity 3.1.1: Increase farmers' awareness and understanding of Climate Resilient Agriculture

Sub-activities:

3.1.1.1 [DA] Implement CRA awareness raising campaigns and peer learning
3.1.1.2 [FAO] Support CRA strategic communication
3.1.1.3 [DA] CRA communication by DA

152. This activity will develop IEC materials that present CIS and CRA information generated at national and regional levels, are user-friendly and relevant to farming communities. The activity will support the development of printed media, regular radio and TV programmes, mobile phone apps (e.g. for weather and agromet information), as well as community videos. The choice of media will be made based on usefulness and capacity to reach many, especially remote, farmers. The project will consider modalities to attract youth in the agri-food system. This can enhance the appropriateness of the material, and encourage ownership by and interest from the youth by making them developers of the IEC in collaboration with farmers and government technicians. They can use smartphones to create videos, which in turn can be easily shared through social media. Non-indigenous and indigenous youths will be trained on video creation and dissemination. These awareness-raising and publicity efforts will target primarily project provinces and benefit all farmer beneficiaries, direct and indirect. This is also partly the basis for estimating the number of indirect project beneficiaries, in addition to quantifying demonstration effects and other CRA-related enabling environment services.

153. The use of community videos is a fairly new methodology, successfully applied in India (e.g. Digital Green) and other countries. The project will build the capacity of DA-ATI and local extension agents to produce and use an expanding repository of community video-clips on CRA practices in local languages. Short technical video-clips are both developed and used by farmer learning groups and CRA Enterprise Development Facilitators as a

low-cost extension methodology, or as a valuable enhancement of CRA learning and adoption, a process supported under Component 2.

154. This activity will involve awareness-raising endeavors, campaigns, capacity building and farmer-to-farmer peer learning. It will also ensure that CRA services, practices, and local experiences in developing CRA enterprises are widely disseminated outside the project target areas. The project will assist in the delivery of a range of targeted and tailored outreach content, through various media and the CIS Centers and CIS Platform. This outreach will help familiarise farmer households outside of project municipalities with the available information. Different combinations of communication channels, such as local agromet bulletins in print form, web sites, radio, TV, mobile apps, and videos, are planned depending on need:

- *Shorter-term weather and climate forecasts for agriculture and agromet advisories*: printed, radio, and TV bulletins, website, web apps with "push" and on- demand information; and
- *Longer-term CRA services, CRA enterprise development training materials, options, and experiences:* leaflets, booklets, videos, websites, web apps, structured interactive radio, and TV programmes.

155. The activity will support the broadcast of information and contents developed under Components 1 and 2 through radio and TV programmes. It will also distribute standardized information leaflets, brochures, posters, etc. on how to access, interpret, and use CIS, CRA services and enterprise development information. In-person interactions through the Provincial CIS Centers will take place during LGU- organized meetings, workshops, and knowledge-sharing events with other stakeholders. Materials will also be made available for agricultural extensionists, other programmes and stakeholders such as NGOs working with farmers. Gender equality and social inclusion will be given higher priority, and indigenous farmers will be made more aware of relevant information and of the climate-resilient character of their food production systems.

156. Using local languages and radio will be important in reaching areas with low extension coverage and underdeveloped mobile networks. Radio networks may be private or public , depending on the outreach requirements and content, as well as available station programmes in each locality . FAO's experiences with engaging farmer feedback in radio and TV programmes through Dimitra and Farm Radio will be used extensively. The project will train communications officers in DA (ATI Regional Training Centers) and other agencies.

157. This activity intends for CRA campaigns (at national and regional levels) to reach in the order of 5 million farmers in the 9 target provinces. The assumptions used in estimating indirect beneficiary numbers are provided in Annex 2.9. To assess the effectiveness of awareness-raising, the project further assumed that 10% of these 5 million indirect beneficiaries , who would also benefit from awareness- raising events organized by the project and have direct access to the Provincial CIS Centres, would act upon the regular information received. More focused dissemination of CRA information and IEC materials, training/workshops, as well as peer learning and visits to CRA enterprises in the 100 target municipalities will enable the 205,000 direct beneficiary farmers (about 5% of the population in the 9 target provinces) to eventually **adopt** CRA practices in their fields. To complement, this activity of the project, DA will provide parallel finance of approximately USD 10.625.000 through its regular programmes for catalytic CRA inputs and capacity building of these 205,000 including capacity to develop enterprises and leverage finance for their sustainable adoption of CRA.

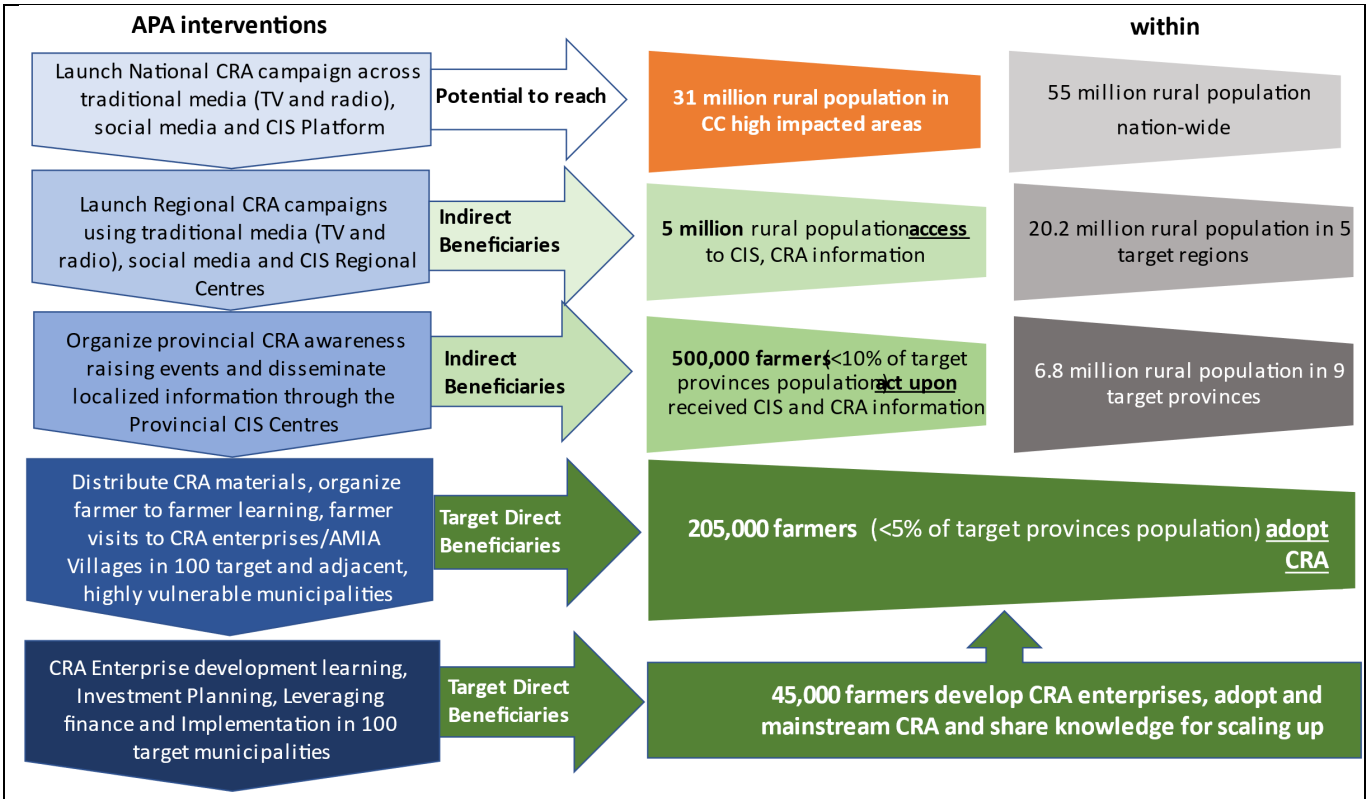

Figure B.3.3: CRA awareness-raising process and target beneficiaries

Activity 3.1.2: Mainstream Climate Resilient Agriculture practices and enterprise development into national and LGU programmes

Sub-activities:

3.1.2.1 [DA] Training and facilitation for CRA mainstreaming
3.1.2.2 [FAO] Policy advisories and technical support for CRA mainstreaming

158. This activity aims to scale up CRA adoption and enterprise development beyond the project target areas through: (i) integrating project approaches and outcomes into national and LGU agriculture and rural development programmes; and (ii) developing capacities of DA, DA-RFOs, and LGU staff members and of stakeholders for mainstreaming CRA and enterprise development.

159. Mainstreaming shall be done mainly through the following:

- Knowledge- sharing with and training of DA-RFOs and LGU staff on the integration of CRA enterprise development and CRVA in the Provincial Commodity Investment Plan (PCIP);
- Training of LGU staff on the use of CRVA results in updating or enhancing Local Climate Change Action Plan (LCCAP) such that CRA activities and investments are identified and funded;
- Development of models for CRA enterprise development with different partners (LGU, CSO, SUC, or private sector); and
- Continuing provision of support services by the DA to identified or priority climate-resilient value chains.

160. The project will facilitate knowledge-sharing in non-target areas (regions, provinces, and municipalities). A key element of mainstreaming CRA enterprise development is convincing policy makers and practitioners by sharing successful cases, methods, and experiences. This will be carried out through well-targeted, -structured, and -documented workshops and exposure visits to successful CRA enterprises developed by the project. The CIS Platform will be used as a main communication apparatus among policy makers, practitioners, and the population. The project will also maximize the use of DA and PAGASA's events to train non-target DA-RFOs and LGU staff to strategically use CIS and CRA services to plan and support CRA practices and enterprise development.

161. With the new fiscal developments (subsequent to the "Mandanas ruling"), it is likely that LGUs will have increased devolved revenues and budget for development. Mainstreaming of CRA into planning and budget allocation by Provincial and Municipal LGUs, including non-target LGUs, as part of the project's implementation will come at an especially opportune time . The link between DA-RFOs and Provincial LGUs is critical for mainstreaming CRA into government support and services in a coherent manner, and therefore joint activities will be maximized.

162. The project will also facilitate harmonization of objectives and activities related to climate change adaptation to promote resilience-focused interventions amongst different programmes. This will be pursued by linking with and introducing CRA into other special areas and group programmes, such as IP groups, DA's SAAD, and DAR programmes, through collaboration between the respective agency and LGU. Planning coordinated programmes with DAR will be particularly important as agrarian reform communities (ARCs) constitute an important farmer target group in many project target areas. DAR offers farmers a number of potentially complementary activities on credit, mechanization, and value chains. The project will also work with externally funded DA projects financed by the World Bank and IFAD (especially for integrating CRA with agriculture cooperatives and value chain support). DA will, on an ongoing basis, identify partner proposals with high relevance for mainstreaming CRA by means of:

- Orientation of program/area coordinators;
- Training on how to use the participatory CVRA;
- Identification of climate risks in target areas and of CRA options; and
- Conduct of techno-demo or community participatory action research (CPAR).

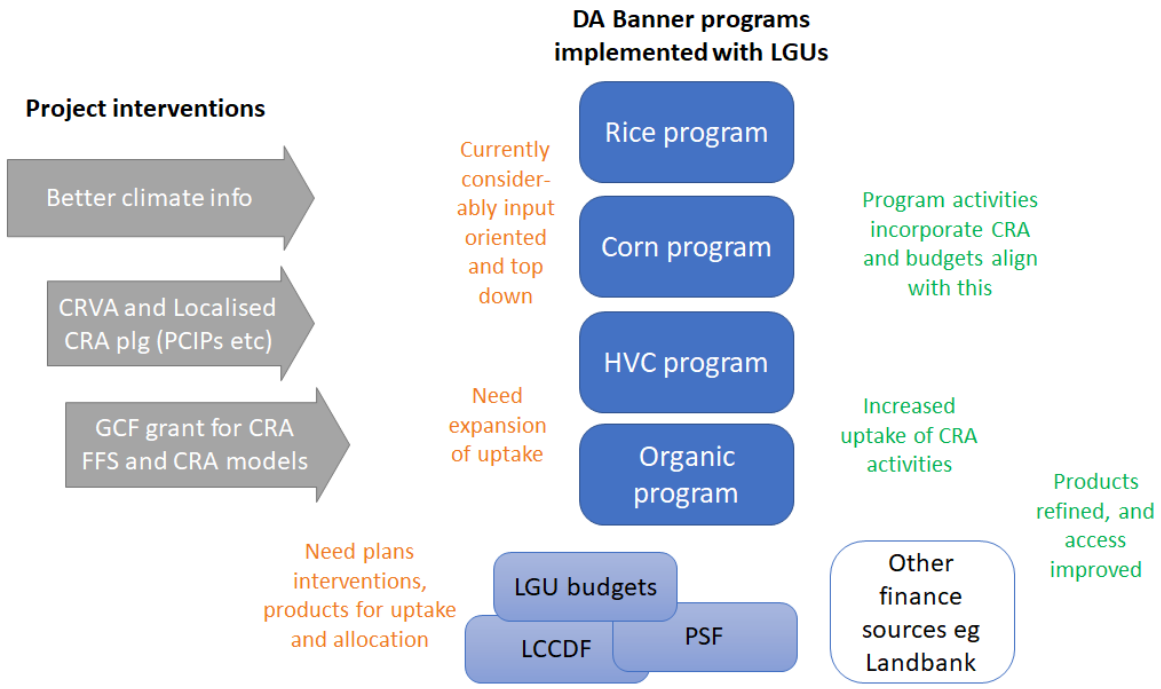

Figure B.3.4. Project interventions support uptake of CRA in programmes, budgets, and finance sources

Activity 3.1.3: Develop a national Climate Resilient Agriculture implementation monitoring system

Sub-activities:

3.1.3.1 [DA] Establish and operate the National CRA monitoring system
3.1.3.2 [FAO] Technical support for monitoring and measuring adaptation and mitigation benefits of CRA

163. This activity will develop an on line M&E network and system by providing specialist support. It will set up indicators tracking systems, and tools, as well as build the capacity of DA and LGUs for monitoring and assessing CRA implementation and its outcomes (see also Section E.7 and Feasibility Study Annex 11 for project M&E). While the system will initially start with M&E of GCF project activities , it aims to strengthen CCA monitoring of the AMIA network and the NAFMIP. The system will include elements of participatory/citizen-led monitoring along the

agri-food value chain and citizens' feedback, with specific mechanisms for addressing women and indigenous peoples' concerns. It will draw on and, where relevant, link to the nationwide management information systems (MIS) set up under the DA and World Bank's Philippine Rural Development project, which successfully tracks subproject implementation and effectiveness and is being institutionalised in the DA. It will also link M&E systems to national climate change and disaster risk reduction targets and the SDGs.

164. This activity will include baseline, mid-term, and end-line surveys of communities and farmers' situations i n terms of resilience, food security, and other key project outcomes, following impact evaluation methodology to also validate the project results from tracking systems. Some indicators, especially natural resource-related, will be monitored by farmers for efficacy and ownership . Progress on local planning and budget commitments, project implementation, farmer adoption of CRA, and impacts will be monitored and regularly reported to the CCC and NEDA, documenting the project's contribution to wider national programs, policies, and aims.

Output 3.2: Enabling financial mechanisms and value-chains for sustainable CRA adoption

Activity 3.2.1: Facilitate inclusive Climate Resilient AgricIture value-chain development

Sub-activities:

3.2.1.1 [DA] Facilitate information sharing and dialogue among CRA value chain actors
3.2.1.2 [FAO] Technical support for dialogue and PPP establishment

165. Under this activity, the project will map key value-chain actors and service providers (at municipality and provincial levels) relevant to the prioritized CRA crops/farming systems. This is expected to identify the capacities and engagement of key private sector actors in specific value-chains, the level and type of services provided, pricing structure and dynamics as well as processes and requirements to access the products and services offered. This stocktaking exercise shall inform any potential partnership with the private sector and directly feed into the financial inclusion activities for CRA enterprise development under Output 2.1.

166. The project intends to bridge the knowledge and information gap between farmers and the private sector value chain service providers. This is achieved by developing and sharing information packages on: (i) farming systems, CIS, CRA practices, farmer/CRA enterprise demand for services and demand cycles; (ii) relevant agrifood value chain service providers/actors, the type and modality of services provided, price dynamics and processes required by farmers to access private sector services; (iii) regular and verifiable information and forecasts on climate related events and parameters, which can inform the development of products and services that the farmers may need in a changing environment. The promotion of private sector partnership, under this activity, shall focus on agrifood value chain actors, in particular agriculture input and machinery suppliers, who are active in the project areas.

167. Based on the current and prospective demand for and supply of services among farmers and the private sectors, the key subjects for engagement with the private sectors and other value chain actors will be CC impacts on farm conditions, crop growth, phenology, and risks to supply chains including of pests and disease, interpretation of climate information and agromet data for business continuity planning, resilient investment decision making and design of appropriate value chains and financial products. As a result, the targeted private companies and value-chain actors will be able to analyse climate information and use CIS and CRA advisories as well as the learnings from CRA enterprise development to shape their products and services to be responsive to farmers' evolving adaptation needs, while developing partnerships with farmer organizations/AMIA Villages and relevant associations to provide support to CC-vulnerable farmers.

168. The envisaged information exchange is expected to inform agrifood value chain input and machinery suppliers of medium- to long- term climate change trends and forecasts, as well as future needs for stress-tolerant seed varieties and other inputs adapted to the needs of emerging farming systems. This is likely to influence the development and supply of CRA technologies and inputs. Collaboration with agricultural input and machinery suppliers as well as processors and marketing firms will likely result in improved evaluation of and adaptation to CC risks by businesses, making them more climate- resilient, in line with the project-promoted CRA practices. Similarly, farmers, in particular CRA enterprises, will make informed decisions on the purchase of inputs, technologies, and machinery. The information exchange loop will benefit both the demand and supply sides of the agrifood value chain (products and services). To expand farmers' access to services that facilitate increased

resilience to climate change, the project will also develop partnerships with NGOs. In this way, the project will likely leverage resources, and existing delivery mechanisms and networks that partners offer, both to enhance support to producers directly targeted by the project and to extend its reach to other farmers.

169. In order to deliver this activity, the TWG will consolidate, update, and further streamline a core set of national and common regional climate and related CRA information fit for use by private sector actors. The information packages will be developed based on CRA science, best practices and experiences both in the country and internationally (PhilRICE, BAR, CGIAR, FAO, etc.), and long-term agro-climate information. Box B.3.8 lists some examples in developing this type of activity.

Box B.3.9 Examples of coordination activities with the private sector

Establish a regular coordination mechanism between agromet information (PAGASA), agromet advisory (DA), and the seed sector, to improve and discuss with partners :

- variety performance evaluation in relation to weather conditions, including collection and analysis of results of variety trials from the CRA enterprise investment plan implementation (see Component 2);
- planning of varieties multiplication at foundation and seed-grower levels based on long-term weather forecasts and climate change predictions; and
- how to increase farmers' choice of varieties to adapt to current location- specific conditions and to increase flexibility for future climate change adaptation. This will include exploring options to change the current system of regional procurement of seed by DA for its banner programme to a voucher system whereby farmers may purchase certified seed of their preferred variety directly from accredited seed growers.

Facilitate coordination between private sectors and financial service providers, with the aim to:

- facilitate common understanding of value-chain actors (agricultural input suppliers, food processers, traders, etc.) and financial service providers of the benefits of CIS and CRA;
- identify needs for (improvements in) credit products to enable companies, especially MSME, to adopt CRA and to support LGUs and FOs in investing in climate change- resilient practices;
- facilitate data sharing; and
- develop joint partnership with CRA Enterprises/AMIA Villages to support CRA adoption at scale.

Activity 3.2.2: Use climate information and Climate Resilient Agriculture advisory products to improve credit and insurance products

Sub-activities:

3.2.2.1 [DA] Facilitate information sharing and dialogue with financial institutions and insurance companies
3.2.2.2 [FAO] Policy advisories and technical support for improved/new products

Financial Services

170. This activity will provide reliable and verifiable climate- and CRA-related information to Land Bank, the DA Agriculture Credit Policy Council (ACPC), and other relevant financial institutions and insurance companies with the view to improve their information base to facilitate their provision of appropriate financial services to farmers and other agrifood value-chain actors. The project will enable Land Bank and other financial partners to access CIS and CRA information and be part of the CIS Platform, where they can share demands for information and feedback on the services. This, as well as engagement with farmers/CRA enterprises facilitated by the project (Component 2), will enhance financial partners' understanding of climate risks and the risk-mitigation benefits of CRA adoption, and the challenges and needs of farmers in accessing finance. Visits to CRA enterprises and facilitated exchanges will help build banks' confidence in considerations of loan applications. A Decision Support System (DSS)/tool will be developed for Land Bank and other financial institutions to incorporate climate change/CRA considerations in designing financial products, appraising loan applications, and managing risks. The CIS will continue to be financed by PAGASA and DA as part of their operational services and be made available to all stakeholders equally, thus promoting healthy competition with respect to financial and insurance products. In addition to Land Bank, as one of the main partners through the PILAR project, and ACPC, financial institutions are chosen based on the main criteria that they should be active in the target regions and provinces.

171. This activity will directly support the project's intention to leverage finance for CRA Enterprise investment plan implementation (Output 2.1) and to mainstream CRA (Output 3.1).

172. Existing finance and lending programmes of Land Bank and ACPC as shown in Table B.3.3 shall be considered to meet current and emerging farmer demand for financial services. The accumulated experiences in leveraging financial support to CRA enterprises/AMIA Villages to uptake credit for the implementation of the CRA enterprise investment plans (Activity 2.1.3) shall inform the development of new financial mechanisms under PILAR.

Table B.3.3 Selected existing finance programmes and proposed project interventions for CRA support

Finance programme	Proposed project interventions
LANDBANK Climate Resilient Agriculture Financing Program	
Objective: Provides financing to promote CCA initiatives towards climate- resilient agriculture **Eligibility**: Crop, livestock, and fishery production projects that utilize climate- resilient technologies (e.g. seedling techniques, other new and emerging technologies approved or endorsed by the Department of Agriculture and the locality's Municipal Agriculture Office) and equipment (e.g. for rainwater harvesting, terracing and system of rice intensification; establishment of windbreaks) Construction of facilities (reservoirs, controlled irrigation system; for greenhouses, hydroponics, aquaponics), farm-to-market roads Resiliency projects such as crop-based farming systems that diversify sources of income (e.g. palayamanan plus, rice-duck system, growing vegetables in floating gardens), and equipment/facilities that help prevent harvest and post-harvest losses during typhoons or periods of rain (e.g. mini-rice combine harvester, outdoor grain storage facilities) **Financing**: mix of 80% (Land Bank) and 20% Borrower, with a repayment term from 1 to 3 years depending on the cash cycle	• Conduct joint review of the CRA Finance Programme in the project target areas and identify localized barriers • Involve staff from Land Bank network of banks in the project sites in seminars and workshops to improve their understanding of climate risks and the use of localized CIS, CRA services • Engage Land Bank local offices and LGUs in the CRA enterprise investment plan preparation, particularly in developing viable financing mix and securing the technical requirements, including endorsement from the DA or MAOs • Collaborate with the network of banks on their outreach activities to increase understanding of available financing windows, transaction requirements • Assist farmer organizations in assessing their appetite for possible borrowing from Land Bank and meeting requirements for group borrowing from the Land Bank CRA Financing Program • Promote sharing of experiences and learning across provinces and regions
LANDBANK Sikat-saka Program	
Objective: Support to the national government's Food Staples Sufficiency Program. **Scope**: Provides credit assistance for palay production for small farmers who are not members of Land Bank's accredited cooperatives and are having difficulty securing loans from other financial institutions. The cumulative loan releases have reached P11.82 billion with outstanding balance of P1.23 billion involving a total of 17,949 small farmers and fishers	• Based on the CRA Strategic Plan and CRA enterprise investment plans, this program could be considered for special groups, i.e. as a finance source complementing social protection benefits and project technical support to implement a graduation approach (see Preparing investment plan for special groups under Activity 2.2.1)
LANDBANK Access of Small Enterprises to Sound Lending Opportunities (ASENSO)	
ASENSO is a program jointly implemented by different Government Financial Institutions (GFIs) in support of the National Micro, Small and Medium Enterprise (MSME) Development Plan. It is designed to simplify and standardize the lending procedures for SMEs among participating GFIs, comprising the SME segment of the revitalized MSME Financing Program. Cumulative loans released under the Program amounted to P61.50 billion benefiting a total of 19,019 MSMEs	• The project will explore ASENSO to support agri-MSME that are interested in working with FO/AMIA Villages to implement the CRA enterprise investment plans. • Through the CIS Platform, the project will facilitate dialogue as well as joint trainings/workshops between agri-MSME, Land Bank and other financial institutions to improve understanding of available finance and how to access it.
ACPC Agri-Negosyo Loan Program (ANYO)	

Objective: ANYO offers 0% interest loans to finance capital-requirements of agri-fishery–based micro and small enterprises. **Eligibility**: Micro enterprises can avail of loans of up to P 300,000 to finance income-generating activities such as production, processing, or marketing of agri-fishery products, or a combination of agri-fishery income- generating activity and non-farm activities.	• Linked with Activity 3.2.1, the APA project will identify micro and small enterprises interested in working with the CRA enterprises and facilitate their access • Explore the availment of finance, especially for non-farm activities relevant to running of the CRA enterprises, for farmer organizations.
ACPC Survival and Recovery Loan Assistance (SURE) Program	
SURE provides immediate financing relief to SFF affected by natural and other calamities, animal disease outbreak, and other disastrous events, to help them regain their capacity to earn a living	• Support ACPC to explore the use of SURE for anticipatory/ex-ante risk mitigation activities by the FO/CRA enterprises and LGUs in project areas, utilizing improved CIS and early warning. • Support FO/CRA enterprises and LGUs' understanding of requirements and incorporate SURE in the CRA enterprise investment plan as a source of financing for implementation.

Insurance Products

173. Information sharing and collaboration with PCIC and micro insurance companies will help them better understand climate risks, the availability of better climate and agromet data and how these can be used to speed up insurance underwriting. Over the last years, FAO has been leading Anticipatory Action (AA)[7] in the Philippines and in Association of Southeast Nations (ASEAN) that include improving climate information, impact-based forecast and early warning to identify triggers for early action, before an anticipated disaster (drought, flood, typhoon). Below is an example of triggers for FAO drought anticipatory action in the Mindanao region during 2018-2019. AAs such as the provision of ducks and goats to women's cooperatives - to produce eggs, milk, and meat, and to shore up their asset base; provision of seeds, tools, and irrigation support for households to set up small vegetable gardens at home - to boost nutrition; and cash-for-work for cleaning local water canals have had high return on investment: every USD 1 spent has helped avoid USD 4.4 disaster loss (The Philippines: Impact of Early Warning Early Action (fao.org):

- FAO AA would be activated in Mindanao region if at least 50% of the following indicators pass their respective thresholds:
  1. El Nino is declared
  2. Observed rainfall is less than 40% of normal levels for past 1-month
  3. Forecasted 1-month T˚ above normal by +1 ˚C
  4. Forecasted Standard Precipitation Index (SPI-3) is below 60%
  5. Soil Moisture index is below -1.5
  6. ASI is showing at least 25% of the area in red

174. These advancements provide opportunities to further develop index-based insurance, which has been implemented sporadically in the Philippines (see Annex 2, section 2.8). Index-based insurance can protects meso-level organisations (LGUs, MFIs, and cooperatives) from damage from extreme weather events that would halt their income-earning activities (e.g. processing). It could also help them avoid an acute liquidity crisis as a result of individuals' slow indemnity-based insurance payments on outstanding loans. Such products could also be designed to support anticipation action or to provide relief assistance to citizens/members of the organizational policy holder. In such a scenario, index-triggered pay-outs can be used by an LGU or cooperative according to their own local data gathering on damages and relief needs and according to their own procedures. Increasing farmers' financial and insurance literacy to enhance agriculture insurance demand, and building their technical capacities to reduce on-farm risks is fundamental. For example, under the AMIA villages project in Pamplona municipality in Bicol, a promotion campaign persuaded massive enrolment in crop insurance (for the entire municipality, not only the AMIA barangay) (see Annex 2, Sub-section 2.8.4).

175. The project will help its 45,000 target beneficiary farmers, through application or enrollment, avail of insurance products such as the commodity insurance packages from PCIC as applicable to their farms or CRA enterprises while working with PCIC and micro-insurance companies to explore the development of meso level

[7] Anticipatory Action is underpinned by three building blocks 1) Risk information, forecasting and early warning systems; 2) Planning, operations, and delivery; and 3) Pre-arranged finance.

index-based insurance products. The project will also help match and facilitate, on a demand basis, so that other project beneficiaries reached by the awareness-raising, training, and peer-learning efforts of CRA enterprises may avail of these insurance products.

B.4. Implementation arrangements (max. 1500 words, approximately 3 pages plus diagrams)

Accredited Entity

176. FAO will serve as both the Accredited Entity (AE) and an Executing Entity (EE) for this project. FAO as the AE will be responsible for the overall management of the project, including: (i) all aspects of project appraisal; (ii) administrative, financial, and technical oversight and supervision throughout project implementation; (iii) ensuring funds are effectively managed to deliver results and achieve objectives; (iv) ensuring the quality of project monitoring, as well as the timeliness and quality of reporting to the GCF; and (v) project closure and evaluation. FAO will accomplish these tasks in accordance with the detailed provisions outlined in the Accreditation Master Agreement (AMA) between FAO and GCF.

177. FAO role as AE will be relegated to the relevant offices and divisions in FAO Headquarters located in Rome, Italy (HQ), Sub-Regional Office for Asia and the Pacific (FAO-RAP) located in Bangkok, Thailand, and the Country Representation Office for Project Country (FAO-Philippines). In order to fulfil its AE functions, FAO will set up a dedicated Project Task Force (PTF) in line with FAO project cycle guidelines. The PTF will be composed of the Budget Holder (BH), Lead Technical Officer (LTO), Funding Liaison Officer (FLO), HQ Technical Officer, and other officers as appropriate. FAO-Philippines will also assign a dedicated national climate finance specialist and project assistant to ensure fulfilment of the AE function on the ground.

178. A Lead Technical Officer (LTO) will be appointed in the regional office and will be responsible for the technical supervision and oversight of project activities throughout project implementation. More specifically, the LTO will have overall technical responsibility for the implementation of the project. The role of the LTO is central to FAO's comparative advantage for projects and to separating FAO's functions in its role as AE and as Executing Entity (EE). The LTO will oversee and carry out technical backstopping for the project implementation. The LTO will support the project's Budget Holder (BH) based in FAO-Philippines, in the implementation and monitoring of the Annual Work Plan and Budget (AWP/B), including work plan and budget revisions. The LTO is responsible and accountable for providing and/or obtaining technical clearances of technical inputs and services procured by the EEs. In addition, the LTO, through supervision missions (she/he may call on other experts to participate and advise), will provide technical backstopping to the project execution / management team to ensure the delivery of quality technical outputs. The LTO will coordinate the provision of appropriate technical support from the PTF to respond to requests from the Project Steering Committee (PSC).

179. The PTF will remain independent from the Executing Entity functions also performed by FAO (see Project execution section below). In line with the GCF policy on fees adopted through GCF Board Decision B.19/09, the above-mentioned segregation of responsibilities within FAO will ensure that the Organization can independently and effectively perform AE functions listed in the "GCF General Principles and indicative list of eligible costs covered under GCF fees and project management costs."

Project Co-financing and Parallel finance

180. The Government of the Philippines acting through DA and PAGASA will provide co-financing in the form of in-kind contribution and grant as follow, co-financing from the DA and PAGASA will be monetized, monitored and reported during project implementation:

- **Through DA:** (1) US$ 1.04 million for in-kind contribution of staff time, office and travel expenses, directly attributable to project execution and management; and (2) US$ 7.226 million for the provision of inputs, equipment, related trainings, cash (for selected cases) to support experiments during the CRA enterprise development learning/demonstration year and to implement the CRA investment plans as per the financial model. Co-financing will be executed by DA and monitored by FAO in its AE capacity. In-kind co-financing is monetized based on the salary of identified personnel, their per diem, travel expenditures, and other expenditures. In addition, DA will provide parallel finance estimated at US$ 10.625 million as mentioned in paragraph 157.

- **Through PAGASA:** US$ 4.715 million in kind to fund activity 1.1.2 and activity 1.2.2 under Component 1. The co-finance will be an integral contribution to achieving the results of the project by making possible meetings, studies, training, operationalization, etc. for the installation and upgrade of existing agrometeorological stations in the Project Area.

181. The co-financiers are also the Executing Entities for their respective co-financing; therefore, the Government of the Philippines acting through the Philippine Department of Agriculture (DA) and the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) are responsible for the regular reporting of disbursement amounts for execution of co-financing activities to the AE in accordance with the provisions of (1) GCF policies, (2) the AMA and Funded Activity Agreement (FAA) between FAO and GCF, and (3) the Project Agreement (Subsidiary Agreement) signed between FAO and the Government of the Philippines.

Executing Entities

182. The Executing Entities are FAO and the Government of the Philippines acting through the Philippine Department of Agriculture (DA), the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) and the Philippine Bureau of the Treasury (BTr).The DA is a government agency responsible for the promotion of agricultural development by providing the policy framework, public investments, and support services needed for domestic and export-oriented business enterprises. PAGASA was established on December 8, 1972. Its mandate is to provide protection against natural calamities and to ensure the safety, well-being, and economic security of all the people, as well as to promote national progress by undertaking scientific and technological services in meteorology, hydrology, climatology, astronomy, and other geophysical sciences. PAGASA serves as one of the Scientific and Technological Services Institutes of the Department of Science and Technology (DOST). BTr is a national government agency (within the Department of Finance) acting as the principal custodian of all national government funds, manage the cash resources of the Government, perform banking functions in relation to receipts and disbursements of national funds, and maintain accounts of the financial transactions of all national secretaries, bureaus, agencies and instrumentalities. No regulatory approvals, authorizations, licenses or equivalent are required in order for the Accredited Entity to transfer the relevant GCF Proceeds to DA and PAGASA, provided that withdrawal applications from DA and PAGASA and disbursement instructions from the Accredited Entity are duly received by the Government of the Host Country. Additionally, the recourse on the funds will be included in the agreement between AE and EEs.

183. As an EE, FAO, through its Representation in Philippines (FAO-PH), will deliver technical assistance and capacity-building to complement the activities of DA and PAGASA, drawing on FAO's comparative advantage and in-house experts to ensure that the project achieves its desired results and to effectively equip the government and stakeholders to sustain the process of CRA transformation introduced by the project.

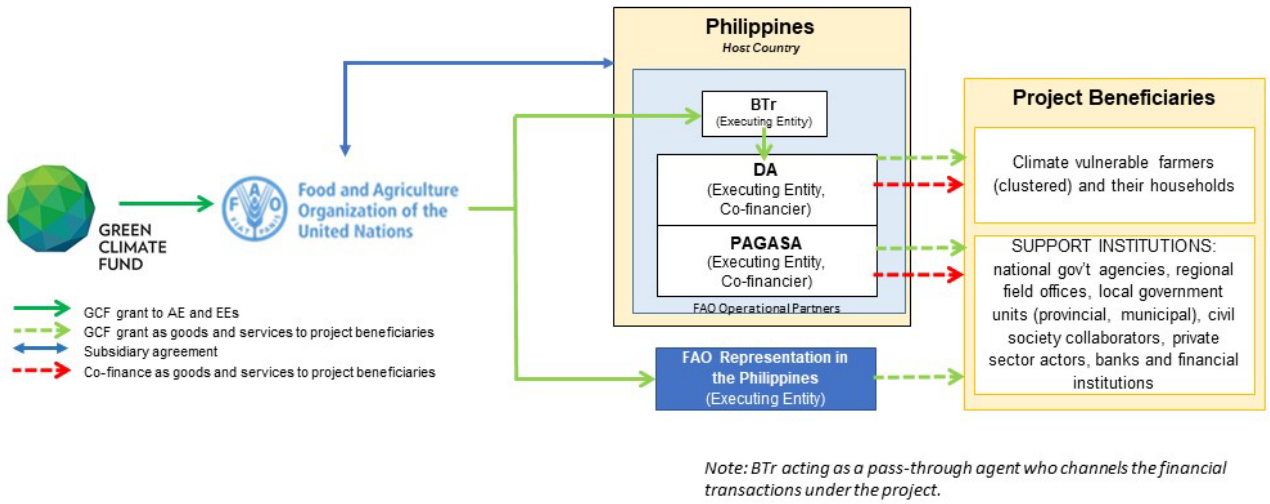

Figure B.4.1 Fund flows and contractual arrangements

Project Implementation Arrangements

184. The implementation arrangements, with reporting and supervisory relationships as well as and coordination and feedback mechanisms, are depicted in Figure B.4.2. As AE, FAO's headquarters, regional office, and FAO-PH will form a Project Task Force. EE will report to FAO/AE through FAO-PH, which will have a dedicated AE capacity, separated from EE functions, to regularly supervise and advise on contractual and administrative arrangements.

185. As EEs, the Host Country, acting through DA and PAGASA, and FAO will be responsible for the delivery of the project activities under each Output. At the local level, Regional Project Offices (RPOs) will serve as the lowest-level interface between the project and the local beneficiaries (farmers in the project municipalities). RPOs will also be responsible for the implementation of the ESMF and GAP. RPOs will be capacitated by the project safeguard and MnE expert to lead the day-to-day monitoring of specific activities for ensuring compliance with the ESMF, Gender Action Plan, and related safeguard documents, including keeping proper documentation in the project file. EEs will coordinate with implementation partners at the appropriate level (national or regional) to deliver services directly to the beneficiaries. The Host Country, acting through BTr, will act as the passing through agent to channel the GCF proceeds to DA and PAGASA.

186. The Government of Philippines, acting through DA and PAGASA, will execute project activities funded by GCF proceeds. DA and PAGASA will be responsible for executing their co-financing activities GCF-funded project personnel will be hired, to be based in the Project Management Officer at DA and PAGASA project management office to support the EEs to lead/implement project activities assigned to them. These project personnel will complement DA and PAGASA co-financed part time staff for the project while building their capacities for sustaining the project activities after its end.

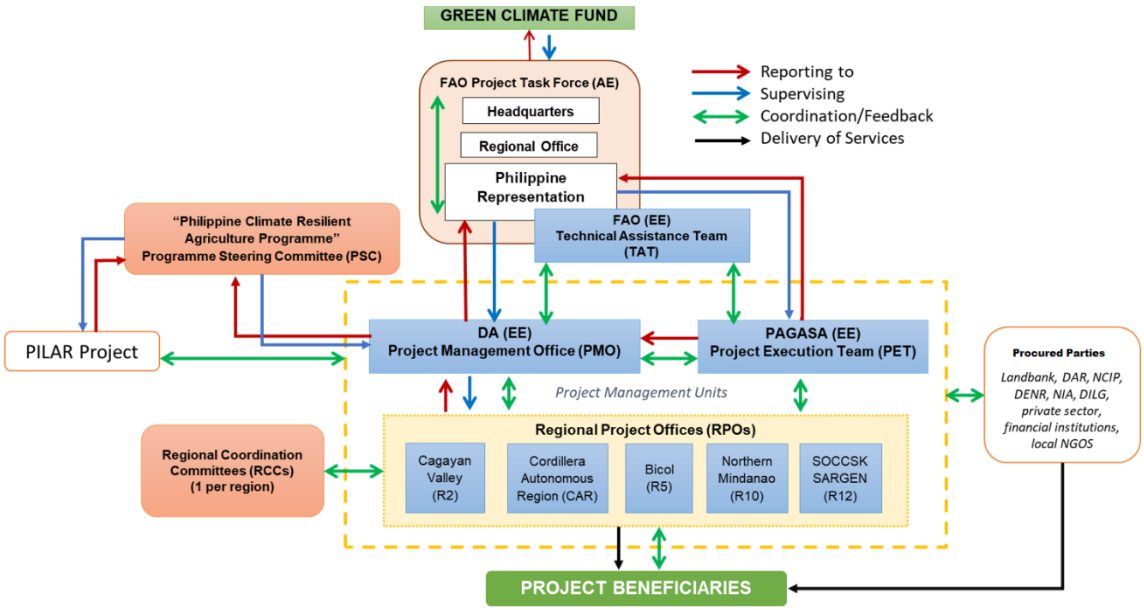

Figure B.4.2 Implementation Arrangements

Table B.4.1 – Leading Role of Executing Entities and Funding Source for Sub-Activities

Note: *As one of the EEs, the Host Country, acting through BTr, will channel the GCF proceeds to DA and PAGASA.*						
Output	**Activity**	**Sub-activity**	**DA**	**PAGASA**	**FAO**	**Funding Source**
1.1	1.1.1 TWG and CIS Platform	1.1.1.1	■			GCF
		1.1.1.2		■		GCF
		1.1.1.3			■	GCF
		1.1.1.4	■			DA
	1.1.2 Capacity for CIS production	1.1.2.1		■		GCF
		1.1.2.2			■	GCF

		1.1.2.3				PAGASA
1.2.	1.2.1 CRA strategic plan	1.2.1.1				GCF
		1.2.1.2				GCF
		1.2.1.3				DA
	1.2.2 Capacity for CRA training and service delivery	1.2.2.1				GCF
		1.2.2.2				GCF
		1.2.2.3				GCF
		1.2.2.4				DA
		1.2.2.5				PAGASA
2.1	2.1.1 CRA enterprise development training	2.1.1.1				GCF
		2.1.1.2				GCF
		2.1.1.3				DA
	2.1.2 Prepare CRA enterprise investment plans	2.1.2.1				GCF
		2.1.2.2				GCF
	2.1.3 Invest and implement CRA investment plans	2.1.3.1				GCF
		2.1.3.2				GCF
		2.1.3.3				DA
3.1	3.1.1 CRA awareness raising[8]	3.1.1.1				GCF
		3.1.1.2				GCF
		3.1.1.3				DA
	3.1.2 Mainstream CRA	3.1.2.1				GCF
		3.1.2.2				GCF
	3.1.3 National CRA M&E system	3.1.3.1				GCF
		3.1.3.2				GCF
3.2	3.2.1 Inclusive CRA value chain development	3.2.1.1				GCF
		3.2.1.2				GCF
	3.2.2 Improve credit and insurance products	3.2.2.1				GCF
		3.2.2.2				GCF

Project Governance Structure

187. As a mechanism for joint governance with the PILAR, a Programme Steering Committee (PSC) will be established. The PSC will provide overall guidance and strategic orientation to the project, ensuring it remains closely aligned with key government policies and priorities – thus increasing country ownership and post-project sustainability – and ensuring the synergy of PILAR and other sister projects under the programme. The PSC will be composed of these core members: DA (co-chair), PAGASA (co-chair), Land Bank (co-chair), DENR, CCC, DOF, NEDA, FAO (as EE), and the EEs of the PILAR project. Taking into consideration the distinct implementation arrangements of the component projects, APA and PILAR, auxiliary PSC members recommended by each project will participate in an advisory-observer (non-voting) capacity. For this project, the following will be invited: selected representatives of the DA central offices (CRAO, FOS, PMS, ATI, BSWM), a representative from each of the 5 Regional Coordination Committees, representatives from other selected government agencies (NCIP, NIA, DAR), and representatives from CSOs, private sector, and academia, which may be relevant for thematic issues.

188. The PSC will have the main functions of: (a) ensuring political coordination, guidance, and advisory; and (b) reviewing and approving the Annual Working Plan and Budget (AWPB) and Annual Report (AR). The PSC will submit to the AE the approved AWPB and Annual Performance Report (APR) for official submission to the GCF and to co-financiers.

189. The PSC will meet at least twice per year or when requested by the majority of its members. The co-chairs may also convene ad hoc meetings to discuss oversight or implementation issues. The co-chairs will also have the authority to invite other experts as needed. Minutes of PSC meetings will be made publicly available and circulated to all committee members and all other project stakeholders. The Project Management Office (PMO) will act as secretariat of the PSC, providing overall technical and administrative assistance to the PSC and facilitating the conduct of its meetings.

Sub-national/Regional Level Governance Structure

[8] This activity will be complemented by DA parallel finance

190. Regional Coordination Committees (RCCs) will be convened in each of the five administrative regions to: (a) ensure proper coordination in executing activities in the localities; (b) monitor project implementation at the regional level; and (c) review AWPB and review project progress at the regional level. Each RCC will be chaired by the DA-RFO's Assistant Regional Director (ARD) and will be composed of members from the Regional Project Office (RPO) and regional PAGASA office, representatives from the participating provincial and municipal LGUs (designated officers appointed by the heads of LGUs, i.e. governors and/or mayors), and representatives from beneficiaries as deemed necessary in their respective local contexts.

191. The RCC will meet at the DA-RFO at least once every quarter or when requested by the majority of members. The secretariat of the RCC is the Regional Project Office (RPO).

Project Management Office and Technical Assistance Team

192. The DA will host the **Project Management Office (PMO),** which will be physically located at the central DA office in Metro Manila. The PMO will lead day-to-day delivery of project activities for which the DA is the EE. The PMO will consist of a range of operational and technical staff including:

- *National Project Coordinator*: full-time, project-recruited officer who is Climate Change Adaptation Specialist. S/he will be the head of the PMO and will be responsible for day-to-day project operation and coordination with all stakeholders involved in project implementation. The NPC will also perform some technical backstopping.
- *Administrative Officers*: National Administrative Officer, National Finance Officer, IT Assistant.
- *Technical Officers:*
    - National Technical Operations Officer (project-recruited, full-time) – assists the National Project Coordinator in all operational arrangements and supervision of progress in the project regions
    - National Sub-Coordinators (DA co-finance, designated/seconded, part-time, *to be confirmed*)
        - Climate Resilient Agriculture Office (CRAO)
        - Field Operations Service (FOS)
        - Project Monitoring Service (PMS)
        - Agricultural Training Institute (ATI)
    - Subject matter specialists (local recruit)
    - Agriculture Business Development Specialist

193. The **PMO** will report to FAO-PH and the Field Operation Service (FOS) – Field Programs Operational Planning Division (FPOPD). It will also coordinate closely with the DA Climate Resilient Agriculture Office (CRAO), which oversees climate change programmes, for coherence—assisting in intra-departmental coordination (i.e. between and among central units, field offices, attached agencies, bureaus, corporations), providing guidance in department policy and operational concerns, and advising on coordination with related climate change projects.

194. PAGASA will establish its own **Project Execution Team (PET)** to lead day-to-day delivery of activities for which PAGASA is the EE. PET will work closely with other PAGASA technical experts and service delivery staff not directly involved in the project but crucial to related functions. PET will report to PMO and FAO-PH and will be coordinating with the TAT for said activities. PET will be led by a project-recruited National Lead Agromet Specialist, based in the PAGASA office in Manila, and will be supported by other operational and technical specialists including (1) National Climate Information Services (CIS) Specialist and (5) Regional CIS experts (reporting to the PAGASA regional offices).

195. FAO-PH will establish a **Technical Assistance Team (TAT)** that will work closely with PMO and PET. TAT will have the following national officers:

- National OPIM Manager, serving as the FAO-PH focal for the project who will perform technical backstopping, coordinate technical assistance activities, and represent FAO-PH in technical discussions with other EE
- National Operations Specialists
- National Gender and Social Inclusion Specialist
- National Environment and Social Safeguards Specialist

196. The project will recruit the following international subject-matter technical assistance (TA) experts to provide technical guidance, support, and capacity-building for the project implementation. These experts will also be responsible for liaising with FAO to receive support for the project. They will include:

- International Climate Information Services Expert
- International CRA Planning and Training Expert

- International Social Protection Specialist
- International CRA Enterprise Development Expert
- Short-term subject matter experts for specific deliverables

197. Each EE will develop its own Annual Work Plans and Budgets (AWPBs) that reflect the sub-components, activities, and budget items for which they are responsible. The central PMO in DA (in addition to being responsible for DA's own work planning and budgeting) will consolidate these AWPBs and submit them to the Project Steering Committee for review and approval. DA and PAGASA will generate their own progress and financial reporting, which will be reviewed and consolidated by the PMO and submitted to PSC and subsequently AE. The PMO will bear primary responsibility for ensuring operationalization across EEs' activities and delivery of the ESMF, IPPF, and Gender Action Plan for this project.

Sub-National–Level Implementation Unit

198. There will be five **Regional Project Offices (RPOs)**, which will be based in the DA Regional Offices in the 5 Administrative Regions: (i) Region II – Cagayan Valley (R2); (ii) Cordillera Autonomous Region (CAR); (iii) Region V – Bicol (R5); (iv) Region X – Northern Mindanao (R10); and (v) Region XII – Soccsksargen (R12). These RPOs will act as extensions of the central PMO in Manila (adhering to its rules, policies, and procedures) and will coordinate DA-executed activities at the regional, provincial, and local levels.

199. Each RPO will develop its own AWPB, to be reviewed by the respective RCC for approval and submitted to the PMO for consolidation at the national level.

200. Each RPO will be led by a full-time **Regional Project Coordinator (RPC)**, recruited by the project, who will operate under the overall supervision of the relevant DA Assistant Regional Director (ARD) and will report to the National Lead Climate Change Adaptation Specialist in the PMO with regard to day-to-day project management. Each RPC will manage a modest number of project-recruited staff. Aside from the RPC, each region will hire the following:

- Regional Administrative and Finance Officer
- Regional Operations Assistant (DA co-finance, part-time)
- Technical Field Assistants – 2 assigned per beneficiary province in the region

201. Technical Field Assistants will be responsible for day-to-day coordination with beneficiary municipalities through municipal local government units (MLGU) on the activities for farmer beneficiaries.

Other Project Partners

- **The Land Bank of the Philippines (Land Bank)** is one of the primary state financial institutions for agricultural development and the formulator of the PILAR project as a DAE of the GCF. Land Bank will work as a key implementation partner of the project, particularly in activities pertaining to increasing farmers' access to finance. The project will make all CIS and CC-related information and analysis generated available to the Land Bank and provide necessary training on this information, all of which will help the bank design its outreach activities to farmer beneficiaries. The assistance provided to the bank will also help develop CRA credits and other financial programmes to reduce risk from CC and natural disasters. Any complementarity with the approved GCF project (SAP010) will be further envisaged during the project implementation phase (see Appendix 4 for mapping of complementarity with other GCF projects in the country).
- **Agriculture Credit Policy Council (ACPC),** in its role of assisting the DA in synchronizing all credit policies and programs in support of its priority programs, will be involved in developing strategies to increase and sustain the flow of credit for climate change adaptation. Alongside the project, ACPC will conduct policy and action research on innovative financing schemes to enable adoption of CRA practices and technologies by small farmers and fisherfolk and to use this research to re-invigorate its CRA financing program, which can then be made available to the project's sites and beneficiaries as a finance stream. The project will tap into its expertise in capacity-building to empower the rural finance sector, including cooperatives, farmer organizations, and rural financial organizations, as well as to advocate and disseminate activities to promote and generate greater awareness and understanding for agri-credit programs.
- **Department of Agrarian Reform (DAR)** will play an important role in the project through components 2 and 3 and through planning key activities on CRA to fit the needs of agrarian reform beneficiaries identified in the

local planning processes, as well as in the coordination and delivery of extension support FFS, advisory and monitoring of farm and value chain interventions.

- **The National Commission on Indigenous Peoples (NCIP)** will assist the project in navigating the processes to obtain Free Prior and Informed Consent (FPIC) should particular project sites be located in ancestral domains or areas inhabited by indigenous peoples. They will be involved in the coordination and convening activities for these areas. Representatives from NCIP will participate in the PSC and RCCs.
- **The Department of Environment and National Resources (DENR)** will be involved in the site activities pertaining to land use concerns, agroforestry actions, and watershed management, in relation to the CRA options to be adopted by beneficiaries.
- **The National Irrigation Authority (NIA)** will be engaged to cooperate in potential irrigation management adjustments for the project sites as the project-facilitated learning about the impacts of climate change on water availability and use in agricultural production.
- **Department of the Interior and Local Government (DILG)** will primarily be involved in assisting LGUs with improved planning exercises for agri-fisheries development, climate change adaptation, and disaster risk reduction and management. It will aid the project in overseeing compliance to LGUs' policy and planning mandates in these areas, at the same time co-learning throughout the project implementation of local governance innovations for adaptation in agriculture.

Flow of funds and contractual arrangements

202. After the signature of the FAA, FAO will enter into a Project Agreement (the Subsidiary Agreement) with the Host Country, which will be binding on all the government entities involved in the project, including the Philippine Department of Agriculture (DA), the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) and the Philippine Bureau of the Treasury (BTr). The Project Agreement will include 1) provisions on the Convention on the Privileges and Immunities of the Specialized Agencies, 2) provisions with respect to the co-financing to be provided by the Host Country acting through DA and PAGASA, and 3) the respective roles and responsibilities of the Accredited Entity and the Host Country for the implementation of the Project. The Project Agreement will include the obligations of all parties for the execution of the project activities.

203. In line with the project fund flows and contractual arrangements outlined in Figure B.4.1, GCF proceeds received by FAO in its capacity as Accredited Entity will flow to FAO as EE as well as to DA and PAGASA, passing through BTr, for the implementation of the identified project activities. The Government of the Host Country, acting through the BTr, will be responsible for the channeling of the grant proceeds from the Accredited Entity to the Executing Entity. The process through which GCF Proceeds are channeled towards DA and PAGASA is the following: (1) BTr receives from FAO the relevant tranches (from GCF proceeds) for DA and PAGASA. These funds are earmarked for APA project. (2) DA and PAGASA submit the Notice of Cash Allocation (NCA) to BTr who credits the Executing Entity sub account within the Bureau of Treasury.(3)DA and PAGASA submit payment requests to BTr via the LANDBANK, which serves as the Authorized Government Servicing Bank of DA and PAGASA, to pay vendors as per project needs. GCF proceeds will be converted from US Dollar to Philippine peso by FAO and transferred to the designated BTr account in local currency for further allocation to DA and PAGASA. GCF Proceeds will be transferred in accordance with FAO Manual Section 70.

204. Procured parties will be contracted in accordance with FAO rules and regulations for procuring goods and services (e.g. FAO Manual Section 502 and 507).

205. FAO will execute the project in accordance with FAO rules, regulations, policies and procedures. Financial management and procurement under this project will be guided by relevant FAO rules and regulations as relevant provisions in the Accreditation Master Agreement (AMA) signed between FAO and GCF. These rules and regulations were reviewed by GCF and deemed satisfactory by the GCF Secretariat and Accreditation Panel as part of FAO's accreditation to GCF.

B.5. Justification for GCF funding request (max. 1000 words, approximately 2 pages)

206. GCF financing through this project will leverage investments by the government and private sectors to support climate change adaptation. It will directly influence the pattern of DA's annual planning and expenditure, inducing a progressive shift towards meeting the demands for support for farmers' climate actions. Specifically, it will help compel DA's banner programmes – the main source of DA's co-financing for the project, which supports CRA enterprise investment plan implementation – to systematically adjust their package of goods, technical assistance, and financial support services to enable farmers' CRA adoption, initially in the project sites and

eventually in other areas in the country. Such expenditures are expected to continue beyond project closure, thus further increasing the volume of funding for climate change adaptation that is directly attributable to the GCF grant.

207. Similarly, GCF financing will allow PAGASA to adjust its CIS delivery as well as to mobilize budget for sustaining the upgraded systems, processes, and infrastructure for expansion of services to the agricultural sector. GCF financing will also leverage additional investments from finance facilities, such as from the Agricultural Credit Policy Council (ACPC) and its partner national banks, thrift banks, and rural banks that are seeking to refine and roll out climate credit and loan programs for vulnerable farmers; or from Land Bank's Climate Resilient Agriculture Financing Program, which provides financing to promote CCA initiatives for transformation toward climate-resilient agriculture.

208. As added value, GCF financing through this project will produce public goods accompanied by institutional capacities and support systems. These will shape not only government expenditures and other investments toward achieving climate change resilience goals but also the day-to-day farming and investment decisions made by millions of farming households. In so doing, the project will catalyse widespread household-level investments in climate change adaptation.

209. This project is designed to be catalytic in demonstrating CRA adoption at scale through CRA enterprises. The project will also institutionalize coordination between DA and PAGASA for CIS services; transform planning and budgeting, knowledge- and information-sharing systems, and capacity-building for scaling up CRA enterprises; and make Philippine farmers more resilient to CC and natural disasters. The project will also develop farmers' capacity to prepare CRA investment plans and link them to the resources of much larger programmes and financing, including by Land Bank, ACPC, and the private sector. Such programmes by international financial Institutions (IFIs) (e.g. the World Bank, IFAD, and ADB) tend to focus on infrastructure, production, and value-chain development with some climate proofing; soft-skill improvement and capacity development among government staffers and farmers by the project are really needed to effectively utilize these investments for climate resilience at scale.

210. The combined value of investments in agriculture projects and programmes from the government and development partners is well over USD 1 billion, with outreach extending to over 50 million rural people (Feasibility Study Annex 2.4). This project's success will transform the size of investments for more climate-resilient development.

211. Due to its emphasis on strengthening systems and capacities for climate change adaptation, the project will make critical investments, including in capacitating a GCF Direct Access Entity (Land Bank) and the private sectors, while laying out a foundation for the country to scale up such investments.

212. This GCF project will focus primarily on geographic areas with agricultural and rural livelihood systems with the highest climate risks, thus complementing the PILAR and other GCF proposals and projects in the Philippines focusing on urban and coastal systems (see Appendix 6). Poverty rates in the project areas are higher than the national average (see Annex 2.9). The most vulnerable farmers – target beneficiaries of the project – would not be able to adopt CRA and transform towards climate-resilient livelihoods as many of DA banner programmes are currently not addressing climate change issues.

213. Furthermore, the COVID-19 pandemic has had severe impacts on agriculture and further exacerbates vulnerabilities. GovPH has spent considerable resources to manage disruptions to the local food supply chain, including the DA's announced massive expenditure outlay under its ALPAS-COVID-191 response initiative, with a supplementary budget of PHP32B to help farmers and agribusinesses. The GovPH's outstanding debt reached 11.7 trillion pesos ($229 billion) in December 2021, with the debt-to-GDP ratio increased to 60.5 percent from 54.6 percent in 2020. This would limit the country's ability to invest in climate change adaptation.

B.6. Exit strategy (max. 500 words, approximately 1 page)

214. Sustainability of the project outcomes will be ensured by CRA enterprises to be adopted in DA programmes. The project will link agriculture products produced with CRA practices to value chains to generate sustainable income, at the same time developing institutional capacity of the government and private sector to provide CRA services, including creating blended finance mechanisms and enabling enterprise development at

scale. The outcomes of the proposed project will be institutionalized through the One DA Framework, which emphasizes "new agriculture is climate-resilient agriculture."

215. The project approach and activities are fully in line with government policies and initiatives, which should ensure continuity of project activities beyond the life of the project. Some key connections include: (1) The project will ensure that CIS information, produced by a number of institutions, is integrated and fit for purpose at the lowest institutional denomination. (2) CRA as a new framework will underpin all of DA's activities. (3) The AMIA village programme and the APA are very similar in many respects, and the APA envisages direct linkages with the AMIA villages during the life of the project. (4) Access to rural financial services, in particular credit and insurance, is a key rural and agricultural development policy, which underpins Component 3 of the project. Furthermore, the exit strategy of the project is ensured by the following four main features, which will create the conditions for sustainable benefits from the infrastructure, equipment, services, relationships, and learning processes that are introduced or upgraded.

1. Provisions to cover operations and maintenance costs for agromet stations and CIS platform.

216. The project design process estimated the O&M requirements for infrastructure, equipment, and services and all participating entities agreed on the O&M costs and responsibilities. Sub-section 2.8.1 of Annex 2 provides details on O&M requirements and other recurrent costs to be incurred following project closure and to be paid by PAGASA. All PAGASA activities in the project are designed to be in line with and complementary to the ongoing PAGASA Modernization Programme. Thus, the enhanced CIS capacities and augmented agrometeorological observation network will be fully institutionalized as an integral part of modernized PAGASA operations.

217. The CIS Platform and Regional CIS Centers are embedded into the DA's existing operations at the national and regional levels, with DA hosting them from the outset and providing staffs to be trained/capacitated by the project for system operations and maintenance. Similarly, LGU/Provincial Agriculture Offices will host the Provincial CIS Centers and provide staff for operations.

218. Asset transfer is governed by FAO Handbook 503.6.1 (Asset Management – Disposal of Assets – Transfer to Final beneficiaries, Governments, or other UN agencies). "The Organization may transfer assets to final beneficiaries, governments or other UN organizations. In case of projects financed from voluntary contributions transfers must be in accordance with the terms and conditions of the donor framework unless the funding agreement (project documentation) contains other provisions. […] The Responsible Officer will ensure that a Property Transfer Form is prepared, signed by the FAO Representative or Budget Holder and by the designated representative of the recipient organization at the time the property is handed over." This may apply to technological assets such as computers, laptops, AVR equipment, storage devices, and the likes.

2. Mainstreaming CRA into existing services and programmes

219. The DA has already started to mainstream and institutionalize climate change adaptation and mitigation in its services and programmes in accordance with the Climate Change Act of 2009. The One DA Holistic Approach to Agriculture and Fisheries Transformation, which operationalises the NAFMIP, provides 12 key strategies. Of these strategic directions of One DA, the project is aligned with and contributes to seven, including: (a) Farm Clustering/Bayanihan Agri Clusters through sustainable CRA services; (b) Province-led Agriculture Extension Services; (c) Agri-Industrial Business Corridors; (d) Infrastructure investments, which take into account climate change impacts; (e) Value chain support, including climate-resilient, low-emission, post-harvest processing and marketing practices and technologies; (f) Focus on climate change adaptation and mitigation measures; and (g) Strategic communication support, including through agromet and CIS. In particular, the project will be implemented along the AMIA and Banner Crop Support Programmes.

220. The project will be a catalyst for the scaling-up and mainstreaming of new strategies, approaches, and technologies employed by DA. Through its activities and mainstreaming of CRA, the project will transform key existing government initiatives, in particular the Banner Crop Support Programme for rice, corn, and high-value crops, which will provide co-financing starting from year three of project implementation and reorient its packages in support of CRA, taking up CRA enterprise development on a large scale in target areas. This will ensure that CRA activities are rolled out and scaled up through government budgeting and funding processes.

221. The project is conceptualised such that by design, it is aligned with climate change policies (Appendix 3) and can be used to leverage other funds and programmes in target and new areas. In addition to the AMIA and Banner Programmes, initiatives with which the project has strong linkages include (a) the Special Area Agriculture Development Program (SAAD); (b) the Philippine Rural Development Project (PRDP); and (c) agriculture lending

and insurance. Appendix 7 provides a detailed description of how the project will build on, complement, and mainstream CRA into these government and LGU programmes, as well as a rationale for project sustainability.

222. By strengthening the capacity for mainstreaming CIS and CRA enterprise development in local government plans and budgets, the project will: (a) ensure that national agromet/CIS platforms are widely applied in decision-making at both national and local levels; (b) contribute to LGUs by providing additional and/or alternative investment options for rural economic development, by developing CRA enterprises in CC-vulnerable farming communities; and (c) build a foundation for farmers who currently do not have access to formal financing options. The project will produce long-term changes in the agriculture sector through the institutionalization of CSA mechanisms as well as the mainstreaming of CRA into planning and budgeting processes at the respective governance levels. The lessons and processes developed under the project for planning and capacity-building, and the systems for supporting LGUs and farmers with CRA enterprises will officially be institutionalized, with appropriate guidelines and procedures for implementation, so that they may be mainstreamed into key programs.

3. Financial viability of CRA models and enterprises.

223. All the technologies identified during project preparation have been subject to financial cost/benefit analysis; only those technologies with benefits exceeding costs and that generate a positive cash flow for the producer will be promoted to ensure the replication and scaling up of the project results. The financial model for CRA enterprises can be replicated by DA with an increasing budget for CRA from DA, LGUs, and other programmes as the result of the project's institutional capacity-building and mainstreaming, as well as by farmers/FO. This assessment is not necessarily exhaustive, as other systems' viability will be continually explored. While the project will help farmers overcome some of the financial barriers to CRA adoption, significant effort will be made to work with farmer groups, financial institutions, and the private sector to bridge the accessibility gap with respect to loans, LGU funding, and other investments to continue and expand CRA practices.

4. Feedback mechanisms and institutional learning.

224. The project will institutionalise monitoring, feedback, and learning approaches, with strong linkages to communities and beneficiaries, in government agencies responsible for project implementation. This will include a DA monitoring system for tracking climate-resilient agriculture technologies. Monitoring of project implementation and effectiveness, including with the use of agromet information, will take into account feedback from farmers and other local users to inform the regional agromet units of PAGASA and the DA. These approaches should remain relevant over the life of the project, undergoing modification as necessary, while staff should also be equipped to be able to modify and update the approaches subsequent to project closure.

C. FINANCING INFORMATION

C.1. Total financing

(a) Requested GCF funding (i + ii + iii + iv + v + vi + vii)	Total amount	Currency
	26.27	million USD ($)

GCF financial instrument	Amount	Tenor	Grace period	Pricing
(i) Senior loans	Enter amount	Enter years	Enter years	Enter %
(ii) Subordinated loans	Enter amount	Enter years	Enter years	Enter %
(iii) Equity	Enter amount			Enter % equity return
(iv) Guarantees	Enter amount	Enter years		
(v) Reimbursable grants	Enter amount			
(vi) Grants	26.27			
(vii) Results-based payments	Enter amount			

(b) Co-financing information	Total amount	Currency
	12.98	million USD ($)

Name of institution	Financial instrument	Amount	Currency	Tenor & grace	Pricing	Seniority
DA	Grant	7.22	million USD ($)	Enter years Enter years	Enter%	Options
DA	In kind	1.04	million USD ($)	Enter years Enter years	Enter%	Options
PAGASA	In kind	4.715	million USD ($)	Enter years Enter years	Enter%	Options
Click here to enter text.	Options	Enter amount	Options	Enter years Enter years	Enter%	Options
Click here to enter text.	Options	Enter amount	Options	Enter years Enter years	Enter%	Options

(c) Total financing (c) = (a)+(b)	Amount	Currency
	39.25	million USD ($)

(d) Other financing arrangements and contributions (max. 250 words, approximately 0.5 page)	To support the CRA enterprise investment plans, the project is expected to leverage: (i) in-kind contribution by farmers and farmer organizations (see financial model for CRA enterprises); and (ii) financing by participating LGUs. In supporting the preparation of CRA investment plans for special groups – the poor, women-headed households, indigenous people, etc. – who are beneficiaries of social protection programmes, the project will also explore leveraging these social safety nets to enhance the productive capacity and resilience of these communities. Furthermore, the project will work with DA ACPC, Land Bank, PILAR project, and other banking/financing institutions for additional finance for farmers' implementation of their CRA enterprise investment plans. Any new financing opportunities will be monitored and materialized during project implementation to bring about the highest impacts from GCF finance. To support other direct beneficiary farmers to adopt CRA and strengthen their capacity for CRA enterprise development and accessing finance, the project expects DA parallel finance, through its regular programmes.

C.2. Financing by component

Please provide an estimate of the total cost per component and output as outlined in section B.3. above and disaggregate by source of financing. More than one co-financing institution can fund a single component or output. Provide the summarised cost estimates in the table below and the detailed budget plan as annex 4.

Component	Output	Indicative cost million USD ($)	GCF financing		Co-financing		
			Amount million USD ($)	Financial Instrument	Amount million USD ($)	Financial Instrument	Name of Institutions
Component 1	1.1	7.43	2.91	Grants	4.52	In-kind, Grant	DA, PAGASA
	1.2	2.96	2.27	Grants	0.69	In-kind, Grant	DA, PAGASA
Component 2	2.1	19.51	12.76	Grants	6.75	In-kind, Grant	DA
Component 3	3.1[9]	4.84	4.80	Grants	0.04	In-kind	DA
	3.2	0.96	0.96	Grants			
PMC		1.94	0.96	Grants	0.98	In-kind	DA
MnE		1.62	1.62	Grants			
Indicative total cost (USD)		39.25					

C.3 Capacity building and technology development/transfer (max. 250 words, approximately 0.5 page)

C.3.1 Does GCF funding finance capacity building activities?	Yes ☒ No ☐
C.3.2. Does GCF funding finance technology development/transfer?	Yes ☒ No ☐

The project includes the following activities/sub-activities for capacity building and technology transfer

Activity/Sub-activity	Description	Estimated budget
1.1.1: Strengthen coordination and information-sharing mechanisms	CIS platform equipment	219,300
1.1.2 – Strengthen capacity to produce CIS	Upgrade agromet stations Training on CIS	805,500
1.2.1 Prepare CRA strategic plans	Planning workshops for CRA strategic plans	225,000
1.2.2: Develop CRA training and service delivery capacity	Training programme development Master Trainer and CRA Enterprise Development Facilitators capacity-building	236,000
2.1.1 – Deliver CRA enterprise development training	Training of farmer groups and CRA practical learning CRA enterprise development training of trainers	3,300,000
2.1.2 – Support farmer organizations in preparing CRA enterprise investment plans.	CRA investment planning workshops Equipment	230,000
2.1.3: Invest and implement CRA enterprise investment plans	CRA inputs, equipment, technologies	5,625,000

[9] This output expects DA's parallel finance

3.1.1: Increase farmers' awareness and understanding of CRA[10]	Sub-national trainings on CRA communication and outreach, technologies and practices	1,420,000
3.1.2: Mainstream CRA practices and enterprise development into national and LGU programmes	CRA mainstreaming workshops with DA National Programs Exposure Visits to AMIA villages Training of LGU staff on the use of CRA enterprise development and CRVA results	597,000
3.1.3: Develop a national CRA implementation monitoring system	Equipment and Workshops	77,000
3.2.1: Facilitating inclusive CRA value chain development	Trainings for other private sector supporting agricultural value chains, NGOs, and Civil Society	315,000
3.2.2: Use climate information and CRA advisory products to improve credit and insurance products	Materials and Supplies	30,000

[10] DA's parallel finance is expected specifically for this activity, building capacity of direct beneficiary farmers, facilitating peer learning and providing catalytic CRA inputs for adoption

D. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

This section refers to the performance of the project/programme against the investment criteria as set out in the GCF's Initial Investment Framework.

D.1. Impact potential (max. 500 words, approximately 1 page)

Direct beneficiaries

225. The Direct Beneficiaries of the Project are **1,250,000 vulnerable and resource-poor persons (250,000 farmer households)** in 100 municipalities in nine provinces of five administrative regions of the Philippines. These are mainly poor producer households whose livelihoods are derived primarily from crops and farming systems and that will be applying climate-resilient technologies and developing CRA enterprises with the support from the project. This is equivalent to nearly half of the poor and over 18% of the rural population of the 9 targeted provinces, and just over 1% of the rural population in the Philippines – among the most vulnerable to climate change in the country. The project financial analysis (Annex 3) indicates that the direct beneficiaries will be able to substantially and sustainably increase their income. Furthermore, the farming system diversification efforts as part of CRA practices are expected to increase the availability of safe and nutritious food for both household consumption and the market. The project envisages capacity development for farmer organizations for climate-resilient and low-emission production, improved basic processing and marketing, and avoidance of hazardous chemicals and practices in the agri-food value chains and enterprise development. Indeed, the project approach adopts key elements of sustainable agri-food system transformation, which are highly likely to significantly reduce poverty, food insecurity, malnutrition, food loss and waste, in addition to improving food safety among the target beneficiaries and other households in the target municipalities through demonstration effects and the availability of safe and nutritious food.

226. The project activities are expected to ensure that all direct beneficiaries – who live in areas of the Philippines that are (or will be) among the most negatively affected by climate change – have more resilient livelihoods at the time of project closure.

227. In so doing, the project will make important contributions to:

- **Reduced emission and increased resilience**: ARA1 – Vulnerable people and communities; ARA2 - Health, well-being, food and water security; and MRA4- Forestry and land use

- **Enabling environment**: Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate resilient development pathways in a country-driven manner; Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation; and Core Indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards

228. For further information on direct and indirect beneficiary numbers, see Section 2.9 of Annex 2.

Indirect beneficiaries

229. Over 5 million people (50% of whom are female) are expected to benefit indirectly from the project, mainly through the CIS Platform in Component 1 and activities in Component 3. These beneficiaries represent 1 million farming households that are living in the prioritized provinces and highly sensitive to climate risks. The number of indirect beneficiaries is expected to represent about 5% of the total population of the Philippines (see table D.1.1 below).

230. Component 1 will develop and strengthen CIS and CRA services that will benefit not only the 9 priority at-risk provinces and farmers therein but also other provinces and regions. This component will also involve building the capacity of institutions to plan and provide support services for CRA. These enhanced systems and capacities will lay out the foundation for an enabling environment that is more climate-informed and essential to widespread CRA adoption and the sustained use of CIS.

231. Furthermore, Component 3, particularly the activity to heighten awareness of climate risks and the benefits of CIS and CRA practices, reaches farmers beyond the project's targeted provinces; at the same time, mainstreaming

CRA into national and LGU programmes would have nation-wide impacts. There are 10 million more people in other high climate change-impact regions and 20 million more rural people in regions with high climate variability.

Table D.1.1. Summary of direct and indirect benefits

Type of beneficiary	Overall		Females	
	Number	%	Number	%
Direct	1.25 million	>1% of Philippine population	0.625 million females	>1% of Philippine women
Indirect	5 million	5% of Philippine population	2.5 million females	5% of Philippine women

METHODS AND ASSUMPTIONS

- Databases of population by municipality and overlays of climate impact areas by province, for both priority provinces and nearby provinces in terms of CC impact (see Section 2.9 of Annex 2 for targeting information)
- Assumptions about impact of outreach through CIS Platform/CIS Centres and of awareness-raising activities; number of farmers joining CRA enterprise development training and investment planning; and CRA implementation/adoption rates in each target municipality
- High level of engagement and activity of women in rural livelihoods, agriculture, and CRA enterprises (hence the 50% target), based on feasibility analysis and field consultations

Climate change mitigation impacts

232. The project is also expected to achieve a reduction in GHG emissions of 4.38 MtCO2e over 20 years through the application of climate-resilient and low-emission agriculture practices on 250,000ha of land by 250,000 farmer households.

- GHG emission reductions/gains and the resulting carbon balance from proposed CRA intervention packages are assessed using FAO's Ex-Ante Carbon-balance Tool (EX-ACT) for a 20-year period with a project implementation period of 7 years. EX-ACT is an appraisal system providing ex-ante estimates of the impact of agriculture and forestry development projects, programmes, and policies on carbon balance, based primarily on recognized default values for emission factors and carbon values – with Tier 1 level of precision – from the Intergovernmental Panel on Climate Change 2006 Guidelines for National Greenhouse Gas Inventories (IPCC, 2006).
- For each of the project's CRA intervention packages, carbon balance is computed per the assumed number of hectares on which the intervention will be put in place; the total carbon balance over 20 years is computed based on the estimates for individual regions, given 1 ha per farmer household, then aggregated together to give the figure for total amount of farmland covered (Table D.1.2). This amounts to a total reduction in GHG emissions of 4.38 million tCO2eq over 20 years in all areas combined. The annual reduction in GHG emissions in all areas combined is 218,875 tCO2e.

Table D.1.2. Summary of GHG emission reduction benefits

Intervention	Carbon balance per year /per ha per intervention (tCO2eq)	Assumed amount of farmland per intervention; 1 ha per farmer household (ha)	Total emission reductions per year per intervention type (tCO2eq)	Total emission reductions per intervention type over 20 years (tCO2eq)
1 (CAR)	-0.01	30,000	-300	-6,000
2 (CAR)	-0.64	35,000	-22,400	-448,000
3 (Cagayan Valley)	-0.73	32,500	-23,725	-474,500
4 (Cagayan Valley)	-4.32	32,500	-140,400	-2,808,000
5 (Bicol)	-0.48	50,000	-24,000	-480,000
6 (Northern Mindanao)	0.00	35,000	0	0
7 (SOCCSKARGEN)	-0.23	35,000	-8,050	-161,000

Total		**250,000**	**-218,875**	**-4,377,500**

D.2. Paradigm shift potential (max. 500 words, approximately 1 page)

233. This project aims to be a catalyst for a broader shift in agriculture across the Philippines, from its baseline state of extreme vulnerability—in terms of high damages and losses from extreme climate events and low adaptive capacity of highly exposed farmers—to an alternative paradigm in which agriculture sector stakeholders (government, private sector, and farming communities) are able to understand and monitor short-term and longer-term climate change risks, as well as engage in a continuous process of adapting to these evolving risks.

234. The proposed project will make crucial contributions to the process of transforming Philippine agriculture toward climate resilience – a clear indication of its potential to produce impact beyond the one-off investments made by the GCF and co-financiers. In the process, the project will develop synergies and complementarities with other GCF projects addressing urban and coastal climate-related challenges, thus contributing to a more holistic adaptation approach in the country. There are seven key ways in which the project will achieve the proposed impact:

- ***Institutionalizing provision of CIS and CRA services.*** The project will consolidate the flow of information from PAGASA's network of agrometeorological stations and from DA, together with institutional mechanisms and capacity-building, so that data and information can be captured and processed into advisories to be delivered from the national to local level. The project will put in place national and local mechanisms to ensure continued collaboration between PAGASA and the DA, as well as the operation and maintenance of the system. This will create an information system to enable agriculture sectors across the country to execute climate-responsive planning and services and make climate-resilient and low-emission investment decisions.

- ***Strengthening extension and service delivery capacity.*** Drawing on the outputs of the CIS system, the project will enable stronger outreach to farmers with information, tools, and options for addressing climate change. The development of the CRA training programme and IEC materials will enable DA to train more people, particularly young people, who come from farming communities, as well as LGU and DA staff, to become Master Trainers and CRA enterprise development facilitators. DA will also be able to create more accessible CRA services that build farmers' adaptive capacity and develop CRA enterprises. The project will equip DA and other providers of extension and advisory services – which themselves are key determinants of the patterns of agricultural development in the country – to be able to scale up the provision of more climate-informed services to other farmers in the targeted regions and other regions nation-wide.

- ***Developing new business model and demonstrating successful adaptation at scale.*** The project will help farmers implement contextually appropriate and locally chosen CRA practices for diverse geographies, farming systems, and CC challenges through direct farm-level investments and support to resilient supply chains. These measures will overcome barriers to CRA adoption, not only through their identification and consideration in carefully targeted and budgeted plans but also through key capacitating of extension and other technical support and foregrounding of farmers' individual and collective knowledge and skills. The project not only shows what is possible but also stimulates demand for such practices from other (non-targeted) farmers and the private sectors interacting with them. It will build on farmer and indigenous knowledge and experience, farmer-to-farmer testing and practice-sharing, and so on, as well as on CRA practices and support mechanisms for different types of farming systems and climate change effects across the country.

- ***Mainstreaming CRA into core government services, programmes, planning, and budget.*** Learning from the project's investment in CRA enterprises will help DA and GovPH integrate the project approaches and CRA support into core agriculture and rural development programmes. Mainstreaming into local programmes will be achieved by building the capacities of regional and local agriculture offices, LGUs, NGOs, and finance services to gather and analyse climate information, and match it with appropriate advisory, technical, and financial support. The project will facilitate continuing support for and collective learning amongst concerned government staff and citizens with respect to how to integrate CRVA into planning and how to deliver CRA at scale. This will be supported by exchanges between different but comparable regions and provinces in the country. The ultimate aim is to put the NAFMIP into practice in a more CRA-supportive manner (including a substantive shift in the way considerable government expenditures are used).

- ***Developing inclusive CRA supply chains and support.*** Through the CIS platform, the project will engage agri-enterprises, especially MSME and financial actors in its target areas, promoting the use of CIS for resilient supply chains and financial products. The project will also connect them to FO/AMIA Villages to solicit business agreements/partnerships in support of CRA enterprise investment plan implementation. Also note that as a result, other service providers not directly involved with the project will see what is possible, acknowledge the increasing demand for climate-informed support/services from farmers (as per the point above), and be incentivized to respond.

- ***Working with Land Bank, ACPC, and other financial institutions to improve financial services to continue supporting farmers' adaptation.*** The project will work with Land Bank, ACPC, and other financing institutions to enable them to better utilize climate information and CRA knowledge to inform their own services. It will help them develop a more nuanced understanding of climate change risks and price their financial products accordingly. It may even help them modify products and services to match increased demand from farmers/FOs and be more confident in the latter's CRA practices. To start with, the project will work with a selected number of existing financial schemes of Land Bank and ACPC to address the challenges that farmers and farmer organizations face in accessing these services and to facilitate group borrowing. The learning will inform the development of new financial mechanisms by Land Bank under the PILAR project and lay a strong foundation for further scaling-up investment in partnership with the GCF, drawing on Land Bank's status as a Direct Access Entity.

- ***Establishing feedback mechanisms to refine the above systems.*** Mechanisms will be put in place to facilitate learning/sharing between regions, provinces, and farmer groups for scaling up CRA. These feedback mechanisms will be embedded in the collaboration between the DA and PAGASA, which is fostered by the project, and thus important for the long-term process of transforming agriculture in the Philippines. They can also support the agriculture sector's future policy-planning processes, such as for the next update of the NAFMIP.

D.3. Sustainable development (max. 500 words, approximately 1 page)

235. The project will contribute to **climate change mitigation** by reducing greenhouse gas emissions, primarily through alternate wetting and drying (AWD) technology for rice culture and also through better land-use practices and improved soil quality, and so on, based on a supplementary assessment in the economic and financial analysis (see Annex 3).

236. The project will also deliver **environmental co-benefits** such as improved biodiversity (by increasing integrated farming and agroforestry systems), more effective use of indigenous, stress-resistant varieties, and enhanced micro-watershed management, soil quality, water quality and availability, among others. Adaptive technologies and agricultural practices will directly improve soil quality and contribute to water conservation and ecosystem benefits, including through reduced inputs and more integrated agricultural systems (SDG15). Where appropriate, these practices will be planned and executed in a wider watershed management/river basin context, with the relevant environment and water agencies and on a province-by-province basis.

237. **Social co-benefits**. Although the GCF funds will be used for CC concerns, they will have a positive impact in terms of some of the perennial problems for farmers, particularly the lack of support for very small-scale farmers, including indigenous farmers, who are largely dependent on agriculture and associated natural resources. The project will contribute to improving these farmers' livelihoods and food security, and reducing poverty. The main areas of socio-economic activity for indigenous peoples are the uplands, where they experience unique socio-cultural marginalisation and concerns about access, including to safe and nutritious food, as well as the availability of staples essential for their traditional diets; the project will take into account and make specific efforts to address these concerns.

238. The project will pay special attention to **women and indigenous people**, providing them with appropriate adaptation technologies and capacity-building activities. Recognizing that existing technologies and extension efforts seldom provide adequately for the needs of women producers in the Philippines, special training and approaches will be used to ensure gender needs are met, with additional focus on marketing and processing, areas where women traditionally play a significant role in agriculture. Physical safety and improvement of nutritional status will also be factored into project activities. Strengthening food security is particularly relevant for women who are among the most vulnerable. In times of food shortages, women are the last to eat as they prioritize the needs of men and children before their own.[11] As such, CRA implementation, including promotion of local food production in general and at home

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through CRA adoption in home gardens, will have a positive impact on women in terms of diversifying production systems and income, while also strengthening the resilience of production systems to climate change-related natural hazards, increasing temperatures, and changing precipitation patterns. CRA adoption also has important implications for women's health and nutrition.

239. The project will generate social benefits from the explicit inclusion of women in technical trainings, CRA demonstration plots, and CRA enterprise development. Special attention will be paid to ensuring trainers and project staff are trained on gender equality and social inclusion, as well as SEAH; and ensuring participatory processes consider the differentiated needs of women, including women from diverse indigenous and ethnic groups, and potential constraints they may experience (e.g. access to trainings and information, time constraints). Gender-sensitization will also be mainstreamed throughout training to encourage a more equitable distribution of domestic and care work, further strengthening gender equality within the agricultural sector. Increased knowledge and income will raise the development impact in the area of women's empowerment. Youth will also be targeted so that their strengths are well integrated in rural agriculture in order to support its future.

240. The project will conduct gender-responsive extension services and project outreach that consider women's time constraints, find suitable training times to ensure the active participation of women, and ensure that implemented CRA practices consider the differentiated needs and contexts of men and women from diverse socio-cultural and socio-economic backgrounds (for more detailed information, please refer to Section G.2 and the Gender Assessment and GAP in FP Annex 8).

241. The project is also expected to generate **positive impacts for indigenous men and women**. The project will secure FPIC and ensure that their rights are safeguarded through the implementation of an Indigenous Peoples Plan (see Indigenous Peoples Planning Framework in Chapter 6 of the ESMF, located in FP Annex 6). It will further safeguard and enhance indigenous knowledge systems and associated farming systems, recognizing that these systems are dynamic and ever-evolving. Stakeholder consultations have indicated that some indigenous peoples are switching to modern, less sustainable agricultural practices, and thus the project is well positioned to provide incentives to promote indigenous practices and CRA practices that integrate traditional knowledge. Project interventions will recognize and be guided by the ancestral domains management plan, which also contains agriculture and biodiversity information, farming practices, and community plans for agricultural development. As indigenous peoples are amongst the most vulnerable to climate change due to their geographical locations and integral use of natural resources, the project is well positioned to generate diverse benefits for them as long as it effectively safeguards their rights, implements targeted measures to enable them to address systemic constraints and barriers, and ultimately applies an inclusive and participatory process that considers the differentiated contexts, priorities, and constraints of diverse indigenous men and women within the project areas.

242. **Economic.** The overall objective of the project is to increase the climate change resilience of the most vulnerable households through developing CRA enterprises and to make adoption of such enterprises profitable. Calculations of the project's economic impact have been made based on the incremental income increases that vulnerable households will accrue upon adopting project-recommended agricultural practices. These are detailed in Annex 3 – Economic and Financial Analysis.

D.4. Needs of recipient (max. 500 words, approximately 1 page)

243. The project will target regions and provinces and locally identified agriculture-based groups that are most vulnerable to climate-related disasters. CC-vulnerable provinces, largely in Mindanao and Visayas, often overlap with ones that have the lowest Human Development Indices in the country, ranking as low as many least-developed countries (LDCs). General access to services and economic development in these areas is often quite low. The archipelagic and mountainous nature of most regions reduces access to local services and the capacity of many small local government units to support local populations. Even quite productive lowland areas have high densities of poor, often-small landholders with fewer assets. There are key needs and constraints that the project will address:

- The financial needs of the project beneficiaries, who will be poor and vulnerable farmers with very little surplus income to invest in CRA;
- Fiscal constraints among relevant government authorities, especially on investment in capacity-building and in smaller, more remote rural units (resources are particularly scarce relative to the country's overall adaptation needs);
- The high costs of post-disaster recovery as this uses up a sizeable proportion of funding that could otherwise be used for CCA, and more specifically CRA; and

- The lack of support for the current project's foci – public goods, capacity-building, and technical assistance. These are the type of support that is absolutely essential to transforming agriculture and reaching scale, but that generally cannot be financed through IFIs as most loans would not be directed toward technical assistance (unless strongly linked to activities with rapid and high returns). Other development assistance partners may be willing to back this type of "soft support," but investment tends to be modest and more geared toward pilots.

D.5. Country ownership (max. 500 words, approximately 1 page)

244. The project is fully aligned with and directly contributes to DA's basic planning documents – the National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP) for 2020-2025 and the One DA strategies (See Appendix 3). By building institutional capacities for sustainable development and use of localized CIS and CRA services, as well as mainstreaming CRA enterprise development for sustainable CRA adoption, the project will be a part of the DA's Holistic Approach to Agricutlre and Fisheries with a vision of a "Food-secured and resilient Philippines with empowered and prosperous farmers and fisherfolk." This approach includes, amongst others, strategies related to agro-met and climate information, advisories, and news; province-led sustainable CRA and fisheries services; nation-wide extension services for CRA practices and technologies; climate-resilient, technology-based agri-business value chain and trade development; climate-resilient, low-emission post-harvest, processing, and marketing; and disaster risk management and early warning.

245. The project will be integrated with key national programmes such as PAGASA Modernization, AMIA, DA's Banner Programmes, PRDP, PAFES, and SAAD (see Appendix 7). Co-finance primarily comes from PAGASA Moderniation and DA's Banner Programmes, and the project is designed to help these and other national programmes sustain its approaches.

246. The DA-CRAO, which oversees the design of this project, was set up to coordinate research and pilot initiatives in response to key climate-related legislation, in particular the Climate Change Act and Disaster Risk Reduction and Management Act. The DA-CRAO has been making major decisions on the project design, target areas, and other key institutional and budgetary issues. The commitment to using DA's banner programme as co-financing demonstrates its strong sense of ownership of the proposed project. The DA-CRAO will continue to hold responsibility for this project during implementation and will ensure the sustainability of the project's impacts and its continued direct contribution to the DA's programmes and plans.

247. This project will be integrated with a number of other important initiatives of DA-CRAO including: (i) AMIA; (ii) PRDP (e-VDS, Geo-mapping, Geo-tagging); (iii) colour-coded agricultural guide map; (iv) climate vulnerability risk assessments in several regions; (v) AMIA villages; (vi) climate change expenditure tagging in accordance with CCC directive as part of the implementation of the National Climate Change Action Plan; and (vii) Risk Resiliency and Sustainability Program of DENR.

D.6. Efficiency and effectiveness (max. 500 words, approximately 1 page)

Cost-effectiveness and efficiency

248. The project's total proposed budget is estimated at USD 39.25 million, of which 67% (USD 26.27 million) is proposed to be a GCF grant, and 33% (USD 12.98 million) is the co-financing component. The Project is expected to deliver direct benefits to an estimated 1.25 million people in farming households and indirect benefits to 5 million people. The direct and indirect beneficiaries constitute roughly 1.2% and 5%, respectively, of the Philippines' total population.

249. The project's proposed concessionality level is rationalised through: (a) the project's provision of goods that are public by nature (e.g. available and timely public-domain weather data) to Philippine small-scale farmers in the selected weather-vulnerable agro-ecological zones; and (b) the delivery of goods to these farmers that might be private by nature but in the long run contribute to the public good (e.g. improved CRA farming practices that will help farmers adapt to climate change).

Co-financing, leveraging, and mobilized long-term investments

250. With the contribution from the GCF of USD 26.27 million, the Project will have a grant–co-financing ratio of 2 to 1. Of the total co-financing amount of USD 12.98 million, 64% will come from the DA and 36% from PAGASA. The project would also leverage parallel finance in the form of credit from Land Bank (and other agricultural finance programmes). The potential leveraged finance form LandBank programmes alone is estimated at USD 18.72 million, if the project 45,000 target farmers/500 CRA Enterprises would borrow at 60% of the project investment package.

This would be USD 26.02 million if the borrowing rate is at 80% of the project investment package. This conservative estimate of average loan per farmer/CRA Enterprise is well within the Land Bank's ceiling and lower than current borrow rate, for example of the average PHP 126,000 by rice farmers and cooperatives (see Note on estimate of leverage finance).

251. In detail, the Project's proposed concessionality level is justified by the following key aspects:

(a) The Project will establish the necessary inter-governmental and inter-agency cooperation mechanisms, linkages, and learning between central, regional, and municipal governing bodies, especially between the DA and PAGASA. These activities will foster the implementation of weather monitoring schemes and help modernize early disaster-warning systems, which will provide public information, at various administrative levels in the country. These activities remain in the public-good domain, and per definition, they do not attract private sector investment. As the Philippines remains a decentralized country with significant geographical variability and a complex network of budgetary obligations, such cooperation between different government levels would be very hard to achieve at lower levels of concessionality due to the scarcity of internal resources and tight national fiscal space. The budget deficit in 2021 reached PHP 1.67 trillion, 8.61% of the country's GDP. It is predicted that tighter controls on government spending will be introduced (Republic of the Philippines Bureau of Treasury).

(b) The project will help deliver the necessary solutions, staff/capacity, and training for timely weather data collection and processing in climate-vulnerable areas or otherwise provide modernized solutions, technological upgrades, and staff training to existing weather stations. The provision of resources necessary for the collection and processing of weather data for public use, and by poorer farmers, would be hard to achieve at lower levels of concessionality. The year 2020 brought the Philippines the worst recession since 1946. Budgetary constraints persist as the Philippine economy is still under additional fiscal and budgetary stress and has not yet recovered from the 2020 economic turmoil caused by the onset of the COVID-19 pandemic. While the year 2021 is expected to bring some relief to the Filipino economy, the ongoing pandemic lowers consumers' optimism, negatively influencing economic recovery and at the same time raising concerns about the acceleration of inflation and the relatively high level of unemployment (Economist Intelligence Unit Limited, 2021).

(c) The Project will help develop agrometeorological advisory products and data-sharing and communication platforms at regional and national levels. Data-sharing and communication efforts will directly benefit an estimated 1.25 million farmers and, indirectly, around 5 million farmers in the selected agro-ecological zones. It is also expected that these efforts will provide spillover effects, though not quantified in this proposal, to other regions and branches of Philippine society and economy, as envisioned Project outcomes will contribute to more efficient delivery of public goods. However, due to existing budgetary constraints and the lack of private sector investment, these milestones would be hard to achieve at lower concessionality levels.

(d) The project will cater to small-scale farmers in highly climate-vulnerable and poverty-stricken zones to help them adapt to the onset of various weather shocks—droughts, floods, typhoons, etc.—which negatively affect their agriculture production, food security, and livelihood. Small-scale farmers in these agroecological zones are characterized by a low level of available resources that could help them adapt their customary agricultural production to climate change-related weather patterns. Small-scale Philippine farmers tend to have insufficient knowledge about climate change adaptation options, as well as low access to credit due to the unavailability of lending institutions (caused by farmers' remote location, for example), lack of credit score, or absence of collateral. The ex-ante Cost-Benefit Analysis (CBA) carried out for the project specifically took into consideration CRA priority options in areas with significant climate change impacts. The Project aims to support relatively few structures and assets that could be financed at lower levels of concessionality and these costs will mostly be borne by the DA through the Project's co-financing.

Financial Profitability and Sustainability

252. The results of the ex-ante CBA pursued for this proposal suggest that in the case of all appraised CRA enterprise-types (seven in total – see Annex 2 and 3), the expected financial revenues from adoption of the proposed CRA solutions in the selected agro-ecological zones will outweigh the costs. The financial results of the CBA were calculated over 20 years, using a discount rate of 10%, in individual (per 1 ha) and aggregate terms. As proposed, the implementation of seven representative CRA enterprises in the five different agroecological zones was assumed. The individual incremental Financial Net Present Values (FNPVs) of appraised interventions range from PHP 74,000 to PHP 820,000 (USD 1,400 to USD 15,700), depending on the proposed intervention scenario and agroecological zone. The aggregate incremental FNPVs use an assumed 30,000 hectares in the case of Intervention 1 (CRA1); 35,000 hectares in the case of Interventions 2 (CRA2), 6 (CRA6), and 7 (CRA7); 32,500 hectares in the case of

Interventions 3 (CRA3) and 4 (CRA4); and 50,000 hectares in the case of Intervention 5 (CRA5) and range from PHP 2.6 billion to PHP 25 billion (USD 50 million to USD 473 million). These results suggest the proposed interventions are financially sustainable and farmers will likely adopt proposed CRA solutions as the revenues are likely to outweigh the costs. Consequently, the small-scale farmers included in this project are likely to experience positive financial revenues; hence they are expected to continue using proposed CRA practices after the project ends.

Economic Viability

253. The economic analysis results were based on the same assumptions as in the financial analysis discussed above. The economic analysis included values of carbon co-benefits, derived through estimation of GHG emissions and using shadow prices of carbon (the lower- and upper-bound prices of carbon, as per the World Bank's recommendations from 2017). Economic benefits and costs were derived through Conversion Factors (CFs) calculations that adjusted the financial revenues and costs to their economic values. An economic discount rate (social discount rate) of 10% was used (as per NEDA). The aggregate incremental Economic Net Present Values (ENPVs) range from PHP 4 billion to PHP 19 billion (USD 76 million to USD 360 million) over the period of 20 years, depending on the intervention, agro-ecological zone, and carbon valuation used (lower vs. upper carbon pricing). The project's overall net economic incremental benefits, with accounting for costs of project's implementation, calculated over 20 years at 10% discount rate, are USD 500 million (assuming lower carbon pricing) and USD 524 million (assuming upper carbon pricing), with EIRRs of 33% and 34%, respectively. The results obtained in the ex-ante CBA's economic part outline the economic viability of proposed interventions and suggest that the entire economy would be better off compared to the "Without Project " scenario. For full results, please refer to Annex 2 and 3.

254. The additional value of GCF involvement in this project will be realized through the Project's more systemic Components 2 and 3, as it can help leverage investments already being made or expected soon through Government programs, World Bank projects (e.g. Mindanao Inclusive Agriculture Development Project [MIADP], expected in 2022, and Philippine Rural Development Project [PRDP], under implementation), and other funding sources, especially those closely associated with the national executing agencies/units involved in the Project.

Application of best practices

255. The project plans to support the introduction of technologies and best practices that have already been tested elsewhere in similar contexts and have proven to deliver the expected outcomes. A particular emphasis of the project is on ensuring that innovative approaches and built capacities help bring the various project elements together to generate virtuous cycles of implementation, testing, and feedback to scale up and sustain CRA efforts, as these are key to generating financial and economic returns.

E. LOGICAL FRAMEWORK

*This section refers to the project/programme's logical framework in accordance with the **GCF's Integrated Results Management Framework** to which the project/programme contributes as a whole, including in respect of any co-financing.*

E.1. Project/Programme Focus

Please indicate whether this proposal is for a mitigation or adaptation project/programme. For cross-cutting proposals, select both.

☒ Reduced emissions (mitigation)

☒ Increased resilience (adaptation)

E.2. GCF Impact level: Paradigm shift potential (max 600 words, approximately 1-2 pages)

This section of the logical framework is meant to help a project/programme monitor and assess how it contributes to the paradigm shift described in section D.2 above by applying three assessment dimensions - scale, replicability, and sustainability.

Accordingly, for each assessment dimension (see the definition per assessment in the accompanying guidance note), describe the current state (baseline) and the potential scenario (target) and rate the current state (baseline) by using the three-point-scale rating (low, medium, and high) provided in the guidance note. Also describe how the project/programme will contribute to that shift/ transformation under respective assessment dimensions (scale, replicability and sustainability). In doing so, please refer to section B.2(a) (theory of change).

Assessment Dimension	Current state (baseline)		Potential target scenario (Description)	How the project/programme will contribute (Description)
	Description	Rating		
Scale	Highly vulnerable agricultural livelihoods – recurrent loss due to climate-related disasters.	Low	1.25 million farming household members will increase their resilience through better access to CIS, CRA, and adoption of economically viable and profitable CRA practices 5 million people will have better understanding of climate risks and benefits of CRA	Development and provision of CIS and CRA services to transform agricultural production and value chains Building farmers' capacities for CRA enterprise development Strengthening government and the private sector's supporting systems for sustainable CRA adoption Facilitating farmers' increased access to and uptake of finance for CRA and resilient livelihoods

Replicability	Available policies for CCA in agriculture Available agriculture and rural development programmes and financial schemes that can support CRA CRA adoption still at pilot stage	Medium	CRA enterprise development and the project's introduced CRA technologies and practices replicated and scaled up beyond the project target areas and duration	CIA Platform, Regional and Provincial CIS Centres disseminate climate information and CRA services within and beyond project areas Raising awareness and understanding of CRA nation-wide Mainstreaming CRA into national and LGU programmes and financial schemes Learning and knowledge management: through peer learning among farmers and FOs, and through National CRA M&E system
Sustainability	CRA adoption still at pilot stage Risk of farmers discontinuing CRA practices after project support ends	Medium	DA and PAGASA continue to provide CRA services and support Programmes of DA, other government agencies, donors integrate CRA and provide support to CRA and contribute to CRA transformation in the Philippines Private sectors, banks, and financial institutions develop CRA-supportive financial schemes and reach out to farmers	Government budget (co-finance) secured for sustaining the operations of agromet advisories and CIS Platform Demonstrating economic viability of CRA through CRA enterprises Strengthening capacity of agri-businesses and financial institutions to support CRA Leveraging finance (from government programmes, LGUs, banks/financial institutions for sustainable CRA adoption

E.3. GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)

Select appropriate IRMF core and supplementary indicators to monitor project/programme progress. More than one IRMF (core and or supplementary) indicators may be selected as applicable for each GCF results area and project/programme outcome (as defined in the table in section B.2(b)). If IRMF indicators are unable to measure any given project/programme outcomes, project/programme-specific indicators should be developed under section E.5 (project/programme specific indicators).

GCF Result Area	IRMF		Baseline	Target	Assumptions / Note

	Indicator	Means of Verification (MoV)		Mid-term	Final[12]	
ARA1 Most vulnerable people and communities	Core 2: Direct and indirect beneficiaries reached	Resilience Index Measurement Analysis (RIMA) carried out during Baseline and End-line household surveys	**Direct** Total: 0 Female: 0 Male: 0	Total 250,000 Female: 50%; Male: 50%	Total 1,250,000 Female: 50% Male: 50%	250,000 households (HH) (1.25 million people with an average 5 members in each HH) will directly benefit from CRA strategic planning, awareness-raising on climate risk and benefits of CIS and CRA, as well as observing/peer learning from CRA enterprise development. Baseline, mid-term, and end-line surveys will be implemented following Impact Evaluation methodology. Surveys will collect data to (inter alia) assess changes in behaviour and practices and household resilience at baseline and completion using proven approaches such as FAO RIMA
	Core 2: Direct and indirect beneficiaries reached	Baseline and end-line surveys Project mid-term and final evaluation	**In-direct** Total: 0 Females: 0 Males: 0	Total 1,300,000 Female: 50%; Male: 50%	Total 5,000,000 Female: 50% Male: 50%	73% of total rural population in the 9 target provinces will benefit from improved dissemination of CIS and CRA services through Provincial CIS Centers/CIS platform and nation-wide CRA awareness-raising activities (under Component 3)
ARA2 - Health, well-being, food and water security	Core 2.2 Beneficiaries (female/male) with improved food security (number of individuals)	Food Insecurity Experience Scale measured through baseline, mid and end-line household surveys				

[12] The final target means the target at the end of project/programme implementation period. However, for core indicator 1 (GHG emission reduction), please also provide the target value at the end of the total lifespan period which is defined as the maximum number of years over which the impacts of the investment are expected to be effective.

MRA4 Forestry and land use	Core 1: GHG emissions reduced, avoided or removed/sequestered	Baseline, Project mid-term and final evaluation	0	0	Year 20 -4.38 MtCO2-e	The main drivers of GHG emission reduction are 1) alternate wetting and drying, and 2) soil organic conservation practices in 7 interventions Emission reduction achieved in 20 years with 7 years implementation under the project
	Core 4: Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice	Baseline, mid- and end-line household surveys Project mid-term and final evaluation	0	45,000	250,000	250,000 farmers in 100 target municipalities adopt project's prioritised CRA practices in 250,000 ha. Assuming by mid-term at least the 45,000 farmers – the target beneficiaries of CRA enterprise development – would adopt CRA in 45,000 ha.

E.4. GCF Outcome level: Enabling environment (IRMF core indicators 5-8 as applicable)

Select at least two relevant IRMF core (enabling environment) indicators to monitor and elaborate the baseline context and project/programme's targeted outcome against the respective indicators. Rate the current state (baseline) vis-à-vis the target scenario and select the geographical scope of the outcome to be assessed. Describe how the project/programme will contribute towards the target scenario. Refer to a case example in the accompanying guidance to complete this section.

Core Indicator	Baseline context (description)	Rating for current state (baseline)	Target scenario (description)	How the project will contribute	Coverage
Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low-emission, climate-resilient development pathways in a country-driven manner	No formal coordination mechanisms for CIS/CRA services National policies for CCA in agriculture exist Existing and pipeline programmes/projects on agriculture and rural development do not systematically address CC	medium	Coordination mechanisms established and sustained by government/ LGUs with budget and staff CRA strategic planning adopted by DA and LGUs CRA mainstreamed into national and LGU programmes	TWG for CIS and CRA services, established and will be sustained by DA, PAGASA, and LGUs Process and capacities developed for CRVA and CRA strategic planning Farmers' driven new business model – CRA enterprises development – demonstrate economic viable and profitable CRA adoption at scale	Multiple sub-national areas within a country

	Lack of climate change focus in local agriculture plans, programmes, budgets, extension		Support systems for CRA established and sustained by government Available financial schemes with support systems for farmers' uptake		
Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation	Lack of localized CIS and CRA services, limited use of technological innovations Weak access to appropriate adaptation technologies and practices	low	Localized CIS and CRA technologies/practices availed by farmers/FO and feedback provided	Development of localization of CIS and CRA technologies/practices CIS Platform and Regional and Provincial Centres sharing information	Multiple sub-national areas within a country
Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards	Some learning on CRA documented through programmes/projects but not systematic No mechanisms for monitoring CRA uptake	low	Nation-wide regular CRA awareness raising and knowledge sharing System in place to monitor CRA application, document the learnings and reinforce sharing and application of good practices	CIS Platform and Regional and Provincial Centres CRA training programmes, cadre of Master Trainers/CRA enterprise development facilitators Facilitation of farmers/FO peer learning and knowledge exchange to transfer technologies and innovations National CRA M&E system	Multiple sub-national areas within a country

E.5. Project/programme specific indicators (project outcomes and outputs)

*This section should list out project/programme-specific performance indicators (outcomes and outputs) that are not covered in sections above (E.1-E.4). List down tailored indicators to monitor /track progress against relevant project/programme results (outcomes/outputs). AEs have the freedom to decide against which outcomes they would like to set project/programme specific indicators. If any co-benefits are identified in sections B.2(a)(b), and D.3, AEs are encouraged to add and monitor co-benefit indicators under the "**Project/programme co-benefit indicators**" section in table below. Add rows as needed.*

Please number each outcome and output as shown below to indicate association of outputs to the contributing outcome. The numbering for outputs under this section should correspond to the output numbering in annex 4 (detailed budget plan).

Project/ programme results (outcomes/ outputs)	Project/programme specific Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Final	
Outcome 1	Change in Institutional Capacity Index of DA and PAGASA	Baseline, Mid and End-line survey	The starting point or current value of the indicators before the implementation of the project	Increase by 20%	Increase by at least 80%	The index will be developed during baseline assessment, in consultation with DA and PAGASA and will include indicators such as availability of functional coordination mechanisms, adequacy of human resources and technical capacities, SOPs and plan and budget for sustaining TWG, CIS and CRA service development and CIS Platform, etc.)
	Extent to which CIS and CRA services are accessed and used by multiple stakeholders (government, farmers, private sector, etc.)	CIS Platform user survey, overseen by FAO Baseline, Mid and End-line survey Mid-term review and final evaluation reports	0	At least 30% stakeholders surveyed indicate their access and use of climate information and CRA services	At least 80%	
1.1. Strengthen capacity and coordination for Climate Information Services	Number of functional national, regional, and local coordination mechanisms in place for CIS and CRA	Baseline and end line survey	No coordination mechanism in place for data/information sharing between DA and PAGASA	01 National and 2 Regional TWGs for CIS and CRA services established	01 National and 5 Regional TWGs for CIS and CRA services fully functioned by DA National CIS Platform, 5 Regional and 09 Provincial CIS	DA and PAGASA mobilize their operations staff at national and region levels to participate in

	services development and dissemination. *(Functionality indicators will be defined at project inception, including but not limited to having clear TOR, meeting regularly, producing CRA services, use of CIS Platform survey for feedback and improvements, etc.)*	Relevant national and department (DA and PAGASA) reports Project M&E, mid-term review and final evaluation reports	Two pilot Regional CIS Centres	National CIS Platform, 2 Regional and 3 Provincial CIS Centers established	Centers fully functioned by DA and PAGASA	project trainings/activities. DA and PAGASA co-finance implemented in line with project work plan PAGASA Modernization Programme will continue
	Change in PAGASA and DA institutional set up, infrastructure and SOPs for CIS and CRA services development at the national level and in five regions		PAGASA does not have enough agro-met stations and protocols for data quality check, processing and analysis DA does not have agromet units	Number? New/upgraded agromet stations and calibration of updated weather stations in place Number? Guidelines developed for data collection, quality check, processing, analysis and sharing with DA	# New/ upgraded weather and agro-met stations and systems for data collection analysis and sharing integrated in PAGASA Modernization Programme 06 DA new agromet units established at national and regional level	
	Change in PAGASA and DA's staff capacity for generation and sharing of agromet data/information and analytics *(Using core knowledge and skill rating of:* *(1=limited understanding; 2=basic understanding; 3=moderate understanding; 4=strong understanding; 5=advanced understanding)* *Covering, among others*: (i) the agrometeorological system and the data and projections it		To be established through baseline survey	At least 60% of surveyed staff benefiting from the project training/cacapacity building indicate at least 1 level improvement in core knowledge and skill assessment	At least 85% of surveyed staff indicate at least 1 level improvement in core knowledge and skill assessment	

	generates; (ii) the applicability of different types of agrometeorological data to farming systems in the Philippines; (iii) recent climate change-related data and projections generated through the agrometeorological system; and iv) CRA advisory products.					
	Proportion of female /IP /youth technicians/ farmer represented in coordination meetings/workshops.		0	At least 30%	At least 50%	
1.2. Develop localized CRA services and extension capacity for CC vulnerable areas	Number of LGUs with CRA strategic plans	Baseline and end line survey Project M&E, mid-term and final evaluation Pre and Post-training/workshop surveys Farmers and FO feedback survey, overseen by FAO	0	3 provincial LGUs	9 provincial LGUs	
	Number of CRA training materials and IEC products developed		0	Training materials for at least 01 CRA practice for each of the farming systems prioritized in the provincial CRA Strategic Plan At least 05 IEC products at the national level	Training materials for at least 03 CRA practices for each of the farming systems prioritized in the provincial CRA Strategic Plan At least 05 localized IEC products for each region and/or province	
	Change in capacity to provide localized CRA and extension services *(measuring the change in knowledge and skills of trained Master Trainers, CRA Enterprise Development Facilitators and extension partners)*		0	30% of target 100 Master Trainers, Facilitators and extension partners indicate at least 1 level improvement in core knowledge and skill assessment	At least 85% of target 100 Master Trainers, Facilitators and extension partners indicate at least 1 level improvement in core knowledge and skill assessment	
	Proportion of female /IP /youth/ farmer represented planning and Master Trainer/Facilitator/Extension Partners trainings		0	At least 30%	At least 50%	
Outcome 2	Number of farmers develop CRA enterprises and	Baseline and end line survey	0	15,000 (60% of target Farmer	45,000	

	implement CRA investment plans			Organizations/CRA Enterprises)	(100% of target Farmer Organizations/CRA Enterprises)	
	Number of CRA enterprises uptake finance for CRA investment plan implementation	Baseline and end line survey Project Mid-term revie and Final evaluation LGU budget report, Land Bank, ACPC and other financial institutions' reports on lending	0	50 (10% of target CRA Enterprises)	150 (30% of target CRA Enterprises)	
2.1: Train farmers to develop CRA enterprises	Change in capacity of trained farmer groups and farmers for CRA enterprise development *(measured through the scorecard of farmer learning groups after one-year training)*	Baseline and end line survey Pre-CRA enterprise development learning survey Post-training assessment, using scorecards	0	At least 60% trained farmer groups pass the scorecard to form CRA enterprises/FO/AMIA Villages	At least 90% trained farmer learning groups pass the scorecard to form FO/AMIA Villages for CRA enterprise development	
	Number of CRA technologies and practices tested/demonstrated by farmer groups for CRA enterprise development		0	26 (identified and prioritized during the project formulation	At least 50 localized/adapted CRA practices	
	Number of farmer groups establish connection with the private sector and financial institutions		0	25% of trained farmer groups	At least 60% of trained farmer groups/FOs	
2.2 Develop CRA enterprises	Number of CRA enterprise investment plans developed and approved	Baseline and end line survey Project M&E, mid-term review and final evaluation reports DA and LGU reports	0	200	500	
	Number of farmers/Special Groups benefit from investment plans that leverage social protection schemes and DA's SAAD and other target programmes		0	4,040	13,500	Based on the poverty registration in the target provinces, it is estimated that 30% of the target 45,000 farmers are Special Groups and are the beneficiaries of social protection

						programmes as well as of DA's SAAD.
	Number of CRA Enterprises/AMIA Villages that have developed loan application and/or mobilized LGUs and other partners' support to implement the CRA enterprise investment plan		0	At least 20% of CRA Enterprises/AMIA Villages	At least 50%	
Outcome 3	Number of farmers adopt CRA as the result of increased access to CIS and CRA information, training and peer learning	Baseline and End line survey Project mid-term and final evaluation	0		50,000 (50% women 500 youth)	205,000 (50% women 1,300 youth) Parallel finance from DA will support capacity building and peer learning for CRA adoption
	Change in CRA Uptake Index by DA, DAR, LGUs, and the private sectors	Baseline and End line survey Project mid-term and final evaluation	0	At least 20% increase in the index compared to baseline	At least 75% increase in the index compared to baseline	Appropriate CRA Update Index will be developed for each stakeholder and baseline will be set up during the project baseline assessment
3.1: Mainstream CRA into national programmes	Number of farmers report that they act upon receipt of CIS and CRA information	Baseline and end line survey CIS Platform user survey, overseen by FAO DA, other line departments and LGUs reports Project M&E, Mid-term and Final evaluation	0	250,000 (50% women 2,500 youth)	500,000 (50% women (6,500 youth)	
	Number of national policies and programmes integrating CRA and CRA enterprise development		0	At least 2 programme	At least 5 programmes	
	Number of LGUs that have mainstreamed CRA and/or allocated budget for CRA and CCA, reflecting local needs and priorities, including those of key groups: women, IP and youth		0	At least 3 provincial and 30 Municipality LGUs	At least 6 provincial and 60 Municipality LGUs	
	National CRA implementation monitoring system functional		0	A national CRA implementation	The national CRA implementation monitoring	

	with sex, aged and disability disaggregated data			monitoring system established by DA	system produces regular reports	
3.2: Enabling financial mechanisms and value-chains for sustainable CRA adoption	Number of public-private partnerships (including seed and equipment suppliers) established and CRA value chains developed	Baseline and end line survey Project M&E, Mid-term and Final evaluation	0	3	10	
	Number of strengthened/new financial and insurance products in support of CRA		0	2 (including Land Bank agri Lending Programmes and of ACPC)	3	
Project/programme co-benefit indicators						
Co-benefit 1 – Economic co-benefit	Annual increase of HH income by 2,555 to 39,335 peso from CRA	Baseline and Endline survey Project M&E, Mid-term review and Final evaluation reports	0	Tbd through baseline assessment	Tbd through baseline assessment	
Co-benefit 2 – Gender equality and IP co-benefit	Number of female/young female farmers as CRA agents of change	Baseline and Endline survey Project M&E, Mid-term review and Final evaluation reports	0	Tbd through baseline assessment	Tbd through baseline assessment	
	Number of indigenous food production and weather and climate knowledge systems integrated in the project		0	Tbd through baseline assessment	Tbd through baseline assessment	

E.6. Project/programme activities and deliverables

All project activities should be listed here with a description and sub-activities. Significant deliverables should be reflected in annex 5 implementation timetable. Add rows as needed. Please number the activities as shown below to indicate association of activities to the related outputs provided above in section E.5. Similarly, please number sub-activities as shown below to associate to the related activity.

Activities	Description	Sub-activities	Deliverables
1.1.1: Strengthen coordination and information- sharing mechanisms	Under the Project Steering Committee (PSC) guidance, this activity will establish National TWG with members from DA, PAGASA and other stakeholders and upgrade and/or establish Regional TWGs with TORs. Trainings will be provided and meetings facilitated to develop localized CIS and CRA services.	1.1.1.1 [DA] Establish and facilitate TWGs and CIS Platform *DA/DA-ROs will lead the TOR preparation, establish TWG at national and regional level and facilitate LGUs to establish TWG at provincial and local levels and TWG meetings. With PAGASA and FAO technical support, DA will establish and provide essential equipment for the CIS Platform/CIS Centres.*	➢ National TWG with agreed TOR established in Y2 ➢ 05 Regional TWGs with agreed TOR established by Y4 ➢ (Number to be determined) Provincial and Local TWGs by Y7 ➢ At least 04 meetings/year by the TWGs ➢ 01 National CIS Platform Set up at FPODP/Disaster & Climate Information Office (DCIO) with equipment with regional pages, maintained by Regional CIS Centres ➢ At least 06 (annual) Forums organized and reports prepared

	This Activity will establish National CIS Platform and Regional and Provincial CIS Centres, harnessing digital technologies and build capacities to manage the Platform/Centres		➢ 05 Regional CIS Centres with staff and equipment at DA-RFOs ➢ 09 Provincial CIS Centres with staff and equipment
		1.1.1.2 [PAGASA] Facilitate TWGs and CIS Platform to produce and disseminate CIS *This sub-activity provides PAGASA with human resources to contribute to the establishment and facilitation of TWGs and CIS Platform/Centres with a focus on CIS production and dissemination*	➢ TWG meetings and CIS Platform/Centres facilitated for production and dissemination of CIS
		1.1.1.3 [FAO] Provide training and technical support for TWGs and CIS Platform *FAO will support in developing TORs and work plans of TWGs and the design of CIS Platform/Centres, provide training and technical support for TWG and CIS Platform operations.*	➢ Review of existing Regional TWG and advice on TORs ➢ Training for TWGs on CIS and CRA services development and dissemination, and monitoring ➢ Big data and digital innovations transfer ➢ CIS Platform survey design and regular monitoring
		1.1.1.4 [DA] CIS development by National Support Specialists	➢ DA co-financed specialists mobilized and contribute to activities
1.1.2:Strengthen capacity to produce CIS	This Activity will support PAGASA improve and integrate agrometeorological data collection and sharing. It will produce improved CIS, at various temporal and spatial scales including weather and climate forecasts, agromet monitoring, agromet and CRA advisories and early warning products as a regular operation of PAGASA and DA. The TWGs will ensure relevance of information produced by PAGASA vis-à-vis practical daily farming by co-producing relevant agro-climate information.	1.1.2.1 [PAGASA] Upgrade agromet date, deliver training and lead the production of improved CIS *PAGASA will lead in the upgrade of agromet stations, data collection and analysis. With FAO technical support, this sub-activity will deliver training for PAGASA, DA and LGU staff and produce localized long-term agro-climate information beyond seasonal time scale, forecast and early warning*	➢ At least 6 upgraded agromet stations in high-risk areas where there are critical gaps fully operating by Y3 ➢ At least 10 PAGASA staff trained ➢ At least 20 DA and LGU staff trained on O&M of weather/agro-met stations ➢ At least 20 PAGASA and DA staff fully trained on long term info products ➢ 2 new long-term agro-climate products developed and localized to enhance DA's colour-coded maps and CRVA, critical for CRA mainstreaming. ➢ Short-, medium-, and long-term agro-climate information, forecasts, advisories and early warnings
		1.1.2.2 [FAO] Provide technical support and quality assurance of CIS production *FAO will provide technical support for the upgrade of agromet stations and data, develop various training modules, support PAGASA in delivering the training, designing and monitoring the implementation of the feedback mechanisms, and quality assurance of the CIS products*	➢ Training programme developed staff on (i) data collection, quality assurance, processing, analysing and sharing; (ii) O&M and calibration of upgraded weather stations; (iii) involving farmers/farmer groups in basic monitoring and O&M of equipment. ➢ Developed mechanisms for sharing and communicating information products including feedback loop ➢ PAGASA and DA facilitated to co-produce relevant agro-climate information, forecast and early warnings
		1.1.2.3 [PAGASA] Operation & Maintenance of agromet network	➢ All 12 upgraded agromet stations fully maintained by year Y7 by PAGASA

		Under this sub-activity PAGASA will provide co-finance (staff, cost for upgrading and O&M) for sustainable operation of the agromet network.	
1.2.1: Prepare CRA strategic plans	This Activity facilitates the preparation of Provincial CRA strategic plans and identification of CRA practices as well as project target municipalities, farmer organisations and beneficiary farming households.	1.2.1.1 [DA] Facilitate participatory CRA strategic planning *Facilitate the use of CRVA and stakeholder engagement in planning, identify target municipalities and beneficiary farming HH and farmer groups/cooperatives*	➢ 09 Provincial CRA Strategic Plans ➢ Identified 100 target municipalities, village and existing FOs/farmer groups ➢ Identified Master Trainers, CRS Enterprise Development Facilitators, extension partners ➢ Identify/select farmer organizations/farmer groups
		1.2.1.2 [FAO] Support the preparation of evidence-based CRA Strategic Plans and identification of CRA practices and services *This sub-activity will build capacity for use of CRVA, foresight planning and facilitate strategic assessment, identification of locally appropriate CRA practices, capacity and financial needs. Prepare the CRA Strategic Plans.*	➢ Facilitated identification of climate risks and vulnerabilities using agro-climate information, available CRVAs, foresight planning and other science and local knowledge ➢ Participatory review of current farming practices, identify CRA options, available services, private sector and other partners ➢ Identified financial needs, locally suitable and appropriate financial sources/products ➢ Capacity assessment including of services
		1.2.1.3 [DA] CRA strategic plans development by National Specialists *DA co-finance will provide staff and professional services for the CRA strategic planning process*	➢ DA co-financed specialists mobilized and contribute to activities
1.2.2: Develop CRA training and service delivery capacity	This Activity will update and/or develop CRA training programmes The Activity will also train Master Trainers, CRA Enterprise Development Facilitators and extension partners on CIS, CRA and CRA enterprise development	1.2.2.1 [DA] Develop and deliver CRA training *With FAO support and inputs from PAGASA on CIS, DA will lead the update/development of CRA training programmes including localization of CRA options*	➢ 100 Master Trainers trained and will conduct training/coaching for CRA Enterprise Development Facilitators and extension partners ➢ 500 CRA Enterprise Development Facilitators ➢ Extension partners trained
		1.2.2.2 [PAGASA] Strengthen PAGASA capacities for CRA *PAGASA staff will both be trained on CRA and facilitate to provide CIS related inputs for the training and service development*	➢ CIS integrated into CRA training programmes
		1.2.2.3 [FAO] Technical support for CRA capacity development *FAO will provide technical support and quality assurance of the CRA training modules, with a focus on linking CIS and CRA services, localized services and incorporation of gender, youth and indigenous food system issues*	➢ Master Trainer and CRA Enterprise Development Facilitator training programme and packages ➢ Developed modalities to engage youth, especially young farmers, and address gende-r and IP-related differentiated needs ➢ Guidance for consideration of resilient Indigenous food systems in CRA training programme

		1.2.2.4 [DA] CRA capacity and service development by Regional Support Specialists *DA co-finances their regional staff for CRA capacity and service development*	➢ DA–co-financed specialists mobilized and contribute to activities
		1.2.2.5 [PAGASA] CRA capacity and service development by Regional Technical Specialists *PAGASA co-finances their regional staff for CRA capacity and service development*	➢ PAGASA–co-financed specialists mobilized and contribute to activities
2.1.1: Deliver CRA enterprise development training	This Activity will equip around 1,500 farmers groups (with about 45,000 farmers) with skills and knowledge to develop CRA enterprises. The training includes experimenting and demonstrating locally appropriate CRA practices, in addition to which will be adopted by the CRA enterprises.	2.1.1.1 [DA] Deliver CRA enterprise development training *With technical support from FAO, DA will organize farmer learning groups and facilitate the one-year CRA enterprise development learning process.*	➢ Farmer learning groups (1,500) established, drawing on appropriate existing FO/cooperatives when available. ➢ Master Trainer/CRA Enterprise Development Facilitators help develop group learning plan, facilitate learning sessions, identify CRA options ➢ At least one testing/demonstration plot per farmer group from Y2 to Y5 ➢ Proportion of women, IP and youth benefiting from this activity
		2.1.1.2 [FAO] Design and provide technical support for CRA enterprise development training *FAO technical support including agreements with the farmer learning groups, design of the CRA enterprise development learning plans that are tailored to specific needs of farmers and facilitation of farmers' linkage with the private sectors, civil society and other value chain actors.*	➢ Demand-driven specific CRA enterprise development learning plans developed ➢ LOAs with farmer groups for CRA enterprise development training ➢ Number (tbd) of private sectors and financial institutions engaged in the CRA enterprise development learning process ➢ Evaluation of farmer learning using scorecard
		2.1.1.3 [DA] Provision of agricultural inputs for CRA practice experiment *Under this sub-activity DA co-finance will provide agricultural inputs for the farmer learning groups to experiment/demonstrate CRA practices.*	➢ DA co-finance for CRA practice experiment/demonstration plots
2.1.2: Support farmers' organizations to prepare CRA enterprise investment plans	This Activity will help clustering of the 1,500 farmer learning groups into CRA Enterprises/AMIA Villages (about 500) and facilitate them to prepare CRA enterprise investment plans to mobilise resources and implement CRA options	2.1.2.1 [DA] Facilitate CRA enterprise investment planning *With technical support from FAO, DA will facilitate the clustering of 3 to 5 farmer learning groups that passed the scorecards into CRA Enterprises/AMilA Villages. DA will work with FAO in facilitating them to develop CRA investment plan and business plan for their implementation with assistance from Master Trainers/CRA Enterprise Development Facilitators using RuralInvest.*	➢ At least 500 CRA enterprise investment plans and business plans developed ➢ CRA investment plans, leveraging social protection programmes developed for special groups

		2.1.2.2 [FAO] Capacity building and quality assurance of CRA enterprise investment plans *FAO will develop and deliver training/facilitation for CRA Enterprises/AMIA VIllages to develop investment/business plans. This includes technical support to leverage social protection programmes to prepare investment plans for special groups.*	➢ CRA enterprises/AMIA Villages trained to develop CRA investment plan ➢ CRA enterprises/AMIA Villages facilitated, with assistance from Master Trainers, Facilitators, in preparing a business plan using RuralInvest. ➢ Cross-sectoral collaboration (agriculture, social welfare and development, DRRM) facilitated to leverage social programmes for CRA investment plans for special groups
2.1.3: Finance and implement CRA enterprise investment plans	This activity will provide support to the CRA Enterprises/AMIA VIllages (about 500 in 100 target municipalities) to mobilize resources and implement their CRA investment plans	2.1.3.1 [DA] Support CRA enterprise investment plan implementation *Under this sub-activity, DA will provide the GCF-financed CRA support package for the CRA Enterprises/AMIA Villages to implement their investment plans. This will help align the DA's co-finance (sub-activities 2.1.3.3) with the CRA support package.*	➢ DA co-finance and farmers' in-kind contributions mobilised ➢ 100% CRA investment plans implemented ➢ Proportion of women, IP and youth benefiting from this activity
		2.1.3.2 [FAO] Catalyse and leverage finance for CRA Enterprise investment plan implementation *FAO will provide the GCF-financed CRA support package that will focus on achieving adaptation and mitigation results. FAO will support the CRA Enterprises/AMIA Villages in leveraging finance (as group loans, budget from LGUs and others) to implement the investment plans*	➢ Level of additional resources mobilized for the CRA enterprise investment plans implementation, including for the special groups ➢ Group loan application facilitated (linked with 3.2.2) ➢ Mechanisms developed to combine project support with social protection and DA and DAR special programme support for poorer beneficiary farmers
		2.1.3.3 [DA] Finance for CRA investment plan implementation *DA will align its co-finance with the CRA support package and provide it to CRA Enterprises/AMIA Villages for implementing the investment plans*	➢ DA–co-financed CRA support packages procured and provided in time.
3.1.1: Heighten farmers' awareness and understanding on CRA	This Activity is to ensure CRA services, practices and local experiences in developing CRA enterprises are shared and widely disseminated outside the project target areas to increase farmers' awareness of climate risks and the benefits of CIS and CRA services and experiences	3.1.1.1 [DA] Implement CRA awareness-raising campaigns and peer learning *DA with FAO's technical support will develop IEC materials, design and delivery of a range of targeted and tailored outreach content through various media and the CIS Platform/Centers as well as farmer-to-farmer peer learning.*	➢ Tailored awareness-raising programmes, materials and dissemination channels developed ➢ Broadcast of radio and TV programmes ➢ Communications officers in DA (ATI Regional Training Centres) and other agencies trained to use local languages and radio to reach areas with low extension coverage and mobile networks ➢ Dissemination and in-person workshops through Provincial CIS Centres ➢ DA's parallel finance complements the activity
		3.1.1.2 [FAO] Support CRA strategic communication	➢ CRA Communication Strategy ➢ Tools developed to monitor/gather evidence of the project increasing access of 5 million people/farmers to CIS and

		FAO will provide technical support to DA with specific focus on transferring digital innovations and developing the CRA Communication Strategy as well as measuring the impact of awareness-raising activities	CRA advisory services, of whom 500,000 report that they act upon receipt of information and 205,000 report that they adopt CRA.
		3.1.1.3 [DA] CRA communication by DA *This will provide DA–co-financed communication specialist*	➢ DA communication specialist mobilised and contributes to the activity
3.1.2: Mainstream CRA practices and enterprise development into national and LGU programmes	This Activity will mainstream CRA and project approaches into national and LGU agriculture and rural development programmes; and develop capacity of DA, DA-RFOs and LGUs staff members and of stakeholders for scaling up CRA adoption beyond the project areas.	3.1.2.1 [DA] Training and facilitation for CRA mainstreaming *With FAO technical support, DA will provide training for DA, DA-RFOs, relevant departments and LGUs, organize well targeted, structured workshops, knowledge-sharing events and visits.*	➢ Tailored training programmes and packages on mainstreaming CRA ➢ Reports of knowledge sharing events, workshops, exchange visits and generation of evidence ➢ Models for CRA enterprise development by different partners
		3.1.2.2 [FAO] Policy advisories and technical support for CRA mainstreaming *FAO will provide policy advice support DA in providing continued services for climate-resilient value chains and harmonize the objectives of different programmes to promote resilience-focused interventions*	➢ Tailored training programmes and packages on mainstreaming CRA ➢ Reports of knowledge-sharing events, workshops, exchange visits and generation of evidence ➢ Models for CRA enterprise development by different partners
3.1.3: Develop a national CRA implementation monitoring system	This Activity will develop an on-line M&E network and system with indicator and tracking tools, and capacity-building for DA and LGUs for monitoring and assessing CRA implementation and its outcomes	3.1.3.1 [DA] Establish and operate the National CRA monitoring system *System design including citizens' monitoring and feedback and linkage with other monitoring systems (of DA, CCC, NDDRMC, NEDA). Baseline, mid and end-line surveys. Set up the system, developing operational manual and trainings*	➢ National CRA implementation monitoring system set up and provide regular reports ➢ Number of DA staff trained on the system management
		3.1.3.2 [FAO] Technical support for monitoring and measuring adaptation and mitigation benefits of CRA *FAO will provide technical support for the design and establishment of the National CRA monitoring system, with a focus on developing methodologies and systems to measure adaptation and mitigation impacts of CRA. FAO will also lead the design and implementation of baseline, mid and end-line surveys.*	➢ Methodologies and systems to measure adaptation and mitigation impacts of CRA ➢ Baseline, mid and end-line surveys ➢ Project ESMF, GAP and Indigenous Peoples plan implemented and reported on.
3.2.1: Facilitate inclusive CRA value chain development	This Activity aims to facilitate public-private-community dialogue and partnership for the understanding of climate risks and benefits of CRA and for developing CRA value chains inclusive of CC vulnerable farmers	3.2.1.1 [DA] Facilitate information sharing and dialogue among CRA value chain actors *TWGs will consolidate and update a core set of national and common regional climate and related CRA information fit for use by private sector actors and other value chain actors*	➢ A core set of national and common regional climate and related CRA information for the private sector and other value chain actors ➢ Tailored dialogue between farmers, private sector (i.e. seed, mechanization suppliers, LGUs, CSO and other actors for CRA value chain development ➢ Delivery of at least one private sector forum at the national level and one at the regional level through the CIS Platform

		3.2.1.2 [FAO] Technical support for dialogue and PPP establishment *Map CRA value chain actors. Support the development of CIS and CRA information, fit for use by the value chain actors. Facilitate linkages between the agri-businesses with CRA enterprises/AMIA Villages and PPP development*	➢ CRA value chain actors mapping ➢ Number of PPP established in support of CRA enterprise development and investment
3.2.2: Use climate information and CRA advisory products to improve credit and insurance products	This Activity will provide specific support to Land Bank, financial institutions and insurance companies to integrate climate information and CRA advisories and improve their capacity for developing CRA financial products, targeting CC vulnerable farmers and CRA enterprises	3.2.2.1 [DA] Facilitate information sharing and dialogue with financial institutions and insurance companies *TWG will engage with Land Bank, ACPC and other financial institutions including MFIs, PCIC and micro-insurance companies to share CIS and CRA information and triggers for AA, better understand available financial services and insurance products, share feedback from farmers/CRA enterprises on challenges preventing farmers' access to the services/products and discuss their improvements and/or new products including farmer group loans, meso-level application.*	➢ A core set of national and common regional climate and related CRA information and AA triggers for the financial institutions and insurance companies ➢ Tailored dialogue on relevant financial packages and insurance products ➢ Farmers, CRA enterprises, TWG and other stakeholders' inputs for Land Bank, PCIC, other financial institutions/MFIs and insurance companies to strengthen and/or develop new services/products ➢ Group borrowing facilitated
		3.2.2.2 [FAO] Policy advisories and technical support for improved/new products *Technical support for TWG. Development of information, advisories for use of CIS and CRA in the design of CRA supportive financial services and insurance products. Explore meso-level index-based insurance products*	➢ Technical guidance documents ➢ Feasibility assessment of meso-level index insurance products for cooperatives. ➢ Policy advisories for ACPC and PCIC.

E.7. Monitoring, reporting and evaluation arrangements (max. 500 words, approximately 1 page)

256. In its role as Accredited Entity, FAO will oversee and supervise the implementation of this project in accordance with the agreement signed between FAO and the GCF and as detailed in the implementation arrangements. FAO will be responsible for the establishment of the M&E unit, which will comprise of a dedicated M&E specialist, supported by the FAO Office of Evaluation (OED) in headquarters.

257. Throughout the reporting period, project-level monitoring and evaluation will be performed by FAO Philippines in compliance with FAO policies. Monitoring, Evaluation Accountability and Learning (MEAL) of the Project activities will be in line with the relevant FAO standards and procedures and the GCF Performance Measurement Framework. As the Accredited Entity and Executing Entity, FAO will be responsible for general coordination of the monitoring and evaluation activities of the various Project implementing entities and will report to the GCF as required.

258. The project will include a baseline study, a mid-term evaluation, and final evaluation. In line with the AMA, the Office of Evaluation (OED) will be in charge of the interim and final evaluation of the project. Evaluations will be conducted using an issue-based approach and may include those using general criteria of relevance, efficacy, and sustainability, as applicable. Through operational and strategic recommendations, the interim evaluation will contribute towards improved implementation by identifying any corrective measures needed for the remaining Project period. The final evaluations will assess the relevance of the intervention, its overall performance, as well as the sustainability and scaling-up of the results obtained and the lessons learned. The evaluations will be based on a detailed methodology including the use of different evaluation methods and tools. In addition to the primary data collected by evaluators and the secondary national data available, the interim and final evaluations will be based on monitoring activities and reports prepared by project staff, including surveys to be implemented at baseline, interim, and project completion.

Monitoring and Reporting

259. Responsibility for project-level monitoring will rest with the Project Management Office within the Department of Agriculture. The PMO will set up a monitoring system to be staffed by responsible project officers in connection with the three core project components. The monitoring system will serve to track and report on the project implementation overall, including the implementation of the Annual Work Plan and Budget (AWPB) as well as the outputs, outcomes, and impacts detailed in the results framework shown above in Section H.1. Logic Framework. It will also track implementation of the project's Gender Action Plan. Monitoring data will be stored, compiled, and displayed in a dedicated module of the project MIS to be developed and deployed by the Project Management Office. The monitoring team will work with technical advisors from FAO to elaborate the project's data collection processes with mobile telephones and Collect Mobile, an innovative tool developed by FAO.

260. Monitoring officers will monitor AWPB implementation and the outputs that result from it, including those detailed in the results framework, on an ongoing basis. The monitoring team will share findings with the project management staff so that they may discuss implementation issues as they arise. This will take the form of knowledge-sharing events and briefings within e.g. the project management teams. They will also use the data and information from this monitoring – reported to them by project staff, project partners, and beneficiaries – to prepare annual performance reports. Using these inputs, in turn, FAO will submit all required reports to the GCF in a timely manner and in accordance with the formats and standards agreed upon by the two organisations.

M&E methods

261. The project has some built in design features for generating M&E data and information:

- Project design includes assisting the DA to set up new elements of a CRA monitoring system (Component 3) to ensure M&E is also built into mainstream processes and systems.
- An MIS system will be set up for tracking project activities. This will build on 1) the well-developed Management Information Systems (MIS), including geotagging for tracking field-level activities, that is being operated and mainstreamed into the DA with the World Bank PRDP project; 2) FAO's indicator system for nature-based solutions in agricultural landscape; and 3) FAO Knowledge Management System for GEF and GCF projects that maps indicators at different levels (household, community, sub-national and national,

Fund level, SDGs) and develops a digitalized system for data collection and reporting. These are also important for ensuring transparency and accountability.

- Each component will have built-in review studies to assess baseline situations, including capacity and knowledge assessments, adapt existing tools and develop project-specific indexes for assessing thematic outcomes.
- Component 2, where main impacts are in terms of farmers' CRA adoption and household effects, will carry out associated regular farm, household, and beneficiary group surveys (under Activity 3.1.3) to capture information uptake and the trends, as well as outcomes and impacts, of CRA adoption. PRDP has a Rapid Assessment of Emerging Benefits methodology to quickly capture important outcomes and lessons on a continuing basis in a relatively low-cost, participatory manner. Impact Evaluation methodology will also be used.

Methodologies for monitoring and reporting of the key outcomes of the project/CRA Transformation.

262. Before other project activities start, the project will launch a baseline survey, as already noted above in Section E.1. Impact Potential. In the implementation of the baseline and subsequent monitoring of the project, special attention will be given to the gender-disaggregation of data and findings on Fund-level outcomes, project results, as well as its environmental and social safeguards. Using these tools, monitoring staff will set a baseline – with household and community surveys – for project progress and for subsequent evaluation, especially for CRA uptake and on-farm benefits (in terms of both climate adaptation and mitigation) arising from Component 2. In addition, a baseline study of key institutions and regulatory systems will be done at project start-up with selected counterpart institutions in order to firm up indicators (i.e. those forming the proposed CRA Institutional Capacity Index to measure Outcome 1) and to monitor and evaluate achievement of GCF Enabling Environment Outcome. The Theory of Change will be refined and relevant indicators will be re-assessed in the context of the mid-term and final evaluations. The key outcomes and their related assumptions will be monitored and assessed with the following methods:

- Review of areas that are vulnerable to climate change for assessing continued relevance and targeting of the project – provincial CRVA information will be updated using revised downscaled data, remote sensing, and findings from participatory reviews;
- Successful use of new CC information services – surveys, including those for monitoring and tracking of the use of various applications and media, and also small feedback surveys through the CIS Platform;
- Successful use of new knowledge – this will be through regular stakeholder reviews for agromet and CIS survey products, as well as the FFS and farmer surveys on access to and utility of various products;
- Successful adoption and use of new practices and technology – through the farmer baseline and end surveys, as well as DA CRA MIS system;
- Adaptation to CC and resilience-building – farmer and household surveys, and related participatory appraisal, using methodology adapted from FAO RIM and other instruments, including BRACED;
- Impacts on livelihoods, food security, etc. – farmer and household surveys and related rapid participatory assessment, integrated with the above methods;
- Change in awareness and capacity of key institutions and LGUs' staff – baseline and end-line surveys, pre- and post-training/-workshop assessments; and
- Inclusion, gender- and IP-specific results – also integrated in farm and household surveys, tracked using MIS data and more qualitatively via satisfaction surveys and rapid participatory assessment.

Accountability mechanisms

263. The project will set up mechanisms to ensure accountability for the project beneficiaries, in line with FAO's Guidance note on Accountability for affected populations (AAP). FAO AAP is a people-centred approach, sensitive to the dignity of all human beings, the varying needs of different segments within a community, and the importance of ensuring that women, men, girls, and boys can equally access and benefit from assistance. The accountability mechanisms will deliver FAO commitments, including leadership, governance and staff competences, transparent communication and information-sharing, feedback and complaint mechanisms, participation and representation, particularly of women and Indigenous Peoples; such mechanisms will include accountability performance in the project M&E.

Learning

264. A project learning agenda will be developed during the inception phase, drawing on the baseline assessments and refined project logframe. Project learning activities will include systematic documentation of new

CRA knowledge and experiences that will feed into CRA awareness-raising campaigns, training and workshops under Activity 3.1.1, also into knowledge-sharing through the CIS Platform (Activity 1.4.1) and CRA Monitoring System (Activity 3.1.3). Project implementation learnings will also be documented to inform CRA mainstreaming and scale-up under Component 3.

F. RISK ASSESSMENT AND MANAGEMENT

F.1. Risk factors and mitigations measures (max. 3 pages)

265. Several financial and operational risks have been identified that may inhibit the project from achieving the desired results if left unaddressed/unmitigated.

266. The project places a strong emphasis on fostering collaboration between the DA and PAGASA. Such collaboration is crucial to the success of the proposed project, as well as the broader process of transformational change that the project aims to set in motion. To mitigate this risk, the project has built coordination and information-exchange mechanisms into its technical components, thus ensuring a strong balance of responsibilities in the steering and management of the project.

267. The project is geared toward equipping government and other agriculture sector stakeholders with the systems and capacity needed to sustain and scale up support for CRA beyond project closure. In this context, the project places a considerable emphasis on mainstreaming climate change considerations into major government services and programmes. If government priorities shift or key project partners experience unanticipated fiscal constraints, this could undermine the project's ability to achieve the desired results, though this risk is perceived as minor as CC is affecting agriculture in the Philippines and CRA adaptation among farmers is the government's most critical agenda. The project is anchored in high-level government policies and long-term institutions, which provide for important stability, and is designed with the flexibility to work with and capacitate both national and local partners to plan for and tap into the most accessible and appropriate resources available.

268. As with all projects that support farmers in adoption of CRA practices, there is a risk that beneficiary farmers may revert to previous (climate-vulnerable) farming practices after project closure. This may happen when CRA enterprises are less profitable and more labour-intensive compared with traditional farming practices. This risk could also occur due to CRA's general dependency on donor-funded projects, or because the enabling environment does not provide sufficient support to allow producers to continue farming using CRA practices. This would undermine not only the project benefits to be achieved but also the longer-term process of transforming Philippine agriculture. To mitigate this risk, the project will promote financially viable and attractive farming practices, as well as develop links to more effective extension, financial resources and insurance. Coupled with the avoidance of losses thanks to increased resilience to climate change impacts, this will incentivize farmers to continue farming using project-promoted CRA practices, while also encouraging other (non-beneficiary) farmers to adopt such practices as well.

Selected Risk Factor 1		
Category	**Probability**	**Impact**
Technical and operational	Medium	Medium
Description		
The DA and PAGASA encounter difficulties when trying to enhance collaboration, which is key to the success of the project and the long-term transformational process it is supporting.		
Mitigation Measure(s)		
This risk will be mitigated by providing a number of channels and levels of collaboration (central and regional) as well as different activities wherein PAGASA and the DA can do joint work. A key element is also the relative intensity of interaction in both technical and management activities, meant to foster both direct relations and increased institutional clarity on the roles of and flows of information between the institutions. Formalisation in agreements of said roles and information flows is planned and envisioned by both parties as part of the GCF design process.		

Selected Risk Factor 2		
Category	**Probability**	**Impact**
Technical and operational	Low	Low
Description		
Some LGUs are unable to sustain the types of climate information and CRA services supported by the project. During the project design, the selection of the 9 provinces that would bear most of the operational costs for the project (including hosting the Provincial CIS Centre with human resources, providing support to Municipalities and Farmer Organizations) has taken into consideration this risk, as have the criteria for municipality selection. However, at present, it is foreseen that additional resources will be allocated to LGUs under new fiscal rules. While COVID-19 has had a major impact on national resources, it is expected that when the project has reached the stage to be scaled up, there will be fewer constraints on government resources.		
Mitigation Measure(s)		
This risk will be mitigated by careful planning to identify and make the most of the resources available. The risks are further spread – in terms of capacity-building for services – by working with more local entities, including the DAR and farmer organizations.		
Selected Risk Factor 3		
Category	**Probability**	**Impact**
Technical and operational	Low	Low
Description		
Some beneficiary farmers revert to pre-project (climate-vulnerable) farming practices after project closure.		
Mitigation Measure(s)		
This risk, thoroughly assessed during project design, will be mitigated by ensuring that project-promoted CRA practices are financially viable and generate sufficient income, such that farmers will be incentivized to continue using these practices beyond project closure. The financial viability of the preliminary set of CRA practices expected to be promoted by the project has been thoroughly assessed through the project's financial analysis (see Section F.1).		
Selected Risk Factor 4		
Category	**Probability**	**Impact**
Other	Medium	Medium
Description		
An extreme weather event (e.g. typhoon) affects key regions/provinces targeted by the project, and as a result, project partners and/or beneficiaries refocus their efforts on post-disaster recovery rather than project support.		
Mitigation Measure(s)		
This risk will be mitigated by the design of the project, which will be active in multiple state regions and provinces in the country, thus minimizing the risk of all project activities being halted in the event of an extreme typhoon. There is also some flexibility in the phasing and scaling-up process during implementation to shift emphasis onto new priority climate change areas.		
Selected Risk Factor 5		
Category	**Probability**	**Impact**
Technical and operational	Low	Low
Description		
Traditional relationships between land users and landlords may undermine incentives for small-scale agricultural producers (who may not own the land they farm) to adopt CRA practices. While the majority of farmers (especially		

agrarian reform beneficiaries, who are a key target group), even smallholders, own their land, many others rent and some have informal tenure.

Mitigation Measure(s)

This risk will be mitigated by promoting widespread awareness of the financial viability of project-promoted CRA practices, as well as the long-term benefits (due to increased resilience to climate change impacts, as well as other environmental co-benefits) of farming using such practices. By increasing awareness of the short- and long-term financial, economic, and environmental benefits of CRA among land users and land owners alike (in instances where these are not one and the same), the project expects to mitigate the risk that the intended project beneficiaries will not have sufficient incentives to adopt project-promoted practices.

Selected Risk Factor 6

Category	Probability	Impact
Technical and operational	Medium	Low

Description

Failure to secure the programme approach with PILAR project (i.e. mismatch of timeframe, non-approval of one project, overlapping of activities and geographical focus)

Mitigation Measure(s)

Section B.2 – Proposed project approach describes the complementarities of this (APA) project and PILAR, both in terms of thematic focus and geographical coverage, in discussion with Land Bank and PILAR partners (IRRI and ICRAF). Agreement has been reached with the concerned agencies on continued consultations and the set-up of programme governance at the start of the project to ensure synergies and avoid overlaps as PILAR's funding proposal is in development. To mitigate the risk of the project beneficiaries not being able to access PILAR's financial mechanisms, agreement has also been reached with Land Bank to work with selected existing financial programmes of Land Bank (and also of ACPC) to connect APA project beneficiaries with these schemes, which the project will support in becoming more CRA-supportive. The learning will feed into the development of new financial mechanisms under PILAR, ensuring APA project beneficiaries' inclusion in these mechanisms. This risk will be regularly monitored and discussed, also with DA – for the overall Philippine CRA transformation – and the NDA.

Selected Risk Factor 8 – Money laundering and countering the financing of terrorism

Category	Probability	Impact
Governance	Low	Medium

Description

Risk of money laundering and financing of terrorism

Mitigation Measure(s)

FAO includes in the project agreement signed between FAO and the Government of Philippines clauses related to AML/CFT, as follows:

- The Government shall comply and shall require all persons and entities engaged in its activities under the Project to comply with all internal anti-money laundering, counter-terrorism financing laws, rules, and regulations;
- The Government confirms it has obtained sufficient undertakings from all persons and entities involved in its activities under the Project that they shall not engage in any prohibited practices; the Government undertakes and confirms that it shall comply with the substantive objectives of the GCF's Policy on Prohibited Practices;
- Consistent with numerous United Nations Security Council resolutions adopted under Chapter VII of the UN Charter, the Government and FAO are firmly committed to the international fight against terrorism and, in particular, against the financing of terrorism. It is the policy of the Government and FAO to seek to ensure that none of their funds are used, directly or indirectly, to provide support to individuals or entities: i) associated with terrorism, as included in the list maintained by the Security Council Committee established pursuant to its Resolutions 1267 (1999) and 1989 (2011); or ii) that are the subject of sanctions or other enforcement measures promulgated by the United Nations Security Council. This provision must be

included in all agreements that may be concluded with third parties for the implementation of activities under the Project.

During project implementation, FAO, as AE, will maintain close monitoring and supervision through its HQ and regional offices in order to ensure that activities are implemented in full compliance with the signed project agreement.

Selected Risk Factor 9		
Category	**Probability**	**Impact**
Technical and operational	Medium	Medium
Description		
The DA and PAGASA encounter difficulties in fulfilling the in-kind co-financing in the form of staff and equipment, which may impede operations in the PMO and RPOs.		
Mitigation Measure(s)		
This risk will be mitigated by ensuring that during the inception phase of the project these operational concerns are flagged with the Departments' administration units and included in the plan and budget for the immediate succeeding cycles until the year 7 of the project. Department Special Orders will be issued to designate (co-financed) responsibilities for national and regional officers to officially attribute staff time to level of effort and time allocated doing project duties. Similar orders will be issued for the official use or purchase of office and equipment-related assets for project purposes in line with their co-financing commitment and timing.		

G. GCF POLICIES AND STANDARDS

G.1. Environmental and social risk assessment (max. 750 words, approximately 1.5 pages)

269. During project formulation, an environmental and social management framework was developed (see the Environmental and Social Management Framework [ESMF] in Annex 6). An initial risk assessment was carried out against FAO's Environmental and Social Safeguards.[13] In addition, CIAT studies on CRA practices and FFS considered gender, social, and environmental aspects, and identified priority design elements to proactively address these. A stakeholder engagement process was carried out to identify and engage with all stakeholders of the project, from national to local authorities, relevant technical institutions, to NGOs and CSOs, among others.

270. The FAO Project Environmental and Social Screening Checklist was prepared (ESMF, Appendix 9) and the project was identified as a Category B (Moderate Risk) project. While the project is expected to generate primarily positive environmental impacts, there are some potential short-term and site-specific environmental impacts that could arise from project implementation. Small-scale adverse social and environmental impacts could arise due to social inequality and elite capture, small-scale construction impacts for agro-met station establishment, etc. The process (divided into two major segments – during project formulation and later during project implementation) resulted in proactive involvement in the initial phase of the proposal (see Annex 7 for detail). A project-level grievance mechanism is being established to give all stakeholders the possibility to file grievances if needed.

271. Overall, the project is expected to bring about major positive impacts, as the overall objective is to increase the climate resilience of the most vulnerable farmers in the Philippines. Even with these expected positive impacts, the project has been classified as Moderate Risk (Category B), largely due to instances of working poverty in the project areas, potential use of water-harvesting facilities, proximity of project sites to protected areas, and the involvement of IP communities. It is expected that the project activities will trigger the following Environmental and Social Safeguard Guidelines of FAO (see Table G.1.1).

Table G.1.1. Environmental and Social Risk Identification and Screening Checklist

FAO Safeguard Category	Triggered	Safeguard Instruments & Mitigation Measures
ESS 1 – Natural Resources Management	NO	▪ Non-Eligible activities (ESMF Appendix 1) ▪ ESMF/ ESMP with risk mitigation measures (FP Annex 6)

[13] http://www.fao.org/3/a-i4413e.pdf

ESS2 – Biodiversity, Ecosystems, and Natural Habitats	YES	▪ ESMF/ESMP (FP Annex 6) ▪ Biodiversity Management Planning Framework/ Biodiversity Management Plan ▪ List of non-eligible activities (ESMF Appendix 1)
ESS3 – Plant Genetic Resources for Food and Agriculture	YES	▪ ESMF/ESMP, ensuring that seeds used are registered (FP Annex 6).
ESS4 – Animal – Livestock and Aquatic Genetic Resources for Food and Agriculture	NO	▪ Non-Eligible activities (ESMF Appendix 1)
ESS5 – Pest and Pesticide Management	YES	▪ ESMF/ESMP with Integrated Pest Management (IPM) used in activities, training on the safe handling and use of pesticides in instances where avoidance is not possible, and a negative list (exclusion of all highly hazardous pesticides (HHPs). ▪ A tentative Pest Management Plan (PMP) is provided in ESMF Appendiex 3. ▪ Non-eligible activities (ESMF Appendix 1)
ESS6 – Involuntary Resettlement and Displacement	NO	▪ Non-Eligible activities (FP Annex 1)
ESS7 – Decent Work	YES	▪ ESMF/ESMP (FP Annex 6); Training for farmers and sensitization sessions for government will be held on SEAH, gender equality and social inclusion, decent rural employment, age-appropriate works, and Occupational Health and Safety, and the project will utilize the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests ▪ Zero tolerance policy on SEAH
ESS8 – Gender Equality	NO	▪ Gender assessment and action plan have been developed (FP Annex 8) with specific gender-targeted activities built into the project design and monitoring framework, including activities to contribute to the elimination of SEAH. ▪ The project will have zero tolerance for all forms of SEAH. The project's GRM will be accessible for all project-related complaints, including SEAH-specific complaints. The GRM will be survivor-centered and gender-responsive, and will have specific procedures for handling SEAH, including confidential reporting and safe and ethical documenting (see ESMF Chapter 5.6) ▪ ESMF/ ESMP (FP Annex 6) also includes measures to facilitate social inclusion and enhance gender equality, and safeguard against SEAH.
ESS9 – Indigenous Peoples and Cultural Heritage	YES	▪ ESMF and Indigenous Peoples Planning Framework (see ESMF Chapter 6), and subsequent ESMP and IPP. ▪ FPIC in accordance with FAO's "Manual for Project practitioners on Free Prior and Informed Consent: an indigenous peoples' right and a good practice for local communities," GCF's "Indigenous Peoples Policy" and "Operational Guidelines: Indigenous Peoples Policy," and the legal framework of the Philippines (Indigenous People's Rights Act of 1997, and Executive Order No. 79 from 2012) where FPIC is mandatory. ▪ Project Chance-finds procedure (ESMF Appendix 4)

272. The project will support the agriculture sector in its transition to a climate-resilient development pathway. Investments under Component 1 in agrometeorological technology, alongside institutionalized feedback loops to improve climate information system advisories, will enable farmers to proactively manage their farms in the face of climate risks based on localized information. Institutionally speaking, this also means that the coordination and collaboration between the DA and the PAGASA will be improved. It is expected that this work, combined with work under Component 2, will positively impact government ministries and departments, facilitating improved coordination and planning of natural resources and agricultural extension services with a climate focus. Under Component 2, local government plans will have mainstreamed measures (included in their annual budget plans) that institutionalize support for climate change adaptation in the agriculture sector, particularly under the existing DA crop programmes. It is expected that this will have further positive impacts on a broader group of farmers than just those involved with CRA Enterprise development under Component 2, thus creating a supportive enabling environment for farmers to pursue climate-adaptive (and -resilient) practices on a wider scale. Based on localized information and institutionalized support, Component 2 is expected to improve the conditions of natural resources and agricultural land upon which farmers work, with the introduction of climate-resilient agricultural practices and natural resource

management (including water management). Environmentally, improved farming practices will support better-functioning ecosystems, which in turn can positively affect human health and well-being in the long run. Investments in machinery and equipment, as well as high-quality agricultural inputs used on-farm and off-farm, are expected to reduce impacts of climate change on agricultural productivity and production. CRA Enterprise development training sessions and activities under Component 2 will ensure that farmers are able to proactively "do better" than they would in the "without project" scenario. For example, Integrated Pest Management (IPM) will be used under the project to promote sustainable pest management that reduces reliance on (and overall use of) pesticides. Livelihoods among target communities are expected to improve based on increased adaptive capacities within the target communities. An increase in resilience and adaptive capacities is also expected within IP groups that is sensitive to the traditional and cultural preferences of those communities (as defined earlier in the IP Plan and in specific FPIC agreements). The project also engages women through a Gender Action Plan that ensures proactive mainstreaming of women into all activities, empowers women with agricultural skills and knowledge, and where necessary, ensures that men also receive training and adequate services in instances where prior efforts have supported only women (e.g. training on specific adaptation practices).

273. Potential negative impacts are minor and mitigatable. From the social perspective, children often assist with the farming work of their respective families. There is always a risk of child labour, unless closely monitored. From the environmental perspective, increased agricultural production may trigger increased pesticide use, even if this is not promoted under the project. Constant supply of seed and planting materials for CRA Enterprise development and the introduction of climate-resilient crop varieties that are not always readily available in markets also increase the project's risk to medium. Even though the project will recommend only inputs and varieties that are registered/certified, farmers may not have sufficient knowledge at the time of purchase. Minor construction activities may be pursued for the sake of establishing the new agro-met systems and/or water-harvesting units. Due to the small size of such stations, potential negative impacts are expected to be minor and mitigatable, including noise pollution during installation, air pollution due to dust, and health/safety risks during installation. All of these negative impacts – most of which are linked to Component 1 and 2 – are envisaged to be low to moderate, localized, temporary, and mitigatable. In terms of natural resource management, some of the project areas may be located near protected areas. In order to avoid impacts of farm-land expansion, based on the list of criteria in ESMF (Appendix 1), it is expected that the project will work outside of the protected areas and their buffer zones, not within them. A 50m minimum distance to PAs and their buffer zones will be maintained. A Biodiveristy Management Plan will be developed, which will further support the project in avoiding and mitigating adverse impacts on biodiversity, and will strengthen biodiversity benefits within the context of the project through the application of best practices.

274. Indigenous peoples will participate in the project as beneficiaries, and an **Indigenous Peoples Planning Framework** has been developed to accompany project implementation (ESMF, Chapter 6). The planning framework further ensures that efforts will be made to respect, include, and promote indigenous peoples' concerns during project implementation, including their right to free, prior and informed consent (FPIC). The project will generate numerous additional benefits for indigenous peoples, and has been designed to take into account the different contexts and vulnerabilities of indigenous peoples living in the project areas. The IPPF includes procedures to develop an Indigenous Peoples Plan, which will be elaborated through a participatory and inclusive process with indigenous men and women, in the first year of project implementation.

275. **Institutional arrangements:** Overall compliance with the project's ESMF and ESMP will be ensured by the project's hired National Safeguards Specialist within the Project Management Office (PMO), who will work closely together with a National Gender, Indigenous Peoples and Social Inclusion Specialist (who will oversee the GAP and Indigenous Peoples Planning Framework) and two international safeguard specialists (one for ESS and the other for gender, indigenous peoples and social inclusion). These specialists will closely collaborate with the DA and PAGASA, and the Regional Project Coordinators/Offices.

276. **Sexual exploitation, abuse and harassment (SEAH):** There will be zero tolerance of SEAH, and the project's ESMF and ESMP will mainstream SEAH risk mitigation, in accordance with the revised GCF Environmental and Social Policy (2021) and the FAO Framework for Environmental and Social Management (FESM).[14] The project

[14] FESM has explicit reference to SEAH and will be accompanied by relevant operational guidance (currently under development, and expected in October 2022). In the meantime, FAO confirms that sufficient technical resources and capacities to ensure compliance with GCF requirements regarding SEAH are available (see also FAO's Annual Report on Corporate Policy, Processes, and Measures on the Prevention of Harassment, Sexual Harassment and Sexual Exploitation and Abuse, CL 168/INF/6). It is also our understanding from GCF's SEAH Action

will support gender sensitization and trainings for project staff and beneficiaries on gender equality and social inclusion and SEAH, and will elaborate a code of conduct for the implementation of the project. Specific procedures to minimize SEAH risk will be developed for the project GRM, together with the elaboration of the ESMP, to ensure the mechanism is survivor-centered and gender-responsive (including confidential reporting), and to facilitate linkages to related services and redress for anyone affected by SEAH.

277. **Grievance and Redress Mechanism (GRM):** The grievance redress mechanism (GRM) is an integral project management element that intends to seek feedback from beneficiaries and resolve complaints on project activities and performance. The mechanism is based on FAO requirements and most importantly, it is based on existing, community-specific grievance redress mechanisms preferred by the local beneficiaries. FAO, DA and PAGASA will inform communities about the GRM through culturally appropriate mechanisms, ensuring information on mechanisms at all three levels is communicated (i.e. GCF Independent Redress Mechanism, FAO-level redress mechanisms, and the project-level GRM). The PMU and Regional Project Offices will be responsible for managing the grievance and redress mechanism. The GRM has a strong link with FAO Philippine's competent officers to ensure the right application of GRM principles. Project-related SEAH and GBV grievances will be managed through the existing FAO GRM system, which will also be strengthened to include a procedure for handling SEAH that is inclusive, survivor-centred and gender-responsive, complemented by GBV referral pathways. The pathways will be established and operationalized under the project in collaboration with UNFPA, including medical care, psychosocial support, legal and social/reintegration support (see Chapter 5 of the ESMF in FP Annex 6 for more detailed information).

G.2. Gender assessment and action plan (max. 500 words, approximately 1 page)

278. A majority of women in the Philippines, especially in urban areas, are well-educated in general, often more than men, and they are more likely to adopt new ideas and tools (e.g. digital devices). In rural areas, female farmers have extensive agricultural knowledge, administrative skills, and interests. Gender parity in the Philippines is considered one of the highest in the world.

279. However, the gender assessment indicates that the ranking does not accurately reflect the situation of rural women or their decision-making power on strategic issues in terms of agriculture and climate change adaptation. Despite women's strong capacity, male heads of households have the last word and women often do not take the lead in strategic decision-making. Increasing women's strategic decision-making power will allow easier integration of their advantages into the farming systems: broader observations on weather and climate; intensive knowledge on indigenous plants and animals; concerns of family food and nutritional security in addition to general health; and cultivation of plants used for craft-making. Their comparative strength in communication, networking, financial management, and commercial negotiations will also contribute more effectively to easing the adoption of climate-resilient agriculture.

280. The proposed project promotes gender empowerment and social inclusion based on a household methodology for true parity in decision-making power. Higher parity also contributes positively to reducing gender-based violence, which remains a great concern in the country. Since an environment that makes use of the full potential of women and other vulnerable groups is a prerequisite for the success of the project, workshops to apply household methodology will be organized at the beginning of the project and will ensure that farmer activities will commence sufficiently afterward.

281. Indigenous peoples' interest in their own sustainable production systems is waning, despite growing interest from non-indigenous communities. Their awareness of their cultural heritage will be raised through the "Theatre for the Oppressed" or a comparable method. Improved awareness and confidence will help them identify the strengths of indigenous food production systems, which will be used as a basis for climate-resilient agriculture. Women will play an important role, as they have extensive knowledge on indigenous plants, seed selection and storing. Youth empowerment will lead to better use of their capacity in ICT and thus greater benefits to communities. Such changes in the roles and social status of vulnerable groups will be endorsed by the communities concerned, most notably by the community heads/chiefs, so that regression would not occur.

Plan that GCF will develop a SEAH risk-screening tool in October that would be taken into account when developing SEAH operational guidance.

282. For governmental meetings, women will be connected with female technicians or officials so that they have the opportunity to reflect on their ideas, knowledge, and concerns and practice voicing them in a formal setting before facing male technicians, officials, and farmers. This will allow the project to obtain and integrate women's points of view much more effectively than by simply having female farmers participate in high-level meetings.

283. The project will have zero tolerance for all forms of SEAH. The project's GRM will be accessible for all project-related complaints, including SEAH-specific complaints. The GRM will be survivor-centered and gender-responsive and will have specific procedures for SEAH, including confidential reporting and safe and ethical documenting (see ESMF in FP Annex 6, Chapter 5.6 for more detailed information). Project staff will be trained on these procedures and obliged to follow a code of conduct that further emphasizes the project's zero tolerance for SEAH, and will be trained on gender equality and social inclusion, as well as SEAH prevention and risk management. Gender sensitization will be mainstreamed throughout project trainings, including considerations related to preventing SEAH and strengthening gender equality and social inclusion. The AE will also put in place a gender-responsive monitoring system with respect to SEAH, with a regular reporting interval. This will be managed from the FAO country office. Multiple reporting channels will be made known, and there will be a feedback loop for continuous learning. The project's ESMF and Gender Action Plan (GAP, Annex 8) further describe additional safeguarding measures dedicated to SEAH risk mitigation and to the strengthening of gender equality and social inclusion throughout all project activities.[15]

G.3. Financial management and procurement (max. 500 words, approximately 1 page)

284. As the Accredited Entity for this project, FAO will ensure that financial management and procurement of goods and services using GCF resources will adhere to international standards and good practices. This includes financial management and procurement performed by the DA and PAGASA. Micro-assessments of the DA and PAGASA (which include assessments of the entities' financial management and procurement policies and practices) identified both entities as suitable partners in this respect. To reinforce these entities' capacities to perform the necessary financial management and procurement functions, the project will also hire relevant officers in the PMO, including for accounting and monitoring.

285. The FAO Technical Assistance (TA) team will perform a range of support functions for the project (as outlined in Section B.4), including functions related to financial management and procurement performed by the DA and PAGASA. These are geared toward (inter alia) ensuring all procurement is done in line with agreed standards and practices and minimizing procurement-related risk. In addition, the FAO TA team will directly manage a portion of the project budget to deliver Technical Assistance and other such services. Financial management and procurement performed by this team will be guided by relevant FAO rules and regulations, as well as relevant provisions in the Accreditation Master Agreement (AMA) signed by FAO and the GCF. These rules and regulations were reviewed and deemed satisfactory by the GCF Secretariat and Accreditation Panel as part of FAO's accreditation to the GCF.

286. FAO has deployed an Oracle-based Enterprise Resource Planning (ERP) system entitled the "Global Resources Management System" (GRMS). This system provides all FAO employees around the world with travel, human resources, procurement, and financial functionalities. Using GRMS improves the flow of financial information, supports financial monitoring and reporting, increases transparency and visibility, and strengthens internal control. FAO maintains a Chart of Accounts that is used by the whole Organization and that allows for a separation of income and expenditure by donor and project. It also provides a standardized coding structure that enables data to be recorded, classified, and summarized to facilitate internal management and external reporting requirements.

287. In terms of procurement, FAO operates in accordance with its Manual Section on "Procurement of Goods, Works and Services," and in terms of sub-contracting the delivery of specific activities using Letters of Agreement, its Manual Section on "Letters of Agreement." Such services are managed under FAO Procurement Service, which provides policy and operational support to FAO offices and staff undertaking these activities to ensure the

[15] It should be noted FAO has developed a new policy that supersedes the existing 2015 policy – FAO's Framework for Environmental and Social Management (FESM) – that has just been endorsed in June 2022. FESM has explicit reference to SEAH, and will be accompanied by relevant operational guidance. In the meantime, FAO confirms that sufficient technical resources and capacities to ensure compliance with GCF requirements regarding SEAH are available (for further information please refer to FAO's Annual Report on Corporate Policy, Processes and Measures on the Prevention of Harassment, Sexual Harassment and Sexual Exploitation and Abuse, CL 168/INF/6). It is also our understanding from GCF's SEAH Action Plan is that GCF will develop a SEAH risk-screening tool in October that would be taken into account when developing SEAH operational guidance.

Organization procures goods, works, and services based on “Best Value for Money” principles. In sub-contracting delivery for agreed results, FAO operates in accordance with its policy governing the indirect implementation of FAO-led projects and programmes.

288. Financial management and procurement by the DA and will also be overseen and supervised by the FAO-GCF project supervision team. The FAO-GCF project technical assistance team will undertake regular supervision missions, spot checks, and audits to ensure financial management and procurement are being performed in line with the agreed standards and practices.

289. FAO Oversight of BTr as fund receiver / Recipient Entity is primarily focused on assuring the timely and unhampered transfer of the full funds to EE. The Financial management of GCF resources under BTr as fund receiver / Recipient Entity is limited to maintaining the recipient project account, transferring of funds to the DA and PAGASA within a set number of days, bearing fiduciary risk and maintaining sound financial management systems and arrangements

G.4. Disclosure of funding proposal

☐ No confidential information: The accredited entity confirms that the funding proposal, including its annexes, may be disclosed in full by the GCF, as no information is being provided in confidence.

☒ With confidential information: The accredited entity declares that the funding proposal, including its annexes, may not be disclosed in full by the GCF, as certain information is being provided in confidence. Accordingly, the accredited entity is providing to the Secretariat the following two copies of the funding proposal, including all annexes:

- full copy for internal use of the GCF in which the confidential portions are marked accordingly, together with an explanatory note regarding the said portions and the corresponding reason for confidentiality under the accredited entity’s disclosure policy, and
- redacted copy for disclosure on the GCF website.

The funding proposal can only be processed upon receipt of the two copies above, if containing confidential information.

H. ANNEXES

H.1. Mandatory annexes

☒	Annex 1	NDA no-objection letter(s) **(template provided)**
☒	Annex 2	Feasibility study – and a market study, if applicable
☒	Annex 3	Economic and/or financial analyses in spreadsheet format
☒	Annex 4	Detailed budget plan **(template provided)**
☒	Annex 5	Implementation timetable including key project/programme milestones **(template provided)**
☒	Annex 6	E&S document corresponding to the E&S category (A, B or C; or I1, I2 or I3): **(ESS disclosure form provided)** ☐ Environmental and Social Impact Assessment (ESIA) or ☐ Environmental and Social Management Plan (ESMP) or ☐ Environmental and Social Management System (ESMS) ☐ Others (please specify – Resettlement Action Plan, Resettlement Policy Framework, Indigenous People's Plan, Land Acquisition Plan, etc.)
☒	Annex 7	Summary of consultations and stakeholder engagement plan
☒	Annex 8	Gender assessment and project/programme-level action plan **(template provided)**
☒	Annex 9	Legal due diligence (regulation, taxation and insurance)
☒	Annex 10	Procurement plan **(template provided)**
☒	Annex 11	Monitoring and evaluation plan **(template provided)**
☒	Annex 12	AE fee request **(template provided)**
☒	Annex 13	Co-financing commitment letter, if applicable **(template provided)**
☒	Annex 14	Term sheet including a detailed disbursement schedule and, if applicable, repayment schedule

H.2. Other annexes as applicable

☒	Annex 15	Evidence of internal approval **(template provided)**
☐	Annex 16	Map(s) indicating the location of proposed interventions
☐	Annex 17	Multi-country project/programme information **(template provided)**
☐	Annex 18	Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
☐	Annex 19	Procedures for controlling procurement by third parties or executing entities undertaking projects financed by the entity
☐	Annex 20	First level AML/CFT (KYC) assessment
☐	Annex 21	Operations manual (Operations and maintenance)
☒	Annex 22	Assessment of GHG emission reductions and their monitoring and reporting (for mitigation and cross-cutting projects)[16]

[16] Annex 22 is mandatory for mitigation and cross-cutting projects.

☐ Annex X Other references

** Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.*

Appendix 1 – Changes in key climate variables with respect to 1981–2010 based on CORDEX East Asia (GCF-WMO platform – climateinformation.org). Ensemble agreement is indicated in brackets – "many" indicates "many models agree on the direction of change" while "some" indicates "some models agree on the direction of change," according to climateinformation.org.

RCP8.5 in 2071-2100 with respect to 1981–2010

	Province	Temperature (degrees C)	Precipitation (%)	Aridity actual (%)	Soil moisture (%)	Water discharge (%)	Water runoff (%)
Region II – Cagayan Valley	Cagayan	+2 (many; increase)	-6 (some; decrease)	-2 (some; decrease)	-7 (many; decrease)	-21 (some; decrease)	-19 (many; decrease)
Region II – Cagayan Valley	Isabela	+2 (many; increase)	-8 (some; decrease)	-3 (some; decrease)	-11 (many; decrease)	-19 (some; decrease)	-26 (many; decrease)
Cordillera Autonomous Region	Apayao	+2 (many; increase)	-5 (many; decrease)	+5 (some; increase)	-7 (many; decrease)	-11 (many; decrease)	-11 (many; decrease)
Cordillera Autonomous Region	Ifugao	+2 (many; increase)	-8 (some; decrease)	+8 (some; increase)	-11 (many; decrease)	-24 (some; decrease)	-24 (some; decrease)
Cordillera Autonomous Region	Kalinga	+2 (many; increase)	-5 (some; decrease)	+7 (some; increase)	-9 (many; decrease)	-18 (some; decrease)	-17 (some; decrease)
Region V – Bicol	Camarines Norte	+3 (many; increase)	+1 (many; increase)	+5 (many; increase)	-2 (many; decrease)	-7 (some; decrease)	-6 (some; decrease)
Region V – Bicol	Camarines Sur	+3 (many; increase)	+2 (many; increase)	+1 (many; increase)	-2 (some; decrease)	-5 (some; decrease)	-3 (some; decrease)
Region X - Northern Mindanao	Bukidnon	+3 (many; increase)	-20 (some; decrease)	+35 (some; increase)	-16 (many; decrease)	-39 (some; decrease)	-39 (some; decrease)
Region XII – Soccsksargen	North Cotabato	+3 (many; increase)	-13 (some; decrease)	+19 (many; increase)	-15 (many; decrease)	-35 (many; decrease)	-26 (many; decrease)

RCP8.5 in 2041-2070 with respect to 1981–2010

	Province	Temperature (degrees C)	Precipitation (%)	Aridity actual (%)	Soil moisture (%)	Water discharge (%)	Water runoff (%)
Region II – Cagayan Valley	Cagayan	+1 (many; increase)	0 (some; increase)	+15 (many; increase)	-2 (many; decrease)	-2 (some; decrease)	-2 (many; decrease)
Region II – Cagayan Valley	Isabela	+1 (many; increase)	-2 (some; decrease)	+1 (some; increase)	-4 (many; decrease)	-1 (some; decrease)	-7 (some; decrease)
Cordillera Autonomous Region	Apayao	+1 (many; increase)	-1 (some; decrease)	+2 (many; increase)	-4 (many; decrease)	-4 (some; decrease)	-4 (some; decrease)
Cordillera Autonomous Region	Ifugao	+1 (many; increase)	-3 (some; decrease)	+4 (many; increase)	-6 (many; decrease)	-9 (some; decrease)	-9 (some; decrease)
Cordillera Autonomous Region	Kalinga	+1 (many; increase)	-2 (some; decrease)	+11 (many; increase)	-6 (many; decrease)	-7 (many; decrease)	-6 (many; decrease)
Region V – Bicol	Camarines Norte	+2 (many; increase)	0 (some; increase)	+2 (many; increase)	-2 (many; decrease)	-5 (some; decrease)	-4 (some; decrease)
Region V – Bicol	Camarines Sur	+2 (many; increase)	0 (some; decrease)	-2 (some; decrease)	-2 (some; decrease)	-4 (some; decrease)	-3 (some; decrease)
Region X - Northern Mindanao	Bukidnon	+2 (many; increase)	-16 (some; decrease)	+19 (some; increase)	-11 (some; decrease)	-30 (some; decrease)	-30 (some; decrease)
Region XII – Soccsksargen	North Cotabato	+2 (many; increase)	-12 (some; decrease)	+9 (some; increase)	-14 (some; decrease)	-27 (some; decrease)	-22 (some; decrease)

RCP4.5 in 2071–2100 with respect to 1981–2010

	Province	Temperature (degrees C)	Precipitation (%)	Aridity actual (%)	Soil moisture (%)	Water discharge (%)	Water runoff (%)
Region II – Cagayan Valley	Cagayan	+1 (many; increase)	-2 (some; decrease)	-9 (some; decrease)	-3 (many; decrease)	-2 (many; decrease)	-4 (some; decrease)
Region II – Cagayan Valley	Isabela	+1 (many; increase)	+1 (some; increase)	-3 (some; decrease)	-3 (many; decrease)	-2 (many; decrease)	-2 (many; decrease)
Cordillera Autonomous Region	Apayao	+1 (many; increase	-2 (some; decrease)	+17 (some; increase)	-5 (many; decrease)	-4 (some; decrease)	-4 (some; decrease)
Cordillera Autonomous Region	Ifugao	+1 (many; increase	-1 (many; decrease)	+6 (many; increase)	-5 (many; decrease)	-6 (many; decrease)	-6 (many; decrease)
Cordillera Autonomous Region	Kalinga	+1 (many; increase	+1 (some; increase)	+4 (some; increase)	-3 (many; decrease)	0 (some; decrease)	0 (some; increase)
Region V – Bicol	Camarines Norte	+1 (many; increase	+4 (many; increase)	0 (some; decrease)	-1 (some; decrease)	+3 (some; increase)	+3 (some; increase)
Region V – Bicol	Camarines Sur	+2 (many; increase	+4 (many; increase)	-1 (some; decrease)	+1 (some; increase)	+4 (some; increase)	+4 (some; increase)
Region X - Northern Mindanao	Bukidnon	+2 (many; increase	-2 (some; decrease)	+14 (some; increase)	-4 (many; decrease)	-5 (some; decrease)	-5 (some; decrease)
Region XII – Soccsksargen	North Cotabato	+1 (many; increase	-3 (some; decrease)	+2 (many; increase)	-5 (some; decrease)	-5 (many; decrease)	-7 (many; decrease)

RCP4.5 in 2041–2070 with respect to 1981–2010

	Province	Temperature (degrees C)	Precipitation (%)	Aridity actual (%)	Soil moisture (%)	Water discharge (%)	Water runoff (%)
Region II – Cagayan Valley	Cagayan	+1 (many; increase)	-1 (some; decrease)	-16 (many; decrease)	-1 (many; decrease)	-2 (some; decrease)	-7 (some; decrease)
Region II – Cagayan Valley	Isabela	+1 (many; increase)	0 (some; increase)	-5 (some; decrease)	-2 (some; decrease)	-2 (some; decrease)	-6 (some; decrease)
Cordillera Autonomous Region	Apayao	+1 (many; increase)	+4 (some; increase)	+1 (some; increase)	-1 (some; decrease)	+7 (some; increase)	+7 (some; increase)
Cordillera Autonomous Region	Ifugao	+1 (many; increase)	-1 (some; decrease)	-1 (some; decrease)	-2 (some; decrease)	-8 (many; decrease)	-8 (many; decrease)
Cordillera Autonomous Region	Kalinga	+1 (many; increase)	0 (some; increase)	-3 (some; decrease)	-1 (some; decrease)	-5 (many; decrease)	-5 (many; decrease)
Region V – Bicol	Camarines Norte	+1 (many; increase)	+4 (some; increase)	-1 (some; decrease)	+1 (some; increase)	+2 (some; increase)	+2 (some; increase)
Region V – Bicol	Camarines Sur	+1 (many; increase)	+4 (some; increase)	0 (some; increase)	0 (some; increase)	+2 (some; increase)	+2 (some; increase)
Region X - Northern Mindanao	Bukidnon	+1 (many; increase)	-2 (some; decrease)	+2 (some; increase)	-4 (some; decrease)	-6 (some; decrease)	-6 (some; decrease)
Region XII – Soccsksargen	North Cotabato	+1 (many; increase)	+1 (some; increase)	+12 (some; increase)	-1 (some; decrease)	-6 (some; decrease)	-4 (some; decrease)

H

Appendix 2 - Climate risks in different regions and farming systems, and adaptation interventions that will address the risks

(See also Section 2.1. of Annex 2 for details)

Region	Major farming systems	Climate variable	Historical trend	Future projection (primary)	Secondary climate impact	Adaptation interventions (and mitigation, if any)	Adaptation benefits (and mitigation, if any)
North East Luzon	1) Rice lowland farming 2) Corn lowland farming	Rainfall	Slight increase in rainfall in DJF and MAM and slight decrease in JJA and SON between 1951-2010	Increase in precipitation in all seasons by >50% by 2050 under RCP4.5	Increase in flooding during rainy season and increase in drought during dry season	Flood-tolerant varieties, timing of farm practices, farm infrastructure and design, disaster insurance	More climate-resilient production (i.e. flood), and higher and stable income for farmers
		Temperature	Decrease in number of cold nights (1951-2010)	Increase in temperature by up to 1.5C by 2050 under RCP4.5	Increase in extreme temperature, drought during dry season	Heat- and drought-tolerant varieties, timing of farm practices (shorter growing seasons), water managements and conservation, including alternate wetting and drying method, irrigation, seasonal and short-term forecasts	More climate-resilient production (i.e. heat and drought), and higher and stable income for farmers. Efficient water use. Reduced methane emissions.
		Tropical cyclone	Increasing intensity, slightly decreasing frequency	Increase in TC intensity	Increase in flooding and damage due to TC	Early warning systems, Strengthened infrastructure, disaster insurance, integrated farming practices	Production damage and loss are reduced through anticipatory actions.
		Sea level rise	Sea level rise between 1993-2015 up to 4.5-5 mm per year (UK Met)	Continuous increase	Increase in flooding and damage. Saline intrusion.	Early warning. Stress tolerant varieties.	More climate-resilient production (i.e. saltwater), and higher and stable income for farmers.
Cordillera	1) Mixed upland farming	Rainfall	Slight increase in rainfall in DJF and MAM and slight decrease in JJA and SON between 1951-2010	Increase in precipitation in DJF by >25% by 2050 under RCP4.5	Increase in flooding during rainy season	Integrated farming practices, soil, slope and canopy protection	Soil conservation and less erosion.
		Temperature		Increase in temperature by up to 2C in MAM by 2050 under RCP4.5	Increase in extreme temperature, drought during dry season	Heat- and drought-tolerant varieties, timing of farm practices (shorter growing seasons), water managements and conservation, irrigation, seasonal and short-term forecasts	More climate-resilient production (i.e. heat and drought), and higher and stable income for farmers. Efficient water use.

		Tropical cyclone	Increasing intensity, slightly decreasing frequency	Increase in TC intensity	Increase in flooding and damage due to TC	Early warning systems, Strengthened infrastructure, disaster insurance, integrated farming practices	Production damage and loss are reduced through anticipatory actions.
Eastern Seaboard (Bicol)	1) Mixed farming 2) Coconut	Rainfall	Decreased rainfall by up to -20 mm/decade between 1951-2010 especially in JJA and SON	Increase in precipitation by >50% in SON by 2050 under RCP4.5	Increase in flooding during rainy season	Flood-tolerant varieties, timing of farm practices, farm infrastructure and design, disaster insurance	More climate-resilient production (i.e. flood), and higher and stable income for farmers.
		Temperature	Decrease in cold nights over period 1951-2010	Increase in temperature by up to 1-1.5C by 2050 under RCP4.5	Increase in extreme temperature, drought during dry season	Heat- and drought-tolerant varieties, timing of farm practices (shorter growing seasons), water managements and conservation, irrigation, seasonal and short-term forecasts	More climate-resilient production (i.e. heat and drought), and higher and stable income for farmers. Efficient water use.
		Tropical cyclone	Increasing intensity, slightly decreasing frequency	Increase in TC intensity	Increase in flooding and damage due to TC	Early warning systems, Strengthened infrastructure, disaster insurance, integrated farming practices	Production damage and loss are reduced through anticipatory actions.
		Sea level rise	Sea level rise between 1993-2015 up to 4.5-5 mm per year (UK Met)	Continuous increase	Increase in flooding and damage. Saline intrusion.	Early warning. Stress tolerant varieties.	More climate-resilient production (i.e. saltwater), and higher and stable income for farmers.
Western Central Mindanao (Northern Mindanao and SOCCSK-SARGEN)	1) Corn dryland farming 2) Rice dryland farming 3) Mixed farming	Rainfall	Increase rainfall by up to 40 mm/decade (PAGASA) 1951-2010 especially during JJA	Decrease precipitation by up to 25% in MAM and SON by 2050 under RCP4.5	Increase in drought during dry season, increase in heatwave	Flood-tolerant varieties, timing of farm practices, farm infrastructure and design, disaster insurance	More climate-resilient production (i.e. flood), and higher and stable income for farmers.
		Temperature	Increase in number of hot days 1951-2008 (Cinco *et al.*, 2013)	Increase in temperature by up to 1.5-2C in MAM and JJA by 2050 under RCP8.5	Increase in extreme temperature, drought during dry season	Heat- and drought-tolerant varieties, timing of farm practices (shorter growing seasons), water managements and conservation, irrigation, seasonal and short-term forecasts	More climate-resilient production (i.e. heat and drought), and higher and stable income for farmers. Efficient water use.
		Tropical cyclone	Increasing intensity, slightly increasing frequency, possible.	Increase in TC intensity	Increase in flooding and damage due to TC	Early warning systems, Strengthened infrastructure, disaster insurance, integrated farming practices	Production damage and loss are reduced through anticipatory actions.

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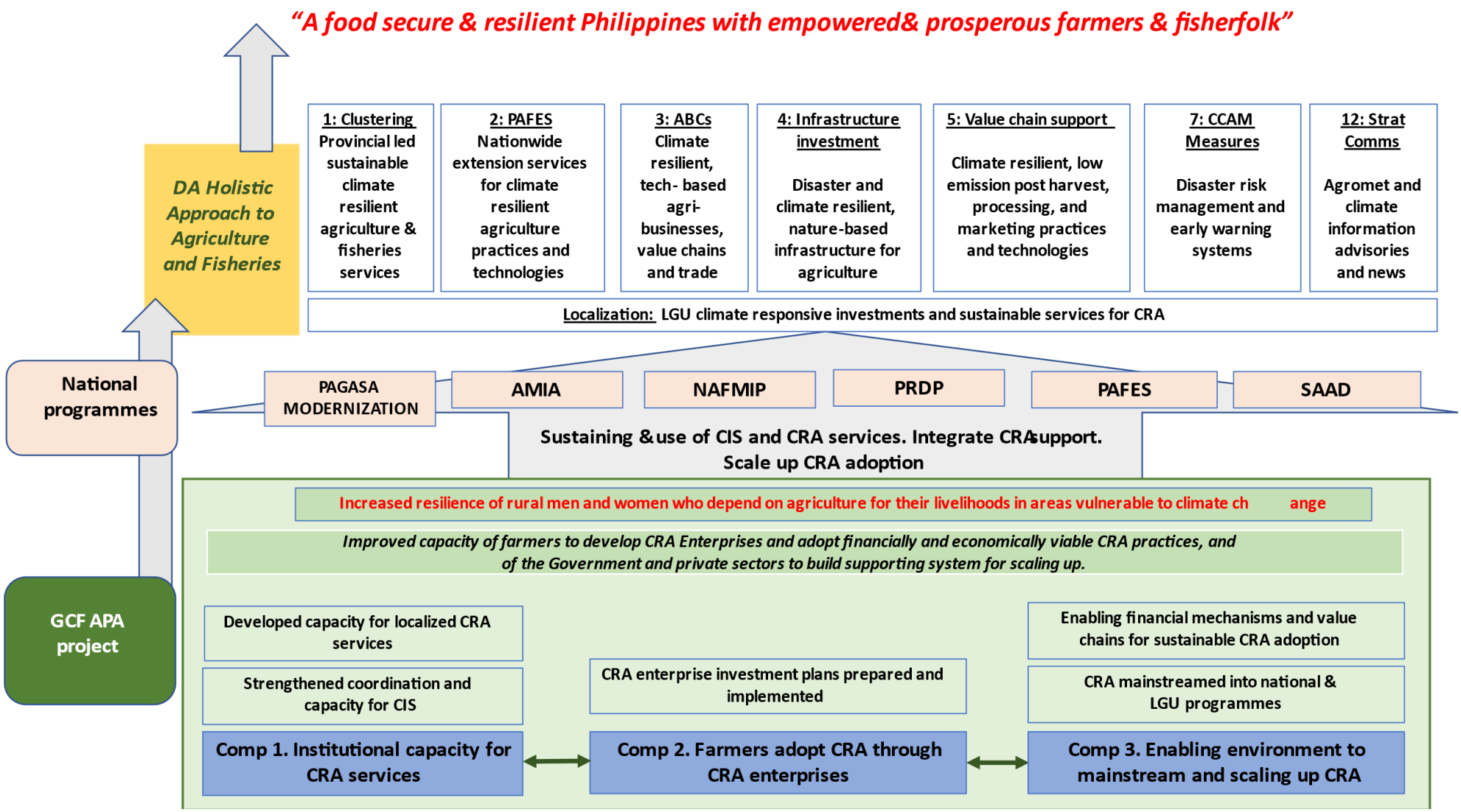
Appendix 3 – Summary of strategic linkages between the proposed project and the government priorities in climate change response



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Appendix 4 – Criteria and steps for geographic location and beneficiary selection

Level/ Type/ Related project activities	Criteria/ Process	Stage / Timing	Environmental and Social Risks
Geographic location: Agroecological Zones, Administrative regions, Provinces and Municipalities	Agroecological Zones: Preliminary analysis of past/present and projected climate change impacts was conducted by FAO and discussed and reviewed with national and regional stakeholders to identify overall priority geographic regions (see Table 1 above). The following selection criteria were considered (see Section 2.1 of Annex 2): ● Pattern of climate variables (i.e. rainfall, temperature, tropical cyclones, sea level rise); ● Historical trend of climate variables; ● Future projections by 2050 of climate variables; ● Level of climate impacts (e.g. trend of extreme events); ● Representativeness of agroclimatic zones in for country's agriculture, and thus relevance for scaling-up in the country	Completed during project design. The following four (4) Agroecological Zones were prioritized and constitute the "Project Area": ● North East Luzon ● Cordillera ● Eastern Seaboard ● Western and Central Mindanao	
	Administrative Regions: Multi-criteria analysis was used to assess regions which are expected to have the greatest impact in terms of predicted climate change. The following selection criteria were considered (see Section 2.9 of Annex 2): ● Severity of projected climate change (level of increase/ decrease of temperature, precipitation, cyclone intensity, etc.) ● Rates of agricultural loss and damage over the past years (DA data damage and loss), reflecting vulnerability to existing climate risks ● Deforestation rates (% change 2010-2016, DENR data) – as environment stress ● Malnutrition rates (PSA) ● Poverty incidence (2012 PSA) and SAAD areas ● Number of farmers and fishers (2014 PSA) – to reflect production importance ● Regional DA capacity for coordination in project implementation (Based on DA central ranking) Provinces: Within each Administrative Regions, the provinces predicted to have the greatest climate change impact were identified and prioritized by following the selection of Regions (see Section 2.9 of Annex 2).	Completed during project design. The following five (5) Administrative Regions and nine (9) Provinces were prioritized and constitute the "Project Area": Region II – Cagayan Valley: Cagayan and Isabela Provinces Cordillera Autonomous Region: Ayao, Ifugao, and Kalinga Provinces Region V – Bicol: Camarines Norte and Camarines Sur Provinces Region X - Northern Mindanao: Bukidnon Province Region XII – SOCCSKSARGEN: North Cotabato Province	All selected provinces contain key biodiversity areas. Some of the most important ones include: • Apayao – ALF-KBA • Kalinga - Balbalasang-balbalan national parkCagayan & Isabela – North Eastern Cagayan Protected Landscape and seascape; Norther sierra madre mountains • Camarines Norte & Camarines Sur – Mt. Labo, Mt. Kulasi, Mr. Isarog Natural Park, Caramoan Peninsula • Bukidnon – Mt. Kaluayan – Mt. Kinabalian Complex; Mt. Tago Range, Mt. Kitanglad Range; Mt. Kalatungan Range Natural Park • North Cotabato – Mt. Paiguyangan, Mt. Apo Natural Park, Ligawasan Marsh; Pulangi River Among the provinces, Isabela (Region II) has the highest population at 1.59 million, followed by Bukidnon (Region X) at 1.415 million and North Cotabato at 1.379 million. Indigenous People (IP) live in the following provinces:

Level/ Type/ Related project activities	Criteria/ Process	Stage / Timing	Environmental and Social Risks
	The process and results of prioritizing regions and provinces was discussed and reviewed with stakeholders at national and regional levels.		• Kalinga & Apayao – Isneg, Kalinga (Banao, Mabaka, Salegseg, Guilayon, Cagaluan, Guinaang, Balatoc, Lubuagan, Malbong, Naneng, Taloctok, Mangali, Lubo, Tinglayan, Tulgao, Butbut, Basao, Dacalan, Sumadel, Dananao), Apayao • Ifugao – Kalanguya, Ayangan, Ifguao, Tuwali, • Isabela – Agta, Agta-Dumagat, Applai, Ayangan, Bago, Bontok, Bugkalot, Calinga, Gaddang, Dumagat,, Ibaloy, Ibanag, Itawis, Kalanguya, Kalinga, Kankanaey, Parananum, Itneg, Tuwali, Yogad • Cagayan – Agta, Aggay, Ibanag, Itawis, Agta-Agay, Ayangan, Bago, Bontok, Ibatan, Isnag, Kalinga, Kankanaey, Malaueg, Itneg, Tuwali, Zambai • Camarines Norte – Dumagat, Kabihug • Camarines Sur – Agta, Agta-Cimaron, Agta-Tabangnon, Kabihug • Bukidnon – Bukidnon, Higaonon, Manobo, Talandig, Matigsalug, Tigwahanon, Umayamnon, Pulangiyen • North Cotabato – Aromanon, Bagobo, Ubo Manobo, Karintik, Blaan, Apayao (CAR) has the highest poverty incidence among the population at 61.40% (in 2012), followed by Bukidnon (Region X) at 58.7%. All provinces have significant agriculture-dependent labor force. All areas have high rates of unemployment in especially in Camarines Norte, Apayao, Cagayan.
	<u>Municipalities:</u> Municipalities in provinces will be selected based on the results of an ongoing DA Climate Risk and Vulnerability Assessment (CRVA) applied to each province with the aim of addressing the needs of municipalities and areas with greatest exposure and vulnerability to climate change (see Section 2.9 of Annex 2). The selection criteria will be as follows:	During the project implementation, 100 municipalities will be selected in the target provinces. The selection will be verified through a participatory CRA strategic planning process (Activity 1. 2.1).	The selection of Municipalities will be based on consultations with project stakeholders, drawing on CRVA and participatory provincial CRA strategic planning.

Level/ Type/ Related project activities	Criteria/ Process	Stage / Timing	Environmental and Social Risks
	• Importance in terms of climate change exposure, crop and farming systems, vulnerabilities and farmer groups per municipality; • Willingness of LGU to support CRA enterprise development, planning activities, FFS, M&E, and implementing CRA at farm level; • Availability of integrated climate change and DRR plans in local policies preferably with some counterpart budget; • Expression of commitment to O&M and CRA scaling up; • Past and ongoing relevant initiatives in place to build on, but not where it would duplicate activities of overlapping project. • DA's confirmation immediately after the meeting discussion	The final lists of municipalities will be reviewed by the Project Steering Committee (PSC) and finally approved by the respective Executing Entities under the overall and final confirmation of the AE.	
Selection of sites for FFS/CRFS under CRA enterprise development learning and investment plan implementation (Activity 2.1.1, and 2.1.3)	Specific sites for FFS/CRFS will be determined in part through the CRA enterprise development learning plans developed under Activity 2.1.1, which are also guided by CRVAs. These plans will identify, inter alia, CRA practices to be promoted through FFS/CRFS in each of the 100 targeted municipalities. The planning process will also help assess the current state of FFS in each municipality and specify the number of new FFS/CRFS that the Project will establish in each municipality. Once the scope, focus and number of FFS/CRFS to be established in each municipality are defined, the DA will identify specific sites on which to establish any new FFS/CRFS. After consultation with FAO, the DA Regional Offices (RFOs) will endorse to the regional steering body (such RAFCs – Regional Agriculture and Fishery Councils) to approve the final selection of sites for FFS at the regional level. Sites will be selected based on the following criteria (see Section 2.9 of Annex 2): • Priority vulnerable crop/farming systems identified in CRVA, and regional strategic review (see above for municipality) • Priority vulnerable target groups identified in CRVA • No Climate change FFS or CRFS in place • Proximity of each site to the anticipated Farmer Beneficiary households to be trained at the FFS sites (note: this qualitative assessment will be made by FAO experts). • The use of land as an FFS site during the project implementation.	Upon selection of Farmer Beneficiaries. Finally selected sites will be reviewed by the Programme Steering Committee (PSC), to also ensure synergies with PILAR and other initiatives under the programme approach for Philippines CRA Transformation The selection will be approved by the respective Executing Entities under the overall and final confirmation of the AE.	The selection of sites will be based on consultations/agreement with beneficiaries FPIC and IKSP processes will be carried out in areas where there are IP populations
Sites for community nature-based	The sites for community adaptive structures such as small-scale water harvesting, group land management (such as terracing) will be identified through the CRA enterprise investment planning ad	These sites will be established after FFS/CRFS, and Local plans have been	The selection of sites will be based on consultations/agreement with beneficiaries

Level/ Type/ Related project activities	Criteria/ Process	Stage / Timing	Environmental and Social Risks
solutions DRR infrastructure for Activity 2.1.3	based on core FFS sites (see above), as well as in consultation with the communities as to the nature of adaptation and priority vulnerable beneficiary group needs. *Within the selected communities and linked with FFS/CRFS sites.*	completed, as well as project due diligence applied. Finally selected sites will be reviewed by the Project Steering Committee (PSC) and finally approved by the respective Executing Entities under the overall and final confirmation of the AE.	FPIC and IKSP processes will be carried out in areas where there are IP populations
Farmer Beneficiaries For Activities 1.2.1, 2.1.1, 2.1.2, 2.1.3, 3.1.1	Farmer beneficiaries are selected based on being vulnerable target group identified in climate resilience and vulnerability assessments led by DA, small scale farmers (generally less than 2ha), specific community vulnerable groups (see Section 2.9 of Annex 2). The following eligibility criteria were considered, also linked to FFS groups (Conduct CRVA and participatory planning under Component 2.2, see also above): ● Size of land/ small scale farmers: < 1 ha land if rice or corn; < 2 ha if upland coconut ● Vulnerability level (crop farm system, farmer group type, local area vulnerability) ● Agrarian reform beneficiaries (ARBOs); informal farmer groups, associations, recently established small coops ● Women farmers (50 %) ● Young famers < 25 years ● IP groups in key provinces ● SAAD beneficiaries, or fitting same criteria on poverty, food security ● Specific vulnerable groups (similar to SAAD beneficiaries) – who may not be organized, but are significantly exposed, will be identified for support through linkages with social protection programmes and specific schemes. ● Willingness to commit to CRA enterprise development learning, FFS seasons, labour, and in-kind material for testing and rolling out new practices and implementation of CRA	Finally selected farmer beneficiaries will be reviewed by the Project Steering Committee (PSC) and finally approved by the respective Executing Entities under the overall and final confirmation of the AE. 45,000 farmers will be selected for CRA enterprise development 205,000 for CRA awareness raising, capacity building for adoption of CRA practices	The selection of beneficiaries will take into due considerations specific environmental and social risks in each province and information gathered on the target municipalities during their selection.
Farmer Organizations/ Cooperatives for Activities 1.2.2, 2.1.1, 2.1.2 and 2.1.3	● Have registered as FO/Cooperative ● Experience in farmer group learning, production and marketing ● Have management structure ● Have at least 50% members in line with the project criteria for selecting Beneficiary Farmers ● Willingness to experiment CRA and develop CRA enterprise	The finalization of criteria and selection will be done during the project inception phase, drawing on the baseline assessment.	

Level/ Type/ Related project activities	Criteria/ Process	Stage / Timing	Environmental and Social Risks
	• Commitment to participate in project training and capacity building activities • Ability to mobilize farmers contribution of 25% resources of the on-farm financial model for the CRA investment plan implementation • Willingness to contribute to the project learnings i.e. pre and post training/workshop assessments, baseline, mid and end line surveys, project review and evaluation, etc.		
Beneficiary institutions at national level for Activities: 1.1.1, 1.1.2, 1.2.2, 2.1.1, 3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.2.2	Beneficiaries will be Departments, institutions, academia, CSOs, including, among the others, DA, PAGASA, Department of Agrarian Reform (DAR), NCIP, Climate Change Commission (CCC), ACPC, PCIC, Land Bank at national level	Identification of primary beneficiaries was completed during project design. Additionally, institutions, academia and CSOs will be inclusively considered based on the discussion at the PSC and final approval by the Executing Entities under the overall and final confirmation of the AE during the project implementation. Contractual agreements required for services of any of these institutions for project implementation will be signed by FAO, the Government of the Philippines acting through DA and PAGASA as EEs, in line with the EE rules and procedures.	
Beneficiary institutions at regional and provincial levels for Activities: 1.1.1, 1.1.2, 1.2.1, 1.2.2, 2.1.1, 2.1.2, 2.1.3, 3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.2.2	Beneficiaries will be regional agencies and provincial-based administration, academia, CSOs, and smallholder value chain actors in the Project Area including, among the others, provincial LGUs, branches of DA, PAGASA, Land Bank and DAR, and NCIP. Eligibility criteria for regional and provincial level stakeholders include institutions involved in coordination and partnership with one another to deliver climate-informed programmes and services in the Project Area both during and after the project. The following criteria will be used and tailored by the Executing Entities for specific Activities: • Job description and roles/responsibilities are relevant to the project and topics of training and workshops • Relevant background, by training and experience, particularly for technical training and capacity building activities i.e. production of CIS and agromet advisories	Identification of primary beneficiaries was completed during project design. Additionally, NGOs and private sectors will be inclusively considered based on the discussion at the PSC and final approval by the Executing Entities under the overall and final confirmation of the AE during the project implementation.	

Level/ Type/ Related project activities	Criteria/ Process	Stage / Timing	Environmental and Social Risks
	● Interest in the sectors especially for career development ● Women (50 %) ● Young professional < 35 years ● Willingness to commit time for training, knowledge sharing and project activities ● Willingness to conduct training, facilitation for farmers/FO if trained as Master Trainers and/or CRA enterprise development facilitators ● Willingness to contribute to the project learnings i.e. pre and post training/workshop assessments, baseline, mid and end line surveys, project review and evaluation, etc.		
Beneficiary Institutions at municipality level for Activities: 2.1.1, 2.1.2, 2.1.3 and 3.1.1, 3.1.2	The beneficiaries will be municipal LGUs, municipality administrations, the local operating units of DAR and NCIP, MFIs, CSOs in the Project Area. Eligibility criteria for local level stakeholders in the Project Area include public institutions involved in local planning and budgeting processes, mainstreaming of CRA approaches and ongoing programmes, and delivery of climate-informed support and services to farmers and farmer groups during and after the project implementation. Eligibility criteria for non-public stakeholder participation in the Project activities include involvement in providing services to farmers and shaping patterns of agricultural development in the Philippines.	Identification of primary beneficiaries was completed during project design. Additionally, research and educational institutions, private sectors and NGOs will be inclusively considered based on the discussion at the PSC and final approval by the respective Executing Entity under the overall and final confirmation of the AE during the project implementation.	
Professional Beneficiaries in institutions above	Professional staff who will benefit from training and capacity building support under this Project ("Professional Beneficiaries") will be selected by: (i) PAGASA and the DA for relevant Activities under Component 1, with guidance from FAO; and (ii) DA for relevant Activities under Components 2 and 3. PAGASA and DA will apply the following criteria and process when doing so: ● Organizations have been and/or will be identified based on alignment between the proposed activities and the organizations' mandates, expertise and/or services delivered (note that these determinations have been/will be made by PAGASA and the DA). They could include local operating units of DAR and NCIP municipal LGUs and administrations, CSOs, financial service providers and private sector; ● Identified organizations will be invited to nominate staff to participate in the activities based on the alignment between the contents of the proposed activity (e.g. technical focus of	Project Steering Committee (PSC)	

Level/ Type/ Related project activities	Criteria/ Process	Stage / Timing	Environmental and Social Risks
	the training) and the respective individuals' responsibilities and expertise within their organization; ● PAGASA and the DA will review the lists of nominated participants, and either confirm or reject their nomination based on an assessment of the alignment between the activity and the participants' responsibilities and expertise. The following criteria will be used and tailored by the Executing Entities in reviewing the nominated participants of different Activities: ● Job description and roles/responsibilities are relevant to the project and topics of training and workshops ● Relevant background, by training and experience, particularly for technical training and capacity building activities i.e. production of CIS and agromet advisories ● Interest in the sectors especially for career development ● Women (50 %) ● Young professional < 35 years ● Willingness to commit time for training, knowledge sharing and project activities ● Willingness to conduct training, facilitation for farmers/FO if trained as Master Trainers and/or CRA enterprise development facilitators ● Willingness to contribute to the project learnings i.e. pre and post training/workshop assessments, baseline, mid and end line surveys, project review and evaluation, etc.		

Appendix 5 - Selected CRA practices and technologies by crop and farming system in response to climate change effects

Crop/ farming system	*CRA practice and technologies to be supported*	*Response to CC*	*Mitigation possibility*	*Region (study data sources, applicability wider)*	*Important environ-mental, social aspects*
RICE					
Rice – irrigated and rainfed	# Submergence tolerant Early maturing variety Stress-tolerant variety	Changed cyclone seasons, Flood, drought		Luzon, Visayas, Mindanao	
Rice – irrigated and rainfed	# Rice-onion	Drought	Some	Luzon, Visayas, Mindanao	
Rice – rainfed	Small water impoundment Water harvesting technique Drip irrigation	Drought, dry periods		Luzon, Visayas, Mindanao	
Rice	# Alternate wetting and drying	Dry periods	Yes	Luzon – R2 and elsewhere	
Rice - lowland	Adaptive Balanced Fertilization Management System for Responsible Farming	Dry periods, heavy precipitation		Luzon – R2 and elsewhere	+ *environmental*
Rice - upland	Upland rice plus peanut	Dry periods	Some		+ *environmental* + *social*
Rice - upland	Rice terraces	Heavy precipitation, flooding			
CORN					
Corn	Corn- Banana	Drought		Mindanao	
Corn	Corn-peanut	Drought		Visayas – Cebu	
Corn – rainfed lowland	Stress-tolerant variety Water harvesting technique Drip irrigation	Drought			
Corn - upland	# SCOPSA /SALT (with peanuts) Stone bunds and small basins	Drought and heavy precipitation	Yes	All upland areas	+ *environmental* + *social*
Corn – sloping to hilly lands	Adaptive SLM Packaged Technologies - Muyong Agro forestry Ridge Stabilization System	Drought and heavy precipitation	Yes	All upland areas	+ *environmental* + *social*
HIGH VALUE CROPS					
Potato	Blight Resistant Variety	Drought and high precipitation		Luzon – CAR	
Coffee	Contour farming	Drought and heavy precipitation	Some	Mountains (Mindanao)	+ *environmental*
Cacao	Drip irrigation, water harvesting	Drought		Mountains (Mindanao)	
Upland high value mixed crops	Water harvesting tank	Drought		Uplands (Luzon – CAR, and other)	

Upland high value mixed crops	# Improved shelter/ protection	Typhoon and heavy precipitation	H	Uplands (Luzon – CAR, and other)	
Coconut	# Coconut – cacao – black pepper intercrop		Some	Mindanao - central	
Coconut	Coconut banana intercropping	Cyclone	Some	Eastern Seaboard Visayas	
Coconut	Tacunan green dwarf variety	Cyclone		Eastern Seaboard Visayas	
Vegetables	Floating garden	Flood			
Vegetables	Sorjan system Bio-intensive garden	Flood and drought			
ORGANIC					
Rice – rainfed, irrigated	# Organic red rice	Drought	Some	Visayas – Negros occidental	+ *environmental*
Corn	# Mixed organic and inorganic	Drought and heavy precipitation	Some	Visayas – Cebu	+ *environmental* + *social*
Upland high value mixed crops	Organic farming	Drought and high precipitation	Some	Luzon – CAR	+ *environmental* + *social*
Cacao	Organic	Drought and heavy precipitation	Some	Mindanao	+ *environmental*

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Appendix 6 - Table of differences and complementarities between GCF projects in the Philippines

	FAO	SAP010 (Land Bank)	UNDP	Possible overlapping/ complementarity
Title	Adapting Philippine Agriculture to Climate Change (tbd)	Multi-hazard impact-based forecasting and early warning system (MH-IBF-EWS) for the Philippines	The Philippines' Eastern Seaboard Coastal Resilience Project	
Budget	Total 39.3m. 26.3 m GCF, 8.3 m DA co-finance, 4.7m PAGASA co-finance (indicative)	10 mil GCF, 10 mil co-financing, total 20 mil (SAP)	26 mil GCF, 12 mil co-financing, total 38 mil	
Project Duration	7 years (tbd; 2023 - 2030?), lifespan 20-30 years?	5 years (2020 to 2025), lifespan 10 years	6 years (2021 - 2027?), lifespan 30 years	Possible complementarity of activity could be foreseen during the project implementation period
Focus (system)	Agriculture systems, lowland and upland in major climate impact and agroecological systems in the country	Human life, and properties, notably buildings	Coastal communities and ecosystems, people, assets, ecosystems, fisherfolks, coral reefs, seagrass beds, mangrove forests	Thematic complementarity could be foreseen among three projects
Focus (work area)	Climate-resilient agriculture for different agriculture systems in Climate Change Adaptation	DRR, no Ag focus nor other sectors. Focus on city administrations within Provinces.	Integrated coastal management approach (ICZM), ecosystem-based adaptation (EbA), protection and restoration of ecosystem and their services; ecosystem-based community-centred approach	No overlapping foreseen; Thematic complementarity could be foreseen among three projects

	FAO	SAP010 (Land Bank)	UNDP	Possible overlapping/ complementarity
timescale of climate monitoring	continuous monitoring and monthly operational agromet advisories throughout cropping seasons and year using daily, sub-seasonal, seasonal forecasts. Long-term responses for agriculture based on CC trends	Early actions starting from a few days before tropical cyclone	No temporally regular interventions, nor early actions for tropical cyclone	No overlapping foreseen
Project sites	Provinces of Cordillera CAR (3), Isabela and Cagayan (region II), Bicol Camarines Norte and Sur, Mindanao Bukidnon and N Cotabato	Tuguegarao in Cagayan (wind and flood), Legazpi in Albay (wind and flood), Palo in Leyte (wind and storm surge), New Bataan in Davao de Oro (wind and landslide)	Eastern Seaboard, 3 regions: Bicol, Eastern Visayas, Caraga	Land Bank focuses on more urban areas in Provinces. In Cagayan Region (Land Bank and FAO; not sector-specific vs agriculture); FAO project chose the region based on CC vulnerability for agriculture and priority crops, while UNDP chose based on hazard only. Bicol (UNDP and FAO; costal vs farming). Farming communities in the coast may benefit from both projects.
Procurement (met equipment only) by project	Agromet sensors to existing weather stations; also using BSWM stations (Existing AWS and synoptic stations standard sensors are not sufficient for agromet monitoring)	AWS (particularly for heavy rainfall), tide stations, landslide monitoring device (no agromet sensors).	Nothing major for PAGASA	No overlaps on locations of AWS as SAP0101 invests only in Tuguegarao city, Legaspi city, Palo in Leyte, New Bataan, and Davao de Oro
PAGASA Co-finance	Weather stations, and operation personnel of weather stations	AWS, tide stations, landslide monitoring device, operation personnel for equipment and stations		No overlaps because stations and personnel are for different locations

	FAO	SAP010 (Land Bank)	UNDP	Possible overlapping/ complementarity
climatic hazards	Drought, ENSO, heavy precipitation, floods, typhoons/high wind	Flood, landslide, storm surge, and severe wind (most of them obviously are tropical cyclone-driven)	Tropical cyclones, sea level rise, storm surges, flood	Early warning and forecasting from Land Bank project may benefit farmers too Better coastal CC resilience from UNDP project benefit fisherfolks
knowledge management	Use of short-term and long-term agromet information for generating agromet advisories and information for mainstreaming agriculture in planning at regional and local levels. Communication down to farmers. Harmonized CIS providers and agri sector, API, local climate warriors, radio stations, PAGASA unified met information system - PUMIS, enhanced ENSO alert warning system, only system with seasonal timescale	Knowledge and decision support systems framework or Multi-Hazard Impact-Based Forecasting and Early Warning System (MH-IBF-EWS), for the four climate hazards; sub-seasonal product from CLIMPS may also be used in this project	Knowledge management system, decision support tool (DST), system of conducting climate-risk profiling of coastal hazards, M&E of ecosystem restoration and conservation, in line with CCC's national climate risk management framework (NCRMF); climate-responsive vulnerability information; database on climate scenarios and climate risks, and interpretable information for decision makers	Potentially, FAO project is a connecting hub with Land Bank (sub-seasonal time scale) and with UNDP (CC vulnerability).

	FAO	SAP010 (Land Bank)	UNDP	Possible overlapping/ complementarity
Ag, FS related climate activities and services	Agrometeorological advisories, more seamless agromet advisories across time scales (daily to seasonal), including plant pest and disease alerts, at local levels Climate-resilient agriculture services Long-term agro-climate information beyond the seasonal time scale (yearly to decades) at the local scale using the latest downscaled climate projections and impact models for crops and other agriculture sub-sectors Agriculture sector impact-based forecasting capacity development is proposed as one of the activities as complementary element to Land Bank project	Forecast-based early actions (FbA): Vulnerability and risk assessment will be undertaken to understand the food security and nutrition status of the project sites (mainly more urban areas of provinces) to support the development of early actions at the community level to protect lives and livelihoods. Assessments will assist forecast-based financing at the local level and for refining social protection schemes to be more shock-responsive. Forecast based early actions will be undertaken only in identified sites (Tuguegarao city, Legaspi city, Palo in Leyte,New Bataan, and Davao de Oro).	fisherfolks, e.g. mud crab culture, ecotourism, seaweed farming, post-harvest processing of fish and fishery products, vinegar from nipa sap	No overlaps in activities and operational systems that will be GCF-financed or co-financed, in terms of locations. No overlapping among three projects because other projects do not have agriculture focus. Complementarity can be built with focus on different types of rural communities, and in financing mechanisms.
PAGASA	CAD, CLIMPS	weather forecasting center, research division	research division	
AE	FAO	Land Bank (DAE)	UNDP	
Executing entity	DA, FAO, PAGASA, BTr	PAGASA	DENR	Potential partnership could be foreseen between Land Bank and FAO project through PAGASA

	FAO	SAP010 (Land Bank)	UNDP	Possible overlapping/ complementarity
main partners	DA, PAGASA, DAR, LGUs, CCC, DA-ATI	Co-executing entities: DENR-MGB (Mines and Geoscience Bureau), OCD (Office of Civil Defence), DILG (Dept of Interior and local government), WFP, LGUs	Responsible parties: BMB, ERDB FMB, NAMRIA, MGB, DHSUD, PAGASA, DA-BFAR; PAGASA is responsible for output 1 on knowledge management system, with NAMRIA (national mapping and resources information authority), MGB, DHSUD (dept of human settlements and urban development), Ecosystems Research and Development Bureau (ERDB)	No concrete mechanism to connect three projects was suggested.
stakeholders	DA, PAGASA, DAR, Land Bank, LGUs, farmer groups, [potentially DENR for mitigation co-benefits], DILG to which LGUS to report	disaster management agencies, LGUs	DENR Regions; DHSUD, BFAR, PAGASA, NEDA Regional Offices; Provincial and Municipal LGUs	No overlapping and potential conflicts are foreseen. Land Bank role for FAO project is support for financial services at local level.
other stakeholders	NEDA for CC long-term vulnerability plans/policies, NEDA coordinates national ENSO task force, National Irrigation Administration (NIA), NGOs	NDRRMC partners		

H

Appendix 7 – Summary on how the project will build on and mainstream into national programmes

National programs/projects	Building upon, Complementing and Mainstreaming	Sustainability rationale
1. Philippine Agriculture and Fisheries Modernization Plan (AFMP) and National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP 2020-2025)	● Build capacity for use of climate information and agromet services in AFMP planning and decision making, across its three goals of (i) Increased adaptive capacities of fishing and farming communities and resilience of ecosystems; (ii) Enhanced competitiveness of agri-fishery products, both for import and export; and (iii) Broadened farmers and fisherfolk access and participation in value chain development. ● Mainstream the project's introduced/scaling up CRA technologies, into i.e. the Banner programme for rice, corn and high value crops (HVC); ● Support the AFMP move toward provision of climate resilient inputs, advisories and services. Co-financing (i.e. from the Banner Programme) will increase from Y3 onward and will take over after the project closure.	● Training materials and capacities built through the project will be sustained through the AFMP while transforming the latter toward climate resilient advisories and services to farmers. ● CIS and CRA mainstreamed into the AFMP/Banner Programme will support the latter objectives of diversification and increasing income which in turn will incentivize the continued CRA adoption by farmers; ● AFMP will sustain the engagement of financial institutions and the private sector through its work to increase farmers access and participation in value chains
2. Adaptation and Mitigation Initiatives in Agriculture (AMIA)	● Use CRVA profiles in project development and future selection of target municipalities. ● Coordinate with AMIA in selecting project municipalities and villages to ensure synergies and complementing activities; ● Where GCF and AMIA operate, integrate GCF project activities with CIS and CRA innovations and services. The project will promote AMIA villages as hub for learning and sharing technological and institutional innovations for replication. ● Utilize AMIA developed climate-resilient agri-fisheries investment prioritization-decision support platform (CRA-DS) for (i) dissemination of climate information, agromet services and CRA practices; (ii) engaging financial institutions and the private sector and bridging them with farmers; and (iii) identifying investments in support of farmers' adoption of CRA ● Draw on approaches and models in building climate-resilient communities to identify investments including small-scale flood control infrastructures. ● Joint policy study towards the institutionalization of CIS (including project developed climate information and agromet services) in the project target and other Philippine agri-fishery high-risk communities; documentation and assessment of efforts	● National agro-met and CIS platforms developed by the GCF project will initially service the beneficiary sites and concurrently all AMIA / AMIA CREATE villages/towns/provinces. Once institutionalized, these products and services will become accessible to all areas nationwide serviced by the DA and PAGASA. Beneficiary LGUs will either establish or improve their own CIS operations centers during project implementation and continue operating on their own using their respective local funds or by applying for local climate finance. ● AMIA villages that promote knowledge and learning will stimulate replication of CRA practices, through model farms, farmer-to-farmer learning exchanges. ● Farmers improved entrepreneur skills and linkage with financial institutions and the private sector will increase their access to finance to continue/scale up CRA adoption while expected increased income from adopting CRA practices would incentivize farmers' continued/scaled up adoption. ● The identification of climate resilient, viable community flood control and other DRR infrastructures will enable communities to access finance (by LGUs and under other programmes (such as PRRD) to implement these infrastructures to protect agriculture production and value chains from disaster losses.

3.	Special Area for Agriculture Development (SAAD)	• The SAAD is implemented in the poorest provinces of the Philippines with the aim to alleviate poverty through increased food production, and productivity. SAAD provides poor and in-need farmers and fishers with the appropriate technology, financing, marketing, and other support services. In its selected areas where SAAD also operates, this GCF project will link and introduce CIS and CRA into SAAD support and services. With this, SAAD areas were considered as one of the criteria in the project site/beneficiary selection	• National agro-met and CIS platforms and CRA options will become part of the menu of support and services packages provided by the SAAD program to its beneficiaries. As such, SAAD and its potential continuity beyond 2022 will scale up access to CIS and CRA adoption by farmers, particularly the poor and most vulnerable ones.
4.	Philippine Rural Development Project (PRDP)	• The GCF project will utilize and build on the PRDP's tools such as geotagging, value chain analysis and Expanded Vulnerability and Suitability Analysis (eVSA), along with the CRVA profiles under AMIA, to ascertain the climate resilience building needs of the target project areas and guide the identification of investments toward modern, value-chain oriented, and climate-resilient agriculture and fisheries sector, including through building LGU planning capacity. • The GCF project will be supportive of PRDP's commodity investment plans and advocate for the increased inclusion of CRA options in the investment packages. • The proposed Philippines Rural Development Project (PRDP) – Second Additional Financing (AF2) (USD 280M) will scale up PRDP activities to enhance the benefits and impacts of this well-functioning nationwide project and support COVID-19 economic recovery efforts by investing in rural infrastructure, enterprise development, technical assistance, institutional, governance, and science-based planning support, mainstreaming PRDP planning approaches and tools across Department of Agriculture and others, and farm-to-market roads.	• GCF project will deepen and improve the climate lens involved in the local planning processes for the agriculture sector which PRDP has begun to consider in its value-chain oriented commodity planning. With its focus on building capacity for mainstreaming CIS and CRA in local plans and budget, the project will provide local governments with additional or alternative options in their investment plans and also potentially help them locate climate finance for these options through existing or new mechanisms. • These investment plans and their implementation among others, would sustain services to farmers, supporting sustained and scaling up the latter's use of CIS and CRA adoption.
5.	Philippine Climate Change Adaptation Project (PhilCCAP) funded by GEF	• The project, which ended in 2016, supported streamlining the climate change in extension system, development of climate information at PAGASA, and promoted CRA technologies and practices • The GCF project design has built on the major results of PhilCCAP such as established automatic weather stations (AWS) and training by PAGASA for municipal agricultural office staff on the physical maintenance of the equipment and use of data; climate projections and other seasonal climate forecasts by PAGASA and the Enhanced Climate-Smart Farmers Field School. • Support PhilCCAP working group national findings submitted to the UNFCCC specifically as to the (i) need to generate credible localized agrometeorological information system; (ii) development of mainstreaming mechanisms where climate information and CRA options are integrated for practice use in local plans and budgets; and (iii) build capacity and support mechanisms for famers to adopt CRA technologies and practices. • Utilize, replicate, or improve, where possible and applicable in the GCF project, model climate resilient agriculture practices and technologies developed by PhilCCAP, including those that safeguard ecosystems and natural resources such as sustainable land management practices. https://faspselib.denr.gov.ph/sites/default/files//Publication%20Files/PhilCCAP%20PCR2017.pdf	• GCF project will systematize the most fundamental agriculture adaptation needs such as national agro-met/CIS platforms and sustain the improvement of the accuracy of weather and climate forecast products and delivery of advisory services to vulnerable smallholder farmers. It goes a step deeper by enabling LGUs to understand and utilize these products in their local planning and budgeting so these adaptation needs can be addressed in the long term. • Lessons learned from the implementation of the GCF project sustains the momentum for the community of learners especially the DA, PAGASA, and other cooperating agencies like the DENR, and local stakeholder. This will improve, refine, or even correct their understanding of adaptation impacts and needs of the agriculture sector, which can serve as inputs to national communications and evidence for related or future programme support.
6.	Agriculture lending and insurance	• The proposed GCF project will support the linkage of the beneficiaries to the existing credit and insurance products of the DA such as those administered by the Philippine Crop Insurance Corporation and the Agricultural Credit Policy Council, as well as local	• National agro-met and CIS platforms and capacities will become usable by these financial support institutions to continue improving their products and enabling them to

		development and agriculture banks like the Land Bank and the Development Bank of the Philippines. This will be done by co-organizing outreach activities with these institutions on the ground, aimed at assisting beneficiary farmers with the basic documentary requirements needed to benefit from products and services, and providing one-stop shops and helplines for these kinds of transactions. ● The project will also extend capacity development for these institutions to align the financial products and investments to be increasingly and sustainably responsive to the needs of farmers adopting CRA technologies and practices. Improved CIS will help the financial institutions/insurance companies better screen risks while linkage with farmers/target beneficiaries of projects and improved knowledge of their CRA practices will increase confidence for them to design appropriate financial/insurance products. This will also help them better manage risks of their lending/insurance portfolio.	continue targeting other climate-vulnerable areas in the country. ● GCF project will provide a model for improved and increased outreach to climate-vulnerable farmers so the institutions can redesign their outreach strategies.
7.	World Bank Promoting Competitiveness and Enhancing Resilience to Natural Disasters Sub-Program 2 Development Policy Loan (USD 600M)	● This Development Policy Loan (DPL) supports the Government of the Philippines' recovery effort from the social and economic impact of the Coronavirus Disease 2019 (COVID-19) pandemic while advancing structural reforms on competitiveness and resilience. The proposed operation, in the amount of US$600 million, is the second in a series of three operations that aims to support the Government of the Philippines in: i) promoting competitiveness and ii) enhancing resilience. This operation supports transformational reforms such as the digitalization of customs procedures, the operationalization of the Rice Liberalization Act which eliminates restrictions to rice imports and promotes the diversification of agriculture, the Common Tower Sharing policy promoting information and communication technology (ICT) infrastructure expansion, and the introduction of digital infrastructure for registration of identification systems.	●
8.	Climate Change Policy Program, Subprogram 1 (ADB – loan) pipeline	● The proposed program constitutes a multi-sector approach to support ambitious climate action in the Philippines through a set of policy and institutional reforms. It seeks to help the Government enhance the policy and regulatory environment for the effective implementation of the country's Nationally Determined Contribution (NDC) under the Paris Agreement. The three reform areas of the program, climate change mitigation, adaptation, and finance closely mirror the key elements of the NDC, in pursuit of post-pandemic green growth based on low carbon, sustainable, and climate- and disaster-resilient development.	●
9.	Mindanao Irrigation Development Project, Phase I (ADB-loan) proposed	● The proposed project will support the Government of the Philippines to increase productivity and resilience of irrigated agriculture in Mindanao by (i) strengthening irrigation planning, design, and management capacities; (ii) developing efficient and climate resilient irrigation systems; and (iii) adopting climate resilient irrigated farming practices.	●
10.	The Digital Farmers Program of the	● The DFP is a ladderized capacity-building initiative spread over a three-course sequence focusing on empowering farmers through basic digital tools such as	●

	Department of Agriculture	smartphone use, social media, agriculture applications and more complex services like e-commerce.	
11.	PAGASA Modernization Programme	• The Project implements activities that are complementary to the Modernization Programme. The agromet weather network is strengthened only where critical gaps are left even after the Modernization Programme. CIS capacities for agriculture are strengthened building upon the enhanced forecasting capacities made possible by the Modernization Programme and other projects. •	• The Modernization Programme is supported by the Republic Act No. 10692, and enhanced capacities and infrastructure will be integrated into PAGASA's regular operational services.
12.	Other PAGASA investments in meteorological equipment	• C/S-Band Doppler Weather Radars, X-Band Radars (fixed), High Frequency Radars (HFRs), Field Weather Stations (synoptic/agromet), Establishment of regional instrumentation center/calibration facility, Automatic Weather Stations (AWS), and Information System Strategic Plan (ISSP) Projects. •	•
13.	PAGASA flood monitoring, forecasting and warning programs	• Flood Forecasting and Warning System (FFWS), Improving Flood Forecasting and Warning System for Cagayan de Oro River Basin (CDO Project), Integrated Hydrological Data Management System (HDMS) for Flood Forecasters, rehabilitation of other existing systems.	•
14.	PAGASA climate change adaptation, disaster preparedness and risk reduction programs	• #MAGHANDA: Meteorological and Geological Hazard Advisories, Warning and Notifications for Decisive Action, Scaling Up Climate Information and Services for Societal Benefits (CLIM'UP), Weather and Climate Science for Partnership for South East Asia (WCSSP-SEA), Advancing Scientific and Technical Capabilities in support to economic development Through Improvement of Forecast Capability on Weather, Marine Meteorology and Short-Range Climate (IFC-WMMSRC), Capability Enhancement for High Quality Weather Observation, Forecast, Warning and Information in the Philippines (JPOW-2), Multi-Hazard Impact-Based Forecasting and Early Warning System (MH-IBF-EWS; GCF SAP010 by Land Bank)	•

No-objection letter issued by the national designated authority(ies) or focal point(s)

Republic of the Philippines
DEPARTMENT OF FINANCE
Roxas Boulevard Corner Pablo Ocampo, Sr. Street
Manila 1004

MR. YANNICK GLEMAREC
Executive Director of the Green Climate Fund
175 Art Center-daero
Yeonsu-gu, Incheon
Republic of Korea

SUBJECT : **No Objection Letter (NOL) for the Funding Proposal "Adapting Philippine Agriculture to Climate Change (APA Project) of the Food and Agriculture Organization of the United Nations**

Dear **Mr. GLEMAREC:**

We refer to the project titled "Adapting Philippine Agriculture to Climate Change" (APA Project) as included in the funding proposal submitted by the Food and Agriculture Organization of the United Nations (UN-FAO).

The undersigned is the duly authorized representative of the Department of Finance, the National Designated Authority of the Republic of the Philippines.

Pursuant to GCF decisions B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the project as included in the funding proposal.

By communicating our no-objection, it is implied that:

(a) The Government of the Republic of the Philippines has no-objection to the project as included in the funding proposal;

(b) The project as included in the funding proposal is in conformity with the national priorities, strategies and plans of the Government of the Republic of the Philippines; and

(c) In accordance with the GCF's environmental and social safeguards, the project included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no objection to the project as included in the funding proposal has been duly followed.

We acknowledge that this letter will be made publicly available on the GCF website.

Very truly yours,

BENJAMIN E. DIOKNO
Secretary of Finance
NOV 22 2022

Environmental and social safeguards report form pursuant to para. 17 of the IDP

Basic project or programme information	
Project or programme title	Adapting Philippine Agriculture to Climate Change (APA)
Existence of subproject(s) to be identified after GCF Board approval	Yes
Sector (public or private)	Public
Accredited entity	Food and Agriculture Organization of the United Nations (FAO)
Environmental and social safeguards (ESS) category	Category B
Location – specific location(s) of project or target country or location(s) of programme	North East Luzon, Cordillera, Eastern Seaboard, Western and Central Mindanao of Philippines
Environmental and Social Impact Assessment (ESIA) (if applicable)	
Date of disclosure on accredited entity's website	Thursday, January 12, 2023
Language(s) of disclosure	English and Filipino
Explanation on language	English and Filipino are the official languages of the Philippines and languages understandable to affected peoples/stakeholders.
Link to disclosure	English: http://www.fao.org/3/cc2093en/cc2093en.pdf Filipino: http://www.fao.org/3/cc2093tl/cc2093tl.pdf
Other link(s)	FAO disclosure portal (English and Filipino): https://www.fao.org/environmental-social-standards/disclosure-portal/en/ FAO Representation in The Philippines website (English and Filipino): https://www.fao.org/philippines/resources/publications/en/
Remarks	An environmental and social assessment consistent with the requirements for a Category B project is contained in the in the "Environmental and Social Management Framework".
Environmental and Social Management Plan (ESMP) (if applicable)	
Date of disclosure on accredited entity's website	Thursday, January 12, 2023
Language(s) of disclosure	English and Filipino
Explanation on language	English and Filipino are the official languages of the Philippines and both are languages understandable to affected peoples/stakeholders.
Link to disclosure	English: http://www.fao.org/3/cc2093en/cc2093en.pdf

	Filipino: http://www.fao.org/3/cc2093tl/cc2093tl.pdf
Other link(s)	FAO disclosure portal (English and Filipino): https://www.fao.org/environmental-social-standards/disclosure-portal/en/ FAO Representation in The Philippines website (English and Filipino): https://www.fao.org/philippines/resources/publications/en/
Remarks	Preliminary environmental and social management planning consistent with the requirements for a Category B project is contained in the "Environmental and Social Management Framework".
Environmental and Social Management System (ESMS) (if applicable)	
Date of disclosure on accredited entity's website	N/A
Language(s) of disclosure	N/A
Explanation on language	N/A
Link to disclosure	N/A
Other link(s)	N/A
Remarks	N/A
Any other relevant ESS reports, e.g. Resettlement Action Plan (RAP), Resettlement Policy Framework (RPF), Indigenous Peoples Plan (IPP), IPP Framework (if applicable)	
Description of report/disclosure on accredited entity's website	Thursday, January 12, 2023
Language(s) of disclosure	English and Filipino
Explanation on language	English and Filipino are the official languages of the Philippines, and both are languages understandable to affected peoples/stakeholders.
Link to disclosure	English: http://www.fao.org/3/cc2093en/cc2093en.pdf Filipino: http://www.fao.org/3/cc2093tl/cc2093tl.pdf
Other link(s)	FAO disclosure portal (English and Filipino): https://www.fao.org/environmental-social-standards/disclosure-portal/en/ FAO Representation in The Philippines website (English and Filipino): https://www.fao.org/philippines/resources/publications/en/
Remarks	An IPP Framework consistent with the requirements for a Category B project is contained in the "Environmental and Social Management Framework".
Disclosure in locations convenient to affected peoples (stakeholders)	
Date	Wednesday, February 1, 2023
Place	Note: The hard copy was made available both in English and Filipino versions.

	1. Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) Central Office - Quezon City 2. Philippine Department of Agriculture (DA) Central Office, Diliman, Quezon City 3. Philippine Regional Field Offices (RFO): • RFO CAR - Baguio City: Dr. Cameron P. Odsey, Regional Executive Director, BPI Compound, Guisad, Baguio City • RFO 2 - Isabela, Cagayan Province: Narciso A. Edillo M.A.Ed, Regional Executive Director. San Gabriel Village, Tuguegarao, 3500 Cagayan, Philippines • RFO 5 - Pili, Camarines Sur: Rodel P. Tornilla, MABE, Regional Executive Director. San Agustin, Pili, Camarines Sur • RFO 10 - Cagayan de Oro City, Misamis Oriental: Milo D. Delos Reyes, OIC- Regional Executive Director. Cagayan de Oro City, Misamis Oriental • RFO 12 - Koronadal City, Cotabato: Director Dennis R. Arpia, Prime regional government center, Koronadal City, North Cotabato • NCIP National Office - Quezon City: Mr. Allen A. Capuyan, Chairperson. 6th and 7th Floor, Sunnymede IT Center, 1614 Quezon Ave., Diliman 1103 Quezon City, Philippines 4. Office of the Provincial Agriculturist (of 9 Provinces): • Kabugao, Apayao: Gov. Elias C. Bulut, Apayao Provincial Capitol, Luna, Apayao • Lagawe, Ifugao: Mr. Domingo M. Mariano, PhD, Provincial Agriculturist,Ifugao Provincial Capitol,Lagawe, Ifugao • Tabuk, Kalinga: Gov. Ferdinand Tubban Kalinga Provincial Capitol Tabuk, Kalinga • Tuguegarao, Cagayan: Dr. Pearlita Lucia P. Mabasa, Provincial Agriculturist,Cagayan Provincial Capitol,Capitol Hills, Tuguegarao City, Cagayan • Ilagan, Isabela: Gov. Rodolofo Taguinod Lbano III, Provincial Capitol of Isabela, Ilagan, Cagayan Valley, Isabela • Pili, Camarines Sur: Governor Miguel Luis R. Villafuerte, Provincial Capitol Complex, Cadlan, Pili 4418 Camarines Sur • Daet, Camarines Norte: Engr. Almirante Abad, 2nd Floor Provincial Capitol Annex Building (Rear Side Center) Brgy. III, Daet, Camarines Norte • Malaybalay, Bukidnon: Gov. Rogelio Roque, Provincial Agriculture Office, Capitol Compund, San Victores St, Malaybalay, 8700 Bukidnon • Koronadal City, Cotabato: Gov. Reynaldo Tamayo Jr, South Cotabato Provincial Capitol, Address: Provincial Capitol, Rafael Alunan Avenue, 9506, Koronadal City

	5. FAO Representation in The Philippines 14th Floor Rockwell Business Center Sheridan North Tower Corner of United and Sheridan Streets Mandaluyong City, Philippines 6. FAO Mindanao Sub-Office FAO Mindanao Sub-Office, No. 19 Delcano Street, Rosary Heights 10 Cotabato City
Date of Board meeting in which the FP is intended to be considered	
Date of accredited entity's Board meeting	N/A
Date of GCF's Board meeting	Monday, March 13, 2023

Note: This form was prepared by the accredited entity stated above.

Secretariat's assessment of FP201

Proposal name:	Adapting Philippine Agriculture to Climate Change (APA)
Accredited entity:	Food and Agriculture Organization of the United Nations (FAO)
Country/(ies):	(the) Philippines
Project/programme size:	Small

I. Overall assessment of the Secretariat

1. The funding proposal is presented to the Board for consideration with the following remarks:

Strengths	Points of caution
An innovative project to support the country's efforts to develop climate-resilient agricultural systems. Aimed at vulnerable and rural populations to support farmers, enterprises and women's groups.	None
Strong country ownership with commitment from national agencies, and linkages to wider agricultural investment programmes that are being developed.	None

2. The Board may wish to consider approving this funding proposal with the terms and conditions listed in the respective term sheet and addendum XI, titled "List of proposed conditions and recommendations".

II. Summary of the Secretariat's assessment

2.1 Project background

3. The Philippines is a country with high vulnerability to the impacts of climate change. Ranked fourth on the Long-Term Climate Risk Index (2000 to 2019), the country is continually exposed to increasingly frequent and more catastrophic extreme weather events, such as tropical cyclones, droughts, floods and irregular precipitation. Climate change has a negative impact on the country's complex agroecological zones, consequently, rural and agricultural systems are becoming increasingly exposed to climate risks and the losses and damages associated with extreme weather events.

4. The objective of the project, "Adapting Philippine Agriculture to Climate Change" (APA), is to increase the resilience of rural men and women in areas vulnerable to climate change who depend on agriculture for their livelihoods, while transforming the country's agricultural system to greater climate resilience. This will be achieved through improving farmers' capacity to develop Climate Resilient Agriculture (CRA) enterprises and adopt financially and economically viable CRA practices, as well as the government and private sector's capacity to build supporting systems for scaling up. The project aims to achieve the following three outcomes:

(a) Outcome 1: Increased institutional capacities for the development and provision of climate information and Climate Resilient Agriculture services

(b) Outcome 2: Adoption of Climate Resilient Agriculture through enterprises by farmers (female and male); and

(c) Outcome 3: Strengthened regulatory framework, market and knowledge management for mainstreaming and scaling up Climate Resilient Agriculture.

5. The proposed project will help vulnerable farmers, including women, youth and indigenous peoples, and the private sector to access climate information and technical services and to overcome input and market barriers to CRA adoption, while building the strength of existing systems and new partnerships along value chains. This will be achieved through the complementary bundling of CRA practices, appropriate finance and risk transfer, and the use of innovative emerging digital technologies. The project activities will be delivered in at least nine provinces in five regions that have been identified as the most vulnerable climate change hot spots based on climate change projections. These regions are home to 60 per cent of the Philippine rural population (20 million out of 31.3 million rural people). More than half of the rural population most likely to be affected by the impacts of climate change reside within the project areas. At least 1.25 million, mainly poor farming household members (half of whom are women) in the nine target provinces are expected to directly benefit from the project, as farmers improve awareness of risks and risk reduction measures and incorporate climate-resilient and low-emission technologies into agricultural practices to adapt to climate change impacts. Over 5 million people living in the area will also benefit indirectly from enhanced information systems and strengthened institutional capacity, which will create an enabling environment for the widespread adoption of CRA.

6. The project is expected to mitigate climate change producing an estimated reduction of 4.38 million tonnes of carbon dioxide equivalent (Mt CO_2 eq) over 20 years as a result of the application of CRA practices and better land use. It will also have economic co-benefit in the form of increased household income from participation in CRA enterprises, while promoting gender equality and indigenous peoples resilience.

7. The total project finance needed is USD 39.25 million with a request to GCF for grant finance of USD 26.27 million (66.9 per cent). The Government of the Philippines, acting through the Philippine Department of Agriculture (DA), will contribute USD 7.22 million in the form of grant as well as USD 1.04 million in kind. Furthermore, the Government of the Philippines, acting through the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), will also provide USD 4.715 million in kind. The Government of the Philippines, acting through DA, will also provide USD 10.63 million in parallel finance.

8. The environmental and social safeguards category of the project is B.

2.2 Component-by-component analysis

9. The project objective will be achieved through three complementary outcomes that comprise its three components.

Component 1: Institutional capacities for Climate Resilient Agriculture services development

10. Activities under this Component aim to address the capacity gaps identified in implementing the Adaptation and Mitigation Initiative in Agriculture and other DA programmes. These gaps are in localized climate information services (CIS), tailored CRA technologies, agri-business capacities, and an effective delivery and feedback system for information and services. The activities will ensure PAGASA and DA collaboratively collect and analyze relevant climate and agricultural information, develop localized CIS and make them available for wider use by farmers and others at appropriate times. The project will provide tools and training to

government staff at national, regional, and local government units (LGU) levels so that they deliver timely, relevant and accurate CIS and CRA service packages to farmers, the private sectors, and other stakeholders. The big data lab of the Food and Agriculture Organization (FAO) of the United Nations, climate risk assessment tools such as Climate Risk Resiliency and Vulnerability Assessment (CRVA), crop yield estimate tools such as PyAEZ, remote sensing technologies developed under the partnership with Google, the FAO investment planning tool (e.g. EarthMap using Landsat, MODIS, Sentinel data), and RuralInvest will be introduced.

11. This Component will develop institutional capacity from national to municipality levels for the production, communication and utilization of localized CIS and CRA services. It will establish and institutionalize inter-agency mechanisms (such as Technical Working Groups and CIS platforms) that support the sustained production and delivery of services across different levels; it will also furnish coordination and two-way communication with key beneficiary stakeholders and other users. Farmers', in particular indigenous peoples', knowledge and perspectives are a key input in the development of information products, and farmer involvement will be part of the process from the start. The project envisages regular consultations and an active feedback process with indigenous peoples and other farmers to ensure their knowledge and experiences in CRS and related practices and technologies are fully reflected in the capacity development efforts, including training material, methodology and other products and services.

12. The localized CIS and CRA services will be rolled out under Component 2 for CRA adoption through enterprise development. Ultimately, the improved CIS will be available to all farmers vulnerable to climate change, and users outside project areas to improve decision-making (such as in developing and modifying credit and insurance products); such services will also inform the policies, planning and investments of a wide range of government agencies in order to stimulate the mainstreaming of CRA and progress towards resilience in the country (Component 3).

Component 2: Climate Resilient Agriculture adoption through enterprise development

13. Activities under this Component will support communities vulnerable to climate change in improving their adaptive capacity while developing farmers' CRA enterprises, thereby enhancing both their resilience and income-generation capacities. As a result, farmers will be able to adopt climate-resilient technologies in a wide range of agroecological and socioeconomic situations and become economically sustainable by linking themselves to CRA investment opportunities and value chains. This Component will improve farmers' access to climate information, CRA services, and finance, together with quality agricultural inputs and farm equipment, in order to reduce risks and losses, produce enough volume, attain economies of scale, ensure quality and establish a niche market. Farmers will in turn develop into sustainable and resilient clustered community-based entrepreneurs. With a special focus on women, indigenous peoples and youth, activities under this Component will strive to overcome input and market barriers to CRA adoption with complementary bundling of CRA practices with value chain linkages, appropriate finance and risk transfer. The project will use innovative information and communications and mobile technologies in providing information and linking farmers vulnerable to climate change to CIS and CRA advisories and services. Another particular focus will be on overcoming credit and other financial barriers by helping link farmers/farmer enterprises with local financial institutes such as Land Bank (the direct access entity), microfinance institutions including credit and multi-purpose cooperatives, and local insurance providers. On the other hand, the project will provide these financial institutions with technical assistance and enhanced capacity to better understand and use CIS services and develop financial products that are supportive of CRA and accessible to smallholders, especially women and indigenous peoples. The project will work through apex organizations such as the Microfinance Council of the Philippines, Cooperative Development Authority, Philippine Crop

Insurance Corporation, etc. for CIS utilization and feedback (Component 1) and capacity-building (Component 3).

Component 3: Mainstreaming Climate Resilient Agriculture

14. This Component will address the need for sustainability and scaling up of CRA. While Component 2 will directly target farmers within 100 climate-vulnerable municipalities, this Component looks at project impacts on a scale much larger than the targeted areas. It aims to mainstream CRA enterprise development and project approaches into the agriculture and rural development programmes of the Government of the Philippines, at the same time raising awareness of both climate change and natural disaster risks and equipping farmers across the country with know-how for CRA enterprise development practices. The project will help private sectors apply and use the CIS and CRA services developed under Component 1 in developing financial products and businesses.

15. This component will also raise awareness, mainstream localized CIS and CRA services, and enhance the extension capacities of non-target LGUs, the Department of Agrarian Reform, and other local actors through working with other national programmes and organizing workshops. It will build on national strategies for strengthening province-led extension systems that are being piloted, supported by Provincial CIS Centres, which provinces that are not within the project areas can establish using information available from the CIS platform and capacity-building in the DA and PAGASA.

Project management (total cost: USD 1.94 million; GCF cost: USD 0.96 million)

16. The GCF portion of the project management cost is less than 5 per cent of the total requested GCF funding and is compliant with the GCF policy on fees.

III. Assessment of performance against investment criteria

3.1 Impact potential *Scale: N/A*

17. Direct beneficiaries of the project are 1,250,000 vulnerable and resource-poor persons (250,000 farmer households) in 100 municipalities in 9 provinces of 5 administrative regions of the Philippines. These are mainly poor producer households whose livelihoods are derived primarily from crops and farming systems and that will be applying climate-resilient technologies and developing CRA enterprises with support from the project. This is equivalent to nearly half of the poor and over 18 per cent of the rural population of the 9 targeted provinces, and just over 1 per cent of the rural population in the Philippines – among the most vulnerable to climate change in the country. The project financial analysis indicates that the direct beneficiaries will be able to substantially and sustainably increase their income. Furthermore, the farming system diversification efforts as part of CRA practices are expected to increase the availability of safe and nutritious food for both household consumption and the market.

18. The project will make important contributions to:

(a) Reduced emissions and increased resilience:

  (i) Adaptation results area 1 - Vulnerable people and communities;

  (ii) Adaptation results area 2 - Health, well-being, food and water security; and

  (iii) Mitigation results area 4 - Forestry and land use: and

(b) Enabling environment:

(i) Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate resilient development pathways in a country-driven manner;

(ii) Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation; and

(iii) Core Indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards.

19. Over 5 million people (50 per cent of whom are female) are expected to benefit indirectly from the project, mainly through the CIS platform in Component 1 and activities in Component 3. These beneficiaries represent 1 million farming households that are living in the prioritized provinces and are highly sensitive to climate risks. The number of indirect beneficiaries is expected to represent about 5 per cent of the total population of the Philippines. Component 1 will develop and strengthen CIS and CRA services that will benefit not only the 9 priority at-risk provinces and farmers therein but also other provinces and regions. This component will also involve building the capacity of institutions to plan and provide support services for CRA. These enhanced systems and capacities will lay out the foundation for an enabling environment that is more climate-informed and essential to widespread CRA adoption and the sustained use of CIS. Furthermore, Component 3, particularly the activity to heighten awareness of climate risks and the benefits of CIS and CRA practices, reaches farmers beyond the project's targeted provinces; at the same time, mainstreaming CRA into national and LGU programmes would have nation-wide impacts. There are 10 million more people in other high climate change-impact regions and 20 million more rural people in regions with high climate variability.

20. The project is also expected to achieve a reduction in greenhouse gas emissions of 4.38 Mt CO_2 eq over 20 years through the application of climate-resilient and low-emission agriculture practices on 250,000 hectares of land by 250,000 farmer households.

3.2 Paradigm shift potential *Scale: N/A*

21. This project aims to be a catalyst for a broader shift in agriculture across the Philippines, from its baseline state of extreme vulnerability – in terms of high damages and losses from extreme climate events and low adaptive capacity of highly exposed farmers – to an alternative paradigm in which agriculture sector stakeholders (government, private sector and farming communities) are able to understand and monitor short-term and longer-term climate change risks, as well as engage in a continuous process of adapting to these evolving risks.

22. The proposed project will make crucial contributions to the process of transforming Philippine agriculture towards climate resilience – a clear indication of its potential to produce impact beyond the one-off investments made by the GCF and co-financiers. In the process, the project will develop synergies and complementarities with other GCF projects addressing urban and coastal climate-related challenges, thus contributing to a more holistic adaptation approach in the country. There are seven key ways in which the project will achieve the proposed impact:

(a) Institutionalizing provision of CIS and CRA services;

(b) Strengthening extension and service delivery capacity;

(c) Developing new business models and demonstrating successful adaptation at scale;

(d) Mainstreaming CRA into core government services, programmes, planning and budget;

(e) Developing inclusive CRA supply chains and support;

(f) Working with Land Bank, the Agricultural Credit Policy Council, and other financial institutions to improve financial services to continue supporting farmers' adaptation; and

(g) Establishing feedback mechanisms to refine the above systems.

3.3 Sustainable development potential *Scale: N/A*

23. The project will contribute to **climate change mitigation** by reducing greenhouse gas emissions, primarily through alternate wetting and drying (AWD) technology for rice culture and also through better land-use practices and improved soil quality, among others, based on a supplementary assessment in the economic and financial analysis (see annex 3).

24. The project will also deliver **environmental co-benefits** such as improved biodiversity (by increasing integrated farming and agroforestry systems), more effective use of indigenous, stress-resistant varieties, and enhanced micro-watershed management, soil quality, water quality and availability, among others. Adaptive technologies and agricultural practices will directly improve soil quality and contribute to water conservation and ecosystem benefits, including through reduced inputs and more integrated agricultural systems (Sustainable Development Goal 15). Where appropriate, these practices will be planned and executed in a wider watershed management/river basin context, with the relevant environment and water agencies and on a province-by-province basis.

25. **Social co-benefits**. Although the GCF funds will be used for climate change concerns, they will have a positive impact in terms of some of the perennial problems for farmers, particularly the lack of support for very small-scale farmers, including indigenous farmers, who are largely dependent on agriculture and associated natural resources. The project will contribute to improving these farmers' livelihoods and food security, and reducing poverty. The main areas of socioeconomic activity for indigenous peoples are the uplands, where they experience unique sociocultural marginalisation and concerns about access, including to safe and nutritious food, as well as the availability of staples essential for their traditional diets; the project will take into account and make specific efforts to address these concerns.

26. The project will pay special attention to **women and indigenous peoples,** providing them with appropriate adaptation technologies and capacity-building activities. Recognizing that existing technologies and extension efforts seldom provide adequately for the needs of women producers in the Philippines, special training and approaches will be used to ensure gender needs are met, with additional focus on marketing and processing, areas where women traditionally play a significant role in agriculture.

27. The project will generate social benefits from the explicit inclusion of women in technical trainings, CRA demonstration plots, and CRA enterprise development. Special attention will be paid to ensuring trainers and project staff are trained on gender equality and social inclusion, as well as sexual exploitation, abuse and harassment (SEAH), and ensuring participatory processes consider the differentiated needs of women, including women from diverse indigenous and ethnic groups, and potential constraints they may experience (e.g. access to trainings and information, time constraints). Gender-sensitization will also be mainstreamed throughout training to encourage a more equitable distribution of domestic and care work, further strengthening gender equality within the agricultural sector. Increased knowledge and income will raise the development impact in the area of women's empowerment. Youth will also be targeted so that their strengths are well integrated in rural agriculture in order to support its future.

28. The project is also expected to generate **positive impacts for indigenous men and women**. The project will secure Free Prior and Informed Consent (FPIC) and ensure that their rights are safeguarded through the implementation of an Indigenous Peoples Plan (see

Indigenous Peoples Planning Framework in Chapter 6 of the environmental and social management framework (ESMF), located in annex 6 of the funding proposal).

29. **Economic.** The overall objective of the project is to increase the climate change resilience of the most vulnerable households through developing CRA enterprises and to make adoption of such enterprises profitable. Calculations of the project's economic impact have been made based on the incremental income increases that vulnerable households will accrue upon adopting project-recommended agricultural practices.

3.4 Needs of the recipient *Scale: N/A*

30. The project will target regions and provinces and locally identified agriculture-based groups that are most vulnerable to climate-related disasters. Climate change-vulnerable provinces, largely in Mindanao and Visayas, often overlap with those that have the country's lowest human development indices, ranking as low as many least-developed countries (LDCs). General access to services and economic development in these areas is often quite low. The archipelagic and mountainous nature of most regions reduces access to local services and the capacity of many small local government units to support local populations.

3.5 Country ownership *Scale: N/A*

31. The project is fully aligned with and directly contributes to the DA's basic planning documents – the National Agriculture and Fisheries Modernization and Industrialization Plan for 2020–2025 and the One DA Reform Agenda and its key strategies.

3.6 Efficiency and effectiveness *Scale: N/A*

32. The project's total proposed budget is estimated at USD 39.25 million, of which 66.9 per cent (USD 26.27 million) is proposed to be a GCF grant, and 33.1 per cent (USD 12.98 million) is the co-financing component. The project is expected to deliver direct benefits to an estimated 1.25 million people in farming households and indirect benefits to 5 million people. The direct and indirect beneficiaries constitute roughly 1.2 per cent and 5 per cent, respectively, of the Philippines' total population.

33. The project's proposed concessionality level is rationalised through: (a) the project's provision of goods that are public by nature (e.g. available and timely public-domain weather data) to Philippine small-scale farmers in the selected weather-vulnerable agroecological zones; and (b) the delivery to these farmers of goods that might be private by nature but in the long run contribute to the public good (e.g. improved CRA farming practices that will help farmers adapt to climate change).

34. With the contribution from the GCF of USD 26.27 million, the co-financing ratio is 1:0.49. Of the total co-financing amount of USD 12.98 million, 63.7 per cent will come from the DA and 36.3 per cent from PAGASA. The Government of the Philippines, acting through the DA, will provide USD 10.63 million in parallel finance. The project would also leverage parallel finance in the form of credit from Land Bank (and other agricultural finance programmes). The potential leveraged finance from Land Bank programmes alone is estimated at USD 18.72 million, if the project 45,000 target farmers/500 CRA enterprises would borrow at 60 per cent of the project investment package. This would be USD 26.02 million if the borrowing rate is at 80 per cent of the project investment package. This conservative estimate of average loan per farmer/CRA enterprise is well within the Land Bank's ceiling and lower than current borrowing rates, for example of the average 126,000 Philippine pesos by rice farmers and cooperatives.

IV. Assessment of consistency with GCF safeguards and policies

4.1 Environmental and social safeguards

35. **Project background**. The project aims to increase the climate resilience of the most vulnerable farming households in the Philippines by building up the institutional capacities for delivering tailored climate information services (CIS), developing and financing viable climate resilient agriculture (CRA) enterprises, and strengthening the capacities of the government and the private sectors to build supporting systems for scaling up the CIS and CRA services. Among the key environmental co-benefits of the project is the improved biodiversity from integrated farming and agroforestry systems, more effective use of indigenous, stress-resistant varieties, and enhanced micro-watershed management, soil quality, and water quality and availability. The project will contribute to improving farmers' livelihoods and food security while reducing poverty and ensuring social inclusion of women, indigenous peoples, youth and other disadvantaged groups. The project will be delivered in at least nine provinces in five regions in the Philippines, providing comprehensive CRA support to 500 CRA enterprises, covering 45,000 most vulnerable and resource-poor households to implement their CRA investment plans.

36. **Environmental and social risk category.** The accredited entity (AE) assigned the project moderate environmental and social risk that is equivalent to Category B of the GCF environmental and social risk categorization. Potential adverse impacts are considered in the instances of working poverty in the project areas, potential use of water harvesting facilities, proximity to protected areas, and the involvement of indigenous peoples' communities, which are generally site-specific, largely reversible, and readily addressed through mitigation measures. No activities with potential significant adverse environmental and/or social impacts that would fall under Category A will be supported under the project. The Secretariat confirms the environmental and social risk category and that this is within the AE's environmental and social risk accreditation level.

37. **Safeguards instrument**. The AE provided an environmental and social management framework (ESMF) that identifies generic environmental and social impacts and mitigation measures and opportunities to enhance positive impacts per the project components. As further details of the proposed activities are yet to be determined, the ESMF establishes general principles and procedures to mitigate impacts for implementation at subproject level. The ESMF includes environmental and social risk screening criteria for selecting subproject activities, and requires that environmental and social risk management plans (ESMPs) be prepared based on the environmental and social risks identified during the screening process and in accordance with the AE's environmental and social safeguards that are aligned with GCF policy. The ESMF also establishes institutional arrangements, grievance redress mechanisms (GRM), and monitoring, reporting and documentation measures for environmental and social safeguards compliance. Among various safeguards instruments, the ESMF includes an ESMP template, Biodiversity Management Planning Framework, summaries of the current stakeholder consultations and plan for continued stakeholder engagement, and an Indigenous Peoples' Planning Framework (IPPF) to guide the project implementation.

38. **Compliance with the GCF environmental and social safeguards (ESS) standards.** The paragraphs below describe the programme's compliance with the GCF ESS standards.

39. **ESS 1: Assessment and management of environmental and social risks and impacts.** The project is categorized as moderate risk against the AE's own environmental and social policy and standards. The ESMF discussed the environmental and social baseline at the provincial level pertaining to the project areas and at the national level focusing on land tenure, conflicts and community health and safety, and identified the overall environmental and social impacts and mitigation measures per project components. Whilst the project is expected to

bring about major positive impacts based on improved CIS and CRA services, adverse environmental and social risks and impacts may be caused by increasing agricultural production and land productivity, and by small-scale construction activities related to infrastructure and assets for flood risk reduction, watershed harvesting and restoration, community seed banks and nurseries, collective disaster-proof storage, small scale processing and other priorities identified by the supported CRA enterprises or villages. To ensure that adequate assessment and management measures are implemented for all of the CRA enterprises and villages to be supported by the project, the ESMF describes the processes for managing site-specific environmental and social risks and impacts. The implementing sites and activities specific to each site will be identified and screened against the AE's environmental and social screening checklist, and an environmental and social management plan (ESMP) will be developed for each medium risk subproject. Given there are still conflict-affected and conflict-vulnerable areas as well as internal armed conflict within the administration regions where the project will operate, the project will avoid working in any conflict areas and will carefully scope target municipalities and villages during subproject screening. As for former conflict-affected areas, rehabilitation and peacebuilding considerations will be integrated along with project activities during implementation. In the project's social mitigation measures the ESMF establishes that thorough feasibility studies and water accounting will be conducted when supporting small-scale infrastructures; where conflicts in natural resources allocation are presented, these cases will be considered high-risk and hence be excluded from the project during subproject screening. However, given that nearly all the regions targeted by the project have a history of conflicts between state and non-state groups, it is suggested that the AE should conduct conflict-sensitivity assessments at subproject level to avoid inducing or exacerbating existing conflicts and preventing potential social conflicts.

40. **ESS 2: Labour and working conditions.** The project identified potential risks associated with rural employment, occupational safety and health (OSH) related to agricultural activities, and age-inappropriate youth work at the project level, and triggered the AE's safeguard on decent work to manage such risks. The project prohibits activities involving harmful, exploitative, involuntary, or compulsory forms of labour, forced labour, child labour or significant OSH issues, which are included in the non-eligibility list of the project's ESMF. The project environmental and social screening checklist provides further details on activities risking job displacement; operating in sectors or value chains dominated by subsistence producers and other vulnerable informal agricultural workers; and high levels of "working poverty". For moderate risk activities related to decent work, the checklist requires anticipating the likely risk of perpetuating poverty and inequality in socially unsustainable agriculture and food systems; establishing synergies with specific employment and social protection programmes; and introducing specific measures and mechanisms to empower the most vulnerable or disadvantaged categories of rural workers, such as small-scale producers, contributing family workers, subsistence farmers, agricultural informal wage workers, with special attention given to women and youth. Where major OSH risks in agriculture are identified, the checklist requires ensuring all workers' safety and health by adopting minimum OSH measures and contributing to improve capacities and mechanisms in place for OSH in informal agriculture and related occupations. In addition to awareness-raising and capacity-development activities on gender-responsive OSH measures, complementary measures will be introduced to reduce risks and protect workers, as well as children working or playing on the farm, such as alternatives to pesticides, and improved handling and storage of pesticides. Specific OSH provisions for pregnant and breastfeeding women will be required, along with periodic inspections and a multistakeholder mechanism for monitoring implementation of the safeguard measures. In terms of age-inappropriate youth work, the ESMF specifies that activities involving children below the nationally-defined minimum employment age will not be permitted. The ESMF requires risk assessment and regular monitoring where children under the age of 18 may be engaged in work-related activities in connection with the project. Where project-supported activities involve children above the minimum employment age but under

the age of 18, complementary measures such as education with skills-training and rural labour market integration will be required.

41. **ESS 3: Resource efficiency and pollution prevention.** The project is expected to improve the natural resources and agricultural land following the CRA practices and the adoption of natural resources management (including water management) and sustainable pest management practices. However, increased agriculture productivity may lead to increased use of pesticides, chemicals, and fertilizers. The project may also lead to the use of uncertified or unregistered seeds where farmers lack of the information and knowledge and generate infrastructure-related impacts caused by temporary noise and air/dust pollution during the installation of agro-meteorological (agro-met) stations and water harvesting and disaster risk reduction units. To mitigate risks related to the use of pesticides and chemical fertilizer, the CRA options and practices identified will include measures on integrated farming systems to reduce pressure on water, ensure seed quality and conserve soil fertility to limit biodiversity degradation and pollution. The project will develop a Pest Management Plan identifying key issues, mitigation actions and specific implementation arrangements, and will provide guidelines on integrated pest management. In addition, based on the non-eligibility list, the project prohibits activities involving use of any highly hazardous pesticides, banned pesticides, and the purchase of destructive farming gear and other investments detrimental to the environment. Activities that may lead to toxic waste disposal will be considered as high-risk and excluded from the project. Where avoidance of pesticides is not possible, the project will provide training on environmentally appropriate farming practices as well as safe handling, use and disposal of pesticides. The project will require any agricultural inputs that include seeds to be registered and certified, and/or to be native to the area of application. The ESMF also identified mitigation measures related to noise and dust reduction during construction and installation, and excludes activities related to unsustainable exploitation of natural resources.

42. **ESS 4: Community health, safety and security.** As CRA practices to be promoted by the project will improve farming practices and support better functioning ecosystems, the human health and well-being of affected communities can benefit from adopting economically profitable and financially viable CRA measures and increased institutional support on scaling up and implementing CRA strategies developed under the project. Investments in increased agricultural inputs on- and off-farms and agricultural production can generate adverse impacts on the health and safety of affected communities and local ecosystems exposed to the use and mismanagement of pesticides and agrochemicals. Instances of injuries may occur during the installation and operation of small-scale infrastructures, such as machinery and equipment, agro-met stations, flood risk reduction and watershed restoration structures, supported by the project. The project will promote integrated pest management and develop Pest Management Plans to reduce reliance on pesticides, and will provide guidance and training on the safe use of pesticides and fertilizers. Emergency assistance will be required as part of the Pest Management Plan for pesticides directly supplied by the project and pesticides supplied by others within the framework of the project. An emergency preparedness and response plan will be required if deemed necessary during subproject screening.

43. **ESS 5: Land acquisition and involuntary resettlement.** The land tenure analysis conducted by the AE as part of the ESMF concluded that the land tenure system is highly fragmented and complex in the Philippines and it is considered a dominant obstacle that hinders farmers from taking a long-term view on sustainable land management. The project will prohibit land acquisition and use of the project as an incentive or tool to support involuntary resettlement of local people and village consolidation. Activities of, or leading to, new settlements, or the expansion of existing settlements and restricting access to farmland, will not be eligible. Activities that may temporarily remove people from their homes, means of production and livelihood, or restrict access to their means of livelihood cannot not be initiated as per the AE's safeguard standards. Subprojects requiring resettlement or land use change that may produce loss or damage of assets or income for local communities are considered high-risk

and hence will be excluded. Where the installation of agro-met systems may require the acquisition of small portions of land, even if obtained on a negotiated basis with property owners or those with recognized rights to the land, the project will consider such as a sensitive issue and high-risk activity not eligible under the project. Where the value of land may increase due to heightened agricultural productivity promoting issues on land tenancy arrangements, the project will deploy the AE's voluntary guidelines on responsible governance of the tenure of land, fisheries and forests (VGGT). In case of potential dispute regarding land acquisition, the AE guarantees the recognition, respect, and support for tenure rights not only of the indigenous peoples but also the local communities. The AE will mitigate the potential land tenure dispute by partnering with rightful and legal owners and possessors of the land and resources and securing their consent.

44. **ESS 6: Biodiversity conservation and sustainable management of living natural resources.** The ESMF triggers the AE's relevant safeguards as the project may work with communities who live near protected areas and/or the buffer zones and may also include activities affecting plant genetic resources. One of the project provinces, Ifugao, is home to the rice terraces of the Philippine Cordilleras which has been inscribed as a World Heritage Site given its unique value as an internationally important agricultural heritage system and for its biodiversity. To prevent and minimize the potential risks and impacts, the project will prohibit activities of any kind within natural habitats and existing or proposed protected areas or their buffer zones. The project will require CRA enterprises and their farmer members not to operate in or source from farms in protected areas or their buffer zones. Activities near sensitive and valuable ecosystems, protected areas and habitat of endangered species, near watercourses, aquifer recharge areas or in reservoirs used for potable water supply, or near lands or waters containing valuable resources will be considered high-risk for exclusion. The project will only use certified seeds and locally developed and registered climate-resilient crop varieties that are registered. The project will identify the specific varieties and crops in collaboration with competent agencies and farmers participating in the project-supported field schools. When deemed necessary, screening by the AE's technical unit on plant protection will be conducted to ensure only registered and certified seeds are used. The ESMF provides a Biodiversity Management Planning Framework including a biodiversity impact analysis in each project region and identifies mitigation measures to be elaborated at the subproject level. Further baseline information and analysis will be conducted at subproject level and be reflected in the subproject ESMPs, especially where protected areas and areas of key biodiversity value are identified. CRA enterprises will be screened to ensure no farmers nor CRA enterprises are located within protected areas or within 50 metres proximity from the buffer zones. Specific terms and conditions will be reflected in the funding agreement for CRA enterprises, including prohibitive practices and safeguards and monitoring requirements the enterprises must comply with. Biodiversity monitoring will also be conducted.

45. **GCF Indigenous Peoples Policy and ESS 7: Indigenous peoples.** With indigenous peoples (IP) present in the country, an IPPF has been provided in Chapter 6 of the ESMF, as well as guidance on the development of Indigenous Peoples Plans (annex 10). The project will exclude activities that would "likely create adverse impacts on indigenous peoples (IP) and/or ethnic peoples within villages and/or in neighbouring villages, or activities unacceptable to IP groups living in an IP homogenous village or a village of mixed ethnic/IP composition". The IPPF contains information on screening and the steps and process for FPIC. Indigenous women are considered within the Gender Assessment and Action Plan. Based on consultations conducted with communities, the AE has incorporated recommendations that include continuation of traditional ways of farming in upland IP areas, facilitating solutions-oriented processes for tenure issues where relevant and requested by IPs, two-way learning processes between extension officers and IPs, and taking into account indigenous knowledge systems and practices. In terms of implementation, recommendations include IP representation within the project's decision-making bodies including the national decision-making and oversight body, and

ensuring IP expertise in the implementation of the project and the IPPF. In line with their roles and functions, the Indigenous Peoples Advisory Group is available to provide advice to the accredited entity and executing entities.

46. **ESS 8: Cultural heritage.** The AE will trigger its relevant safeguard given that agricultural landscapes may also be considered as cultural heritage sites used by the indigenous farmer beneficiaries. The ESMF prohibits the project involving sacred grounds, burial sites, cultural and heritage sites, critical and special areas identified by the indigenous peoples. Activities risking any damage or loss to cultural property, including sites having archaeological (prehistoric), paleontological, historical, religious, cultural and unique natural values will not be eligible. The ESMF specifies that the chance find procedures are to be followed by all the third-party contractors if any archaeological or historical site, remains and objects, including graveyards and/or individual graves, are discovered during the project implementation. Subprojects will be screened for the presence of cultural resources and potential impacts on physical and non-physical or intangible culture heritage inside and/or outside the project areas. In case of the presence of cultural resources, the ESMF requires that due diligence must be undertaken to verify the provisions of the normative framework overseen by the relevant national institution and through collaboration and communication with indigenous peoples' own governance institutions to verify the probability of the existence of a site or intangible cultural heritage that are significant to indigenous peoples. In cases where there is a high chance of encountering physical cultural resources, the AE requires that bidding documents and contracts for any civil works must refer to the need to include recovery of "chance findings" in line with national procedures and rules. In addition, the project Indigenous Peoples Plan also requires identification of potential impacts on cultural heritage and mitigation measures at the subproject level.

47. **Sexual exploitation, sexual abuse, and sexual harassment (SEAH) safeguarding.** The revised GCF Environmental and Social Policy adopted by decision B.BM-2021/18 requires safeguarding from sexual exploitation, abuse and harassment (SEAH) in GCF-financed activities. Due to the nature of this project, the associated SEAH risks need to be addressed. As such, the project has incorporated screening and management of SEAH-related potential risks and impacts in its relevant safeguards instrument, the ESMF and the screening of sub-activities will also involve assessing the level of risks related with SEAH. Violence against women, including SEAH, have also been identified in the gender assessment, and integrated SEAH and gender-based violence (GBV) activities in the gender action plan. Alignment of gender and safeguard policies within FAO and GCF has also been analysed and leveraging opportunities have been identified under the project.

48. In particular, the projects' grievance redress mechanism (GRM) will be accessible for all project-related complaints including SEAH-specific complaints. The projects have committed to having a survivor-centred and gender-responsive GRM and will have specific procedures for SEAH, including confidential reporting and safe and ethical documenting. The project management unit and Regional Project Offices will be responsible for managing the GRM which has a strong link with FAO Philippine personnel to ensure the right application of GRM principles. The project-related SEAH and GBV grievances will be managed through the existing FAO GRM system, which will also be strengthened to include a procedure for SEAH so that it is inclusive, survivor-centred and gender-responsive, complemented by GBV referral pathways. The pathways will be established and operationalized under the project in collaboration with the United Nations Population Fund (UNFPA), and will include medical care, psychosocial support, legal and social/reintegration support. Regarding land tenure, conflict and other health and safety concerns within the project regions, the project will ensure that the GRM will be available and accessible to all project-affected persons, and special attention will be paid to SEAH.

49. On other SEAH mitigation measures, the Gender Action Plan (GAP) has included GBV and SEAH related activities, such as training of project-related personnel and project beneficiaries on SEAH and GBV; strengthening the FAO GRM to handle such incidents; and establishing and operationalizing GBV referral pathways in collaboration with UNFPA. These measures will be inclusive, survivor-centred, gender responsive and bolstered by gender empowerment activities including sensitization and mobilisation of community gatekeepers. The SEAH risk mitigation measures have therefore been aligned with the revised GCF Environmental and Social Policy and the FAO Framework for Environmental and Social Management.

50. **Implementation arrangements.** The AE will be responsible for the overall management of the project, including the project appraisal and safeguards, administrative, financial, and technical oversight and supervision throughout project implementation, project closure and evaluation. While a dedicated Project Management Office (PMO) will be established along with Regional Project Offices to ensure the day-to-day delivery of and compliance with the project ESMF. The PMO will be supported by a National Safeguards Specialist, National Gender, Indigenous Peoples and Social Inclusion Specialist, and international safeguard specialists. A technical assistance team established by the AE will also collectively ensure the operationalization and delivery of the ESMF. All sub-project activities will be screened prior to their implementation, and ESMPs and IP plans will be developed to mitigate any medium-level risks during project implementation. The PMO will also ensure monitoring, evaluation and reporting on the safeguards implementation on all project activities and adherence at the field level. Where needed, additional environmental and social specialists will be mobilised and resources will be ensured, especially on IPs, FPIC and biodiversity. The safeguards specialists will provide trainings on screening, training, reporting and GRM at subproject levels.

51. FAO will serve as both the AE and an executing entity (EE) for this project. FAO as the AE will be responsible for the overall management of the project, including: (i) all aspects of project appraisal; (ii) administrative, financial and technical oversight and supervision throughout project implementation; (iii) ensuring funds are effectively managed to deliver results and achieve objectives; (iv) ensuring the quality of project monitoring, as well as the timeliness and quality of reporting to GCF; and (v) project closure and evaluation. FAO will accomplish these tasks in accordance with the detailed provisions outlined in the accreditation master agreement (AMA) between FAO and GCF.

52. The EEs are FAO and the Government of the Philippines acting through the Philippine Department of Agriculture (DA), the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), and the Philippine Bureau of Treasury (BTr). The DA is a government agency responsible for the promotion of agricultural development by providing the policy framework, public investments, and support services needed for domestic and export-oriented business enterprises. PAGASA was established on 8 December 1972, with a mandate to provide protection against natural calamities and to ensure the safety, well-being, and economic security of all, as well as to promote national progress by undertaking scientific and technological services in meteorology, hydrology, climatology, astronomy, and other geophysical sciences. PAGASA serves as one of the Scientific and Technological Services Institutes of the Department of Science and Technology. BTr is a national government agency (within the Department of Finance) acting as the principal custodian of all national government funds. BTr manages the cash resources of the Government, performs banking functions in relation to receipts and disbursements of national funds, and maintains accounts of the financial transactions of all national secretaries, bureaux, agencies and instrumentalities.

53. As an EE, FAO, through its representation in Philippines, will deliver technical assistance and capacity-building to complement the activities of DA and PAGASA, drawing on its comparative advantage and in-house experts to ensure that the project achieves its desired

results and to effectively equip the Government and stakeholders to sustain the process of CRA transformation introduced by the project.

54. **Stakeholder engagement and information disclosure.** The project has been developed based on a wide range of consultations with stakeholders including national government institutions, civil society organizations, community organizations, other UN agencies and international organizations at national and local levels. To better understand the local needs in each project region, field visits and safeguards-specific consultations were conducted with farmers, women (including women farmers), IP groups, and religious and ethnic minorities. As the exact communities will be determined at project inception, the ESMF summarizes current results of public consultation and provides guidance and timelines for stakeholder engagement. The ESMF requires that each subproject specifies the stakeholder engagement process and plan for continued engagement as well as regularly monitoring and reporting, required for all site-specific ESMPs. The project will disclose all safeguard instruments online, and in locally accessible places convenient to affected peoples, in both English and local languages, and for moderate-risk subprojects 30 days prior to endorsement.

55. **Grievance redress mechanism (GRM).** The AE will establish a project-level GRM that will complement the existing traditional, community and governmental structures of grievance redress and avoid potential religious discrimination. In addition to the project-level GRM, the AE will also ensure that the communities are informed and have access to the AE's institutional GRM at the Office of the Inspector-General and the GCF Independent Redress Mechanism. The project will manage SEAH and GBV-related grievances through the AE's existing GRM system, which will be strengthened to include a procedure for SEAH to ensure that it is inclusive, survivor-centred and gender-responsive, and complemented by referral pathways. The pathways will be established and operationalized under the project in collaboration with UNFPA and will include medical care, psychosocial support, legal and social or reintegration support. All grievances received and addressed under the project will be streamlined and documented and reported as part of the safeguards performance monitoring conducted by the AE. In line with the GCF Indigenous Peoples Policy, the GCF indigenous peoples focal point will be available for assistance at any stage, including before a claim has been made.

4.2 Gender policy

56. The AE has provided a gender assessment and gender action plan and therefore complies with the requirements of the GCF gender policy. The gender assessment included the various gender dynamics in the country; the operating context with regards to the legal and policy frameworks around gender-related laws (legal, administrative and spiritual frameworks); climate change and the agriculture sector and landscapes/forests in particular; division of agricultural labour; risks and opportunities where the project could find leverage, among others. It provided the key recommendations for empowering women and overall approaches for an inclusive climate resilient agriculture project. It further analysed the gender issues around indigenous peoples and youth as these groups also represent important elements of the Philippine population that intersect with gender in the target regions. The gender gaps that still exist among these subgroups and the complexities related to the egalitarian nature of indigenous peoples were also identified.

57. The GAP submitted with the proposal contains activities aligned with those of the project, performance indicators, baseline, sex-disaggregated targets, timelines and responsibilities. In view of the intersectional issues mentioned above, the GAP touched upon indigenous peoples and youth, while maintaining the primary focus on women.

58. Mainstreaming of gender equality and the empowerment of women and indigenous peoples have been contextualized from two angles: participation in project activities, and activities that include events, as well as development of products. The participation angle aims

to ensure that the proportion of participants from each of the three groups is roughly equal to the relative population sizes at national level: 50 per cent, 12.5 per cent and 25 per cent for women, indigenous persons, and youths, respectively. In some project areas, such as the Cordillera, the proportion of indigenous peoples will be much greater. In every training 10 per cent of the time involved will be devoted to the importance of mainstreaming. As the foundation of CRA, the indigenous food production systems will also be included in the content of various events and products, as well as indigenous weather and knowledge systems. This is intended to encourage citizen monitoring in accordance with the Guidelines on Research and Documentation of Indigenous Knowledge Systems and Practices and Customary Laws produced in 2012 by the National Commission on Indigenous Peoples. Watershed management, a prominent component of indigenous food production systems, will be incorporated in Farmer Field Schools for indigenous peoples, if aligned with the Ancestral Domain Sustainable Development and Protection Plan.

59. The GAP has been developed as per project components. For Component 1, on institutional capacities for CRA services development, gender activities revolve around targeting women from poor, socially deprived and/or indigenous backgrounds– ensuring that they are empowered and capacitated to be part of the enhanced institutional capacities for CIS and CRA services. This will enable them to be members of Technical Working Groups at national and regional level, contributing to the CIS platform/Regional and Provincial CIS Centres, and to become Master Trainers and CRA enterprise development facilitators. Secondly, these targeted social groups should be able to contribute to and benefit from improved CIS and CRA services, trainings and provincial CRA strategic planning that are gender inclusive, gender sensitive and gender responsive. This will ensure women's role within the project, while strengthening their capacities on climate change and climate-resilient agriculture, facilitating female entrepreneurship and leadership, improving women's rights and access to information and services, and leveraging gender equality advancements in the Philippines while addressing specific gender issues in the project regions.

60. Component 2, CRA enterprise development, aims to strengthen capacities of farmers to develop CRA enterprises and adopt economically viable and financially sustainable CRA practices that will enhance the resilience of their households and communities. The expected gender outcome of this component is increased climate resilience of women, especially indigenous women and women-headed households through (1) gender-inclusive, gender-sensitive and gender-responsive CRA enterprise plans and investments; (2) women and girl-led CRA enterprise development; and (3) targeting poor and vulnerable women and women-headed households in CRA investment planning for special groups, leveraging social protection.

61. Component 3 aims to provide an enabling environment for mainstreaming CRA and to raise awareness around CRA adoption at scale, beyond the project target municipalities/provinces/regions. This goal is supported by strengthened capacities of government agencies and LGUs to mainstream CRA into national and local policies and programmes and to monitor CRA implementation. This will apply to the private sector's use of CIS/CRA services to support CRA value chains, and to the capacity of banks and financial institutions to strengthen and/or develop climate responsive/CRA supportive financial products. The expected gender outcome is that women from deprived backgrounds are capacitated to contribute to and benefit from gender-inclusive and gender-sensitive CRA information, education and communication materials and campaigns, national and local policies and programmes that have mainstreamed CRA, as well as CRA value chains and supportive financial products that improve women's access to finance and enable sustainable CRA adoption at scale in the Philippines.

62. The day-to-day implementation of the GAP for the project will be led by the National Gender and Social Inclusion Specialist, who will be recruited by the project. The specialist will work as part of the PMO and in close collaboration with the Regional Project Offices. The

specialist will also collaborate with the implementing partners/sub-contractors to ensure adequate integration of gender-differentiated needs as well as those of indigenous peoples and youth, into the complementary support that the AE/EE provide for the project. Specifically for gender issues, the specialist will coordinate with the Philippine Commission on Women to achieve gender empowerment in the country in an effective manner.

4.3 Risks

4.3.1. Overall programme assessment (medium risk)

63. The total financing is USD 39,254,450 of which USD 26,273,510 is GCF grant financed. Co-financing is a combination of grant and in-kind contribution totalling USD 12,980,940: of which USD 8,266,400 provided by the DA, of which USD 4,714,540 by PAGASA. In addition, the DA will provide parallel finance of USD 10,625,000. The Secretariat notes that the co-financing ratio is 1.49 to 1 and 60 per cent of total financing (including parallel finance).

4.3.2. Accredited entity/executing entity's capability to execute the current project (low risk)

64. FAO will act in its capacity as the AE, and also EE. FAO is the agency in the United Nations system that is specifically involved in agriculture issues. FAO has an extensive track record in the implementation of projects in developing countries, including GCF projects.

65. The DA and PAGASA are EEs for the respective activities they are co-financiers. PAGASA experience as EE in another GCF project currently under implementation (SAP010 | Multi-Hazard Impact-Based Forecasting and Early Warning System for the Philippines). FAO has performed a capacity assessment, carried out under the United Nations, for these two entities and the results did not include any major issues in relation to the EE's ability to carry out the project activities. BTr is also an EE and will act as the agent to channel GCF proceeds to the DA and PAGASA.

4.3.3. Project-specific execution risks (medium risk)

66. Co-financing (including parallel finance) will be provided ultimately by the government of Philippines through the DA and PAGASA. Given that the co-financing amount is substantial, implementation may be impeded in the event co-financing is not realized. Most of the co-financing from DA is in the form of grant and is to come from its government budget allocation. The Secretariat derives comfort from the fact that the Government of the Philippines (rated Baa2 stable, unchanged since 2014) was characterized by moderate government debt levels and debt affordability prior to the pandemic and in recent years also by strong economic performance, a strengthening fiscal position and limited vulnerability to external shocks. Co-financing from PAGASA is entirely in-kind and may involve technical and operational risks.

67. Capacity-building and technology transfer activities represent half of the total GCF funding requested and may not result in realizing expected results. Execution delays could occur due to difficulties in enhancing the collaboration between DA and PAGASA, for example.

68. Another risk factor concerns the programme approach for Philippine CRA transformation which may hinder the expected project results of additional synergies and climate impact potential beyond this project. There are close links to another proposed GCF project in the pipeline, "Accelerating adoption of climate-resilient agricultural production through integrated landscape approach to manage climate risks" (PILAR), which is being developed with the Land Bank of the Philippines (Land Bank) as the GCF direct access entity. However, these risks are mitigated, as the climate impact potential of this project does not

depend on other initiatives, and Land Bank has submitted a Letter of Support assuring access to its existing nationwide credit scheme, which will be expanded further through the PILAR project.

4.3.4. Project viability and concessionality

69. The project includes capacity-building to help financial institutions, including Land Bank. This activity is justified as it aims to support systems in scaling up climate resilience of the country's agricultural system and building the capacity of Land Bank to provide access for farmers to existing Land Bank programmes (not funded by GCF), which is positive for long-term sustainability beyond this project.

4.3.5. GCF portfolio concentration risk (low risk)

70. If approved, the impact of this proposal on the GCF portfolio concentration in terms of result area and single proposal is not material.

4.3.6. Compliance risk (medium risk)

71. The Philippines is not subject to any current United Nations Security Council Resolutions (UNSCRs). The Food and Agriculture Organization of the United Nations (FAO), as AE, confirmed that:

(a) No projects will be undertaken in any jurisdiction which is subject to or affected by UNSCRs; and

(b) No individual or entity that is listed on any UNSC sanctions list, including the UN Consolidated Sanctions list will be involved in any manner with the project or its activities, either as a counterparty, implementer, or beneficiary.

72. FAO, along with the Philippine's DA, PAGASA and BTr, will act as EEs in the project. FAO has performed a comprehensive capacity assessment on these two entities and the results did not include any material issues in relation to the EEs' ability to undertake the planned activities. Considering all capacity related matters, FAO assessed exposure to DA s a low risk, whereas exposure to PAGASA was assessed as a moderate risk.

73. FAO has assessed money laundering, terrorist financing, prohibited practices and sanctions-related risks to be of low probability and medium impact.

FAO confirmed that their project cycle foresees that each project, at formulation stage, will prepare a risk assessment. In addition, all FAO offices implementing projects (including in the Philippines) prepare:

(a) On a yearly basis, a fraud prevention plan that is reviewed and monitored by FAO regional office (in this case, the Regional Office for Asia based in Bangkok); and

(b) A risk log with a plan for mitigating actions that is reviewed and updated every six months.

74. The enterprise risk management unit at FAO headquarters monitors compliance with fraud prevention and risk management policies. FAO confirmed that it manages risks on an ex-ante and ex-post basis at project level as well as the whole portfolio level.

75. In addition, FAO informed that the project agreement to be signed between FAO and the Government of the Philippines will include clauses related to anti-money-laundering and countering the financing of terrorism (AML/CFT) as follows:

(a) The Government of the Philippines shall comply, and shall require all persons and entities engaged in its activities under the Project to comply, with all internal AML/CFT laws, rules, and regulations;

(b) The Government of the Philippines confirms it has obtained sufficient undertakings from all persons and entities involved in its activities under the project that they shall not engage in any prohibited practices;

(c) The Government of the Philippines undertakes and confirms that it shall comply with the substantive objectives of the GCF Policy on Prohibited Practices; and

(d) Consistent with numerous UNSCRs adopted under Chapter VII of the UN Charter, the Government of the Philippines and FAO are firmly committed to the international fight against terrorism and, in particular, against the financing of terrorism. It is the policy of the Government of the Philippines and FAO to seek to ensure that none of their funds are used, directly or indirectly, to provide support to individuals or entities:

(i) Associated with terrorism, as included in the list maintained by the UNSC Committee established pursuant to its Resolutions 1267 (1999) and 1989 (2011); or

(ii) That are the subject of sanctions or other enforcement measures promulgated by the UNSC. This provision must be included in all agreements that may be concluded with third parties for the implementation of activities under the project.

76. Furthermore, all FAO offices implementing projects establish and validate a fraud plan each year. Risk management is also established and validated every six months.

77. During project implementation, FAO, as AE, will ensure close monitoring and supervision through its offices in the regional office (based in Bangkok) and headquarters in order to ensure that the activities are implemented in full compliance with the signed project agreement.

78. FAO confirmed that its grievance redress mechanism (GRM) is an integral project management element as it intends to seek feedback from beneficiaries and resolve complaints on project activities and performance. The mechanism is based on FAO requirements and most importantly, it is based on existing, community-specific GRMs preferred by the local beneficiaries. FAO and the EEs will inform communities about the GRM through culturally appropriate mechanisms, ensuring that information on mechanisms is communicated at all three levels (i.e. GCF Independent Redress Mechanism, FAO-level redress mechanisms, and the project-level GRM).

79. The project management unit and Regional Project Offices will be responsible for managing the GRM. The GRM has a strong link with competent officers of FAO in the Philippines to ensure the right application of GRM principles. Project-related SEAH and GBV grievances will be managed through the existing FAO GRM system, which will also be strengthened to include a procedure for handling SEAH that is inclusive, survivor-centred and gender-responsive, complemented by GBV referral pathways. The pathways will be established and operationalized under the project in collaboration with UNFPA, including medical care, psychosocial support, legal and social/reintegration support.

80. **Recommended enhanced due diligence**: The Office of Risk Management and Compliance (ORMC) notes that the Philippines continues to be listed by the Financial Action Task Force as a jurisdiction with strategic deficiencies in its AML/CFT regime. Taking into consideration this high exposure, it is recommended to embed enhanced due diligence and controls in all project activities.

81. **Recommended risk rating**: The ORMC/Compliance Team has conducted a review of the project in accordance with relevant GCF Board approved policies and does not find any material issue or deviation with respect to compliance issues. Based on available information for this funding proposal, the ORMC/Compliance Team have determined a risk rating of 'medium' and has no objection to this request proceeding to the next steps.

82. ORMC/Compliance Team would like to remind FAO, as the AE, of its continuing obligations and responsibilities with regard to monitoring and reporting any risks for money laundering, terrorist financing, or prohibited practices among the intended counterparties, EEs, beneficiaries, persons involved, or any of the proposed activities.

4.3.7. Summary risk assessment and recommendation

Summary risk assessment	
Overall project/programme	Medium
Accredited entity/executing entity capability to implement the project/programme	Low
Project-specific execution	Medium
GCF portfolio concentration	Low
Compliance	Medium

4.4 Fiduciary

83. The Food and Agriculture Organization (FAO) will serve as the accredited entity (AE) for the project. FAO will co-work with the Government of the Philippines acting through the Philippine Department of Agriculture (DA), the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) and the Philippine Bureau of the Treasury (BTr) as the EEs of the project.

84. FAO as the AE will be responsible for the overall management of the project, including: (i) all aspects of project appraisal; (ii) administrative, financial, and technical oversight and supervision throughout project implementation; (iii) ensuring funds are effectively managed to deliver results and achieve objectives; (iv) ensuring the quality of project monitoring, as well as the timeliness and quality of reporting to the GCF; and (v) project closure and evaluation. FAO will accomplish these tasks in accordance with the detailed provisions outlined in the accreditation master agreement (AMA) between FAO and GCF.

85. As an EE, FAO, through its representation in the Philippines, will deliver technical assistance and capacity-building to complement the activities of DA and PAGASA. On the other hand, the Government of the Philippines, acting through DA and PAGASA, will execute some of the project activities funded by GCF proceeds. DA and PAGASA will also be responsible for executing their co-financing activities. FAO, DA and PAGASA are separate legal entities belonging to the executive branch of the Government and are administratively autonomous.

86. GCF proceeds received by FAO in its capacity as AE will flow to FAO as EE as well as to the DA and PAGASA, passing through BTr, for implementation of the identified project activities.

87. BTr is a national government agency (within the Department of Finance) acting as the principal custodian of all national government funds, including the resources of this project, as received from FAO. FAO informed GCF that the BTr has approval authority on disbursements from FAO to the EEs.

88. FAO will set up a dedicated Project Task Force in line with FAO project cycle guidelines, which will be composed of the Budget Holder, Lead Technical Officer, Funding Liaison Officer, HQ Technical Officer, and other officers as appropriate. The Lead Technical Officer will be responsible for the technical supervision and oversight of project activities throughout project implementation. The Project Steering Committee will provide overall guidance and strategic orientation to the project, ensuring it remains closely aligned with key government policies and priorities.

89. The PMO will lead day-to-day delivery of project activities for which the DA is the EE. PAGASA will establish its own Project Execution Team to lead day-to-day delivery of activities for which PAGASA is the EE. FAO will establish a technical assistance team that will work closely with PMO and the Project Execution Team.

90. DA and PAGASA will develop their own Annual Work Plans and Budgets (AWPBs) that reflect the sub-components, activities and budget items for which they are responsible. The central PMO in DA (in addition to being responsible for DA's own work planning and budgeting) will consolidate the Annual Work Plans and Budgets and submit them to the Project Steering Committee for review and approval. DA and PAGASA will generate their own progress and financial reporting, which will be reviewed and consolidated by the PMO and submitted to the Project Steering Committee and subsequently to the AE. The PMO will bear primary responsibility for ensuring operationalization across DA and PAGASA activities and delivery of the ESMF, IPPF, and GAP for this project.

91. FAO will enter into a Project Agreement (the Subsidiary Agreement) with the host country, which will be binding on all the government entities involved in the project, including DA, PAGASA and the BTr. The Project Agreement will include (1) provisions on the Convention on the Privileges and Immunities of the Specialized Agencies; (2) provisions with respect to the co-financing to be provided by the host country acting through DA and PAGASA; and (3) the respective roles and responsibilities of the AE and the host country for implementation of the project. The Project Agreement will include the obligations of all parties for the execution of the project activities.

92. As the AE for this project, FAO will ensure that financial management and procurement of goods and services using GCF resources will adhere to international standards and good practices. This includes financial management and procurement performed by the DA and PAGASA. Micro-assessments of the DA and PAGASA (which include assessments of the entities' financial management and procurement policies and practices) identified both entities as suitable partners in this respect.

93. Financial management and procurement by the DA and PAGASA will also be overseen and supervised by the FAO-GCF project supervision team. The FAO-GCF project technical assistance team will undertake regular supervision missions, spot checks and audits to ensure financial management and procurement are being performed in line with the agreed standards and practices.

94. In terms of procurement, FAO operates in accordance with its Manual Section on "Procurement of Goods, Works and Services,"; in terms of sub-contracting the delivery of specific activities using Letters of Agreement, FAO operates in accordance with its Manual Section on "Letters of Agreement".

95. The GCF Financial Management Unit has reviewed the funding proposal documents shared by the AE and requested FAO to share a legal opinion on the scope of the new law (regulation 581), which requires the project resources to pass through and be disbursed by the Bureau of Treasury. However, upon confirmation from the Office of the General Counsel (OGC) that the legal due diligence provided by the AE is sufficient, the finance team accepts the OGC assessment and recommends that as a condition precedent: FAO provides confirmation that BTr as the co-EE of the project will undergo appropriate due diligence and capacity assessment per

the AE's policies and procedures and once done, the AE will share its findings as an annex and a letter of confirmation that states that BTr has undergone capacity due diligence and has the necessary financial management and technical competence to undertake the role of EE in the project.

4.5 Results monitoring and reporting

96. As a cross-cutting initiative, the programme aims at generating both mitigation and adaptation benefits. On the mitigation side, the project is also expected to achieve a reduction in GHG emissions of 4.38 Mt CO_2 eq over 20 years through the application of climate-resilient and low-emission agriculture practices on 250,000 hectares of land by 250,000 farmer households. The metrics of the GCF core indicator for mitigation based on GHG accounting methodology and EX-ACT analysis detailed under annexes 16 and of the funding proposal have been provided.

97. Regarding adaptation, the programme expects to benefit 1.25 million direct and 5 million indirect beneficiaries. The AE should provide an annex to the funding proposal demonstrating a robust methodology and rationale defining both direct and indirect beneficiaries.

98. The theory of change narrative and diagram have articulated the requisite elements, inclusive of the goal statement of the project and proposed activities, to show the relevant interlinkages between logic levels and barriers and risks.

99. The logical framework incorporates relevant details, including means of verification and reporting on the appropriate core indicators for both mitigation and adaptation, as well as on the respective impact, outcome and programme-level indicators for the targeted results areas as per the GCF performance management framework and results measurement frameworks.

100. The implementation timetable and monitoring and evaluation plan have been articulated in annex 5 and annex 11 of the funding proposal, respectively.

4.6 Legal assessment

101. The AMA was signed with the AE on 8 June 2018, and it became effective on 4 October 2018.

102. The AE has provided a legal opinion/certificate confirming that it has obtained all internal approvals and it has the capacity and authority to implement the project.

103. The proposed project will be implemented in the Republic of the Philippines, a country in which GCF is not provided with privileges and immunities. This means that, among other things, GCF is not protected against litigation or expropriation in this country, which risks need to be further assessed. The Secretariat submitted a draft privileges and immunities agreement to the Government of the Philippines on 28 January 2016. The final formatted version of the privileges and immunities agreement was sent to the Government of the Philippines on 19 March 2020 and is currently in progress for signing and ratification. The latest communications in this regard were the Delegation Meeting held on 26 April 2022 and the Secretariat submitting the package of privileges and immunities documents to the delegation.

104. The Heads of the Independent Redress Mechanism and Independent Integrity Unit have both expressed that it would not be legally feasible to undertake their redress activities and/or investigations, as appropriate, in countries where GCF is not provided with relevant privileges and immunities. Therefore, it is recommended that disbursements by GCF are made only after GCF has obtained satisfactory protection against litigation and expropriation in the country, or has been provided with appropriate privileges and immunities.

4.7 List of proposed conditions (including legal)

105. In order to mitigate risk, it is recommended that any approval by the Board is made subject to the following conditions:

(a) Signature of the funded activity agreement in a form and substance satisfactory to GCF Secretariat within 180 days from the date of Board approval;

(b) Completion of the legal due diligence to the satisfaction of the GCF Secretariat; and

(c) Delivery to GCF by the AE of a completed financial management capacity assessment of the Government of the host country, acting through the BTr, in accordance with the requirements of the AMA.

Independent Technical Advisory Panel's assessment of FP201

Proposal name:	Adapting Philippine Agriculture to Climate Change (APA)
Accredited entity:	Food and Agriculture Organization of the United Nations (FAO)
Country/(ies):	(the) Philippines
Project/programme size:	Small

I. Assessment of the independent Technical Advisory Panel

1.1 Impact potential

1. This funding proposal for a small project in environmental and social safeguards category B is submitted by the Government of the Philippines as a cross-cutting project with both adaptation (80 per cent) and mitigation (20 per cent) impact. The Food and Agriculture Organization of the United Nations (FAO) is the accredited entity (AE) and also one of the four executing entities (EEs), with the Government of the Philippines acting through the Philippine Department of Agriculture (DA), the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), and the Philippine Bureau of Treasury (BTr). Following adjustments to the funding proposal package which meant that it was not submitted for B.34 but for B.35, the total cost of the funding proposal is USD 39.25 million, of which USD 26.27 million is GCF finance, and USD 12.98 million is co-finance from the Government of the Philippines. The Government of the Philippines acting through the DA is also providing USD 10.63 million in parallel finance. The project builds on GCF SAP010, which targets early warning systems for urban cyclones, expanding the agrometeorological capacity of PAGASA, with the two initiatives working in synergy to produce and disseminate climate information and early warnings.

2. The project addresses the high vulnerability of the Philippines (ranked fourth globally in terms of long-term climate risk) to increasingly frequent and severe extreme weather events. Disaster risk levels rise with the occurrence of more intense tropical storms, including heavy rainfall and floods, as well as El Niño-related droughts, which have a negative impact on the country's complex agroecological zones. Climate model projections indicate that large parts of the country will face further exposure to increased temperatures. The northern and central regions are expected to experience drier dry seasons and wetter rainy seasons, whereas drought-prone areas in the south will be further impacted by decreased precipitation. Projections for cyclones are less certain but suggest an increase in intensity (rather than frequency). Agricultural smallholders are particularly vulnerable to weather-related hazards and climate-related disasters, which have a direct impact on the food security of rural households and the wider local economies.

3. The overall objective of the project on Adapting Philippine Agriculture to Climate Change (APA) is to increase the resilience of people who live in rural areas vulnerable to climate change and who depend on agriculture for their livelihoods, as well as transforming the country's agricultural system towards climate resilience. This will be achieved through improving farmers' capacities to utilize climate information systems (CIS), to develop climate-resilient agriculture (CRA) enterprises, and to adopt financially and economically viable CRA

practices, as well as improving the government and private sector's capacity to build supporting systems for scaling up.

4. The project aims to achieve the following three outcomes:

(a) Outcome 1: Increased institutional capacities for the development and provision of climate information and CRA services;

(b) Outcome 2: Adoption of CRA through enterprises by farmers (female and male); and

(c) Outcome 3: Strengthened regulatory framework, markets and knowledge management for mainstreaming and scaling up CRA.

5. As well as strengthening agrometeorological capacity, regulatory frameworks and financing mechanisms for CRA at the national level, the project support will be delivered on the ground in 100 highly vulnerable municipalities, located in 9 provinces across 5 administrative regions (out of 18 in the country), across the 4 (out of 8) agroecological zones expected to experience the most severe climate change impacts, as follows:

(a) Northeast Luzon – increase in flooding and damage due to heavy precipitation and tropical cyclones, increase in temperature damage and droughts from the combined effects of extreme heat, lower precipitation and lower soil moisture;

(b) Cordillera – increase in flooding and damage due to heavy precipitation and tropical cyclones, increase in temperature damage and droughts from the combined effects of extreme heat, lower precipitation, and lower soil moisture;

(c) Eastern Seaboard – increase in tropical cyclone intensity, increase in wind damage and likelihood of cyclone-related floods, likelihood of storm surges; and

(d) Western and Central Mindanao – increase in temperature and reduced precipitation, increase in droughts from the combined effects of extreme heat, lower precipitation and lower soil moisture, with cyclones potentially hitting new areas.

6. Despite commitments and emerging action by the government on CRA systems, supported by financial and technical partners, the Philippines experiences a number of barriers to wide-scale adoption of CRA, in the form of (1) weak and incomplete localized climatic information for agriculture; (2) lack of climate change focus in local agricultural plans, programmes, budgets, extension; (3) limited systems for extension and outreach on agriculture and climate change; (4) weak access to appropriate adaptation and mitigation practices; (5) limited access to finance and risk-mitigation tools and limited private sector engagement for adaptation in agricultural value chains and livelihoods; (6) unrecognized indigenous traditions and greater disadvantages among marginalized groups; and (7) compounded shocks of climate disturbances, the Covid-19 pandemic and other crises.

7. The project theory of change is that IF rural people who depend on agriculture for their livelihoods in areas vulnerable to climate change have access to climate information and CRA services, and CRA is mainstreamed by the government and the private sector, THEN the country's agriculture will be transformed and farmers will become resilient to the impacts of climate change, BECAUSE they are able to develop CRA enterprises and sustainably adopt financially and economically viable CRA practices with supporting systems for scaling up.

8. **Adaptation impact:** The project is expected to have significant adaptation impact in contributing to the following GCF fund-level outcomes: adaptation results area 1 – increased resilience of vulnerable people and communities; and adaptation results area 2 – increased resilience of health, well-being, food and water security.

9. The project is designed to reach 250,000 vulnerable small-scale farmers through two intervention models: (1) investing in CRA enterprise development (covering 45,000 farmers); and (2) raising farmers' awareness, building capacity to use CIS and CRA services and

facilitating them learning to adopt CRA practices from the newly established CRA enterprises (covering 205,000 farmers). Increasing farmers'/farmer groups' access to finance and leveraging support from other programmes will be a focus for both target groups. These farmers and their household members will make up a total of 1,250,000 direct beneficiaries in the 100 municipalities. Applying climate-resilient technologies and developing CRA enterprises will enable direct beneficiaries to substantially and sustainably increase their crop yields, crop diversity, incomes and household nutritional status.

10. Over 5 million people (50 per cent of whom are women) are expected to benefit indirectly from the project, mainly through the CIS platform in component 1 and activities in component 3. These beneficiaries represent 1 million farming households who are living in the prioritized provinces and are highly sensitive to climate risks. The number of indirect beneficiaries is expected to represent about 5 per cent of the total population of the Philippines. Component 1 will develop and strengthen CIS and CRA services that will benefit not only the nine priority at-risk provinces and their farmers, but also other provinces and regions. This component will also involve building the capacity of institutions to plan and provide support services for CRA, strengthening the enabling environment for widespread CRA adoption and the sustained use of CIS. Component 3, particularly the activity to heighten awareness of climate risks and the benefits of CIS and CRA practices, reaches farmers beyond the project's targeted provinces; and mainstreaming CRA into national and local government unit (LGU) programmes could have nationwide impacts.

11. Based on research by DA, FAO and the International Center for Tropical Agriculture, and further cost–benefit analysis, a range of CRA options were identified, including those piloted in the government's Adaptation and Mitigation Initiative in Agriculture (AMIA) villages. These CRA options, involving optimal combinations for intercropping and rotation, drought-resilient and short-cycle varieties, as well as best practice rice cultivation methods, will be used for the APA project, offering both climate change adaptation and mitigation benefits.

12. **Mitigation impact:** The project is expected to achieve a reduction in greenhouse gas (GHG) emissions of 4.38 million tonnes of carbon dioxide equivalent (tCO_2eq) over 20 years through the application of these climate-resilient and low-emission agriculture practices on 250,000 ha of land by 250,000 farmer households.

13. GHG emission reductions/gains and the resulting carbon balance from proposed CRA intervention packages were assessed using FAO's Ex-Ante Carbon-balance Tool (EX-ACT) for a 20-year period with a project implementation period of 7 years. The potential emission reductions were estimated by applying the tool for each of the project's seven CRA intervention packages (e.g. coconut–banana intercropping, or rice cultivation with alternate wetting and drying). The emission factors used were evaluated against default values in the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (2006 IPCC Guidelines) and published scientific literature, and clarifications were provided by the AE following a number of questions from the independent Technical Advisory Panel (TAP).

14. The independent TAP noted that the default emission factors in the Ex-ACT calculations follow the 2006 IPCC Guidelines, and that some of these have been updated in the *2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*. However, using the default emission factors from the 2006 IPCC Guidelines leads to conservative estimates when compared with the 2019 Refinement defaults. The expected emission reductions presented are adequately estimated, and in a conservative manner (e.g. not including potential nitrous oxide reductions from the intercropping of coffee and peanuts). In response to questions from the independent TAP, the AE also confirmed that additional emission reductions may be achieved when updating the GHG baseline.

15. The independent TAP notes that neither the funding proposal nor its annex 16 (explaining the GHG emission reduction calculations) indicate how monitoring, reporting and

verification will happen, and there is a lack of information on how the project will enable tracking of the actual emission reductions as a result of the changed agricultural practices. In answer to a question on this, the AE confirmed that in the first year of project implementation the process of selecting direct beneficiary farmers and their communities, and conducting a baseline assessment with them, will include geo-referencing of the farmers' land plots and current usage. As part of its monitoring, evaluation, accountability and learning system, the project will also develop an online platform that will capture "GHG emission baseline and target per selected CRA option".

16. The independent TAP remains unclear as to how farmers and field staff will be trained to assess whether a particular new cropping pattern in a farmer's field (involving specific and unique combinations of crops, varieties, timing, intercropping, rotation, ploughing, fertilization and irrigation practices) is likely to result in a net reduction in GHG emissions, and by how much over what period. Although seven indicative CRA cropping packages have been used for the economic and financial analysis and the GHG emission estimations, it seems unlikely that the CRA practices of the beneficiaries will be limited to this precise set of interventions. Capturing the area of land worked by the CRA enterprise beneficiaries using geographic information systems tools (as in the example provided from another FAO project) will be relatively straightforward, but capturing additional information sufficient to make an assessment on land-use change and implications for emission reductions is more challenging and requires further thought by the project proponents. Without this information it may be difficult for the GCF to assess whether or not the CRA technical assistance and changes in farming practices are achieving the anticipated mitigation benefits.

17. The independent TAP pointed out that in table E of the funding proposal, the project results framework Core Indicator 2.2, "Beneficiaries (female/male) with improved food security (number of individuals)" makes reference to the Food Insecurity Experience Scale, measured through baseline, mid- and end-line household surveys, but does not provide data under baseline or targets. The AE made some information available, using various government sources, but explained that there are a number of data gaps that will be addressed during the project baseline assessment, once the 100 target municipalities have been selected (using a combination of criteria, including severity of climate change risks and socioeconomic indicators, based on the latest Climate Resilience and Vulnerability Assessment reports from government). It is recommended that the project results framework be revisited following the completion of the baseline assessment, so that all the baselines and targets, currently very generic, are made more detailed and specific, to enable effective monitoring of results and transformational impact over time.

18. The independent TAP assesses the impact potential of the APA project as Medium to High.

1.2 Paradigm shift potential

19. The project seeks to catalyse a paradigm shift in agricultural production from its baseline state, characterized by extreme vulnerability to losses and damage from extreme weather events, and by the low adaptive capacity of highly exposed farmers, to an alternative paradigm in which stakeholders (government, private sector and farming communities) are able to understand and monitor short-term and long-term climate risks and engage in a continuous process of managing these evolving risks. This requires target farming communities to be organized and to develop enterprises to sustain CRA practices and achieve economies of scale.

20. Central to bringing about this shift is the project's goal to make a business case for reorienting domestic resources to invest in CIS and CRA as critical elements for transforming agriculture in the Philippines. The project's exit strategy supposes that the financial model for

CRA enterprises can be replicated by the DA. In answer to a query from the independent TAP about how realistic this is, given the cost of the intervention being piloted through the project, involving a subsidy of USD 375 per farmer, which would cost USD 1.9 billion to roll out to 5 million farmers countrywide even as a one-off, the project proponents indicated confidence in the ability of the DA to replicate the project model: "The Government would have sufficient budget to scale up the models, if proven successful. For example, the DA's banner programmes [i.e. flagship programmes] budget in 2022 is USD 436 million for the whole country, targeting a large number of farmers. Aside from this, other programs/units of DA have significant budget allocations (in 2022) such as those for agricultural machineries, equipment, facilities at USD 110 million, small-scale irrigation projects USD 19 million, and for its Agriculture Modernization and Industrialization Plan at USD 1.27 billion that can be leveraged to support CRA technologies and practices."

21. Critically, the project also aims to crowd in domestic commercial and development finance, particularly through increased access to credit by farmer groups, made possible by the enterprise model with enhanced business capacity and group collateral. The enterprise development approach is also the long-term objective of DA and provides a sustainable solution to financing CRA, since enterprises should become profitable within a few years, requiring gradually diminishing subsidies from the project or government until they reach that point.

22. Central to this model, however, are two assumptions which the independent TAP considers may well be flawed, limiting the project's potential to bring about a fundamental paradigm shift in the Philippines' agricultural sector. The first assumption is that better agrometeorological information and crop modelling that is well packaged to advise farmers on appropriate local adaptation actions will be accompanied by effective technical assistance and input supply beyond the project intervention sites, leading to ever-widening uptake of CRA practices. For this to really happen, the whole agricultural extension system would need to become effective – a mammoth task given the significant challenges still being experienced, three decades after the devolution of agricultural extension to LGUs.[1]

23. The AE acknowledged the serious challenges in the context of devolution of agricultural extension services in the Philippines, and explained that the proposed approach and exit strategy will address these challenges and contribute to strengthening LGU agriculture extension services by "building institutional capacity of DA and PAGASA at national, regional and of LGUs at provincial and municipality levels to develop and deliver localized climate information/agrometeorological and climate-resilient agriculture services. Engagement of LGUs, including having the LGU agriculture offices host the CIS Centres will create a strong and sustainable link between improved CIS, CRA services and local agriculture extension." The CRA Master Trainers and Enterprise Development Facilitators will be recruited locally, including from among LGU local extension workers and young graduates with an interest in careers in agriculture, as well as champion farmers. Local agriculture extension systems will be engaged in CRA awareness-raising, dissemination of CRA extension materials and facilitating peer learning among farmers for replication of practices. LGUs will be supported to develop provincial CRA strategic plans that will help mobilize resources (from the LGU, from DA and other departments and partners) to support CRA, including extension services.

24. The second assumption which may not hold is that produce from the new climate-resilient crop support packages will reach new markets and fetch good prices, enabling ongoing investment in CRA practices. The independent TAP queried with the AE the strong emphasis in the funding proposal on strengthening upstream supply chain linkages, while appearing to

[1] See, for example, the following journal article highlighting the challenges after devolution to the local government level of agricultural extension services, relating to lack of resourcing, training, morale, confidence and capacity – https://www.researchgate.net/publication/344864938_Devolution_of_Agricultural_Extension_The_Philippine_Experience – and the ongoing challenges referred to in the project's own gender assessment and action plan (annex 8 of the funding proposal).

neglect critical downstream linkages. The proposal highlights the importance of building relationships with input suppliers, but says very little about negotiating offtake agreements/ buyer contracts or about how to maximize opportunities for adding local value through establishing post-harvest infrastructure such as aggregation centres, basic processing machinery, or cold chain storage and transport.

25. In response, the AE said "We confirm the CRA Enterprise Development Facilitators will support the farmer groups in negotiations with buyers for producer-buyer contracts. This will be part of activity 2.1.2 – Develop CRA Investment Plans, as well as activity 3.2.1 – Develop inclusive CRA value chains. The linkages with MSMEs [micro, small and medium-sized enterprises] and value chains will also address critical CRA challenges such as local seed production." The AE also stated that "The project investment in CRA enterprises includes two parts: (1) investment in CRA adoption and value chains at USD 500 per farmer; and (2) investment in community-based CRA at USD 10,000 per CRA enterprise. Both can be used to support post-harvest value chain infrastructure, if identified in the investment plan developed by the enterprises." Given the limited funds available, this does not seem an adequate response, and the independent TAP would encourage the project proponents to give attention to supporting the CRA enterprises on forging downstream partnerships.

26. In relation to a concern expressed by the independent TAP about operation and maintenance (O&M), the AE stated that "for CRA related activities, if CRA enterprises will procure non-expendable equipment for group use, specific O&M plan(s) will be developed for CRA enterprises that would procure equipment or build flood and drought risk reduction nature-based assets. The O&M plan will take into consideration the expected group revenue generation or group savings as a source of sustainable financing for its implementation. FAO projects in i.e. Bangladesh and Cambodia have shown that this is feasible."

27. In response to a query from the independent TAP about the importance (as highlighted in the funding proposal) of landscape-scale sustainability as a key part of CRA, including hydrological, watershed and wider natural resource management actions, the AE explained that the project will not fund large-scale watershed level action, which would instead be undertaken, in some cases at least, by parallel government- and donor-funded initiatives. The CRA enterprises' communal investments of USD 10,000 each (90 per cent co-financed by DA) are intended for "strategic small-scale, community and ecosystem-based interventions based on CRA Strategic Plans, integrated watershed management and participatory land use planning with local communities, such as flood and drought risk reduction infrastructure, community seed banks or agro-forestry nursery." The independent TAP considers that the proponents seem quite optimistic when they say that these interventions "will be identified and designed in a way that together they contribute to landscape sustainability. For example, watershed management can be selected for upstream municipalities, to enable flood and drought risk management in downstream municipalities."

28. In response to a query about whether co-finance from the Department of Environment and Natural Resources (DENR) would have been beneficial here, the AE said: "The project plans to leverage support/resources from the DENR, as well as Department of Agrarian Reform (DAR) and other LGU programmes. Specific linkages will be clarified as CRA Strategic Plans and CRA Investment Plans will be developed during the project implementation. As such, no co-finance could be determined during the project preparation but leveraged finance from DENR, DAR and LGUs will be identified during the project implementation." This appears to be an area of weakness in the design of the project activities and/or co-financing, since it seems likely that the USD 10,000 communal grants will be used for immediate on-farm (or agroprocessing) needs, and it is unlikely that the grants will be able to make a significant dent in the wider landscape-scale needs, without a more targeted intervention on landscape planning and additional resource mobilization.

29. Overall, based on the above, the paradigm shift potential of the project is assessed as Medium.

1.3 Sustainable development potential

30. The project contributes a wide range of co-benefits that enhance its sustainable development potential.

31. **Gender benefits:** The project will generate social benefits from the explicit inclusion of women in technical training, CRA demonstration plots and CRA enterprise development, with additional focus on marketing and processing, areas where women traditionally play a significant role in agriculture. Physical safety and improvement of nutritional status will also be factored in to project activities. Strengthening food security is particularly relevant for women, who are among the most vulnerable. In times of food shortages, women are the last to eat, as they tend to prioritize the needs of men and children before their own.

32. Special attention will be paid to ensuring trainers and project staff are trained on gender equality and social inclusion, as well as preventing/dealing with sexual exploitation, abuse and harassment; and ensuring that participatory processes consider the differentiated needs of women, including women from diverse indigenous and ethnic groups, and potential constraints they may experience (e.g. access to training and information; time constraints). Gender-sensitization will also be mainstreamed throughout training to encourage a more equitable distribution of domestic and care work, further strengthening gender equality within the agriculture sector. Increased knowledge and income will raise the development impact in the area of women's empowerment.

33. **Environmental co-benefits:** The funding proposal states that the project will deliver environmental co-benefits such as improved biodiversity (by increasing integrated farming and agroforestry systems), more effective use of indigenous, stress-resistant varieties, and enhanced micro-watershed management, soil quality, water quality and availability, among other things. Adaptive technologies and agricultural practices will directly improve soil quality and contribute to water conservation and ecosystem benefits, including through reduced inputs and more integrated agricultural systems. Where appropriate, these practices will be planned and executed in a wider watershed management/river basin context, with the relevant environment and water agencies and on a province-by-province basis.

34. **Socioeconomic benefits:** The project will contribute to improving the livelihoods and food security of beneficiary farming households, and reducing poverty. Farming system diversification efforts are expected to increase the availability of safe and nutritious food for both household consumption and the market. The project envisages capacity development for farmer organizations for climate-resilient and low-emission production, improved basic processing and marketing, and avoidance of hazardous chemicals and practices in the agrifood value chains and enterprise development. The project approach adopts the key elements of sustainable agrifood system transformation that are highly likely to significantly reduce poverty, food insecurity, malnutrition, food loss and waste. Calculations of the project's economic impact have been made on the basis of the incremental income increases that vulnerable households will accrue by adopting CRA practices.

35. **Equity and land:** The independent TAP noted that the funding proposal mentions that adverse social impacts could arise from "social inequality and elite capture",[2] and project Risk Factor 5 points out that traditional relationships between land users and landlords may undermine incentives for small-scale agricultural producers (who may rent the land they farm,

[2] The term elite capture refers to a situation whereby public resources are biased for the benefit of a few individuals of high social or economic status, to the detriment of the welfare of the larger population.

or have informal tenure) to adopt CRA practices. In addition, it was observed that the indigenous people's planning framework (in annex 6 of the funding proposal) reports a perception that DA programmes "reached the 'rich farmers' or the farmers connected with the local government units and the Department of Agriculture, not always the poorest and most vulnerable farmers, IP [i.e. indigenous] farmers, and/or IP women farmers."

36. The independent TAP asked the AE whether these issues have been fully taken into account, and whether civil society organizations (CSOs) working in the land reform sector in the Philippines have been consulted on the project design. In response, the AE acknowledged that the lack of tenure security increases poor people's vulnerability to climate change, limiting their choice and diminishing their capacity to invest in improving their living environment and livelihoods, and referred to a report and discussion paper on the topic published by FAO.[3]

37. The AE stated that: "The project recognizes the reluctance of small-scale farmers to apply CRA because of the fear to lose access to land when it is rented or when they have informal land tenure. The project further recognizes that there is a need to understand well if those who are most poor and vulnerable, are also bonded labourers working or at the risk of becoming bonded agricultural workers, and to understand their traditional relationships with landlords, including small-holder landlords. Social inequality and elite capture are a risk, and corresponding risk-mitigation measures have been mainstreamed throughout the project. The project's Gender Action Plan (GAP) and ESMF [environmental and social management framework] both highlight measures to further monitor and ensure the empowerment of particularly vulnerable/excluded groups/persons and safeguarding of their rights."

38. Examples of measures to deal with these issues include ensuring participation, especially of poor and vulnerable people in the selection of target beneficiaries, based on a climate resiliency and vulnerability assessment and stakeholder analysis; training project personnel on gender equality and social inclusion, including barriers/challenges and best practices; participatory and inclusive planning processes that consider the differentiated contexts and needs of beneficiaries; CRA "enterprise investment plans" that include measures to address the differentiated challenges, priorities and needs of diverse subsets of the beneficiaries (i.e. men, women, low-income households, indigenous peoples, religious minorities, among others); additional training on leadership, financial management and CRA business development for women's organizations, including low-income women, female-headed households and indigenous women; men and women in leadership roles to serve as champions; elaboration of a full indigenous people's plan in the first year after project approval; and a project grievance redress mechanism to be communicated in local languages and made available to all affected persons.

39. The AE also confirmed that consultations have been conducted with CSOs, including some who are involved in broader land reform discussions: "In 2018 and 2019, diverse consultations were conducted with CSOs and farmer groups, including agrarian reform beneficiaries and farmers from Manobo, B'Laan, and Tagakaulo ethnic groups, the Association of Rural Improvement Club of Kidapawan City, the Philippine Commission on Women, National Commission on Indigenous Peoples, Unyon ng mga Manggagawa sa Agrikultura (UMA Philippines: national progressive centre of unions, federations, associations and organizations of agricultural workers), the Philippine Development of Human Resources in Rural Association Network, the Pambansang Kilusan ng mga Samahang Magsaka PAKISAMA [National Confederation of Small Farmers' and Fishers' Organizations], among others, who provided feedback on project design and highlighted the relevance and need for the project (see Gender Action Plan chapter 8, and the Stakeholder Engagement Plan in annex 7). In August 2022, community consultations were conducted with 120 persons (of which 55 were female and 108 IP farmers coming from 5 major IP tribes in three provinces of Ifugao, Bukidnon, and Cotabato)

[3] *Multi-sectoral study on Agribusiness Venture Arrangement policy and implementation under the Comprehensive Agrarian Reform Program* (Final Report), available at https://www.fao.org/3/i6239e/i6239e.pdf.

who expressed support for the project design and affirmed that project interventions are within their vision of progress and development in their areas."

40. **Targets for indigenous people:** The independent TAP observed that, despite the repeated commitment in the funding proposal to inclusion of indigenous people as beneficiaries, no specific numerical targets were included in the project results framework (E.1), unlike the numerical targets for involvement of women and youth. In response, the AE stated that "it is estimated that 10–15 per cent of the total population in the Philippines are indigenous. At least 12.5 per cent of the project beneficiaries will be indigenous peoples. Depending on the specific selection of villages, this figure may be higher. Baseline beneficiary surveys will provide more insight into the specific numbers, helping overcome major data gaps within publicly available statistics." Indigenous groups will be invited to participate in the regional coordination mechanism and they can provide insights into practices while also ensuring the safeguarding of indigenous peoples' rights. Beyond this, an indigenous peoples plan will be developed by the project during the first year, as outlined in the indigenous peoples planning framework (provided in chapter 6 of the environmental and social management framework). The free, prior and informed consent consultations will be formally started once the selection of the 100 municipalities and the project farmer beneficiaries is made, during the inception phase.

41. The AE also pointed out that numerical targets were included in the gender action plan for all three groups (women, youth and indigenous people) as both recipients and providers of agricultural extension and training. The independent TAP has observed a tendency for funding proposals not reflecting all the content of GCF Gender Action Plan in the main text of the proposal, the results framework and the budget, and believes it would be good practice to conduct the gender analysis and develop the gender action plan fairly early on in the project development process when there is still time to influence the project design, budgeting, and monitoring and evaluation framework, and make sure that the gender actions and budget are fully mainstreamed into the main project documents.

42. The independent TAP assesses sustainable development potential as Medium to High.

1.4 Needs of the recipient

43. The project will target regions and provinces and locally identified agriculture-based groups that are most vulnerable to climate-related disasters. Provinces that are vulnerable to climate change overlap with those that have the lowest human development indices in the country, ranking as low as many least developed countries. General access to services and economic development in these areas is often quite low. The archipelagic and mountainous nature of many regions reduces access to local services and the capacity of many small LGUs to support local populations. Even quite productive lowland areas have high densities of poor and often small landholders with few assets. Beneficiaries of the project will be poor and vulnerable farmers with very little surplus income to invest in CRA, and little access to microfinance.

44. The need for the GCF finance is driven by fiscal constraints among relevant government authorities, especially for investment in capacity-building and in smaller, more remote rural units. National government funding has been constrained not only by the recession caused by the Covid-19 pandemic, but by having to remediate damage to the agricultural sector from disasters (both natural and climate change-induced). Between October 2019 and February 2020 the country experienced three earthquakes, two major typhoons (Haiyan and Rai (Odette)), and the phreatic eruption of the Taal Volcano near Manila, with total damage assessed at USD 283 million. Support from international financial institutions is possible, but likely to be geared towards larger infrastructure projects, rather than the capacity-building and technical assistance that are essential for transitioning to CRA and reaching scale. Other development assistance partners may be willing to back this type of "soft support", but investment tends to be modest and more geared towards pilots.

45. **Needs of indigenous people and women:** A positive feature of the project is its inclusive nature, making a concerted effort to respond to the needs of indigenous people, as well as women farmers and female-headed households. According to the funding proposal, indigenous people and women are rarely served by appropriate extension and advisory services. Many indigenous people face difficulties in accessing financial services, as they are not registered at birth and lack official documentation. Although not stipulated by law, many financial institutions require co-signature from a woman's husband for her to take out a loan, making it difficult for female-headed households to access credit and insurance. Indigenous communities have long relied on their traditional knowledge of the local weather and climate to operate their food production systems, as well as a strong traditional community-based mutual assistance system. However, their knowledge, tradition, skills and needs are often left unacknowledged. Likewise, indigenous food production systems, despite their proven track record of resilience against external shocks and potential to play a key role in accelerating the adaptation process in the context of a fast-changing climate, are not yet widely and firmly recognized.

46. Overall, based on the above, the needs of the recipients are rated as High.

1.5 Country ownership

47. The project is fully aligned with and directly contributes to the country's agriculture and climate change policies and priorities. In its 2021 nationally determined contribution the Philippines commits to a projected GHG emission reduction and avoidance of 75 per cent for 2020–2030, of which 2.71 per cent is unconditional and 72.29 per cent is conditional, covering the agriculture, waste, industrial, transport and energy sectors. The nationally determined contribution also emphasizes adaptation, and building institutional and technical capacities to generate and use climate science for risk-informed development. The government has been active in setting out policies and high-level plans for addressing climate change, such as the National Climate Change Action Plan (NCCAP), the National Adaptation Plan, the Joint Roadmap of the Cabinet Cluster for Climate Change Adaptation and Mitigation and Disaster Risk Reduction (CCAM-DRR, 2018–2022), and related laws. The Philippine Commission on Women recognizes the impact of climate change on women, as does the NCCAP.

48. Country ownership of the project has been further strengthened through the addition of the Government of the Philippines' BTr as a co-EE alongside DA, PAGASA and FAO. The GCF funds will flow from the AE through the Government of the Philippines's BTr to DA and PAGASA. The Government's co-finance to the project includes USD 4.72 million from PAGASA for agrometeorological data generation, and USD 18.89 million (made up of USD 8.26 million in co-finance and USD 10.63 million in parallel finance) through the DA's banner programmes, which are committed to pivoting to a more climate risk-informed approach to expenditure through its support to the project. This ties in with the DA's National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP) for 2020–2025, the One Department of Agriculture strategy, and the Philippine Development Plan (2017–2022), which all highlight the need for better information for climate-related actions.

49. The NAFMIP provides a vision for the agrofisheries sector, reorienting major banner programmes to deliver results that drive climate change adaptation processes in their respective work streams. This emphasizes the shift to CRA as a key development strategy in the country, involving alignment of government expenditure in support of sustainable agriculture. Key here is the AMIA programme, building on and scaling up the DA's successful experiences, in the context of the urgency of the climate crisis.

50. The DA's Climate-Resilient Agriculture Office (DA-CRAO), which oversees the design of this project, was set up to coordinate research and pilot initiatives in response to key climate-related legislation, in particular the Climate Change Act and Disaster Risk Reduction and

Management Act. The commitment to using DA's banner programmes as co-financing demonstrates its strong sense of ownership of the proposed project. The DA-CRAO will continue to hold responsibility for this project during implementation and will ensure the sustainability of the project's impacts and its continued direct contribution to the DA's programmes and plans.

51. Country ownership is further demonstrated by the plans, outlined in the funding proposal and supported by the DA-CRAO, to integrate the GCF project with a number of other important initiatives of DA-CRAO including DA's banner programmes, and AMIA and World Bank-financed projects (e.g. Mindanao Inclusive Agriculture Development Project, expected in 2022, and Philippine Rural Development Project, under implementation; geo-mapping and geo-tagging; colour-coded agricultural guide map; climate resiliency and vulnerability assessments in several regions; AMIA villages; climate change expenditure tagging; the DENR Risk Resiliency and Sustainability Program; PAGASA Modernization; and the Special Area for Agricultural Development). Co-finance primarily comes from PAGASA Modernization and DA's banner programmes, and the project is designed so that these and other national programmes help to sustain its approaches.

52. Country ownership of the project is thus seen to be High.

1.6 Efficiency and effectiveness

53. Of the project's total proposed budget of USD 39.25 million, 67 per cent (USD 26.27 million) is proposed to be a GCF grant, and 33 per cent (USD 12.98 million) is the co-financing component. The project's proposed 100 per cent concessionality level is justified in two senses – because the project is providing goods that are public in nature, such as agrometeorological data needed by the agriculture sector, and because of the project's focus on increasing the capacity of resource-poor small-scale farmers to form self-sustaining collective enterprises that can then access local capital markets to scale up their improved CRA farming practices, with the aim of demonstrating a model that can be replicated nationwide. The project will cater to small-scale farmers in highly climate-vulnerable and poverty-stricken zones to help them adapt to the onset of various weather shocks (e.g. droughts, floods, typhoons) which negatively affect their agriculture production, food security and livelihoods. Small-scale Philippine farmers tend to have insufficient knowledge about climate change adaptation options, as well as low access to credit due to their remote location, lack of credit rating, or absence of collateral.

54. Of the co-financing, 64 per cent will come from DA and 36 per cent from PAGASA. In addition to this official project co-financing, DA will provide parallel finance to the value of USD 10.63 million, which will be used to support 205,000 of the most vulnerable farming households to strengthen their capacity on CRA practices and enterprise development. The other 45,000 direct beneficiaries, the CRA enterprise farmers, will receive less support than originally planned. The independent TAP notes that the support provided by DA to vulnerable households to apply CRA practices is an essential element of the original project design in terms of the theory of change, and also that the project's economic analysis has not been revised. It is therefore important that the parallel financing of USD 10.63 million to be provided by the DA is reported on in the project's annual performance reports to the GCF, along with the official co-financing.

55. In response to a query from the independent TAP, FAO confirmed that there is no co-finance for this project from FAO. Approximately USD 6.9 million of the GCF funding will be spent through FAO as an EE (technical assistance support costing about USD 5.45 million plus USD 1.45 million on monitoring and evaluation), and FAO will apply a number of global FAO tools. Those mentioned in the funding proposal are FAO's big data lab; climate risk assessment tools such as climate resiliency and vulnerability assessment; crop yield estimating tools such as PyAEZ; investment planning; climate and aggregate data collection and remote sensing tools such as EarthMap using Landsat, MODIS or Sentinel data; RuralInvest and CollectMobile tools;

and toolkits for inclusive seed systems development. The independent TAP asked if there would be any in-kind support in the form of time from existing professional staff members at HQ or the regional centre of FAO. The AE confirmed that such in-kind support would indeed be provided, but this had not been expressed through a co-financing commitment.

56. The project would also leverage parallel finance in the form of credit from key project partner LandBank, the Agriculture Credit Policy Council and other rural financial service providers. The potential leveraged finance from LandBank programmes alone is estimated by the AE at USD 18.72 million, if the projected 45,000 target farmers/500 CRA enterprises were to borrow at 60 per cent of the project investment package. This would be USD 26.02 million if the borrowing rate is at 80 per cent of the project investment package. This conservative estimate of average loan per farmer/CRA enterprise is well within the LandBank's ceiling and lower than current borrow rates.

57. The economic and financial analysis for the project (see annex 3 of the funding proposal) includes an indicative LandBank loan schedule established for 4 years, with 20 per cent down payment coming from a farmer, with 12 monthly repayments, 1 year of grace period, and an interest rate of 9.5 per cent per annum (based on the LandBank loan for crops production programme). Annex 3 of the funding proposal shows the viability of borrowing for investing in CRA options. LandBank has confirmed its support to the APA project beneficiaries through its existing loan programmes with the interest rate for commercial programmes ranging between 8.5 and 15 per, cent as mentioned above.

58. The independent TAP pointed out that it would be helpful for the partner financial institutions to tag all loans to APA-CRA enterprise borrowers, so that the portfolio's performance can be tracked by the institutions, with a view to potential improvement of borrowing terms over time, and so that reporting back to the GCF on leveraged co-finance becomes straightforward.

59. The results of the ex ante cost benefit analysis of the seven climate-adaptive crop production packages show that the expected financial revenues from adoption of the proposed CRA solutions in the selected agroecological zones will outweigh the costs. The financial results of the cost–benefit analysis were calculated over 20 years, using a discount rate of 10 per cent, in individual (i.e. per 1 hectare) and aggregate terms, assuming seven representative CRA enterprise types. The individual incremental financial net present values (NPVs) of appraised interventions range from USD 1,400 to USD 15,700, depending on the proposed intervention scenario and agroecological zone. The aggregate incremental financial NPVs use an assumed 30,000–50,000 hectares per intervention, and financial NPVs range from USD 50 million to USD 473 million. These results suggest that the proposed interventions are financially sustainable, which bodes well for farmers to adopt and maintain proposed CRA solutions.

60. The economic analysis results were based on the same assumptions as the financial analysis, and included values of carbon co-benefits, derived through estimation of GHG emissions and using shadow prices of carbon (the lower- and upper-bound prices of carbon, as per the World Bank's recommendations from 2017). An economic discount rate (social discount rate) of 10 per cent was used (as per National Economic Development Authority of the Philippines). The aggregate incremental economic NPVs range from USD 76 million to USD 360 million over the period of 20 years, depending on the intervention, the agroecological zone and the carbon valuation used (lower vs. upper carbon pricing). The project's overall net economic incremental benefits, accounting for the costs of project implementation and calculated over 20 years at 10 per cent discount rate, are USD 500 million (assuming lower carbon pricing) and USD 524 million (assuming upper carbon pricing), with economic internal rates of return of 33 per cent and 34 per cent, respectively. These results confirm the economic viability of the proposed interventions.

61. A key aspect of the project's effectiveness is its ability to leverage additional co-finance during the project implementation period, particularly through supporting the beneficiary farmers' cooperative enterprises to access additional sources of funding to support their new climate-resilient and low-emission agricultural practices. This involves using GCF finance and DA co-finance as catalytic funding for the implementation of CRA enterprises'/AMIA villages' investment plans, while building their capacity and facilitating their access to other financial sources (e.g. LGUs, credit from LandBank and others, and relevant social protection programmes).

62. The inclusion of social protection in the leveraged co-finance is significant and welcome. The independent TAP notes that the field of social protection for adaptation, considered controversial at the seventeenth meeting of the Board of GCF (B.17), has become well established in recent years.[4] The Government of the Philippines has a major national programme that can be accessed by beneficiaries (the Risk Resiliency Programme through Climate Change Adaptation & Mitigation and Disaster Risk Reduction), aiming to strengthen the resilience of natural systems and the urban environment, as well as reinforce the adaptive capacities of vulnerable groups and communities, using a cash-for-work modality to implement community resilience projects, including river desilting, tree planting and community gardening.

63. The funding proposal observes that work by FAO on adaptive and shock-responsive social protection and the pilot test of the "graduation approach"[5] by the Asian Development Bank have proven the effectiveness of this approach in enabling vulnerable households to invest in productive assets and capacities, and build livelihoods that are resilient to negative impacts of climate change. This work has included integrating climate vulnerability and risk information in poverty registration and social protection targeting; strengthening climate information and early warning systems; and bundling technical support and capacity-building with social protection benefits.

64. The project's overall efficiency and effectiveness is rated as Medium.

II. Overall remarks from the independent Technical Advisory Panel

65. The independent TAP believes this project from the Government of the Philippines, supported by FAO, is an important one that can do much to reduce the vulnerability of the country's smallholder agriculture sector to negative impacts of climate change, simultaneously contributing to reduced GHG emissions from the sector. The independent TAP recommends that the AE undertake the following in the project inception phase:

(a) Ensure that an agreement is in place that the parallel financing of USD 10.63 million to be provided by the DA for support to vulnerable households to apply CRA practices, which remains a key contributor to the project's theory of change, is reported on in the project's annual performance reports to the GCF, along with the official co-financing;

(b) Develop or customize a monitoring tool capturing all the necessary information to make an assessment on land-use change and implications for emission reductions, enabling clear reporting to the GCF on the extent to which the anticipated mitigation benefits are met;

[4] See, for example, a recent publication by FCDO, GIZ, FAO and others: *Social Protection and Climate Change: Scaling up Ambition*.

[5] See the Asian Development Bank website: https://www.adb.org/what-we-do/themes/social-development/overview/graduation-approach.

(c) Refine the project results framework after completing the baseline assessment, so that all the baselines and targets are detailed and specific, to enable effective monitoring of results and transformational impact over time;

(d) Include in the technical assistance package to be delivered to CRA enterprises practical support on strengthening both upstream and downstream linkages in value chains for CRA products;

(e) Ensure that disaggregated beneficiary targets contained in the gender action plan, including targets for participation by indigenous peoples, are also included in the project results framework; and

(f) Establish a system for partner financial institutions to tag all loans to APA-CRA enterprise borrowers, so that the portfolio's performance can be tracked by the institutions, with a view to potential improvement of borrowing terms over time, and to enable accurate reporting back to the GCF on leveraged co-finance.

66. The independent TAP endorses the funding proposal for the project "Adapting Philippine Agriculture to Climate Change".

Response from the accredited entity to the independent Technical Advisory Panel's assessment (FP201)

Proposal name:	Adapting Philippine Agriculture to Climate Change (APA)
Accredited entity:	Food and Agriculture Organization of the United Nations (FAO)
Country/(ies):	(the) Philippines
Project/programme size:	Small

Impact potential
iTAP assessment as Medium to High is acknowledged. The baseline assessment and the development of a customized Monitoring, Evaluation, Accountability and Learning (MEAL) system will enable further specification of indicators, setting the baseline and defining the training needs.
Paradigm shift potential
iTAP assessment as Medium is acknowledged. The APA project is going to support the Climate Resilient Agriculture (CRA) enterprises in forging downstream partnerships. Through CRA enterprise investment planning, the project is focusing on climate resilient interventions that will contribute to landscape sustainability and mobilize resources to support relevant interventions.
Sustainable development potential
iTAP assessment as Medium to High is acknowledged. The project baseline assessment will enable the refinement of the project results framework with more specific indicators and targets.
Needs of the recipient
iTAP assessment as High is acknowledged.
Country ownership
iTAP assessment as High is acknowledged.
Efficiency and effectiveness
iTAP assessment as Medium is acknowledged. The AE has received the confirmation letter regarding the parallel financing from the Department of Agriculture to support complementary activities of the APA project has. The AE will report on parallel financing in line with GCF Policy on co-financing.
Overall remarks from the independent Technical Advisory Panel: The AE acknowledges iTAP overall assessment and recommendation for the Board approval.

Food and Agriculture Organization of the United Nations

Annex 8

Gender Assessment and Action Plan

For the GCF-FAO Project "Adapting Philippine Agriculture to Climate Change"

MAY 2022

Contents

ACRONYMS AND ABBREVIATIONS

AFA	Asian Farmers' Association for Sustainable Rural Development
ARMM	Autonomous Region in Muslim Mindanao
ASA	Association for Social Advancement
ASEAN	Association of South East Asian Nations
BBC	British Broadcasting Corporation
BSDL	Banco Santiago de Libon
CAR	Cordillera Autonomous Region
CARD	Center for Agriculture and Rural Development
CARL	Comprehensive Agrarian Reform Law
CC	Climate Change
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CIS	Climate Information System
CRA	Climate Resilient Agriculture
DA	Department of Agriculture, Republic of Philippines
DAR	Department of Agrarian Reform, Republic of Philippines
DSWD	Department of Social Welfare and Development, Republic of Philippines
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
GAD	Gender and Development
GBV	Gender based violence
GCF	Green Climate Fund
GRM	Grievance and Redress Mechanism
IEC	Information, Education and Communication
IPM	integrated Pest Management
IPRA	Indigenous Peoples' Rights Act of 1997
ITU	International Telecommunication Union
LGU	Local Government Unit
MAFC	Municipal Agricultural and Fisheries Council
MARO	Municipal Agrarian Reform Officer
MDG	Millennium Development Goal
M&E	Monitoring and Evaluation
MoU	Memorandum of Understanding
NCIP	National Commission on Indigenous Peoples
NFSCC	National Framework Strategy on Climate Change
O&M	Operation and Maintenance
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PCW	Philippine Commission on Women
PhiDHRRA	Philippine Development of Human Resources in Rural Asia
PMO	Project Management Office
RAFC	Regional Agricultural and Fisheries Council
RIC	Rural Improvement Club
RSBSA	Registry System for Basic Sectors in Agriculture
SDG	Sustainable Development Goal
SEAH	Sexual Exploitation, Sexual Abuse, and Sexual Harassment
SOCCSKSARGEN	Administrative region consisting of four provinces (South Cotabato, Cotabato, Sultan Kudarat and Sarangani). The acronym reflects these provinces and one of its cities (General Santos).
TBD	To be determined
TWG	Technical Working Group
UMA Pilipinas	Unyon ng mga Manggagawa sa Agrikultura

UNFPA	United Nations Population Fund
USD	United States Dollar
WASH	Water, sanitation and hygiene
WHO	World Health Organization

EXECUTIVE SUMMARY

Gender Parity in the Philippines

1 The Philippines has been classified as one of the top ten countries in the world in terms of making considerable strides in advancing gender equality, including gender parity and wage equality in recent years. Its laws and policies aspire to attain gender equality. Literacy rates are high at over 96% for both women and men. With respect to education, net enrolment and cohort survival rates are higher for women than for men. The positions of legislators, senior officials and managers are equally divided between women and men. Proportionately more women have access to the internet than men. On the other hand, government policies on agriculture and livestock, which affect the livelihoods of the rural people, have not shown great interest in gender. Climate change policies pay a fair amount of attention to social inclusion issues, but without practical guidance on addressing the concerns. Gender mainstreaming in development has been overseen by the Philippine Commission of Women, but the efficacy of the efforts is yet to be analyzed.

2 Country rankings are dependent on a small set of officially and widely available national statistics, which are not well suited to measuring the lives of the underprivileged whose existence may be entirely informal. What they highlight is the parity at each social stratum, in particular the upper crust, which may be higher than the overall equality in the society. The same problems affect the gender parity on political empowerment. Net income and wealth equalities are quite high, suggesting a bigger inequality among women than between women and men of the same socioeconomic circumstances.

3 The role and status of women differ greatly among the indigenous peoples in the Philippines: from the egalitarian Agta, slightly more gender differentiated peoples throughout Cordillera plus some in Mindanao, to substantially gender unequal tribes in Mindanao. In terms of gender parity, the non-indigenous Filipinos in the rural areas today could be said roughly on par with the people in Cordillera, who used to assign traditional and prestigious roles to women.

4 The Philippine women overall participate well in decision making at the household level, where they have equal or nearly equal decision-making power as men.[1] The norm is to pool the incomes and decide on the spending jointly, non-indigenous households in the rural areas and indigenous households in Cordillera alike. When there is disagreement about spending that cannot be resolved, it is the husband's opinion that prevails, according to the farmers who were interviewed for project formulation. Household work and caregiving are entirely on the women's shoulders, and the women are the sole decision makers when it comes to day-to-day matters.

5 Although the Philippines has made substantial progress towards gender equality, including closing gaps in economic participation,[2] challenges for obtaining gender equality include: constrictive laws and socio-cultural norms related to marriage, policies restricting reproductive rights, and gender-based violence. Formal divorce is not permitted, except for Muslims, and the system penalizes Christian women more than Christian men because of social stigma. The country is the 12th highest in the world in absolute number of child brides. The population growth was high at 1.4 % in 2019, likely because of poor access to reproductive information. Early childbearing is more pronounced in the rural than in urban areas. Slightly less than a third of births among teenage mothers were reported as

[1] E.g. Maligalig, R., Demont, M., Umberger, W.J., Peralta, A. 2019. Off-farm employment increases women's empowerment: Evidence from rice farms in the Philippines. Journal of Rural Studies, 71: 62-72; Verzosa F, Cabriole MA, Thant PS, Phen B, Itliong K, Myae C, Thong C, Urdelas FG, Naun YW, Moe MZ, Tola C, Barbon WJ, Monville-Oro E, Gonsalves J. 2021. Pathways to Women's Empowerment in the Promotion of Climate Smart Agriculture in the Philippines, Myanmar, and Cambodia. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), p. 54.

[2] World Economic Forum (WEF). 2021. Global Gender Gap Report. Geneva, Switzerland. Available online: https://www.weforum.org/reports/global-gender-gap-report-2021/

unplanned. More than one in ten Philippine women considered it just that their husbands hit or beat them if they neglected the children. Acceptance of violence was higher in the rural areas and decreased with wealth. Sixteen percent of the poorest women thought it just that their husbands resorted to violence when the women neglected their children.

6 The Philippine government spends somewhat less than what the World Health Organization (WHO) recommends as the proportion of GDP for public health. The incidences of tuberculosis and hepatitis B are as high as in the neighboring island countries with much lower GDP per capita, as are rates of maternal mortality (114 per 100,000 live births) and of mortality from unsafe water, sanitation and health practices (4.2 per 100,000), although Philippine women are well educated and in charge of family health issues.

7 Women have somewhat higher access to all forms of mass media, including the internet. Every female farmer in the rural area has a mobile phone, which is 2G or of later standards. Each rural family has at least one 3G phone, and the poor engage nearly twice as much as the better-off in social interaction using the internet. Television was the major source of entertainment, and the radio for the news. The source of news may be shifting to the internet, as many farmers interviewed referred to Facebook for the latest information on natural disasters. The problem with the internet is its affordability, lack of information on reproductive health that women would find most useful, and lack of telecommunication coverage of any kind in the remote areas.

Women in Agriculture

8 The official statistics imply that the managing responsibilities in agriculture lie with men, while more women are engaged in farming than men. For non-indigenous households in the rural areas and indigenous households in Cordillera, the division of agricultural work is not very strict, although any task involving machines and physically demanding work are carried out by men. Women in these communities are considered more adept than men at negotiating and managing finances and are given corresponding responsibilities. It is also women who principally participate in trainings, although in more patriarchal societies in Mindanao men are the ones who participate. Women are generally more open to new ideas than men; men need to be convinced of the utility of the new knowledge so that the joint decisions reflect the information. Women have good technical knowledge of the crops and animals that they take care of, irrespective of participation in trainings. Female farmers are active in both female-only and mixed farmer organizations and have been given the positions of president, treasurer and the like.

9 Indigenous varieties and breeds are endowed with characteristics that make them hardy under the local climate, even with climate change. They also do well, or even better, without synthetic inputs. It is the indigenous peoples who have considerable knowledge on indigenous plants and animals. Women tend to have vast knowledge of plants because of their role as cooks, gatherers, gardeners, herbalists, plant breeders and seed custodians: functions all performed by rural women in the Philippines. Women are recognized worldwide as better caregivers to animals, except for when taking large animals to the pastures. In the Philippines, indigenous women's knowledge in farming is also strongly associated with traditional rice varieties and farming systems. The status of elder female farmers in Cordillera has declined with the introduction of non-traditional rice varieties and accompanying change in practices, which eroded the role of women as seed selectors. Where there is enough construction work for men, agriculture has become mostly work of women. Overall the indigenous food production is in decline, although attachment to traditional rice and organic farming are still fairly strong among the people in Cordillera Administrative Region.

10 The young are competent in digital technology, the skills that are considered indispensable in agriculture for efficient communication and cash income generation, but the parents discourage them from taking up agriculture as they consider the livelihood synonymous with poverty. On the other

hand, slightly less than one-third of the country's population is composed of youth and their unemployment rate is several times higher than that for the total population of working age. The rate for female youth is much higher than that for male youth. Similarly to indigenous peoples, the society is not investing enough in youth, in particular female indigenous peoples and female youth, while they have the knowledge and skills that complement those of the mainstream society. The latest pandemic has raised awareness among the indigenous peoples and youth on the importance of agriculture and indigenous food production systems.

Women and Climate Change in Agriculture

11 The female and male farmers interviewed by the project formulation mission team have noticed that: seasonal rainfall patterns have become irregular and extreme; average ambient and water temperatures are higher; water is in short supply, except during typhoons; and floods and landslides are now more frequent. They observed: higher mortality and lower quality of crops; higher number of familiar pests; emergence of new pests; impossibility of fallow in some areas because of change in rainfall patterns; need for shades for the animals; and higher animal mortality from disease. Indigenous ways of life require great skills in foreseeing the changes in natural conditions, which will be useful if applicable to climate change. Climate perception may well differ between women and men in details. As coping strategies, the farmers listed: application of increased amounts of pesticides and fertilizers; planting of coconut trees as windbreakers and for shade; early planting of rice if drought is expected; vegetable cultivation for food security; and collection of solid waste to prevent clogging of irrigation canals.

12 Other on-farm coping strategies in the Philippines include: planting of root crops and others around the homestead; foraging of root crops and other indigenous food items; animal raising in the backyard; and vegetable cultivation on the upper bund portion of the rice field. These are mainly tasks considered women's, perhaps except for fruit gathering by Agta men. Craft making by both non-indigenous and indigenous women provided supplementary income. Some indigenous farmers in Cordillera engage in reforestation of watershed and riverine areas as well as synchronized rice planting as part of integrated pest management.

13 Due to the custom of registering family land under a man's name, women are at a great disadvantage when it comes to taking out formal credit or insurance, whose importance is expected to grow considerably as the effects of climate change is increasingly felt. Moreover, the husband's signature or co-signature is usually demanded for financial transactions, which makes female-headed households, already one of the poorest in the rural areas, even more vulnerable.

14 Microfinance institutions are flourishing in the Philippines, but little analysis is available on the accessibility of women to credit and insurance. The social protection system and the subsidies on fertilizer and seeds can be used to encourage adoption of climate change adaptation strategies, but their targeting of and effects on women are unknown. The most preferred coping strategy in the times of economic difficulties was borrowing money from the so-called 5-6s, the village money lenders who charge 20% interest. Some farmers consulted made use of microfinance schemes, which only required participating in an interview, submitting a photo and purchasing an insurance.

Women and Adapting Agriculture to Changing Climate

15 Women are on average better educated and more open to changes than men. Indigenous women have the knowledge and skills that would form the foundation of climate resilient agriculture, while young women possess digital skills that allow efficient communication of agrometeorological and commercial information necessary for integrating climate resilient agriculture in livelihoods. Although women participate in various decision making processes, the ultimate decisions are made by men, especially the strategic ones which would include adoption of new agricultural methods.

16 The Gender Action Plan (GAP) for the proposed project is based on the project formulation principles of: female farmer as agents of change; higher parity in strategic decision making; working with nature; indigenous peoples as guardians of climate resilient agriculture; self-reliance as climate change resilience; and social media for rapid communication. The GAP also rests on the project implementation principles of: provision of ecosystem, health and livelihood services; sharing the driver's seat with farmers; women as strategic decision makers; cultural awareness raising among the indigenous peoples; and building on the strengths of women, indigenous peoples and youth. The Plan touches upon indigenous peoples and youth, while maintaining the primary focus on women.

PART I: GENDER ASSESSMENT

1. INTRODUCTION

1.1 Project Introduction from Gender Perspective

1 Climate change is estimated to put at risk the sectors that are responsible for 85% of the Gross National Product of the Philippines.[3] Agriculture is the source of employment and main livelihood for 25%[4] and 35%[5] of the labor force, respectively, but agriculture, fishery, and forestry composed about 10% of the national economy in 2020.[6] Although the average income of agricultural households is unknown, the mean income from non-agricultural sources and activities was about 6 times higher than that from agricultural ones in 2003.[7] These statistics together suggest that rural women and men engaged in agriculture are vulnerable and that they are unlikely to withstand the vagaries of climate change without active actions to adapt to climate change.

2 The proposed project aims at creating an environment that enables rural female and male farmers to thrive under the changing climate. To that end, the project will improve their access to climate information and climate resilient agriculture (CRA) services – such as seeds, water and credit –to reinforce their capacity to develop enterprises and adopt climate resilient and low emission practices, to generate cash income and new livelihoods. The capacities of the government at the national, regional and local levels will be strengthened to deliver services needed by the farmers adapting to climate change while transforming the Philippine agriculture towards resilient and low emission development pathways.

3 While gender-based division of labor among tasks for animals exists to varying degrees in the Philippines, the importance of contribution of female farmers is incontestable in that all crops or animals are taken care of by both women and men. They constitute two groups engaged in different facets of agriculture that together make the whole; experiences and perspectives of both need to be taken into account when we consider agriculture. Although the Philippines has consistently ranked as one of the top ten countries in the world on gender equality, female farmers are not registered as farmers by themselves under the Registry System for Basic Sectors in Agriculture, but only mentioned together with their husbands who are farmers.

4 In areas where local off-farm opportunities for cash income are readily available, the agriculture itself has fallen on the shoulders of women, except for men as occasional helpers for physically demanding work.[8] The proportion of female-headed households has been steadily increasing in the past decades, reaching one-fifth of all households in 2013.[9] As in most parts of the

[3] Climate Change Commission, undated. *National Climate Change Action Plan, 2011-2028*. Manila: Climate Change Commission.
[4] Philippine Statistics Authority, 2018. Selected Statistics on Agriculture 2018. Quezon City, the Philippines: Philippine Statistics Authority.
[5] *National Climate Change Action Plan, 2011-28.*
[6] Bureau of Trade and Industrial Policy Research, 2019. *Philippine National Accounts, 2015-2018 (Q4).* https://drive.google.com/file/d/1YkyAplK5IaUvGx0Rm0DGYuPAtABI2pCf/view (accessed May 2019).
[7] National Statistics Office, 2017. *Philippines – Family income and Expenditure Survey 2003*. ILO Microdata Repository. https://www.ilo.org/surveydata/index.php/catalog/265/datafile/F2/?limit=100&offset=700 (accessed March 2019).
[8] Farmer Consultations in Bicol and Cordillera 28 January-6 February 2019.
[9] CEIC, undated. Philippines PH: Female Headed Households. 1993-2013. https://www.ceicdata.com/en/philippines/population-and-urbanization-statistics/ph-female-headed-households (accessed March 2019).

world, the poorest of the poor are more likely to be female headed,[10] and agriculture has traditionally been associated with higher poverty rates than other sectors.[11]

5 Women on average are more literate than men in the Philippines;[12] they have as much basic skills as men or more to cope with the changing world. The main obstacles for women remain the system that is centered around men and pays scant attention to the strengths and constraints of women which are different from men's. The same obstacles are in place for indigenous peoples and youth, two other attributes that disadvantage an individual and may overlap with gender. The Gender Assessment and Action Plan of the proposed project, while focusing on women, touches upon these two groups.

1.2 Objective of the Assessment

1.2.1 Rationale

6 Agricultural operators – persons who take the technical and administrative responsibility of managing the holdings – were overwhelmingly male in 2009.[13] Approximately 3.2 million female who were not agricultural operators engaged in agricultural activities, more than 1.1 million male who were not agricultural operators and did the same.[14] In households with agricultural operators engaged in farming activities, three in every five members were women. [15] These statistics imply that, officially at least, the managing responsibilities in agriculture lie with men, while more women were engaged in farming than men.

7 Climate change as a negative shock impacts the vulnerable members of the society, which include women, proportionately more than others. It has been estimated that women and children are 14 times more likely to die during a disaster,[16] whose frequency and intensity are increasing due to climate change. At the same time, inclusion of these members in projects and policies is known to improve their outcomes.

8 The assessment examines the situation of rural female farmers with respect to climate change to find the most effective ways to reduce the vulnerability of the weak members of the society and also to maximize the benefits of the interventions.

9 The Philippines has ratified international agreements and goals related to the gender, most notably the Convention on the Elimination of All Forms of Discrimination against Women.[17] In 2009, the government further signed a framework of rights for women based directly on international laws known as the Magna Carta of Women. The country is formally committed to achieving gender equality in all facets of life.

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[10] Miralao, V. A., 1992. "Female Headed Households in the Philippines." *Philippine Sociological Review*. Vol 40, No. 1-4, 46-56.
http://116.50.242.171/PSSC/index.php/psr01/article/view/801 (accessed March 2019).

[11] Reyes, C. M. *et al.,* 2012. *Poverty and Agriculture in the Philippines: Trends in Income Poverty and Distribution.* Makati City, Philippines: Philippine Institute for Development Studies.

[12] Basic literacy is near universal for women and men, and functional literacy slightly higher for women than men, both about 90% (Philippine Statistics Authority, 2015. *2013 FLEMMS, Functional Literacy, Education and Mass Media Survey, Final Report.* Manila: Philippine Statistics Authority).

[13] Philippine Statistics Authority, 2009. "Women in Agriculture." https://psa.gov.ph/content/women-agriculture (accessed March 2019).

[14] *National Climate Change Action Plan, 2011-28.*

[15] "Women in Agriculture."

[16] UN Women, 2018. *Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development*. New York: UN Women.

[17] UN, 2019. "Convention on the Elimination of All Forms of Discrimination against Women." United Nations Treaty Collection. https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-8&chapter=4&clang=_en (accessed March 2019).

10 The Food and Agriculture Organization of the United Nations (FAO) recognizes that gender equality is key to its mandate to achieve food security for all. As evidenced by *FAO Policy on Gender Equality*[18] and *Regional Gender Strategy for Asia and the Pacific*,[19] the Organization further sees rural women as agents of change whose engagement is indispensable to meet any of the 17 Sustainable Development Goals (SDGs). The Philippines has adopted the Goals.

11 Indigenous peoples and the youth also represent important disadvantaged groups, half of which are women. While many of the hurdles that women face are common, others are distinct enough for each group to warrant separate examination and support; indigenous food production systems provide the foundation for climate resilient agriculture and the technology savviness of the youth can help agriculture to benefit from digital information and connections.

1.2.2 Objective

12 The Gender Assessment for the Green Climate Fund (GCF) project, "Adapting Philippine Agriculture to Climate Change," studies the socioeconomic conditions of women and men targeted by the proposed project to shed light on gender-specific constraints and needs for a strategic approach to the integration of gender dimensions into the project. The Assessment also briefly examines the indigenous peoples and the youth in light of agriculture for the same. The strategy is summarized as the Gender Action Plan.

13 The underlying theory of change is: the project will recognize the strengths, constraints and needs of the women so that their potential as agents of change will be realized for achieving the best outcomes possible under the proposed project. It will necessarily entail changes in access to and distribution of resources and decision-making power between women and men in the targeted communities. The same applies to indigenous peoples and the youth, as their capacities complementary to others' have not been fully taken advantage of in agriculture.

2. METHODOLOGY

14 The Gender Assessment focuses on the situation of rural women in the regions targeted by the proposed project: Cordillera Administrative Region, Region II (Cagayan Valley), Region V (Bicol), Region X (Northern Mindanao), and Region XII (SOCCSKSARGEN).

15 Consultations were the primary means to determine the key issues pertaining to the lives of female farmers in the rural areas (Section 8.2 lists the core questions asked). A total of 574 farmers in the target regions were consulted, of which 317 were women. Women's views on agriculture related issues were collected through consultations exclusively for women, including the organizers. Institutional meetings were held at national and regional levels. At the national level, nine institutions and organizations were consulted, and at the regional level, the mission team had meetings with nine. The issues thus identified were assessed in detail with the aid of literature search, whose results are summarized in this document. The detailed analysis elucidated risks and opportunities for female farmers facing climate change and contributed to project formulation.

16 To the best extent possible, the assessment is based on official statistics and published research results pertaining to the target regions and field consultations conducted in those regions. Where relevant information could not be found, it relies on that of the rural areas or the whole nation.

[18] Food and Agriculture Organization of the United Nations, 2013. *FAO Policy on Gender Equality: Attaining Food Security Goals in Agriculture and Rural Development*. Rome: FAO.

[19] Regional Office for Asia and the Pacific, FAO, 2017. Regional Gender Strategy and Action Plan for Asia and the Pacific 2017-2019. Bangkok: FAO.

Where no such information is available, the assessment may refer to the general consensus among the professionals in the field or anecdotes.

3. Legal, Administrative and Spiritual Framework

3.1 Protection of Women and Gender Equality

17 The Philippines has ratified the Universal Declaration of Human Rights, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), International Covenant on Economic, Social and Cultural Rights, and Convention on the Rights of the Child, which assert the rights of women and girls that are equal to men's and boys'.[20] The UN Resolution on Child, Early and Forced Marriage was adopted in 2014 with the broad-based, cross-regional co-sponsorship of 116 countries,[21] including the Philippines.[22] The countries agreed, in collaboration with the international organizations and civil society, to: enact, enforce and uphold laws and policies to end the practice; develop and implement holistic, comprehensive and coordinated responses and strategies in cooperation with stakeholders, including civil society; promote and protect the human rights of all women and girls, including their right to education; and have control over and decide freely and responsibly on matters related to their sexuality.[23] The Convention on the Rights of the Child , ratified by the Philippines, sets a minimum age of marriage of 18, and the Convention on the Elimination of All Forms of Discrimination against Women, also ratified by the country, obligates the signatory states to ensure free and full consent to marriage.

18 In 2013, the ASEAN Declaration on the Elimination of Violence against Women and Violence against Children was made by the ASEAN member countries, which includes the Philippines, to reaffirm the goals and commitments of the organization to eliminate violence against women and monitor their progress, as in the Declaration on the Elimination of Violence Against Women in the ASEAN Region from 2004.[24] The country has also committed itself to the Sustainable Development Goals whose Goal 5 is to end all forms of discrimination against women and girls, including early marriage.[25]

19 By tradition, the Philippines is a matriarchal and egalitarian society, which is reflected in legislations that aim at closing gender gaps.[26] At the same time, the legacy of three centuries of

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[20] "Convention on the Elimination of All Forms of Discrimination against Women."
UN, 2019. "International Covenant on Economic, Social and Cultural Rights." United Nations Treaty Collection. https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-3&chapter=4&clang=_en (accessed March 2019).
UN, 2019. "Convention on the Rights of the Child." United Nations Treaty Collection. https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-11&chapter=4&lang=en (accessed March 2019).

[21] Girls Not Brides, 2014. "Girls Not Brides statement on UN General Assembly resolution on child, early and forced marriage – November 2014." https://www.girlsnotbrides.org/girls-brides-statement-un-general-assembly-resolution-child-early-forced-marriage/ (accessed March 2019).

[22] Girls Not Brides, undated. "Philippines." https://www.girlsnotbrides.org/child-marriage/philippines/ (accessed March 2019).

[23] "Girls Not Brides statement on UN General Assembly resolution on child, early and forced marriage – November 2014."

[24]ASEAN, undated. "The Declaration on the Elimination Of Violence Against Women And Elimination Of Violence Against Children in ASEAN."
https://www.ohchr.org/Documents/Issues/Women/WG/ASEANdeclarationVaW_violenceagainstchildren.pdf (accessed March 2019).

[25] "Philippines."

[26] McKinsey Global Institute, 2018. *The Power of Parity: Advancing Women's Equality in Asia and Pacific, Focus: the Philippines.*
https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Asia%20Pacific/The%20Power%20of%20Parity%20Advancing%20womens%20equality%20in%20the%20Philippines/The-Power-of-Parity-Advancing-womens-equality-in-the-Philippines.ashx (accessed March 2019).

Spanish rule, in the form of patriarchy and strong influence of the Roman Catholic Church, continues in the family, civil and penal laws.[27] Under the Spanish regime, only adult males were obligated to labor for 40 days per year, performing colonial public works. Both women and men were required to work in the colonial plantations, but only men were paid and women were mobilized as the unpaid family members of the male workers. The Catholic Church portrayed the Virgin Mary as the mother figure and female symbol for the Philippine women to aspire to for the purpose of constructing the holy patriarchal family that served the Spanish government.[28]

20 The 1987 Constitution of the Philippines, Article 2, Section 14 asserts that "[t]he State recognizes the role of women in nation-building, and shall ensure the fundamental equality before the law of women and men."[29] The ratification of CEDAW has led to a legislation for gender equality known as Republic Act 9710, the Magna Carta of Women,[30] which seeks to eliminate discrimination against women by recognizing, protecting, fulfilling and promoting the rights of Filipino women in all spheres of society and to institutionalize gender concerns in the development process of the country.[31] It consolidated and strengthened the existing laws and policies on women under one legislation.[32] Other legislations for protection of women and gender equality include the ones in Table 1 below.

Table 1: Legislations for Protection of Women and Gender Equality

Legislation Number	Title	Description
Republic Act 7192	Women in Development and Nation Building Act of 1992	Promotes the integration of women as full and equal partners of men in development and nation building and for other purposes.[33]
Republic Act 7610	Special Protection of Children Against Child Abuse, Exploitation and Discrimination Act	Provides for stronger deterrence and special protection against child abuse, exploitation and discrimination, providing penalties for its violation and for other purposes.[34]
Republic Act 7877	Anti-Sexual Harassment Act of 1995	Declares sexual harassment unlawful in the employment, education or training environment, and for other purposes.[35]
Republic Act 8353	Anti-Rape Law of 1997	Expands the definition of the crime of rape, reclassifying the same as a crime against persons, amending for the

[27] Austria, C. S. R., 2004. "The Church, the State and Women's Bodies in the Context of Religious Fundamentalism in the Philippines." *Reproductive Health Matters.* Vol. 12, No. 24, 96-103.

[28] Kemitraan Bagi Pembaruan Tata Pemerintahan, 2014. *Patriarchal Barriers to Women's Political Participation in South-East Asia: Lessons from the Philippines, Cambodia, Malaysia, Indonesia, and Timor-Leste on Patriarchy and the Rise of Women's Participation in State Politics*. Jakarta: Kemitraan Bagi Pembaruan Tata Pemerintahan.

[29] Government of the Philippines, 2019. "The Constitution of the Republic of the Philippines." Official Gazette. https://www.officialgazette.gov.ph/constitutions/1987-constitution/#article-ii (accessed March 2019).

[30] FAO, 2018. *Country Gender Assessment of Agriculture and the Rural Sector in the Philippines*. Manila; Food and Agriculture Organization of the United Nations.

[31] ILO, 2014. "The Magna Carta of Women (Republic Act No. 9710)." http://ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=82044&p_count=97611 (accessed March 2019).
Philippine Commission on Women, 2009. "International Commitments." https://pcw.gov.ph/international-commitments (accessed March 2019).

[32] Civil Service Commission, 2014. "Magna Carta of Women (R.A. 9710)."http://www.csc.gov.ph/2014-02-21-08-16-56/2014-02-21-08-19-19/magna-carta-of-women-r-a-9710.html (accessed March 2019).

[33] Philippine Commission on Women, 2009. "Republic Act 7192: Women in Development and Nation Building Act." https://www.pcw.gov.ph/law/republic-act-7192 (accessed March 2019).

[34] Philippine Commission on Women, 2009. "Republic Act 7610: Special Protection of Children Against Abuse, Exploitation and Discrimination Act." https://www.pcw.gov.ph/law/republic-act-7610 (accessed March 2019).

[35] Philippine Commission on Women, 2009. "Republic Act 7877: Anti-Sexual Harassment Act of 1995." https://pcw.gov.ph/law/republic-act-7877 (accessed March 2019).

		purpose act no. 3815, as amended, otherwise known as the revised penal code, and for the purposes.[36]
Republic Act 8505	Rape Victim Assistance and Protection Act of 1998	Provides assistance and protection for rape victims, establishing for the purpose a rape crisis center in every province and city, authorizing the appropriation of funds therefor, and for other purposes.[37]
Republic Act 9208	Anti-Trafficking in Persons Act of 2003	Institutes policies to eliminate trafficking in persons especially women and children, establishing the necessary institutional mechanisms for the protection and support of trafficked persons, providing penalties for its violations, and for other purposes);[38]
Republic Act 9262	Anti-Violence against Women and their Children Act of 2004	Provides for the protection of women and children against violence by defining violence and providing penalties including imprisonment and fines. It also provides for the issuing and modalities of protection orders. Battered Woman Syndrome is recognized as a defense, in addition to self-defense as set out in the Penal Code. The Act also provides that perpetrators are to receive counselling for anger management and if necessary are to be submitted to psychiatric treatment or confinement.[39]
Republic Act 9710	The Magna Carta of Women	Seeks to eliminate discrimination against women by recognizing, protecting, fulfilling and promoting the rights of Philippine women in all spheres of society.[40]
Republic Act 10354	Responsible Parenthood and Reproductive Health Act of 2012	Guarantees universal and free access to nearly all modern contraceptives for all citizens, including impoverished communities, at government health centers. The law also mandates reproductive health education in government schools and recognizes a woman's right to post-abortion care as part of the right to reproductive healthcare.[41]
Executive Order No. 209	Family Code of the Philippines	Regulates marriage, legal separation, rights and legal obligations between husband and wife, property relations between husband and wife, the family, paternity and filiations, among others.[42]

Source: The Philippine Commission for Women, the International Labour Organization, and Center for Reproductive Rights.

21 Most norms and standards of the government are in agreement with adolescents' human rights to contraceptive information and services as recommended by the World Health Organization.[43] Not all of its recommendations are followed, however, reflecting the strong influence of religious

[36] Philippine Commission on Women, 2009. "Republic Act 8353: Anti-Rape Law of 1997." https://www.pcw.gov.ph/law/republic-act-8353 (accessed March 2019).
[37] Philippine Commission on Women, 2009. "Republic Act 8505: Rape Victim Assistance and Protection Act of 1998." https://www.pcw.gov.ph/law/republic-act-8505 (accessed March 2019).
[38] Philippine Commission on Women, 2009. "Republic Act 9208: Anti-Trafficking in Persons Act of 2003." https://www.pcw.gov.ph/law/republic-act-9208 (accessed March 2019).
[39] ILO, 2014. "Anti-Violence Against Women and Their Children Act of 2004 (Republic Act No. 9262)." https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=&p_isn=72734&p_classification=01.04 (accessed March 2019).
[40] "The Magna Carta of Women (Republic Act No. 9710)."
[41] Center for Reproductive Rights, 2014. "Philippine Supreme Court Upholds Historic Reproductive Health Law." https://reproductiverights.org/press-room/Philippine-Supreme-Court-Upholds-Historic-Reproductive-Health-Law (accessed March 2019).
[42] ILO, 2014. "The Family Code (Executive Order No. 209)." https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=&p_isn=71398&p_classification=01.03 (accessed March 2019).
[43] Melgar, J. L. D. *et al*., 2018. "Assessment of country policies affecting reproductive health for adolescents in the Philippines." *Reproductive Health*. Vol. 15, No. 205. https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-018-0638-9#Sec1 (accessed March 2019).

beliefs.[44] The lack of budget, capacities and political will are said to be major barriers in increasing access to reproductive health care and improving maternal mortality.[45]

22 In 2000, the city of Manila issued an executive order, which declared that the city would take an "affirmative stand on pro-life issues."[46] The UN Committee on Elimination of Discrimination against Women conducted an inquiry, in response to a joint written submission from non-governmental organizations in 2008, on alleged human rights violations resulting from the enforcement of this order.[47] In the report published in 2015, the Committee stated that the order resulted in a systematic denial of affordable access to modern methods of contraception and related information and services.[48] It led to unplanned pregnancies, unsafe abortions, unnecessary and preventable maternal deaths and increased exposure of women to HIV/AIDS.[49] The Committee observed that the lives and health of women were put at risk, in particular disadvantaged groups of women: poor women, adolescent girls, as well as women in abusive relationships.[50] The Committee concluded that the Philippine government was accountable for grave and systematic violations of women's rights under the Convention on the Elimination of All Forms of Discrimination against Women.[51] The Committee recommended to have the executive order and another related one revoked, decriminalize abortion, and sensitize government representatives towards eliminating ideological barriers that limit women's rights.[52] These recommendations do not appear to have been implemented.

23 The Responsible Parenthood and Reproductive Health Act of 2012 stipulates that reproductive health rights do not include abortion or access to abortifacients,[53] but guarantees universal and free access to nearly all modern contraceptives.[54] According to the law, government agencies are to provide modern family planning services, including free contraceptives and prenatal care to all women and families.[55] It also mandates sex education in schools and provision of reproductive health services by companies to their employees.[56] The act took more than 13 years before it was passed by the Congress and signed into law, due to staunch opposition by the church.[57] The act was challenged in 2013 before the Supreme Court, delaying its full implementation.[58] A year later the bill was declared "not unconstitutional," but some provisions were removed; a clause that allowed minors to access reproductive health services without the written consent of a guardian and penal measures for government officials who did not implement the law.[59]

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[44] *ibid.*
[45] World Bank, 2014. *Republic of the Philippines Gender and Development Mainstreaming Country Gender Assessment 2012, Philippines.* Washington, D.C.: World Bank.
[46] Social Protection and Human Rights, 2015. "Women's sexual and reproductive rights in the Philippines." https://socialprotection-humanrights.org/legaldep/womens-sexual-and-reproductive-rights-in-the-philippines/ (accessed March 2019).
[47] *ibid.*
[48] *ibid.*
[49] *ibid.*
[50] *ibid.*
[51] *ibid.*
[52] *ibid.*
[53] Philippines Commission of Women, undated. "Republic Act 10354: The Responsible Parenthood and Reproductive Health Act of 2012." https://www.pcw.gov.ph/law/republic-act-10354 (accessed March 2019).
[54] "Women's sexual and reproductive rights in the Philippines."
[55] Almendral, A., 2017. "Duterte's Free Birth-Control Order Is Latest Skirmish With Catholic Church." The New York Times. 27 January 2017. https://www.nytimes.com/2017/01/27/world/asia/philippines-free-contraception-duterte.html (accessed March 2019).
[56] "Duterte's Free Birth-Control Order Is Latest Skirmish With Catholic Church."
[57] *ibid.*
[58] Lloyd. C., 2018. "Whatever Happened To The Philippines' Reproductive Health Law?" Globe. https://southeastasiaglobe.com/whatever-happend-to-the-philippines-reproductive-health-law/ (accessed March 2019).
[59] *ibid.*

24 In 2015, a further temporary restraining order was issued by the Supreme Court and prevented the Food and Drug Administration of the Philippines (FDA) from procuring, distributing or issuing new certificates of product registration on more than 50 different contraceptives.[60] The order was launched after the FDA registered a contraceptive implant, which critics falsely argued could be used to induce abortion.[61] After the FDA announced that 51 contraceptives are non-abortifacients, the Health Department could resume distribution of family planning supplies to regional health offices.[62] It was reported that 18% of women in the country expressed unmet needs for family planning in 2016.[63] In 2018, the Philippine president, Rodrigo Duterte, signed an executive order for the full and immediate enforcement of the law.[64] The order was announced as an antipoverty measure, with an official calling it "pro-life, pro-women, pro-children and pro-economic development."[65] The act is still not yet in full effect, however, and no sexual education curriculum has been implemented countrywide.[66]

3.2 Agriculture, Climate Change and Indigenous Peoples Policies on Gender

3.2.1 Gender and Agriculture Policy

25 The main objectives of agricultural policies in the Philippines are food security and poverty alleviation achieved through a stable supply of food at affordable prices[67] as well as protection of the domestic industry.[68] The excessive protection for import-competing commodities is said to have negatively affected the welfare of rural landless and urban poor households,[69] very likely the female-headed households the most, while it has been instrumental in protecting the smallholders, for example, rice growers. It is doubtful that the resource allocation has been the most efficient.

26 The policies do not address the issues of female farmers explicitly, and by setting aside the issue of gender differentiation in agriculture, have unintentionally affected female farmers. For example, the government assistance in the early 2000s targeted high-value crops, such as carrots, asparagus, broccoli, green onions, garden peas, lettuce, radish and cauliflower, whereas women traditionally cultivated corn, potatoes, garlic, onion and cabbage.[70] The government's focus on non-traditional agricultural exports resulted in less irrigation water available for rice in the Cordillera Autonomous Region,[71] and consequently eroded the culture built around rice cultivation in which women play an important role. Women are not registered under the Registry System for Basic Sectors in Agriculture (RSBSA), but are mentioned after the husband's name who is the official farmer; women's contribution to agriculture is not officially recognized as on par to that of men's.

3.2.2 Gender and Livestock Policy

[60] "Whatever Happened To The Philippines' Reproductive Health Law?"
[61] *ibid.*
[62] KFF, 2017. "Philippines Health Department Resumes Contraceptive Distribution Following Agency Ruling, Lifting Of Supreme Court Restraining Order." 16 November 2017. https://www.kff.org/news-summary/philippines-health-department-resumes-contraceptive-distribution-following-fda-ruling-lifting-of-supreme-court-restraining-order/ (accessed March 2019).
[63] *The Power of Parity: Advancing Women's Equality in Asia and Pacific, Focus: the Philippines.*
[64] "Duterte's Free Birth-Control Order Is Latest Skirmish With Catholic Church."
[65] *ibid.*
[66] *ibid.*
[67] OECD, 2017. *Agricultural Policies in the Philippines*. Paris: OCED Publishing.
[68] David. C. C. *et al.,* 2007. *Distortions to Agricultural Incentives in the Philippines*. Agricultural Distortions Working Paper 28. Washington, D. C.: World Bank.
[69] *ibid.*
[70] Garcia, Z. *et al*., 2006. "Impact of international agricultural trade and gender equity: selected country case studies." In *Agriculture, trade negotiations and gender*. Rome: Food and Agriculture Organization of the United Nations.
[71] *ibid.*

27 Poultry recorded 78% growth between 1990 and 2016, making it the fastest growing animal sector in the country. Chicken and ducks are not only valuable for their meat, but also for their eggs. It is the women who take care of the small animals,[72] including poultry, but no policy or analysis refers to the role of women in the sub-sector, as is the case with crop agriculture. The number of goats increased steadily from 1990 to 2010, after which it posted a decline and stabilized at the 2006 level.[73] It was nicknamed the sunrise industry for its potential,[74] but no reference has been made to women who are the caretakers. [75]

3.2.3 Gender and Climate Change Policy

28 Being a relatively new policy topic, the latest advancements on gender in the country have been integrated in various legislations and policies on climate change; the poor, women and children are identified as groups who need special attention.

29 The Climate Change Act of 2009[76] and its Amendment 2012[77] recognize women and children in the rural areas as the most vulnerable to "potential dangerous consequences of climate change and global warming such as increasing temperatures, rising seas, changing landscapes, increasing frequency or severity of droughts, fire, floods and storms, climate-related illnesses and diseases, damage to ecosystems, biodiversity loss that affect the country's environment, culture, and economy." They see the necessity of gender mainstreaming and identification of differential impacts of climate change on women, men and children.

30 The National Disaster Risk Reduction and Management Law of 2010[78] defines vulnerable and marginalized groups as "those that face higher exposure to disaster risk and poverty including, but not limited to, women, children, elderly, differently-abled people, and ethnic minorities" and stipulates representation of the groups in Barangay Disaster Risk Reduction and Management Committees. It also declares that it shall be the policy of the state "to develop and strengthen the capacities of vulnerable and marginalized groups to mitigate, prepare for, respond to, and recover from the effects of disasters." This law has been praised for taking a global lead in empowering the local governments in climate change adaptation and disaster risk reduction as well as for its proactiveness.[79]

31 The National Framework Strategy on Climate Change (NFSCC) adopted in 2010 states that climate change "[a]daptation measures shall be based on equity, in accordance with common but differentiated responsibility; special attention must be given to ensure equal and equitable protection

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[72] *ibid.*
Farmer Consultations in Bicol and Cordillera 28 January-6 February 2019.
[73] Domingo, S. N. and Olaguera, M.D.C., 2017. *Review of High-Value Agriculture in the Philippines with Comprehensive Subsectoral Focus: Livestock Industries.* Quezon City, Philippines: Philippine Institute for Development Studies.
[74] *ibid.*
[75] *ibid.*
Parungao, A. R. M., 2017. "ITIK PINAS: Development, promotion and utilization in building rural enterprises." DOST-PCAARRD, Republic of the Philippines.
http://www.pcaarrd.dost.gov.ph/home/portal/index.php/quick-information-dispatch/2970-itik-pinas-development-promotion-and-utilization-in-building-rural-enterprises (accessed March 2019).
[76] Republic of the Philippines, Congress of the Philippines, undated. "Climate Change Act of 2009 (Republic Act 9729)." https://www.ifrc.org/Docs/idrl/735EN.pdf (accessed May 2019).
[77] Republic of the Philippines, Congress of the Philippines, 2012. "Republic Act No. 10174." http://extwprlegs1.fao.org/docs/pdf/phi160804.pdf (accessed May 2019).
[78] Republic of the Philippines, Congress of the Philippines, 2009. "Republic Act No. 10121." https://www.lawphil.net/statutes/repacts/ra2010/ra_10121_2010.html (accessed May 2019).
[79] Smith, T., 2012. "Is the Philippines' climate law the best in the world?' Climate Home News.
https://www.climatechangenews.com/2012/05/05/is-the-philippines-climate-law-the-best-in-the-world/ (accessed May 2019).

of the poor, women, children and other vulnerable and disadvantaged sectors."[80] The National Climate Change Action Plan 2011-2028,[81] borne out of the Framework, enlarges the definition of vulnerable groups and sets the objective of its National Strategic Priority on the Human Security Agenda as reduction of "risks of men and women and other vulnerable groups (children, elderly and persons with disability, etc.) from climate and disasters." The Plan defines gender mainstreaming as: "ensuring that the concerns and experiences of women and men are an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes so that women and men benefit equally and inequality is not perpetuated." It further clarifies that "the term 'gender' refers to socially ascribed roles, responsibilities and opportunities associated with women and men, as well as the hidden power structures that govern relationships between them. Gender is 'a term used to emphasize that sex inequality is not caused by the anatomic and physiological differences that characterize men and women, but rather by the unequal and inequitable treatment socially accorded to them.' "

32 During a session of the United Nations Commission on the Status of Women in 2011, the Philippines initiated a resolution entitled, "Mainstreaming Gender Equality and Promoting Empowerment of Women in Climate Policies and Strategies," which highlighted the need to ensure women's full and equal participation in environmental decision-making at all levels.[82] It was adopted by the commission's member states.[83]

3.2.4 Gender and Indigenous Peoples Policy

33 The indigenous peoples in the Philippines are officially recognized by the Philippine Constitution as well as by the landmark Indigenous Peoples' Rights Act of 1997 (IPRA).[84] The act further recognizes the traditional rights of indigenous peoples over their ancestral lands through the issuance of Certificates of Ancestral Domain Titles.[85] The rights of Indigenous Cultural Communities to define their development priorities through their own Ancestral Domain Sustainable Development and Protection Plan is also recognized, in relation to managing and utilizing the natural resources within their traditional lands.[86]

34 The act is cognizant of the Universal Declaration of Human Rights including the Convention on the Elimination of Discrimination against Women and International Human Rights Law and asserts that "the [s]tate shall guarantee the fundamental human rights and freedoms as enshrined in the Constitution and relevant international instruments are guaranteed also to indigenous women" and that "[t]owards this end, no provision in this Act shall be interpreted so as to result in the diminution of rights and privileges already recognized and accorded to women under existing laws of general application." With respect to basic services, the act states that "[p]articular attention shall be paid to the rights and special needs of indigenous women, elderly, youth, children and differently-abled persons."[87]

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[80] *National Climate Change Action Plan, 2011-2028.*
[81] *ibid.*
[82] Philippine Commission on Women, 2009. "Climate Change." https://www.pcw.gov.ph/focus-areas/environment/climate-change (accessed May 2019).
[83] *ibid.*
[84] Cariño, J. K., 2012. *Country Technical Notes on Indigenous Peoples' Issues: Republic of the Philippines*. Rome: IFAD.
[85] De Vera, D. E., 2007. "Indigenous Peoples in the Philippines: A Country Case Study." Presented at the RNIP Regional Assembly, Hanoi, Vietnam, 20-26 August 2007. http://www.iapad.org/wp-content/uploads/2015/07/devera_ip_phl.pdf (accessed May 2019).
[86] *ibid.*
[87] Government of Philippines, undated. "Republic Act No. 8371." http://extwprlegs1.fao.org/docs/pdf/phi13930.pdf (accessed May 2019).

35 The act recognizes the indigenous concept of ownership for ancestral domains (which includes lands, inland waters, coastal areas and other natural resources associated with the space)[88] and ancestral lands. The act further details that "[t]he indigenous concept of ownership generally holds that ancestral domains are the ICC's/IP's[89] private but community property which belongs to all generations and therefore cannot be sold, disposed or destroyed. It likewise covers sustainable traditional resource rights."[90]

36 Although the Climate Change Act of 2009 and its Amendment 2012 do not mention indigenous peoples, the Intended Nationally Determined Contributions of the Philippines (2015) indicates that the country pursues "institutional reforms factoring sustainable and responsible use of natural resources, respect for, protection, promotion, and fulfilment, as well as, the full enjoyment of human rights by all, including the indigenous peoples and local communities, gender equality and the full and equal participation of women, intergenerational equity, biodiversity conservation, food and water security."[91]

3.2.5 Mechanism for Gender Mainstreaming

37 Republic Act 9710, the Magna Carta of Women, makes a direct reference to the country's governance system by legislating gender mainstreaming as a strategy for the government departments, including their attached agencies, offices, bureaus, state universities and colleges, government-owned and controlled corporations, local government units, and other government instrumentalities.[92] Specifically it urges these institutions to eliminate gender inequality in their systems, structures, policies, programs and processes and to base planning and budgeting on sustainability, gender responsiveness and performance.[93]

38 The Magna Carta also designates the Philippine Commission on Women (PCW) as the primary policy-making and coordinating body of the women and gender equality concerns under the Office of the President. It is the institution to monitor and oversee the implementation of the Carta with the authority to demand any government agency and instrumentality to report on the subject. To that end, the commission developed a Gender and Development (GAD) approach to provide Philippine government agencies and donors with a common set of analytical concepts and tools for integrating gender concerns into development programs and projects.[94] The GAD guidelines require the definition of a gender policy, the approval of a plan of action with a clear budget allocation and the establishment of accountability and monitoring mechanisms.[95] Specifically, the government agencies and national government instrumentalities are required to annually formulate a GAD plan and budget and GAD accomplishment report, but compliance appears sporadic and the quality of submitted documents variable. The PCW has also issued guidelines for elaborating a GAD Agenda, which includes a gender assessment, to serve as a strategic document for GAD plans and budgets.[96] Various legislations on

[88] Philippines Commission of Women, 2009. "Republic Act No. 8371." https://www.pcw.gov.ph/law/republic-act-8371 (accessed May 2019).
[89] Indigenous Cultural Communities/Indigenous Peoples
[90] Philippines Commission of Women, 2009. "Republic Act No. 8371."
[91] Republic of the Philippines, 2015. "Intended Nationally Determined Contributions: Communicated to the UNFCC on October 2015." https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Philippines/1/Philippines%20-%20Final%20INDC%20submission.pdf (accessed May 2019).
[92] Philippine Commission on Women, 2010. *Republic Act No. 9710, the Magna Carta of Women: Implementing Rules and Regulations*. Manila: Philippine Commission on Women.
[93] *ibid.*
[94] Philippine Commission on Women, 2007. *Harmonized Gender and Development Guidelines for Project Development, Implementation, Monitoring and Evaluation*. Manila: NEDA, PCW and ODA-GAD.
[95] *Country Gender Assessment of Agriculture and the Rural Sector in the Philippines*.
[96] Philippine Commission on Women, 2018. "Revised Guidelines for the Preparation of the Gender and Development (GAD) Agenda." Memorandum Circular, No. 2018-04.

climate change listed above recognize the importance of gender mainstreaming, although its implementation has not been detailed.

3.3 Agriculture, Climate Information and Indigenous Peoples Services on Gender

3.3.1 Gender and Agriculture Extension Services

39 The exact number of persons engaged in agriculture extension services is unavailable because many actors are involved in various manners,[97] but it has been observed that "only in countries such as the Philippines have women field staff been deployed in sufficient numbers and with sufficient resources to become effective agents of change among women farmers."[98] In a study in 2015 that compared Leyte and Eastern Samar provinces, 65% and 63% of the agriculture extension workers were female, respectively.[99]

40 As of 2006, more than 6 million pesos per year was budgeted for agricultural extension, employing 35,000 to 36,000 people at Local Government Units (LGUs), Department of Agriculture, Department of Agricultural Reform, and Commission on Higher Education.[100] Given that the proportion of farmers among the total population has stayed stable between 2002 and 2012, about one extension worker of some kind could have been working for 130-140 farmers,[101] or one female extension worker for about 30 female farmers.[102] The regional differences appear to be large, as ratios of one extension worker to over 100 or nearly 250 have been claimed in some municipalities in Camarines Norte.[103] None of the study widely available examines the content of extension work or its gender responsiveness.

41 Female farmers invariably reported that it was women who attend the trainings, as they are more associated with house chores and daily community obligations than with field work.[104] In Southeast Asia, female farmers are generally much more active and receptive to new information, and in case the wife attends the training or meeting, the information obtained is shared with the husband.[105] Nonetheless, the presence of male farmers in trainings and meetings is considered necessary to make the extension services more effective, since the male farmers decide what changes to be introduced to the work that they are responsible for.[106] In Northern Mindanao, men were

https://www.pcw.gov.ph/sites/default/files/documents/laws/PCW MC 2018-04 Revised Guidelines for the Preparation of the Gender and Development (GAD) Agenda.pdf (accessed May 2019).

[97] Sharma, V. P. (ed.), 2006. *Enhancement of Extension Systems in Agriculture*. Report of the APO Seminar on Enhancement of Extension Systems in Agriculture held in Pakistan, 15-20 December 2003. Tokyo: Asian Productivity Organization.

[98] Jiggins, J., Samanta, R. K. and Olawoye, J. E., 1997. "Chapter 9 - Improving women farmers' access to extension services." In *Improving agricultural extension: A reference manual*, Swanson, B. E., Bentz, R. P. and Sofranko, A. J. (eds). Rome: FAO.

[99] Cidro, D. A., 2015. *Perceptions of Agricultural Extension Workers (AEWs) on the Performance and Impacts of Decentralized Agricultural Extension: The Case of Eastern Samar and Leyte Provinces, Philippines.* Ph.D. Thesis. University of Guelph. https://atrium.lib.uoguelph.ca/xmlui/bitstream/handle/10214/8712/Cidro_Dario_201412_Phd.pdf?sequence=3&isAllowed=y (accessed May 2019).

[100] *Enhancement of Extension Systems in Agriculture*.

[101] *ibid.*

[102] The proportion of women among farmers was 11% and 16% in 2002 and 2012, respectively (Philippine Statistics Authority, 2009. "Women in Agriculture." https://psa.gov.ph/content/women-agriculture and Philippines Statistics Authority, 2012. Census of Agriculture and Fisheries: Agriculture 2012. Quezon City, Philippines: Philippines Statistics Authority).
The proportions of female extension workers in Leyte and Eastern Samar provinces in 2015 were used.
(from Cidro, D. A., 2015. *Perceptions of Agricultural Extension Workers (AEWs) on the Performance and Impacts of Decentralized Agricultural Extension: The Case of Eastern Samar and Leyte Provinces, Philippines.* Ph.D. Thesis. University of Guelph.)

[103] Farmer Consultations in Cagayan Valley (15-22 November), Bicol and Cordillera (28 January-6 February 2019).

[104] *ibid.*
Akter, S. *et al.* 2017. "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia." *Food Policy.* Vol. 69, 270-279.

[105] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."

[106] Institutional Consultations in Bicol and Cordillera (28 January-6 February 2019).

reluctant to let their wives attend trainings, citing the great amount of work the women had at home.[107]

42 The agriculture extension services provided by the government used to consist of "the diffusion, among the people, of useful and practical information on agriculture, soil conservation, livestock, fisheries, forest conservation, public lands and natural resources laws, home economics and rural life, in order to encourage their application through field demonstrations, lectures and conferences, publications and other means on imparting information,"[108] and extension workers were graduates of agricultural college with adequate practical experience and training in actual crop, tree, poultry and livestock farming.[109] Since the devolution of the Bureau of Agricultural Extension into LGU Extension Service in the early 1990s, agricultural extension has become highly political; increasingly, the agricultural extension worker may not be hired because of professional and technical qualifications but on political affiliation or loyalty.[110]

3.3.2 Gender and Climate Information Services

43 The gender differences in the perception of and coping strategies for climate change are slowly gaining attention. For example, a study on three groups – Native Americans, non-native ranchers and farmers – in Nevada reported that women ranchers and farmers demonstrated greater concern and more scientifically accurate knowledge about climate change than men.[111] A study in rural Nepal found that women were relatively more perceptive of climate change and risks than men, but the association between gender and higher perception was weaker than that between geography and perception.[112] It also noted that sudden changes in climate were noticed by all adults, irrespective of gender, age and economic status.[113] The differences in information interpretation or immediate action have not yet been investigated, and no country appears to have integrated such consideration in generation and diffusion of weather and climate information.

3.3.3 Gender and Indigenous Peoples Protection

44 One of the main challenges faced by the indigenous peoples is development and commercial activities by outside entities, such as mining and logging, which gravely affect their lands. Some laws are applied in ways counter to the Indigenous Peoples' Rights Act, most notably, Republic Act 7942, Philippine Mining Act of 1995.[114] The Mining Act provided numerous incentives to prospective

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[107] Parks, M. N. *et al.,* 2013. "Gender and conservation agriculture: constraints and opportunities in the Philippines." *GeoJournal.* Vol. 78, No. 6.
https://www.researchgate.net/publication/267152239_Gender_and_conservation_Agriculture_constraints_and_opportunities_in_the_Philippines (accessed May 2019).

[108] Section 2 of Republic Act 680**,** An Act Creating a Bureau of Agricultural Extension, Defining Its Powers, Duties and Functions and Providing Appropriations Therefor.

[109] Section 123 of Republic Act 3944, An Act to Ordain the Agricultural Land Reform Code and to Institute Land Reforms in the Philippines, Including the Abolition of Tenancy and the Channeling of Capital into Industry, Provide for the Necessary Implementing Agencies, Appropriate Funds Therefor and for Other Purposes

[110] *Enhancement of Extension Systems in Agriculture*.
Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).

[111] Smith, Jr., W. J. *et al.,* 2014. "Climate change perception, observation and policy support in rural Nevada: A comparative analysis of Native Americans, non-native ranchers and farmers and mainstream America." *Environmental Science & Policy*. Vol. 42, 101-122.

[112] Pandey, R., 2017. "Gender Dimensions of Climate Change Impacts and Adaptation Responses: A Study of Kaligandaki Basin, Nepal." Presented at Martin Chautari Seminar, Kathmandu, Nepal, 19 November 2017.
https://www.researchgate.net/publication/321183437_Gender_Dimensions_of_Climate_Change_Impacts_and_Adaptation_Responses_A_Study_of_Kaligandaki_Basin_Nepal (accessed May 2019).

[113] *ibid.*

[114] World Organisation Against Torture, 2007. "List of Issues arising from the Initial-Fourth Periodic Report of the Philippines to the Committee on Economic, Social and Cultural Rights."
http://www.omct.org/files/2007/11/4411/philippines_omct_list_of_issues_to_cescr.pdf (accessed May 2019).

companies – political rights, full ownership of land, and tax holidays – and the number of foreign mining companies increased by four-fold between 1994 and 1996.[115] Most of the areas with minerals and other natural resources coincide with indigenous peoples' lands.[116] In January 2004, the Philippine Supreme Court nullified provisions of the act which allowed foreign mining firms to operate in the country, but reversed its ruling in December of the same year.[117]

45 The tensions between indigenous and commercial interests have frequently resulted in a social conflict, sometimes violent. Indigenous children are at risk of becoming involved in armed conflict as soldiers, due to poverty and social exclusion. Under armed conflicts, indigenous women and girls become more vulnerable to physical and sexual abuse.[118] Violent acts have been on the rise in Mindanao, in particular, owing to centralization of power, increasing number of Christian settlers in a predominantly Muslim region, and logging and mining activities.[119] In earlier instances of human rights violations against women and children in comparable situations in the Philippines, it was reported that rape and sexual harassment took place and that some girls were forced to serve as 'comfort women.'[120] In 2008, two indigenous girls in the rural areas of Mindanao, aged 13 and 14 years, were gang raped on their way to school and subsequently had to accept a payment by soldiers in exchange for their word that they would not lodge a formal complaint.[121]

46 Special Protection of Children against Abuse, Exploitation and Discrimination Act of 1992, Republic Act 7610, punishes the recruitment of children, facilitates agreements with armed groups to enhance the protection of children affected by armed conflict and established a monitoring, reporting and response system for grave child rights violations in situations of armed conflict.[122] The government has also begun to review the act for preventing prosecution of children for having been recruited or used in hostilities. Gaps in implementation of the act has been observed.[123]

4. Gender in Rural Philippines

4.1 Basic Statistics

4.1.1 Gender Parity

47 The World Economic Forum's Global Gender Gap Report for 2021 ranked the Philippines the 17th best among 156 countries, and the second best in Asia and the Pacific in terms of gender parity, measured by economic participation and opportunity, educational attainment, health and survival and

[115] Schmitt, P., undated. "The Philippine Mining Act of 1995." Environment and Society Portal. http://www.environmentandsociety.org/tools/keywords/philippine-mining-act-1995 (accessed May 2019).
[116] "The Philippine Mining Act of 1995." "List of Issues arising from the Initial-Fourth Periodic Report of the Philippines to the Committee on Economic, Social and Cultural Rights."
[117] Ciencia, Jr., A. N., 2006. "The Philippine Supreme Court and the Mining Act Ruling Reversal." East-West Center Working Papers, International Graduate Student Conference Series, No. 29.
https://www.eastwestcenter.org/system/tdf/private/IGSCwp029.pdf?file=1&type=node&id=32190 (accessed May 2019).
[118] "List of Issues arising from the Initial-Fourth Periodic Report of the Philippines to the Committee on Economic, Social and Cultural Rights."
[119] UNICEF, 2013. Breaking the Silence on Violence against Indigenous Girls, Adolescents and Young Women: A call to action based on an overview of existing evidence from Africa, Asia Pacific and Latin America. New York: UNICEF, UNWomen, UNFPA, ILO and OSRSG/VAC.
[120] *ibid.*
[121] Asia Pacific Forum on Women, Law and Development, 2008. Defending the Rights of Indigenous Women in Asia Pacific: Towards an Inclusive and Violence-free Future. Chiangmai, Thailand: APWLD.
[122] UNICEF, 2013. Breaking the Silence on Violence against Indigenous Girls, Adolescents and Young Women: A call to action based on an overview of existing evidence from Africa, Asia Pacific and Latin America. New York: UNICEF, UNWomen, UNFPA, ILO and OSRSG/VAC.
[123] *ibid.*

political empowerment.[124] For economic and political leadership, it was one of the 18 countries around the world that closed the gap in managerial roles by at least 80%.[125] The country also had high scores related to educational attainment (ranked 39th with a score of 0.999), and health and security (ranked 34th with a score of 0.979).[126] However, it ranked lower in political empowerment (33rd with a score of 0.362).[127]

48 McKinsey Global Institute painted a similar picture in 2018 when evaluated by: participation in professional and technical jobs; and appointment to leadership positions. Women were better represented than men in professional and technical jobs with a female-to-male ratio of 1.42, a result most likely stemming from high levels of educational attainment among women and the broadly egalitarian nature of the society.[128] It was also the near best in the region on perceived wage gap for comparable work,[129] but not as gender-blind in representation in high-paying jobs. About 67% of all professionals were women in the Philippines, but earned 8.5% less on average than their male counterparts.[130] In the case of technicians and associate professionals, women accounted for 51% of total employment, but earned 11.3% less than men.[131]

49 Among the 17 administrative regions of the Philippines, the gender equalities on various indicators are comparable: labor-force participation rate, professional and technical jobs, leadership positions, unmet need for family planning, maternal mortality per 100,000 live births, sex ratio at birth, violence against women.[132] On literacy rates and educational attainment, gender parity exists in all of the administrative regions.[133] Gender inequality in terms of labor-force participation rate was high throughout the country and it was extremely high for Autonomous Regions of Muslim Mindanao,[134] but professional and technical jobs tended to be given more to women in all regions.[135] Regional difference was the widest in leadership positions, with Central Luzon and Caraga scoring high inequality and others almost equally divided between medium and low inequality.[136] McKinsey Global Institute concluded that unmet need for family planning among women was mostly medium level in different regions, maternal mortality mostly high, and violence against women mostly medium level.[137] Sex ratio at birth was within natural range for all regions, indicating that sex-selective abortion or female infanticide was negligible.[138]

50 The commonly measured gender parity picks up the upper socioeconomic stratum of the society, which is more articulate, better documented, and more easily measurable. Educated women enjoy higher representation and the possibility of equal pay in professional and technical fields, but women from the lower socioeconomic groups are said to face considerable gender gaps and much less opportunity.[139] The women accounted for 34% of Gross Domestic Product and 40% of labor force in 2016,[140] suggesting that many women were engaged in low-paying or low productivity work. The

[124] World Economic Forum (WEF). 2021. Global Gender Gap Report. Geneva, Switzerland. Available online: https://www.weforum.org/reports/global-gender-gap-report-2021/
[125] *ibid.*
[126] *ibid.*
[127] *ibid.*
[128] *The Power of Parity: Advancing Women's Equality in Asia and Pacific, Focus: the Philippines.*
[129] *ibid.*
[130] *ibid.*
[131] *ibid.*
[132] *ibid.*
[133] *ibid.*
[134] *ibid.*
[135] *ibid.*
[136] *ibid.*
[137] *ibid.*
[138] *ibid.*
[139] *ibid.*
[140] *ibid.*

National Demographic and Health Survey in 2013 indicated that most married and employed women aged 15-49 earned cash, either cash only (82%) or cash and in-kind (5%), but 12% received no payment for their work in the past 12 months.[141] Net income and wealth equalities in the Philippines are both low, ranking respectively 51st and 64th, among 79 countries around the world according to the World Economic Forum.[142] Given that income inequality is largely explained by the urban-rural divide[143] and that the agriculture sector is associated with poverty,[144] the difference between the educated women in the urban areas and the female farmers in the rural areas is likely to be as large as net income and wealth inequalities, while gender parity is achieved in the well documented upper social stratum. McKinsey Global Institute estimated in 2018 that gender parity, if achieved in the Philippines, could add 7% to GDP or USD 40 billion annually by 2025.[145]

4.1.2 Population

51 The population of the Philippines was 108.1 million in 2019,[146] of which 49.8% was women.[147] The population growth rate had been steadily declining from 3.35% in 1960, but continued to be as high as 1.36% in 2019.[148] The country as a whole is aging with the proportion of people aged 0-14 declining from nearly half in the early 1960s to less than one-third of the total population in 2019,[149] and proportion of persons aged 65 and above climbing from about 3% to over 5%.[150] Still most of the population is young and the country has the largest generation of young people in its history, with 30 million people between the ages of 10 and 24 accounting for 28% of the total population.[151] The median age was 23.4 years in 2010 (for males 22.9 years and for females 23.9 years)[152] and was estimated 25.7 years in 2020.[153] In 2019, the percentages of population aged 20-24 and 25-29 were

[141] Castro, L. V., 2014. "Measuring Women's Empowerment and Women's Autonomy in the Philippines." Paper presented at the High-Level Panel: Use of data for monitoring effectiveness of gender equality and women's empowerment policies and programmes at the 5th Global Forum on Gender Statistics, Mexico, 4-5 November 2014. https://unstats.un.org/unsd/gender/Mexico_Nov2014/HighLevelPanel%20Philippines%20paper.pdf (accessed 9 May 2019).
[142] World Economic Forum, 2017. The Inclusive Growth and Development Report 2017Country Profile: Philippines. http://reports.weforum.org/inclusive-growth-and-development-report-2017/scorecard/?doing_wp_cron=1557659592.3493809700012207031250#economy=PHL (accessed May 2019).
[143] Chua, K. K. *et al*., 2015. "Urban-rural income and wage gaps in the Philippines: measurement error, unequal endowments, or factor market failure?" *Philippine Review of Economics*. Vol. 52, No. 2, 1-21.
[144] *Poverty and Agriculture in the Philippines: Trends in Income Poverty and Distribution.*
[145] *The Power of Parity: Advancing Women's Equality in Asia and Pacific, Focus: the Philippines.*
[146]World Bank, 2019. "Population, total – Philippines." https://data.worldbank.org/indicator/SP.POP.TOTL?locations=PH (accessed January 2021).
[147] World Bank, 2019. "Population, female (% of total population) – Philippines." https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS?locations=PH (accessed January 2021).
[148] World Bank, 2019. "Population growth (annual %) – Philippines." https://data.worldbank.org/indicator/SP.POP.GROW?locations=PH (accessed January 2021).
[149] World Bank, 2019. "Population ages 0-14 (% of total population) – Philippines." https://data.worldbank.org/indicator/SP.POP.0014.TO.ZS?locations=PH (accessed January 2021).
[150] World Bank, 2019. "Population ages 65 and above (% of total population) – Philippines." https://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS?locations=PH (accessed January 2021).
[151] UNFPA Philippines, undated. "Young People." https://philippines.unfpa.org/en/node/15309 (accessed January 2021).
[152] Philippine Statistics Authority, 2012. "The Age and Sex Structure of the Philippine Population: (Facts from the 2010 Census)." https://psa.gov.ph/content/age-and-sex-structure-philippine-population-facts-2010-census (accessed May 2019).
[153] Worldometer, undated. "Philippines Population." https://www.worldometers.info/world-population/philippines-population/

9.3%[154] and 8.6%[155] of the total population, respectively. Republic Act 8044, Youth in Nation Building Act, defines youth as persons of age 15 to 30.[156]

52 Rural population was estimated at 55.9 million in 2017,[157] or slightly over half of the national population, with a growth rate of 1.15%.[158] The populations in 2015 and population growth rates in 2010-2015 in the five targeted regions are shown in Table 2.

Table 2: Population Related Statistics in Target Regions

Region	Population (2015)	Population Growth Rate (2010-2015)	Female (% of population)	Female aged 15-39 (% of female population)	Male aged 15-39 (% of male population)
Cordillera Administrative Region	1.72 million	1.21%	48.9	42.5	43.4
II- Cagayan Valley	3.45 million	1.27%	49.0	40.4	41.4
V - Bicol	5.80 million	1.29%	49	37.5	38.8
X – Northern Mindanao	4.69 million	1.68%	49	40.3	41.1
XII - SOCCSKSARGEN	4.55 million	1.94%	49	35.6	35.6

Source: Based on Philippine Statistics Authority (2018)

4.1.3 Literacy and Education

53 The basic literacy rates among Filipino women and men aged 15 and above were 96.8% and 96.0%, respectively, in 2013.[159] The functional literacy rate among the population of age 10 to 64 nationwide was 90.3%.[160] The rate among females was higher than among males, 92.0% and 88.7%, respectively.[161] Female functional literacy rate is consistently 3 percentage points above that of male in each region targeted by the proposed project, sometimes close to 7 percentage points as in Bicol (Table 3).

[154] World Bank, 2019. "Population ages 20-24, female (% of female population) – Philippines" https://data.worldbank.org/indicator/SP.POP.2024.FE.5Y?locations=PH (accessed January 2021). World Bank, 2019. "Population ages 20-24, male (% of male population) – Philippines" https://data.worldbank.org/indicator/SP.POP.2024.MA.5Y?locations=PH (accessed January 2021).
[155] World Bank, 2019. "Population ages 25-29, female (% of female population) - Philippines." https://data.worldbank.org/indicator/SP.POP.2529.FE.5Y?locations=PH (accessed January 2021). World Bank, 2019. "Population ages 25-29, male (% of male population) - Philippines." https://data.worldbank.org/indicator/SP.POP.2529.MA.5Y?locations=PH (accessed January 2021).
[156] Republic of the Philippines, 1994. Republic Act No. 8044. https://www.youthpolicy.org/wp-content/uploads/library/1994_Youth_in_Nation_Building_Act_Philippines.pdf (accessed January2021).
[157] World Bank, 2019. "Rural Population - Philippines." https://data.worldbank.org/indicator/SP.RUR.TOTL?locations=PH (accessed May 2019).
[158] World Bank, 2019. "Rural population growth (annual %) – Philippines." https://data.worldbank.org/indicator/SP.RUR.TOTL.ZG?locations=PH (accessed May 2019).
[159] World Bank, 2019. "Literacy rate, adult female (% of females ages 15 and above) – Philippines." https://data.worldbank.org/indicator/SE.ADT.LITR.FE.ZS?locations=PH (accessed May 2019). World Bank, 2019. "Literacy rate, adult male (% of males ages 15 and above) – Philippines." https://data.worldbank.org/indicator/SE.ADT.LITR.MA.ZS?locations=PH (accessed May 2019).
[160] 2013 FLEMMS, Functional Literacy, Education and Mass Media Survey, Final Report.
[161] *ibid.*

Table 3: Functional Literacy Rates in Target Regions (persons aged 10-64 in 2013)

Region	Functional Literacy Rate		
	Total	Female (%)	Male (%)
Cordillera Administrative Region	91.2	92.9	89.7
II- Cagayan Valley	97.2	98.0	96.4
V - Bicol	87.1	90.5	83.9
X – Northern Mindanao	94.0	95.5	92.6
XII - SOCCSKSARGEN	82.5	84.0	81.0

Source: Philippine Statistics Authority (2018)

54 For all income groups around the nation, out-of-school rates were lower for girls than for boys, excepting age groups 3-5 and 20-24.[162] Among the female persons aged 6 to 24 years, the reasons for not attending school were: marriage or family matters (37%), finished schooling, or finished post secondary or college (19%), employment or looking for work (19%), and high cost of education or financial concerns (12%).[163] For men aged 6-24 years, the reasons were: employment or looking for work (30%), lack of personal interest (25%), high cost of education or financial concerns (18%), and marriage or family matters (13%). Drop-out rates at all levels of education were higher than the regional norm, especially at the primary level, around 2015.[164]

55 The net enrolment rates for primary and secondary schools were higher for female in both primary and secondary schools in the early 2010s (Table 4). The gender gap widens for secondary school net enrolment rate: from female leading male by about 1-2 percentage points in primary schools to female enrolling roughly 10 percentage points more in secondary schools in all regions. Cohort survival rates show larger regional variety, but again, female survival rates are 6-9 percentage points higher than for male in primary school, which becomes 7-14 percentage points in secondary schools.

Table 4: Net Enrolment and Cohort Survival Rates for Primary and Secondary Schools

Region	Net Enrolment Rate						Cohort Survival Rate (2013-2014)					
	Primary School (2015)			Secondary School (2012)			Primary School			Secondary School		
	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male
Cordillera Administrative Region	92.18	93.00	91.36	71.32	76.51	66.34	83.75	86.30	81.49	84.50	91.50	77.78
II- Cagayan Valley	96.31	97.19	95.49	70.21	75.01	65.72	89.24	92.49	86.34	84.60	88.21	81.07
V - Bicol	91.09	91.45	90.75	69.51	76.06	63.45	86.41	89.80	83.40	79.12	85.18	73.25
X – Northern Mindanao	89.68	90.16	89.22	59.53	65.01	54.28	74.41	79.66	69.82	74.00	77.98	69.97
XII - SOCCSKSARGEN	87.72	88.78	86.72	59.00	64.39	53.82	74.91	79.66	70.66	77.15	82.01	72.22

Source: Philippine Statistics Authority (2018)

56 While the accessibility to schools has improved in recent years, the quality is said to be declining.[165] Close to 80% of the country's primary and secondary public schools lacked internet

[162] Philippine Statistics Authority, 2018. *APIS 2017 Annual Poverty Indicators Survey, Final Report*. Manila: Philippines Statistics Authority.

[163] *ibid.*

[164] Anonymous, undated. "Case Study on Youth Issues: Philippines." https://sdghelpdesk.unescap.org/sites/default/files/2018-08/Youth%20Issues%20-%20Philippines.pdf (accessed February 2021).

[165] Khidhir, S., 2018. "Improving education in the Philippines." *The ASEAN Post*. 24 November 2018.

connectivity in 2016.[166] Less than 40% of the applicants for teaching positions passed the licensure exams in various fields in 2016, and less than 50% of the faculty members at higher education institutions have at least a master's degree.[167]

4.1.4 Poverty and Wealth

57 The poverty incidence among women was 22.5% for the entire country, 20.6% for Cordillera Autonomous Region (CAR), 16.2% for Cagayan, 36.5% for Bicol, 27.8% for SOCCSKARGEN, and 36.7% for Northern Mindanao regions in 2015.168 The rate for the nation as a whole was 21.0% in 2018.[169] Poverty among the farmers are wider spread, except for Cagayan among the targeted regions: 34.3% (nation); 28.1% (CAR); 8.8% (Cagayan); 34.9% (Bicol); 54.0% (Northern Mindanao); and 45.7% (SOCCSKARGEN).170 The number of female-headed households has consistently been increasing: 14% in 1993, 16.6% in 2008 and 18.9% in 2013.[171] The potential contributing factors were: stronger participation of female in labor force; marital disruptions; and migration of males for overseas work.172 At higher-income levels, female-headed households fared better in economic terms while it was the opposite for low-income levels.[173] Over 3% of households of all income groups experienced hunger during the past three months before the Annual Poverty Indicators Survey was conducted in 2017.[174] The rate was close to 7% for the bottom 30%.[175] Data segregated by region or gender is not available.

58 The Philippines has a large wealth gap as measured by wealth Gini index in 2018.[176] Credit Suisse's report on global wealth categorizes the Philippines as having a wealth per adult of USD 5,000-25,000.[177] Considering the poverty rate, this also implies a large wealth gap in the country.

4.1.5 Marriage

59 The Articles 14, 19, 124, 211 and 225 of the Family Code are partial to the husband's opinions and thoughts on communal property, conjugal partnership, parental authority and legal guardianship, and considered to perpetuate the unequal status of spouses.[178] For the Muslims, Presidential Decree

https://theaseanpost.com/article/improving-education-philippines(accessed May 2019).

[166] World Wide Web Foundation, 2017. *Women's Rights Online: Report Card, Philippines*. https://www.fma.ph/wp-content/uploads/2017/04/PH-Digital-Gender-Report-Card.pdf (accessed May 2019).

[167] San Buenaventura, P. A. R., 2019. "Education Equality in the Philippines." Presented at the International Workshop on Data Disaggregation for the Sustainable Development Goals, 30 January 2019. https://unstats.un.org/sdgs/files/meetings/sdg-inter-workshop-jan-2019/Session%2011.b.3_Philippines___Education%20Equality%20AssessmentFINAL4.pdf (accessed May 2019).

[168] Philippine Statistics Authority, 2017. "Farmers, Fishermen and Children consistently posted the highest poverty incidence among basic sectors – PSA." https://psa.gov.ph/content/farmers-fishermen-and-children-consistently-posted-highest-poverty-incidence-among-basic (accessed May 2019).

[169] Philippine Statistics Authority, 2019. "Proportion of Poor Filipinos registered at 21.0 percent in the First Semester of 2018." https://psa.gov.ph/poverty-press-releases/nid/138411 (accessed May 2019).

[170] "Farmers, Fishermen and Children consistently posted the highest poverty incidence among basic sectors – PSA."

[171] CEIC, undated. Philippines PH: Female Headed Households. 1993-2013. https://www.ceicdata.com/en/philippines/population-and-urbanization-statistics/ph-female-headed-households (accessed May 2019).

[172] "Female Headed Households in the Philippines."

[173] *ibid.*

[174] *APIS 2017 Annual Poverty Indicators Survey, Final Report*

[175] *ibid.*

[176] Ventura, L., 2018. "Wealth Distribution and Income Inequality by Country 2018." Global Finance. 26 November 2018. https://www.gfmag.com/global-data/economic-data/wealth-distribution-income-inequality (accessed May 2019).

[177] Credit Suisse Research Institute, 2018. *Global Wealth Report 2018*. Zurich: Credit Suisse.

[178] Philippine Commission on Women, undated. "Ensuring Women's Equal Rights in Marriage and Family Relations: Amending Articles 14, 19, 124, 211 and 225 of the Family Code of the Philippines." Women's Priority Legislative Agenda for the 17th Congress. Policy Brief, No.6.

1083, Code of Muslim Personal Laws of the Philippines, applies instead, prohibiting the wives from managing communal property or personal business without the husband's consent,[179] although the husbands are not bound by such restrictions.[180] At the same time, each Muslim spouse is allowed to own and administer exclusive property, and a Muslim woman does not lose ownership and administration of her property after marriage.[181] The rights and obligations with respect to conjugal partnership are the same for the wife and husband, except for responsibilities related to the household and the conditions for the number of spouses, divorce and remarriage.[182] For care and custody of the children, the Muslim code gives privilege to mothers, maternal grandmothers, sisters and aunts, but it is the fathers, paternal grandfathers, brothers and uncles who are appointed as guardians of marriage of children.[183] While the country does not have legal provisions for divorce, the Family Code allows legal separation without the right to remarry as well as annulment of marriage.[184] The Muslims may divorce in accordance with the Code of Muslim Personal Laws.

60 Fifteen percent of Filipino girls were married before the age of 18 and 2% before 15 in 2017.[185] The rates may be low among the Asian countries,[186] but they make the country the 12th highest in the world in absolute number of child brides at 726,000.[187] The girls and women in the regions of Autonomous Region in Muslim Mindanao, MIMAROPA and SOCCSKARGEN tended to marry earlier.[188] As the Philippines is the only country in the world that does not allow divorce, young women are made even more vulnerable by marriage at a very early age.[189] The trafficking of women and girls is common from rural regions of Visayas and Mindanao to urban cities or tourist destinations, where there is a high demand for commercial sex. Forced marriages have been reported, and the country's popular mail-order bride industry puts girls at risk of forced marriage.[190]

61 The UN Special Rapporteur on Trafficking in Persons reported, based on her fact-finding mission in the Philippines in 2012, that people were trafficked to work as forced laborers in factories and on farms or as domestic helpers in relation to a range of criminal activities and that girls were especially at risk of being trafficked, into the sex industry and for forced marriage.[191] She asserted that the sexual exploitation of girls remained "extremely common, socially and culturally tolerated in the country."[192] The Philippines ranked the 30th highest among 167 countries in 2018 in terms of slavery prevalence.[193]

62 The Philippine government was also urged by the CEDAW Committee in 2016 to eliminate the root causes of child and forced marriage, including poverty, conflict and insecurity, as well as vulnerability to natural disasters. It also raised concerns on the gaps between the provisions of Republic Act 9710, the Magna Carta on Women, and those of the Code of Muslim Personal Laws and

https://pcw.gov.ph/sites/default/files/documents/laws/wpla/2016/October/webmaster/PCW%20WPLA%20Policy%20Brief%206%20Family%20Code%20Provisions.pdf (accessed November 2019).

[179] Presidential Decree, No. 1083. http://www.uniset.ca/phil/phil_musl_civ_code.pdf (accessed May 2019).

[180] *ibid.*

[181] *ibid.*

[182] *ibid.*

[183] *ibid.*

[184] Philippine Commission on Women, 2019. "Adopting Divorce in the Family Code." Policy Brief No. 12 https://www.pcw.gov.ph/wpla-17th-congress/adopting-divorce-family-code (accessed November 2019).

[185] "Philippines."

[186] *The Power of Parity: Advancing Women's Equality in Asia and Pacific, Focus: the Philippines.*

[187] "Philippines."

[188] *ibid.*

[189] *ibid.*

[190] *ibid.*

[191] Agence-France Presse, 2012. UN envoy warns on human trafficking in Philippines." Inquirer.net. 9 November 2012. https://globalnation.inquirer.net/55726/un-envoy-warns-on-human-trafficking-in-philippines (accessed May 2019).

[192] *ibid.*

[193] Mideroo Foundation, 2018. Global Slavery Index, 2018, Country Data, Philippines. https://www.globalslaveryindex.org/2018/data/country-data/philippines/ (accessed May 2019).

customary laws applicable to indigenous communities, which drive harmful practices such as child and forced marriage. The United Nations Human Rights Committee recommended in 2017 that the government revise the minimum age of marriage for girls in the Code of Muslim Personal Laws.[194] The most common reasons for the breakdown of marriage in the Philippines are: infidelity or extramarital sexual relations or affairs by the husband (in some cases by the wife); violence inflicted by the husband on the wife or the children; or sexual abuse inflicted by the husband (in some cases by the wife) on children or other close relations.[195] The social stigma from failure to keep a marriage is stronger on the women, and hence the lack of legal provisions for divorce burdens women more than men.[196]

4.1.6 Religion

63 Starting in the early 16th century, the Spanish missionaries promoted Christian ideas of premarital virginity and wifely fidelity in a society where unmarried girls were usually free to engage in sex, and where extra-marital liaisons were condoned and at times encouraged, at least among the non-elite.[197] The missionaries were intrigued and yet repelled by the male penis adornment, which they attributed to the 'carnal lustfulness' of women and used to justify their proselytization activities in the Philippines.[198]

64 The missionaries made great efforts to undermine the elderly women who were priestess, possessed ritual objects and presided over animist ceremonies, because such women were related to witchcraft and devil in the minds of the missionaries.[199] The priestess also acted as midwives.[200] Many of them were transgender women who were assigned male at birth, but identified – and were socially accepted – as female.[201] The transgender priestesses seem to have existed in kingdoms influenced by Hinduism, which recognizes a third gender, but not in Northern Luzon, the mountainous areas of Mindanao or among Agtas.[202] The Spanish sought substitution of local rituals and symbols with Christian equivalents as a means to degrade the position of the priestess.[203] Young boys were recruited to locate sacred items and then urinate on them or perform other acts of desecration.[204] Men dressed as women who acted as ritual specialists were attacked as well.[205] The Catholicism molded the population into a binary sex and gender framework.[206]

65 The influence of the Roman Catholic Church remains in contemporary family, civil and penal laws, most prominently in marriage and reproductive health, as discussed above.[207] Filipinos are generally accepting of non-heterosexual people, but same-sex marriage is considered unconstitutional[208] and the church opposes anti-discrimination policies and occasionally seeks to

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[194] "Philippines."
[195] "Adopting Divorce in the Family Code."
[196] *ibid.*
[197] Andaya, B. W., 2002. "Carolyn Brewer, Holy Confrontation: Religion, Gender and Sexuality in the Philippines, 1521-1685." *Intersections: Gender, History and Culture in the Asian Context*. Issue 8. http://intersections.anu.edu.au/issue8/andaya_review.html (accessed May 2019).
[198] *ibid.*
[199] *ibid.*
[200] *ibid.*
[201] Clark, J., 2017. "Let's Discuss Transgender People in the Pre-Colonial Philippines." The Aswang Project. https://www.aswangproject.com/lets-discuss-transgender-pre-colonial-philippines/ (accessed May 2019).
[202] *ibid.*
[203] "Carolyn Brewer, Holy Confrontation: Religion, Gender and Sexuality in the Philippines, 1521-1685."
[204] *ibid.*
[205] *ibid.*
[206] *ibid.*
[207] "The Church, the State and Women's Bodies in the Context of Religious Fundamentalism in the Philippines."
[208] ABS CBN News, 2018. "Supreme Court ends oral arguments on same-sex marriage plea." 26 June 2018. https://news.abs-cbn.com/news/06/26/18/supreme-court-ends-oral-arguments-on-same-sex-marriage-plea (accessed May 2019).

influence public policy away from anti-discrimination.[209] Today how the religion is affecting gender inequality is not widely discussed or studied, only sporadically with respect to sexual and reproductive rights.

66 Presidential Decree 1083, Code of Muslim Personal Laws of the Philippines, is based on Sharia law, [210] applicable only to Muslims, and is allowed to prevail over the civil legislation of the Philippines.[211] Under the code, the husband may have up to four wives at a time,[212] but the wife is allowed only one husband. The wife cannot acquire any property by gratuitous title without the husband's consent, except from her close relatives,[213] but is allowed to keep her properties as her own and administer them after marriage.[214] The wife may take up any procession, occupation or engage in lawful business, as long as the husband consents and she observes Islamic modesty and virtue. [215] The code does not include such restrictions for the husbands. The rights and obligations with respect to conjugal partnership, care and custody of children, and marriage of children differ between wives and husbands. [216] They are not necessarily disadvantageous to women, but based on the traditional perceptions of women and men. For example, the obligations of Muslim husbands are on the conjugal dwelling and those of Muslim wives are on household affairs.[217] In terms of annulment of marriage, the Family Code only allows legal separation without the right to remarry,[218] but the Code of Muslim Personal Laws has a provision for divorce.

4.2 Labor Division, Decision Making and Autonomy

4.2.1 Crops

67 Many of the tasks related to crop agriculture are carried out by both women and men. Land preparation, irrigation system reparation and other work that requires physical power as well as any mechanized operation are in most cases taken care of by men. One survey in 1999-2003 indicated that there was no farming activity given exclusively to women, while men were largely responsible for land and seedbed preparation, land leveling, seedling, and irrigation systems.[219] The participation of both groups in the same task does not necessarily mean that their contributions are equal. The survey showed that women's participation was most notable in planting, transplanting, manual weeding, crop establishment and harvesting.[220] The tasks of women as hired hands were pulling and bundling of seedlings, planting and harvesting. [221] Among cultivation of rice, coconuts, corn, sugarcane, bananas, pineapples, and mangoes, women were employed most for corn and sugarcane and least for coconut farming.[222] Another survey around 2008 summarized that women dominated planting and harvesting, but also participated in land-clearing and harrowing.[223] It also noted that women spent longer time in the fields than men and that they were in charge of finance related activities although their labor was unpaid.[224]

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[209] UNDP and USAID, 2014. *Being LGBT in Asia: The Philippines Country Report*. Bangkok: UNDP.
[210] "Philippines."
[211] Asian Institute of Journalism and Communication, undated. *A Premier on the Code of Muslim Personal Laws of the Philippines.* San Juan City, Philippines; AIJC.
[212] *ibid.*
[213] *ibid.*
[214] Presidential Decree, No. 1083.
[215] *A Premier on the Code of Muslim Personal Laws of the Philippines.*
[216] Presidential Decree, No. 1083.
[217] *ibid.*
[218] "Adopting Divorce in the Family Code."
[219] FAO, undated. "Fact Sheet Philippines: Women in Agriculture, Environment and Rural Production." http://www.fao.org/3/ae946e/ae946e03.htm (accessed May 2019).
[220] *ibid.*
[221] *ibid.*
[222] *ibid.*
[223] *National Climate Change Action Plan, 2011-28.*
[224] *ibid.*

68 The consultations on the ground in 2019 showed that almost all tasks were done by both, while following the general pattern above where only one gender was involved.[225] Small variations were observed within the regions.[226] Fertilizer may be applied by men only or by both women and men in Bicol, or by women only in some parts of Ifugao;[227] in view of their farming methods it may be that synthetic fertilizers are applied by men and organic ones by women. One anomaly was in Banaue village of Ifugao region, Cordillera, where the tourism related off-farm activities left the farm work to women, and men participated only in tasks that are strictly for males (such as ploughing and dyke reparation) in addition to processing of crops and deciding when to plant rice.[228] Products were sold by women in all villages consulted, aided by men who undertook the physical aspects of sale, such as carrying heavy sacs and driving the vehicle to trading centers.[229] The participation of children after school or during the weekends is considered normal part of rural life.[230] Some indigenous communities continue to gather food from the forests, especially when there is shortage of cultivated food. The task is mainly given to men in some tribes and to women in others.[231]

4.2.2 Livestock

69 The most common livestock in the Philippines are: water buffalo (*carabão*), cattle, hog, goat, chicken and duck.[232] Other animals mentioned during the field consultations were: turkey, rabbit, tilapia, mud crab and milk fish in Bicol and dogs for meat in Ifugao.[233] According to the farmers consulted, anybody in the household would take care of the animals, although *carabão* and cattle were taken care of exclusively by men in some areas of Bicol for the reason that they could get aggressive and pose danger to the caretaker.[234] Women usually spend 1-2 hours per day in backyard gardening and livestock raising, which provide most of their daily provisions and even for special occasions as in the case of hogs they raise.[235] A survey in Bukidnon province revealed that the involvement of women and children in *carabão* management was overall moderate, but high in feeding, tethering, and cleaning the animals. Children were responsible for bringing their buffalo to the wallowing canal, and overall more active than women.[236]

70 Household gardens are critical for household subsistence, and serve as an important source of food. Studies have found backyard gardens supported households to better withstand shocks related to the pandemic, as it provided a source of food during market disruptions, reduced food costs, and lockdowns, and families could sell excess to neighbours.[237] Such gardens are also considered an important tool for strengthening resilience to climate change, as they can also support households to buffer climate-related shocks, which could otherwise have particularly strong adverse impacts on food security and nutrition. Attention should be paid to ensuring the adoption of sustainable climate-resilient and organic practices within household gardens, including also promoting diverse production systems.

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[225] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[226] *ibid.*
[227] *ibid.*
[228] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[229] *ibid.*
[230] *ibid.*
[231] *ibid.*
[232] *Selected Statistics on Agriculture 2018*.
[233] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[234] *ibid.*
[235] "Fact Sheet Philippines: Women in Agriculture, Environment and Rural Production."
[236] Bayola, D. L. and Intong, J.D., 2001. "Participation by women and children in livestock production in Bukidnon province, Southern Philippines." *Australasia Pacific Extension Network*. http://www.regional.org.au/au/apen/2001/refereed/BayolaD.htm (accessed May 2019).
[237] Verzosa F, Cabriole MA, Thant PS, Phen B, Itliong K, Myae C, Thong C, Urdelas FG, Naun YW, Moe MZ, Tola C, Barbon WJ, Monville-Oro E, Gonsalves J. 2021. Pathways to Women's Empowerment in the Promotion of Climate Smart Agriculture in the Philippines, Myanmar, and Cambodia. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

4.2.3 Household and care Work

71 Unpaid household work – cooking, laundry, cleaning, mending and procuring clothes, and caring for children, the elderly and disabled – is distributed unevenly between girls and boys around the world, and the pattern persists over their lifetime.[238] The total time spent on paid and unpaid work is more for girls of all age groups than boys in the same age groups in all countries, which may affect girls' access to playing, schooling, training, and other public activities,[239] leading to lower social and cognitive development.

72 The women covered by a survey conducted in 2017 in three countries – the Philippines, Uganda and Zimbabwe – spent more time than men on care in any situation, on average 4.5 to 6.5 hours a day on household work as a primary activity and an average of 11 to 12 hours a day in total.[240] Even when hours of 'supervision' are included, women's hours devoted to household work were, on average, 6.5 to 8 hours longer per day than men's.[241] Nine percent of men in the Philippines reported no time spent on any kind of household care the day before the survey, which was lower than 52% in Uganda and 49% in Zimbabwe in a study on the three countries.[242] Around 2016, Filipino women spent 34-75% more time than men on household work.[243] The time wives spent on household work was negatively affected by the husbands' wage, while the wives' wage did not affect husbands' time spent on household work, suggesting that higher household income allows employment for household work, bulk of which is done by wives.

73 In another survey of female rice farmers in Indonesia, Myanmar, the Philippines (Southern Luzon) and Thailand, women reported the difficulty of handling all work assigned to them during planting and harvesting seasons, when they needed to work in the field for 1 to 2 months in groups from early morning until late in the evening in addition to their daily household work.[244] Many female farmers in Southern Luzon described these seasons as exhausting and tiresome, and some prioritized farm work over household work during the peak seasons.[245]

4.2.4 Supplementary Income

74 Cash generating activities off the farm constitute an important element in the farmers' livelihood. The sources of income earned by families in the bottom 30% with respect to earning reflect the weak contribution of family farms to cash income: wage and salary (47%), entrepreneurial activities (25%), and family sustenance activities (4%).[246]

75 Women grow vegetables, raise poultry and small livestock, engage in aquaculture and arboriculture, work as teachers or own small businesses.[247] They may be hired for transplanting in other's fields.[248] Men are usually engaged in construction work,[249] or hunting or fishing.[250]

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[238] Rost. L, and Koissy-Kpein, S., 2017. *Infrastructure and Equipment for Unpaid Care Work: Household Survey Findings from the Philippines, Uganda and Zimbabwe*. 2017 Household Care Survey Report. Oxford: Oxfam.
[239] *ibid.*
[240] *ibid.*
[241] *ibid.*
[242] *ibid.*
[243] Dacuycuy, C. B., 2016. *Wages, Housework, and Attitudes in the Philippines*. Makati City, Philippines: Philippine Institute for Development Studies.
[244] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."
[245] ibid.
[246] *APIS 2017 Annual Poverty Indicators Survey, Final Report.*
[247] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."
[248] *ibid.*
[249] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[250] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."

Construction jobs are preferred to work as hired hands on the farm, because the wage is higher. In dire cases, they migrate overseas for work.

76 Many female farmers expressed their wish to earn more through off-farm work to meet the household needs,[251] mostly by engaging in what they love to do – such as making preserves and crafts – and selling the products. Their lack of access to marketing knowledge appeared an obstacle in making the transition from hobby to business with customers outside the immediate neighborhood: how to read market trends; find appropriate markets; control quality; present the product in an attractive manner; and utilize the internet for direct sale to consumers.[252]

4.2.5 Decision Making and Autonomy

77 **Overall:** When a family member's earnings are high, she/he has larger autonomy and influence in the finality of household decisions.[253] While wives' headship does not grant them autonomy and finality in decision making, it ensures that they are involved in decision making.[254]

78 **Income:** The National Demographic and Health Survey in 2013 revealed that very few men in the Philippines controlled the incomes earned by their employed wives aged 15-49.[255] In terms of the education level of the wives, more than half of the women were the main decision-makers in case they had no education.[256] The rate constantly decreased as the wives acquired more education.[257]

79 In contrast, less than 10% of men were the main decision-makers on spending of their own earnings, regardless of the relative importance of their incomes comparted to their wives'.[258] The incomes are usually pooled as family income,[259] and the spending decisions are made jointly by about half the households for the wives' earnings and by more than 60% for the husbands' earnings.[260] Some women were responsible for deciding on the sale of crops and livestock.[261] In such cases, they kept the earnings.[262]

80 With respect to the type of expenditures, day-to-day decisions on household expenditures (food, clothing, health care, education, etc.) were made by women, while major expenditures were jointly decided with men.[263] In Bicol, the farmers stated that when disagreement between wives and husbands could not be resolved, it was the husbands' opinion that prevailed.[264] The priorities for the expenses were: agricultural inputs, children's education, daily household needs, food and transportation.[265]

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[251] *ibid.*
Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[252] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[253] Bayudan, C., 2006. "Wives' Time Allocation and Intrahousehold Power: Evidence from the Philippines." *Applied Economics*. Vol. 38, 789–804.
[254] *ibid.*
[255] "Measuring Women's Empowerment and Women's Autonomy in the Philippines."
[256] *ibid.*
[257] *ibid.*
[258] *ibid.*
[259] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia." Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[260] "Measuring Women's Empowerment and Women's Autonomy in the Philippines."
[261] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."
[262] *ibid.*
[263] *ibid.*
[264] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[265] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."

81 **Assets:** Decisions on the purchase and sale of land, house or major family assets are made jointly by wives and husbands, regardless of the formal asset ownership,[266] but the power to make final decisions appears to rest with men.

82 **Farming**: The vast majority of the persons who take the technical and administrative responsibility of managing agricultural holdings, or agricultural operators, were men in 2009.[267] The agriculture officials on the ground asserted that the farming decisions are made by men, but the discussions with the farmers indicated that the decisions are jointly made by wives and husbands, and only when they cannot agree, men had the final word.[268] Among the Tuwali tribe in Ifugao, CAR, it is the first born child who grows up to make the decisions for the family, all the while the title of the head of the family follows a patriarchal system. [269] In Ifugao, it is a woman of prestige in each village who ritually sows the first seeds of the planting season in her seedbed.[270] Afterward she fasts for a day to mark the beginning of the rice planting season.[271]

83 **Health**: Slightly over half of the women currently married and aged 15-49 made decisions on their own health by themselves and about 45% made joint decisions with their husbands on the topic, according to the National Demographic and Health Survey in 2013.[272] Only 3.3% of the women reported that it was the husbands who made the decisions on the women's health.[273] Among four issues surveyed – purchases of daily household needs, visits to the wife's family or relatives, major household purchases, own health care – the health issue had the second most participation of women after purchases of daily household needs.[274]

84 Segregation by age groups showed that the proportion of women who participated in decision making on their health increased with age.[275] Women's cash earning status had little impact on their participation in decision making about women's health.[276] There was virtually no difference between the urban and rural residents.[277] The level of education and wealth had larger, but still small effects.[278]

85 **Violence**: The proportion of women aged 15-49 who were subjected to physical or sexual violence in the last 12 months was 7.1% for the Philippines in 2013.[279] As most countries do not have the relevant statistics, it is not possible to say whether the figure is above or below average,[280] while McKinsey Global Institute concluded that violence against women was mostly at medium level in the country.[281] As of 2016, 17% of Philippine women were subject to physical or sexual violence by their intimate partner in their lifetime.[282]

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[266] *ibid.*
[267] "Women in Agriculture."
[268] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia." Farmer and Institutional Consultations in Bicol and Cordillera (28 January-6 February 2019).
[269] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[270] Murphy, K. M., 2017. "A quiet harvest: linkage between ritual, seed selection and the historical use of the finger-bladed knife as a traditional plant breeding tool in Ifugao, Philippines." *Journal of Ethnobiology and Ethnomedicine*. Vol. 13, No. 3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5237252/ (accessed May 2019).
[271] *ibid.*
[272] "Measuring Women's Empowerment and Women's Autonomy in the Philippines."
[273] *ibid.*
[274] *ibid.*
[275] *ibid.*
[276] *ibid.*
[277] *ibid.*
[278] *ibid.*
[279] *The Global Gender Gap Report 2018*.
[280] *ibid.*
[281] *The Power of Parity: Advancing Women's Equality in Asia and Pacific, Focus: the Philippines.*
[282] UNWomen, 2016. "Global Database on Violence against Women. Philippines." http://evaw-global-database.unwomen.org/fr/countries/asia/philippines (accessed May 2019).

86 Among the Philippine girls aged 15 to 19 years, about 15% had experienced any physical violence since age 15 and about 8% experienced any physical violence in the 12 month prior to the survey in 2005-2013.[283] In recent years, the Philippines has become a global hub for child pornography online[284] and major destination for global child sex tourism.[285] About 5% of girls aged 15 to 19 years ever experienced forced sexual intercourse or any other forced sexual acts, according to a survey in 2004-2013.[286]

87 The National Demographic and Health Survey in 2008 and 2013 indicate that women's attitude toward violence committed to them did not change much.[287] In 2013, 13% of currently married women aged 15-49 agreed that their husbands are justified in hitting or beating them if the wives burned the food, argued with him, went out without telling him, neglected the children, or refused to have sexual intercourse with him. The largest proportion of women (12% in 2008 and 11% in 2013) considered it just that their husbands hit or beat them if they neglected their children.[288] The lowest proportions were on refusal to have sex with the husband (1.6%) and burning the food (1.8%).[289] There was very little difference among the age groups in thinking that the use of violence was justified for each of the above five cases.[290]

88 Currently married women aged 15-49 and living in the rural areas were more tolerant of gender-based violence than those in the urban areas, more than twice in terms of proportion.[291]

4.3 Agricultural Resources and Services: Access and Ownership

4.3.1 Land, House and Livestock

89 Republic Act 6657, the Comprehensive Agrarian Reform Law (CARL) of 1988, and Republic Act 9710, the Magna Carta of Women together give equal rights to women and men in land ownership and management, regardless of marital status, and women's names should appear as equal co-owner of the land that they cultivate as a family.[292] In many cases, the prevailing perception that men are the primary landowners,[293] lack of awareness of these rights and weak administrative practices have limited women's land ownership.[294] In case of Muslim communities, the Code of Muslim Personal Laws, which supersedes the Civil Code, requires wives to obtain their husband's consent during the course of their marriage on property acquisition and land use.[295] Some farmers assert that if they were to be granted land under the Certificate of Land Ownership Award[296] of the Comprehensive Agrarian Reform Program, they cannot have any source of income other than farming, must have been farming

[283] UNICEF, 2014. *A Statistical Snapshot of Violence against Adolescent Girls*. New York: United Nations Children's Fund.
[284] The Economist, 2018. "Caught in the web: The Philippines is a global hub for child pornography." 4 January 2018. https://www.economist.com/asia/2018/01/04/the-philippines-is-a-global-hub-for-child-pornography (accessed May 2019).
[285] ECPAT, 2016. "National Plan of Action, Executive Summary, Philippines." https://www.ecpat.org/wp-content/uploads/2016/04/EXSUM_A4A_EAP_PHILIPPINES.pdf (accessed May 2019).
[286] *A Statistical Snapshot of Violence against Adolescent Girls*.
[287] "Measuring Women's Empowerment and Women's Autonomy in the Philippines."
[288] *ibid.*
[289] *ibid.*
[290] *ibid.*
[291] *ibid.*
[292] Asian Farmers' Association, 2019. "Women's Land Rights, Gender-Responsive Policies and the World Bank (Philippines)." http://asianfarmers.org/womens-land-rights-gender-responsive-policies-and-the-world-bank-philippines/ (accessed May 2019).
[293] "The Philippines: Closing the credit gap for women entrepreneurs." https://www.whitecase.com/publications/article/philippines-closing-credit-gap-women-entrepreneurs (accessed May 2019).
[294] "Women's Land Rights, Gender-Responsive Policies and the World Bank (Philippines)."
[295] *ibid.*
[296] "Gender and conservation agriculture: constraints and opportunities in the Philippines."

the land in question for five years or more, and are responsible for all taxes and surveys on the land.[297] These conditions may be difficult for a woman alone to satisfy.[298]

90 Land ownership statistics segregated by age and gender reveal that less than 1% of married women aged 15-19 owned land by themselves and slightly over 1% owned land jointly in 2018.[299] As women aged, the sole and joint ownerships both increased.[300] More married women owned land in the rural areas than in the urban areas, but at the same time, the higher the wealth, the more likely a married woman owned land by herself, suggesting the existence of a class akin to landed gentry.[301] These national statistics do not differentiate non-indigenous women from indigenous women.

91 Despite the lack of ownership among women, decisions are usually made jointly, and those over land utilization, purchase or sale do not appear to be exceptions.[302] It is not known, however, whether the voices of wives and husbands carry equal weight, or who has the final say when agreement is considered impossible. According to Article 96 of the Family Code, the husband's decision prevails in the case of a disagreement between the spouses over the use of marital property.[303] It has also been reported that women's status in the family and in the community improves with conferment of land rights, as the rights open door to agricultural credit, which in turn encourages them to assert themselves when dealing with government officials.[304]

92 As of 2006, 11.2 million people were engaged in agriculture, of which 8.5 million were landless.[305] The tenancy system is based on a 70/30 or 60/40 product-sharing scheme, in favor of the landowner.[306] Only the male farmers are paid, but the entire family mobilized to complete the work,[307] as was the case during the Spanish colonial times.

93 Housing followed the same trend by age groups as with land, progressing from 95.6% of married women aged 15-19 not owning a house to 20.8% of married women aged 45-49 in the same condition.[308] The urban-rural difference was reversed from the land ownership.[309] The higher the wealth, the more a woman was likely to own a house alone, but less jointly,[310] suggesting absentee house owners or female-headed households.

94 Official statistics on livestock ownership is unavailable, but appears to largely follow the pattern of other assets, namely joint management.[311]

4.3.2 Agriculture Extension Services

95 As a result of Republic Act 7160, Local Government Code of 1991, provision of extension services have mainly become the responsibilities of the local government units (LGUs). The extension officers recruited by the LGUs are reported to be mostly political appointees with scant expertise of

[297] *ibid.*
[298] *ibid.*
[299] "Measuring Women's Empowerment and Women's Autonomy in the Philippines."
[300] *ibid.*
[301] *ibid.*
[302] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."
[303] "Ensuring Women's Equal Rights in Marriage and Family Relations: Amending Articles 14, 19, 124, 211 and 225 of the Family Code of the Philippines."
[304] "Women's Land Rights, Gender-Responsive Policies and the World Bank (Philippines)."
[305] "Impact of international agricultural trade and gender equity: selected country case studies."
[306] *ibid.*
[307] *ibid.*
[308] "Measuring Women's Empowerment and Women's Autonomy in the Philippines."
[309] *ibid.*
[310] *ibid.*
[311] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).

relevance, contrary to the officers who were transferred to the LGUs from the Department of Agriculture in accordance with the devolution and are diminishing in number as they retire.[312] Many government and non-government entities are involved in extension services, leading to redundancy,[313] if not strategic confusion, but at the same time, the number of officers on the ground is considered insufficient. In some municipalities in Camarines Norte, there are only about six to eight governmental extension workers servicing 1,000-1,500 farmers.[314] The upland farmers seemed left to themselves, [315] most likely because of the difficulty in reaching the areas. The majority of the agriculture extension officers met by the mission team were women.[316]

96 In many regions, it is the women who participate in most agricultural meetings organized by the local extension office.[317] Men prefer to work in the field,[318] considering such meetings part of social activities that women are in charge of for the entire family .[319] It could well be an indication that extension services are not considered important enough to warrant the presence of men, who are the formal faces of the family. The information obtained at such meetings is shared with the husbands,[320] but it is up to the husbands to decide whether to put it in practice.[321] Women are generally more open to new ideas, but men need to be convinced for their application in the field. The local offices of the Department of Agriculture see this gender divide on extension services a problem,[322] as men become increasingly left behind in new developments in agriculture. In Northern Mindanao, the opposite situation appeared to be the norm; men represented their households, because women had a great amount of work to do at home, and consequently women remained untrained.[323]

97 The little information that exists on livestock extension services in the Philippines imply that there are even fewer officers than for agriculture extension workers on crops. Women and children who are engaged in livestock management often obtain necessary knowledge mostly by trial and error as well as from the previous generation in the family.[324]

4.3.3 Climate Information Services

98 Women in general are more educated than men in the Philippines, including the rural areas, and there appears no gender-based obstacle in terms of information acquisition. Agriculture is managed jointly by women and men, and no gender differentiated climate information service exists. According to one survey carried out in Southern Luzon, although almost all women and men reported usefulness of climate information service, women's opinions were much more diverse than men's on how much the information boosted the agricultural production.[325] Other gender differences that may

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[312] *ibid.*

[313] Ani, P. A. B. and Correa, A. B. D., 2016. "Agricultural Extension Policies in the Philippines: Towards Enhancing the Delivery of Technological Services." FFTC Agricultural Policy Platform. Food and Fertilizer Technology Center for the Asian and Pacific Region.
http://ap.fftc.agnet.org/ap_db.php?id=664&print=1 (accessed May 2019).

[314] Institutional Consultations in Bicol and Cordillera (28 January-6 February 2019).

[315] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).

[316] *ibid.*

[317] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."
Farmer Consultations in Cagayan Valley (15-22 November), Bicol and Cordillera (28 January-6 February 2019).

[318] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia." Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).

[319] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).

[320] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia." Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).

[321] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).

[322] Institutional Consultations in Bicol and Cordillera (28 January-6 February 2019).

[323] "Gender and conservation agriculture: constraints and opportunities in the Philippines."

[324] "Participation by women and children in livestock production in Bukidnon province, Southern Philippines."

[325] Ewbank. R., 2016. "Developing Climate Services in the Philippines." July 2016 Programme Review. Christian Aid.

affect the utility of climate information are: men make the final decision in case of disagreement; and women are engaged in many household chores in addition to those related to crops and livestock, carry out these tasks simultaneously and are often bound to the house for that reason.

4.3.4 Agricultural Credit

99 A variety of subsidized direct credit programmes continues to be offered by different government agencies to smallholders. They are essentially of one kind; the main difference is in the source of funds, which leads to different purposes and the target clientele. These programmes are all implemented through the Land Bank, and cater to the same strata of farmers with almost the same terms and conditions.[326] Only one of the programmes targets women of agricultural households who are engaged in income generating activities.[327]

100 Farmers mostly rely on the so-called 5-6s, who may charge up to 20-25% interest for a 100-day borrowing, for ease of access and speed of obtaining the cash needed.[328] The second most popular were microfinance institutions.[329] Microfinance Council of the Philippines Inc. recognizes that the poorest farmers still do not have access to formal credit and that documentation requirements should be lessened and processes simplified to reach the poorest.[330]

101 Credit is used mostly for agricultural inputs and credit decisions are taken in mutual agreement, but women are more knowledgeable about the needs related to household expenses as well as the tasks that they spend more time for, and men about the needs for the tasks that they engage in.[331] Problems arise when a woman wants to borrow money out of her own volition.[332] Women are not registered under the Registry System for Basic Sectors in Agriculture (RSBSA), and Agriculture Credit Policy Council (ACPC) says only registered farmers can receive loans; husbands need to authorize the wives to borrow.[333] Many banks prefer to have the signature or consent of the husband in financial transactions.[334] Some still demand the co-signature of male partners for financial contracts, although the Women in Development and Nation Building Act promotes women as equal to men, expressly confirming that women have the same capacity to enter into contracts as men.[335] If banks require home or land as collateral, women, the vast majority of whom lack legal title to such assets, are disadvantaged compared to men.[336] Finally, Article 2940 of the Civil Code stipulates that a married woman may guarantee an obligation without the husband's consent, but shall not thereby bind the conjugal partnership, except in cases provided by law.[337] Many indigenous peoples are undocumented, and hence, automatically do not have access to formal credit.[338]

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https://www.christianaid.org.uk/sites/default/files/2017-11/Developing-Climate-Services-Philippines-report-July2016.pdf (accessed May 2019).

[326] Geron, P. S. *et al*., 2016. *Comprehensive Study on Credit Programs to Smallholders*. Makati City, Philippines: Philippine Institute for Development Studies.

[327] *ibid.*

[328] International Center for Tropical Agriculture Workshop in Visayas, 31 May-1 June, 2018.
Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).

[329] *ibid.*

[330] Cu, R., 2017. "Microfinance in PHL at crossroads." Business Mirror. 1 March 2017.
https://businessmirror.com.ph/2017/03/01/microfinance-in-phl-at-crossroads/ (accessed May 2019).

[331] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."

[332] "The Philippines: Closing the credit gap for women entrepreneurs."

[333] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).

[334] "The Philippines: Closing the credit gap for women entrepreneurs."

[335] *ibid.*

[336] *ibid.*

[337] Chan Robles, Virtual Law Library, 2019. "Philippine Civil Law."
http://www.chanrobles.com/civilcodeofthephilippinesfulltext.html (accessed May 2019).

[338] Institutional Consultations in Bicol and Cordillera (28 January-6 February 2019).

4.3.5 Agricultural Insurance

102 The Philippine Crop Insurance Corp. (PCIC) was established in 1978 by Presidential Decree 1467 as an agency under the Department of Agriculture to provide insurance protection to farmers against losses from natural calamities, plant diseases and pest infestations of crops.[339] PCIC offers insurances for rice, corn, livestock, fisheries, non-crop agricultural assets, and more than 50 high-value commercial crops[340] (all crops other than rice and corn, such as abaca, asparagus, banana, bitter gourd, , cabbage, carrot, cassava, coconut, coffee, commercial trees, cotton, garlic, mango mung bean, onion, papaya, peanut, pineapple, sugarcane, sweet potato, tobacco, tomato, watermelon, white potato, etc.) and runs a scheme on accident and dismemberment security scheme.[341] The insurances for rice and corn are highly subsidized.[342] The one for high-value commercial crops cover natural disasters (typhoon, flood, drought, earthquake and volcanic eruption), plant disease, pest infestation and accidental fire.[343] The livestock insurance is for cattle, *carabão*, horse, swine, goat, poultry and game fowl, covering death caused by accident, disease, etc.[344] The fisheries insurance provides protection against losses in fish, fishery and aquatic products caused by natural calamities and fortuitous events.[345]

103 Many farmers consider the documentation requirements before and after the event beyond their capacity, and cited as the main reason for not purchasing a PCIC insurance.[346] Some farmers purchase a crop insurance because it is required for taking out loans.[347] A study found that the level of education, farming experience and membership in farmer organization are significant factors in farmers' decision to subscribe to a crop insurance policy.[348]

104 The microfinance institutions recognized the economic fragility of their clients and the need for insurance services that protected them from a deeper descent into poverty in case of calamities.[349] The results were proliferation of informal insurance and financial risks.[350] The establishment of a regulatory framework on microinsurance and a National Strategy for Microinsurance in 2009 diffused the risks, and the microinsurance industry grew;[351] the Insurance Commission counted 30 million people who had been covered by formal risk protection in 2014 and 2015.[352]

105 A study of Bangladeshi farmers showed that women were more reluctant to take out any weather-indexed crop insurance compared to men. The difference could not be explained by gender differences in risk and time preferences or decision-making power, but by lower levels of trust in

[339] Funa, D. B., 2018. "Agricultural Insurance in the Philippines." Business Mirror. 9 January 2018. https://businessmirror.com.ph/2018/01/09/agricultural-insurance-in-the-philippines/ (accessed May 2019).
[340] Uy, II, A. S., 2014. "Philippine Crop Insurance Corporation." https://www.iges.or.jp/files/research/natural-resource/PDF/20140704/4_PCIC_Programs_Bangi_Malaysia_final.pdf (accessed May 2019).
[341] Decena, F. L. C., 2016. "Agricultural Insurance in the Philippines." FFTC Agricultural Policy Platform. Food and Fertilizer Technology Center for the Asian and Pacific Region. http://ap.fftc.agnet.org/ap_db.php?id=623 (accessed May 2019).
[342] "Philippine Crop Insurance Corporation."
[343] *ibid.*
[344] Decena, F. L. C., 2016. "Agricultural Insurance in the Philippines."
[345] "Philippine Crop Insurance Corporation."
[346] International Center for Tropical Agriculture Workshop in Visayas, 31 May-1 June, 2018.
[347] Reyes, C. M. *et al*., 2017. *Crop Insurance Program of the PCIC: Integrative Report from the Five Case Regions in the Philippines*. Makati City, Philippines: Philippine Institute for Development Studies.
[348] *ibid.*
[349] Asian Development Bank, 2017. *Assessment of microinsurance as emerging microfinance for the poor: The case of the Philippines.* Mandaluyong City, Philippines: Asian Development Bank.
[350] *ibid.*
[351] *ibid.*
[352] *ibid.*

financial institutions and of financial literacy.[353] None of the discussions on agricultural insurance in the Philippines examines the possible gender gaps, but those emanating from financial literacy is quite unlikely in the Philippines. Since insurance is one type of financial contract, women would face the same obstacles as in the case of credit.

4.3.5 Mobile Phone and the Internet

106 According to the International Telecommunication Union (ITU), the Philippines ranked 15th among the 34 countries in the Asia and the Pacific with respect to ICT Development Index in 2017, slightly below the world average.[354] A good majority of the households had a mobile phone in 2017 with a larger proportion in the urban areas compared to rural areas: 91% and 78%, respectively. [355] It is reported that virtually the entire country is covered by 2G mobile connection and that over 75% of the population is covered by mobile broadband connection;[356] Philippines is one of the few countries that recorded significant increases in the number of fixed-broadband subscriptions per 100 persons in Asia and the Pacific in 2017.[357]

107 The Inclusive Internet Index of the Economist Intelligence Unit placed the Philippines the 66th among the 100 countries worldwide in 2019, based on availability (quality and breadth of available infrastructure required for access and levels of Internet usage), affordability (cost of access relative to income and the level of competition in the internet marketplace), relevance (existence and extent of local language content and relevant content), and readiness (capacity to access the Internet, including skills, cultural acceptance, and supporting policy).[358]

108 A survey carried out in 2019 indicated that, among the Filipinos aged 18 and above, 46% used the internet, while the figure was 30.1% in 2013[359] and 8% in 2006.[360] In the same year, the proportion of internet users in the urban areas was 56%, while it was 38% in the rural areas.[361] Remote areas without any kind of connection still existed.[362]

109 The gender gap in mobile internet use is considerably wider than the mobile ownership gap in all regions in the world.[363] It is a concern, especially for the least developed countries, where one in seven women is using the internet compared with one in five men.[364] As with literacy and education, Philippine women fare better than men in internet usage. All female farmers encountered by the mission team had a mobile phone for themselves, mostly 2G, but some had 3G or later standards.[365] All households had access to the functionalities of the 3G or 4G phone, as at least one member of the family (usually a youth) had a smart phone and a Facebook account.[366] It has been observed in the

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[353] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."
[354] International Telecommunication Union, 2017. *Measuring the Information Society Report, Volume 1, 2017*. Geneva: International Telecommunication Union.
[355] *ibid*.
[356] *ibid.*
[357] *Measuring the Information Society Report, Volume 1, 2017*.
[358] The Economist, 2019. "The Inclusive Internet Index 2019: Overall."
https://theinclusiveinternet.eiu.com/explore/countries/PH/ (accessed June 2019).
[359] *2013 FLEMMS, Functional Literacy, Education and Mass Media Survey, Final Report.*
[360] Flores, H., 2019. "Women use internet more than men in the Philippines — SWS." Philstar Global. 6 June 2019.
https://www.philstar.com/headlines/2019/06/06/1924057/women-use-internet-more-men-philippines-sws (accessed June 2019).
[361] "Women use internet more than men in the Philippines — SWS."
[362] Lim, S., 2019. "Observing a community network in the Philippines through a gendered lens." GenderIT.org. 7 January 2019.
https://genderit.org/articles/observing-community-network-philippines-through-gendered-lens (accessed June 2019).
[363] Rowntree, O., 2018. *Connected Women: The Mobile Gender Gap Report 2018*. London: GSM Association.
[364] *Measuring the Information Society Report, Volume 1, 2017*.
[365] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[366] *ibid.*

rural areas that women are more likely to use cellular connection than men of the same age and economic status, which may be due to their respective work environment: better connectivity at home (for women) than high in the mountains or far in the open sea (for men).[367]

110 The Women's Rights Online Report Card from 2017 by the Foundation for Media Alternatives, a non-profit NGO in the Philippines, paints a more nuanced picture. The country scored 5 out of 10 on women's rights online, which was evaluated on the basis of 14 indicators provided by the World Wide Web Foundation.[368] The indicators belonged to five thematic categories: internet access and women's empowerment; relevant content and services; online safety; affordability; and digital skills and education.[369] The aspects of the internet service weighing down most on the score are: internet access and women's empowerment; and relevant content and services.[370] The low evaluation stems from economic inequality and the government's prudishness when it comes to women's reproductive health and sexual rights.[371]

4.3.7 Other Sources of Information

111 The media in the Philippines is among the oldest and the least restricted in Asia.[372] There are radio programmes on public service which allow listeners to call in to voice their concerns about their neighborhood with the goal to prompt government officials to respond and take action.[373] However, as commercial entities, the media is focused on profits, which leads to intense competition with one another to satisfy the peoples' interest in gossip, violence or scandal and dismissal of what is against the interests that control the media.[374] The content is also highly partisan, as people with interests and means influence mass communication through direct ownership, etc.;[375] most media outlets engage in self-promotion and self-censorship.[376] The People Power Revolution in 1986 – the overthrow by the people of the dictatorial regime of President Ferdinand Marcos –[377] marked a watershed in the coverage.[378] Environmental and women's issues, science and technology, civil society and many other areas that had been largely ignored started to attract more attention in the media.[379] The plight of cultural minorities is one of the topics that is still rarely covered by local[380] or national media, except during disasters and other calamities.[381]

112 The national newspapers are in English and owned by prominent families with powerful connections throughout the society.[382] Their messages are generally conservative.[383] Of the thirty dailies in the Greater Manila, nine broadsheets are published in English and three in Chinese, while seventeen tabloids are in Filipino and two in English; the broadsheets cater to the English-educated

[367] "Observing a community network in the Philippines through a gendered lens."
[368] Serafica, R., 2017. "How are women's rights measured online?" Rappler. 10 April 2017. https://www.rappler.com/move-ph/166497-digital-gender-report-card-filipino-womens-rights (accessed June 2019).
[369] *ibid.*
[370] *Women's Rights Online: Report Card, Philippines*.
[371] "How are women's rights measured online?"
[372] Pertierra, R., 2012. *New Media, Society & Politics in the Philippines*. Berlin: fesmedia Asia.
[373] Guioguio, R., 2015. "An Overview of the Mass Media Situation in the Philippines." Media Ownership Monitor, Reporters without Borders. https://www.mom-rsf.org/uploads/tx_lfrogmom/documents/7-167_import.pdf (accessed June 2019).
[374] "An Overview of the Mass Media Situation in the Philippines."
[375] *New Media, Society & Politics in the Philippines*.
[376] *ibid.*
[377] Government of the Philippines, undated. History of the Philippine Political Protest. Official Gazette https://www.officialgazette.gov.ph/edsa/the-ph-protest/ (accessed June 2019).
[378] "An Overview of the Mass Media Situation in the Philippines."
[379] *ibid.*
[380] *New Media, Society & Politics in the Philippines*.
[381] *ibid.*
[382] *ibid.*
[383] *ibid.*

elites and middle class, while the tabloids sell to the less-educated.[384] The total circulation of newspapers is larger than before, but circulation per capita has decreased dramatically between 1998 and 2005.[385]

113 Regional newspapers are in English or the local language and mostly cover local events and personalities.[386] Several popular tabloids are written in Filipino, and hence are more widely accessible, but rarely touch on serious national matters.[387] The print media is highly regarded,[388] but usually available only in provincial capitals and no major leftist periodical is in print.[389].Feuding politicians employ local journalists to attack their opponents, and almost all journalists killed in the Philippines worked for local radio, television or newspapers.[390] In 2018, Philippines was ranked the fifth by the Global Impunity Index, which calculates the number of unsolved journalist murders as a percentage of each country's population.[391] The country currently has 40 unsolved cases.[392]

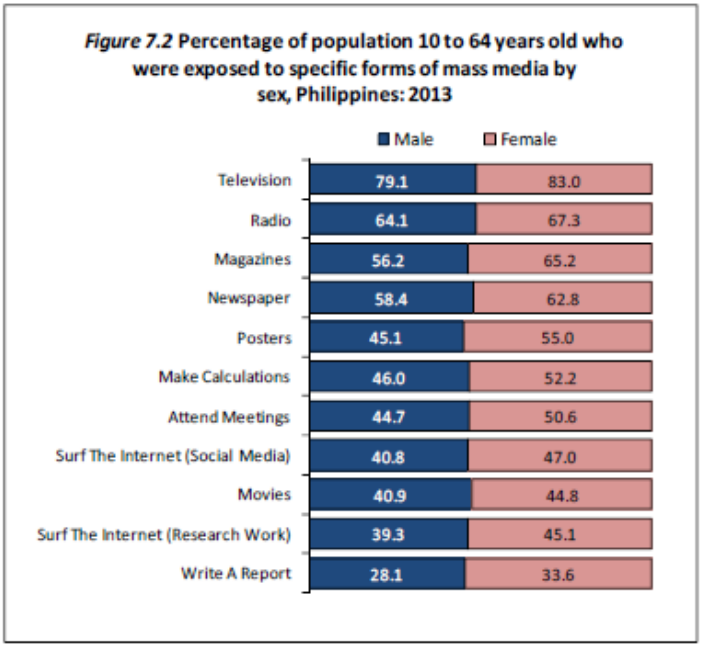

Figure 1: Exposure to Mass Media by Gender

Source: Philippine Statistics Authority (2015).

114 Fair and balanced coverage, including economic, ethnic and regional issues, is said to be missing in the Filipino media, based on lack of professionalism of some journalists, politicization of the media, lack of pluralism, and proliferation of hate speech.[393] These are also the factors leading to attacks against and murder of journalists.[394] The country does not have public broadcasting service, the like of the British Broadcasting Corporation (BBC), only national broadcasting networks for radio

[384] "An Overview of the Mass Media Situation in the Philippines."
[385] *ibid.*
[386] *New Media, Society & Politics in the Philippines*.
[387] *ibid.*
[388] *ibid.*
[389] "An Overview of the Mass Media Situation in the Philippines."
[390] *New Media, Society & Politics in the Philippines*.
[391] Witchel, E., undated. "Getting Away with Murder." Committee to Protect Journalists. https://cpj.org/reports/2018/10/impunity-index-getting-away-with-murder-killed-justice.php (accessed June 2019).
[392] *ibid.*
[393] "An Overview of the Mass Media Situation in the Philippines."
[394] *ibid.*

and television under the Office of Press Secretary, which has the lowest audience shares in the market.[395] Media is diverse in the Philippines, but of restricted content.[396]

115 The latest Functional Literacy, Education and Mass Media Survey from 2013 indicated that more than 80% of households owned a mobile phone and little under 80% owned a television.[397] The print media is the most influential on a national scale, and the radio plays an important role locally.[398] Radio is likely the most extensive source of information for most of the population.[399] The programmes are generally in the vernacular and on local issues with little coverage of foreign news.[400] The internet may be taking over as the source of latest news, as many farmers interviewed referred to Facebook for information on natural disasters.[401] Television, on the other hand, is the main source of entertainment.[402] Most television programs are in Filipino although regional stations also broadcast in the local languages.[403] For all types of media, women were more exposed than men, the largest gap of 10 percentage points was in posters as an information source[404] (Figure 1). The choice of media did not appear to be dependent on gender.[405]

116 Despite the fact that the oldest local newspaper was established by Ibaloys, a tribal minority in the Cordillera region in 1947, only some of the indigenous peoples, who constitute 20% of the population, have access to local newspapers or radio.[406] The majority of them rely on sporadic and often misconceived reports from the national media.[407]

4.3.8 Access to Markets

117 Women in general tend to lack mobility because of their responsibilities related to household chores and caregiving, and hence, have less access to markets than men. Although the Philippine women are bound by the same tasks, women accompany men to the markets and it is the women who engage in negotiations with the buyers,[408] because they are accepted as better in negotiation.[409] Men are relegated to the tasks of driving and carrying the heavy loads, who acknowledged the skills of the women and accepted the division of roles.[410] The situation may be quite different if the merchandise is produced by women alone, involves intensive processing by women, or is not a standard staple or semi-staple food, e.g., crafts and processed agricultural products. No analysis appears to have been carried out on this difference.

4.4 Water and Sanitation

118 About 70% of the population had access to basic drinking water in 2015, and the country met the Millennium Development Goal (MDG) on access to safe drinking water.[411] However, it ranked 33rd

[395] *ibid.*
[396] *New Media, Society & Politics in the Philippines*.
[397] *ibid.*
[398] *New Media, Society & Politics in the Philippines*.
[399] *ibid.*
[400] *ibid.*
[401] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[402] *New Media, Society & Politics in the Philippines*.
[403] *ibid.*
[404] *2013 FLEMMS, Functional Literacy, Education and Mass Media Survey, Final Report.*
[405] *ibid.*
[406] *New Media, Society & Politics in the Philippines*.
[407] *ibid.*
[408] International Center for Tropical Agriculture Workshop in Luzon, 24-25 May, 2018.
Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[409] *ibid.*
[410] *ibid.*
[411] Alikpala, R. B. and Ilagan, C. A., 2018. *Water*. Policy Brief No.7, September 2018. Makati City, Philippines: the Arangkada Philippines Project.

out of 48 countries according to the five aspects on water security advanced by the Asian Development Bank – household water security; economic water security; urban water security; environmental water security; resilience to water-related diseases – which may be due to lack of data.[412] Despite the rich water resources and numerous programs and projects, some areas need additional water sources and universal access to water is yet to be achieved; the sector is fragmented and no apex body exists to oversee and coordinate.[413]

119 Rural water supply has received less attention compared to urban water supply.[414] In 2017, 95% of households used an improved source of drinking water: 98% of urban and 93% of rural households[415] About four-fifths of Filipino households had water on the premises: 91% of urban and 71% of rural households. Three percent of households traveled 30 minutes or longer to fetch water.[416]

120 The most common source of drinking water was bottled water or a refilling station.[417] Boiling was the most common water treatment method, used by 12% of all households.[418] It was estimated that only 15% of the households made use of an appropriate treating method for their drinking water.[419] No gender segregated data or analysis is available on water supply.

121 The MDG target for access to a basic sanitary toilet facility was met, but among the households around the nation only 4.4% were connected to sewerage systems and 5.9% still had no access to a basic sanitary toilet facility as of 2015.[420] The government announced subsidy for establishing sewerage systems in highly urbanized cities besides Metro Manila, but no service provider has taken it up.[421] Thousands of schools do not have sanitation facilities,[422] which could be discouraging girls from attending school, but that has not shown up as a lower enrolment or graduation rate for girls than for boys. Urban sanitation is considered in worse shape than rural sanitation.[423]

122 Over three-quarters of households used improved toilet facilities, which are non-shared facilities that prevent people from coming into contact with human waste. Shared toilet facilities of acceptable types was used by 20% and 15% of urban and rural households, respectively, in 2017.[424] Five percent of the households did not use any toilet facility.[425] The mortality rate attributed to exposure to unsafe water, sanitation and hygiene (WASH) services per 100,000 population was 4.2 in 2016, placing the Philippines 15th out of 21 countries in the Western Pacific.[426]

123 It has been reported that the improved and equitable delivery of basic infrastructure for water supply, sewerage and sanitation is hindered by: inadequate financing; low technical capacities of small service providers; difficulty in acquisition of right-of-way for sewer lines; lack of available land for water supply and wastewater treatment facilities; and institutional challenges (such as lengthy

[412] *Water*.
[413] National Economic and Development Authority, 2017. *Philippine Development Plan 2017-2022*. Pasig City, Philippines; National Economic and Development Authority.
[414] Smets, S., 2015. *Water Supply and Sanitation in the Philippines, Service Delivery Assessment: Turning Finance into Services for the Future*. Washington, D. C.: World Bank.
[415] Philippine Statistics Authority, 2018. *Philippines National Demographic and Health Survey, 2017*. Quezon City, Philippines: Philippine Statistics Authority.
[416] *ibid.*
[417] *Water Supply and Sanitation in the Philippines, Service Delivery Assessment: Turning Finance into Services for the Future*.
[418] *Philippines National Demographic and Health Survey, 2017.*
[419] *ibid.*
[420] *Philippine Development Plan 2017-2022*.
[421] *ibid.*
[422] *ibid.*
[423] *Water Supply and Sanitation in the Philippines, Service Delivery Assessment: Turning Finance into Services for the Future*.
[424] *Philippines National Demographic and Health Survey, 2017.*
[425] *ibid.*
[426] World Health Organization, 2018. *World Health Statistics 2018: Monitoring Health for the SDGs, Sustainable Development Goals.* Geneva: World Health Organization.

processing of water permit applications, and absence of a single, independent and predictable regulatory regime). [427]

4.5 Health

4.5.1 General Health

124 The latest available statistics indicate that the health of an average person in the Philippines has more in common with that in the countries with lower incomes. The mental health of the population appeared in a much better shape. The suicide mortality rate, 3.2 per 100,000 in 2016, was the lowest in Western Pacific and one of the lowest in the world.[428]

125 Awareness on health or access to health services is low. Sixty-six percent of the population was covered by second-dose immunization of measles-containing vaccine before the nationally recommended age in 2016. The Philippines had the lowest density of physicians and of nursing and midwifery personnel per 1,000 population among the 27 countries in the Western Pacific, using the latest available data from 2007-2016.[429] Natural disasters, which are very likely to increase in the future because of climate change, are already an important factor in health. The Philippines had the third highest average death rate in the world due to natural disasters per 100,000 population in 2012-2016, after Nepal and Saint Vincent and Grenadines.[430]

126 The World Health Organization (WHO) applauded the Philippine public health system for its approach to the primary health care system and the devolution of health services to the local level. However, the availability of health facilities and services differs greatly throughout the country, and local government budgets do not usually prioritize health. [431] Republic Act 7875, National Health Insurance Act of 1995, is in place, but 54% of the total health expenditure was out-of-pocket expenses and only 9% was covered by social health insurance.[432] The WHO benchmark for health expenditure in countries which are in the same league as the Philippines is 5% or more of GDP;[433] the national health expenditure in the country was 4.4% of GDP in 2016.[434]

127 Philippines ranked the 42nd highest among 149 countries in gender gap related to health and survival, measured by sex ratio at birth and gender difference in healthy life expectancy.[435] Other statistics, such as child nutrition status and mortality rates, show that girls are slightly better off than boys and that the lack of service affects both equally (Table 5).

Table 5: Gender Differences in Health

	Women	Men
Proportion of Obese persons	8.7%	5.0%
Proportion of Underweight Children 0-5 Years Old	21.6%	21.7%
Proportion of Stunted Children 0-5 Years Old	32.5%	34.4%

[427] *Philippine Development Plan 2017-2022*.
[428] *World Health Statistics 2018: Monitoring Health for the SDGs, Sustainable Development Goals.*
[429] *World Health Statistics 2018: Monitoring Health for the SDGs, Sustainable Development Goals.*
[430] *ibid.*
[431] World Bank, 2014. *Republic of the Philippines, Gender and Development Mainstreaming: Country Gender Assessment 2012, Philippines.* Washington, D.C.: World Bank.
[432] *ibid.*
[433] *ibid.*
[434] World Bank, 2019. "Current health expenditure (% of GDP)." https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS (accessed June 2019).
[435] *The Global Gender Gap Report 2018*.

Proportion of Overweight/Obese Children 0-5 Years Old	3.7%	4.0
Percentage of Children 12-23 Months Old Who Received All Basic Vaccinations at Anytime Before the Survey	70.8%	69.2%
Neonatal Mortality Rate per 1,000 live births	14.0	13.0
Postneonatal Mortality Rate per 1,000 live births	7.0	8.0
Infant Mortality Rate per 1,000 live births	21.0	21.0
Child Mortality Rate per 1,000 live births	6.0	7.0
Under-Five Mortality Rate per 1,000 live births	26.0	28.0
Proportion of Population with Disability	3.79%	3.24%
Most Common Type of Disability	Difficulty in seeing, even with eyeglasses	Difficulty in seeing, even with eyeglasses
Age-standardized prevalence of tobacco smoking among persons 15 years and older	7.8%	40.8%
Percentage of household population with health insurance coverage	69.8%	67.0%

Source: Philippine Statistics Authority, 2019. "Women and Men Factsheet, 2019." https://psa.gov.ph/gender-stat/wmf (accessed June 2019).

128 In the Philippines, rice transplanting is done manually, and consequently women's drudgery is larger than in other countries where broadcasting is dominant. Combine harvesters, drum seeders and mechanical transplanters, which could ease the physical work of women, have not been adopted widely in the country. As a result, women's workload is very high during the peak season, leading to many health problems. [436]

129 Interviews with 251 women farmers from Benguet in the northern Philippines, the most prominent area for commercial vegetable cultivation, around 2010 revealed that most women farmers fell ill once (47.4%) or twice (41.4%) during the previous year due to work. [437] The most common health problem stemming from agricultural work is body pain, with back pain being the most prevalent.[438] Many farmers are also subject to snake or insect bites, cuts from knives or sharp tools, and skin damage due to extended exposure to sunlight. More than two-thirds experienced muscle pain, weakness or fatigue after exposure to pesticides.[439] The application of pesticide is considered much higher than other areas in Benguet, because of commercialized agriculture. The female farmers from the area were not aware of the toxicity of pesticides, but did observe that economic profits were taking precedence over health issues.[440] Since men apply pesticides, not women, it is likely that they suffer more from the negative effects of pesticides. Most women did not seek medical help, but simply took rest or used home remedies.[441]

4.5.2 Reproductive Health

130 In 2019, it is estimated that there are 56.8 million women of reproductive age (15-49) in the Philippines, of which ten million were aged 15-19.[442] The birthrate per 1,000 women was about 30 in

[436] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."
[437] Lu, J. L, 2010. "Gender Analysis of Women in the Philippine Agriculture and Their Occupational Issues." *Journal of International Women's Studies*. Vol. 11, Issue 4, 73-82.
[438] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."
[439] Gender Analysis of Women in the Philippine Agriculture and Their Occupational Issues."
[440] *ibid.*
[441] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."
[442] Philippine Statistics Authority, undated. "Census-based Population Projections in collaboration with the Inter-Agency Working Group on Population Projections."
https://psa.gov.ph/sites/default/files/attachments/hsd/pressrelease/Table4_9.pdf (accessed June 2019).

2017.[443] The rate for adolescent women declined from 74 to 63 in rural areas, but increased from 40 to 52 in urban areas between 2003 and 2013.[444] Women in urban areas and educated women tended to have their first children later.[445]

131 Fifteen percent of adolescent Filipino women aged 15-19 in 2013[446] and 2% of women less than age 15 in 2017 ever had sexual intercourse.[447] Teenager from the poorest households were more than four times likely to enter unions than those in the wealthiest: 17% versus 4%.[448]

132 Nine percent of teenage women aged 15-19 had begun childbearing in 2017. [449] The percentage of women who had begun childbearing was lower in urban than in rural areas for both age groups, 15-19 and 15-24. [450] Teenage childbearing is most common in Davao (18%), Northern Mindanao (15%), and SOCCSKSARGEN (15%).[451]

133 Contraception was used by 37% of married adolescent women in 2013, up from 26% in 2003 and 2008.[452] The methods used were almost equally divided between traditional and modern, while the adolescents relied much more heavily on the traditional methods, whose effectiveness is much lower than the other, compared to other women of reproductive age.[453] The married adolescents had higher unmet needs for contraception than other age groups.[454] Nearly one-third of recent births to women younger than 20 were unplanned.[455]

134 Only 23% of adolescent women could correctly identify a woman's fertile period. [456] The proportion of spontaneous abortions among households engaged in continuous pesticide application was almost seven times higher than integrated pest management (IPM) practicing households. Birth defects was nearly four times higher than among IPM households.[457]

135 The high maternal mortality rate of the country indicates women's and girl's unsatisfactory awareness and access to basic and reproductive health care. [458] It has been reported that the government's practical information on reproductive health exists on the internet, but difficult to find.[459]

4.6 Coping with Negative Shocks

136 **Social Protection**: During the past decade, the design and delivery of social protection have improved thanks to the adoption of a social protection strategy and operational framework by the

[443] Philippine Statistics Authority, undated. "Vital Statistics." https://psa.gov.ph/vital%20statistics (accessed June 2019).
[444] Guttmacher Institute, 2015. "Sexual and Reproductive Health of Young Women in the Philippines: 2013 Data Update." Factsheet, July 2015. https://www.guttmacher.org/fact-sheet/sexual-and-reproductive-health-young-women-philippines-2013-data-update (accessed June 2019).
[445] *Philippines National Demographic and Health Survey, 2017*.
[446] "Sexual and Reproductive Health of Young Women in the Philippines: 2013 Data Update."
[447] *Philippines National Demographic and Health Survey, 2017*.
[448] "Sexual and Reproductive Health of Young Women in the Philippines: 2013 Data Update."
[449] *Philippines National Demographic and Health Survey, 2017*.
[450] *ibid.*
[451] *ibid.*
[452] "Sexual and Reproductive Health of Young Women in the Philippines: 2013 Data Update."
[453] *ibid.*
[454] *ibid.*
[455] *ibid.*
[456] *ibid.*
[457] "Gender Analysis of Women in the Philippine Agriculture and Their Occupational Issues."
[458] *Republic of the Philippines Gender and Development Mainstreaming Country Gender Assessment 2012, Philippines.*
[459] "How are women's rights measured online?"

National Economic Development Authority.[460] The objectives of the policy respond to the needs of the population, covering short-term difficulties from disasters in consumption and income, among others.[461] The Philippine Development Plan 2017-2022 states that social protection is for building the socioeconomic resilience of the poor and those who recently escaped from poverty.[462] It is with the Department of Social Welfare and Development (DSWD) that the primary responsibility lies for implementation of the largest social protection transfer program, community-driven development program and disaster relief and recovery.[463]

137 In 2018, the World Bank evaluated that the overall level of effort and institutional development on social protection is high in the Philippines with a coherent architecture around the three typical pillars (social assistance, social insurance and interventions).[464] They also acknowledged the continued problems of fragmentation and duplication of programmes;[465] at one point, 21 agencies were involved in 65 social protection programs and projects. Each social protection program was also inadequately funded and often short-lived. [466] The expenditures on social protection had been increasing in recent years, but at 14.3% of GDP in 2017, it was still quite lower than the world average of 26.7% of GDP for the same year.[467]The social safety net expenditures were dominated by social pension program.[468]

138 The administrative structure that made the DSWD responsible for disaster relief as well as the definition of social assistance programmes allowed the department to integrate disaster relief into the safety net delivery system better than in most countries, according to the same World Bank report.[469] It was exemplified in its rapid use of the national conditional cash transfer programme for the poor to assist families affected by the super-typhoon Haiyan/Yolanda in 2013.[470] The typhoon hit some of the poorest provinces in the country, and affected the main sources of livelihood: agriculture, fisheries, and tourism.[471] In 2012, the average household income in the severely affected provinces was only 75% of the national average, and over 50% of the household income in the affected provinces was largely dependent on agriculture and remittances from overseas.[472] The shortcomings of the Philippine system include: lack of a prescribed response mechanism to known shocks; and an incomplete system of monitoring and evaluation of response to emergencies.[473] The available data does not allow analysis of the effects of the programmes on the most vulnerable groups and the victims of natural disasters.[474]

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[460] Diokno-Sicat, C. J. and Mariano, A. P., 2018. *A Public Expenditure Review of Social Protection Programs in the Philippines*. Quezon City, Philippines: Philippine Institute for Development Studies.
[461] World Bank, 2018. *Republic of the Philippines. Philippines: Social Protection Review and Assessment.* Washington, D. C.: World Bank.
[462] *ibid.*
[463] *ibid.*
[464] *ibid.*
[465] *ibid.*
[466] *Republic of the Philippines, Gender and Development Mainstreaming: Country Gender Assessment 2012, Philippines.*
[467] World Bank, 2019. "Expense (% of GDP)."
https://data.worldbank.org/indicator/GC.XPN.TOTL.GD.ZS (accessed June 2019).
[468] *A Public Expenditure Review of Social Protection Programs in the Philippines*.
[469] *Republic of the Philippines. Philippines: Social Protection Review and Assessment.*
[470] *ibid.*
[471] Junio, A., 2017. *After the Wrath of Typhoon Haiyan: Unveiling Representation of Vulnerabilities as Beneficiaries of the Emergency Shelter Assistance for Survivors in the Philippines*. Master's Research Paper. International Institute of Social Studies.
https://pdfs.semanticscholar.org/54f3/a5b4f7e7bb50aa4cceaf5d3ed29a79aba24a.pdf (accessed June 2019).
[472] *ibid.*
[473] *Republic of the Philippines. Philippines: Social Protection Review and Assessment.*
[474] *ibid.*

139 Social protection programmes, including those for sustainable livelihood, can be expanded at a short notice to cover large numbers of additional beneficiaries in response to disasters.[475] Moreover, social care or social services programmes respond immediately to individuals and families in crisis situations, including disasters. They are fairly small scale and operated by many nongovernmental agencies besides the government.[476] The government and nongovernment agencies operate a wide range of other programs that support the poor, or provide direct transfers to households: community-driven development programmes that finance the construction of social infrastructure by communities; housing assistance programmes; and scholarship programmes.[477]

140 **Borrowing Cash**: Farmers encounter economic hardships when the unfavorable natural conditions result in crop damage.[478] They try to overcome the shortage in cash by: selling livestock; borrowing money from the landlords, rural banks, microfinance institutions, traders, relatives and village money lenders; or taking up part-time jobs in teaching, driving, motorcycle renting, food and meat processing or embalming.[479] The rural banks and microfinance institutions named were: Banco Santiago de Libon (BSDL); Center for Agriculture and Rural Development (CARD, a non-governmental organization which lends with weekly amortization); and Association for Social Advancement (ASA, a NGO based in Bangladesh).[480] The interest rate charged by the lenders varied from 2%/month in the case of CARD, 10%/month or 1 sack of rice for borrowing 1,000 pesos in case of traders, to 20%/year ("5-6 scheme") for village money lenders.[481] The farmers reported that CARD loans involved only an interview and a photo submission and that a loan is bundled with an insurance.[482] Others who were present at the meeting did not appear strongly interested in CARD loans.[483] In other meetings, most farmers seemed unaware of such credit arrangements and complained about the onerous paperwork required by formal credit institutions.[484]

141 **On Farm**: Changes in climate were noticed by all farmers that the mission team consulted. [485] The most notable changes were: seasonal and rainfall patterns, which have become irregular and extreme; higher ambient and water temperatures on average; water shortage at the tail ends of irrigation systems; and increased incidences of floods and landslides. [486] They resulted in: higher mortality and lower quality of crops; higher number of familiar pests; emergence of new pests; impossibility of fallow in areas where rain arrives earlier; need for shades for the animals; and higher animal mortality from disease.[487] The farmers reported coping with such situations by: application of increased amounts of pesticides; planting of coconut trees as windbreakers and for shade; early planting of rice if drought is expected; vegetable cultivation for food security; and collection of solid waste to prevent clogging of irrigation canals.[488] Some indigenous female farmers have been in search of organic pesticides.[489]

142 Other on-farm coping strategies include: planting around the homestead of root crops (cassava, sweet potato, taro or *gabi*) and others (mirliton squash or *chayote*, cowpea or *pole sitao*, okra, papaya, jackfruit, banana, lemon, pili nut, Gmelina and coconut); foraging of root crops and other

[475] *ibid.*
[476] *ibid.*
[477] *ibid.*
[478] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[479] *ibid.*
[480] *ibid.*
[481] *ibid.*
[482] *ibid.*
[483] *ibid.*
[484] *ibid.*
[485] *ibid.*
[486] *ibid.*
[487] *ibid.*
[488] *ibid.*
[489] Farmer Consultations in Cordillera (4-6 February 2019).Mission.

indigenous food items; animal raising in the backyard (chicken, pig, duck); vegetable cultivation on the upper bund portion of the rice field (tomato, bitter gourd or *ampalaya*, pepper, bok choy or *pechay,* cowpea).[490] In Camarines Sur, craft making by both indigenous and non-indigenous women is widely spread as income supplement activities, using Manila hemp or *abaca* (which can be of export quality), but the pay is low (less than USD2 per day) and the plants are disappearing due to bunch top and mosaic diseases.[491] Similarly, Agta women make brooms from coconut fends, and collect and sell the leaves of *lubi-lubi* (wild fig) as food, while Agta men engage in fishery.[492] Reforestation of watershed and riverine areas as well as synchronized planting of rice for integrated pest management have been adopted in some indigenous villages. [493]

4.7 Indigenous Women in Agriculture

143 Approximately 14-17 million indigenous peoples,[494] about 13-17% of the total population, live in the Philippines. The indigenous societies in the Philippines are more than often characterized as patriarchal in a brushstroke[495] and indigenous women treated as one group, but the conditions differ greatly by whether they are of the Australoid race, called the Negritos. The region of residence makes the next largest difference in the role and status of women, but in Mindanao, intra-regional variations are also large.[496] According to the indigenous women in the Philippines, their rights and crucial roles in climate change adaptation and mitigation have not been recognized nor supported.[497]

144 Indigenous knowledge contains an understanding of nature that have been tested by time, proven to be sustainable, and able to contribute to limiting the effects of hazards.[498] Women tend to be the main custodians of indigenous food production systems, as they are the ones who select and store the best seeds and more and more men take up non-agricultural livelihood. Indigenous practices are gaining recognition in the field of disaster risk reduction, but at the same time, it is under constant threat of being eroded, lost or misappropriated.[499] The COVID-19 pandemic has exposed the fact that the indigenous communities are no longer self-sufficient in food, due to diminishing land at their disposal. [500] It has heightened the indigenous communities' interest in their traditional food production systems, as they increasingly recognize its contribution to community resilience. [501]

4.7.1 Indigenous Food Production Systems and Forest Management

[490] "Progress Report - Consolidated Good Practice Options for Lowland Irrigated Agro-Ecological Zone in Bicol."
[491] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[492] *ibid.*
[493] *ibid.*
[494] UNDP, 2013. "Fast Facts: Indigenous Peoples in the Philippines." Fast Facts. 24 July 2013. http://www.ph.undp.org/content/philippines/en/home/library/democratic_governance/FastFacts-IPs.html (accessed June 2019).
[495] Lopez, V. M. and Castro, M., 2012. "Philippines, Indigenous Women Farmers of the Blaan Tribe in the Philippines, Women's Knowledge in Traditional Crop Production." In Lopez, V. M. (ed.), *Women's Wisdom: Documentation of Women's Knowledge in Agriculture (Case studies from Philippines, Thailand and Pakistan)*. Penang, Malaysia: Pesticide Action Network Asia and the Pacific.
Wikipedia, 2019. "Subanon People." https://en.wikipedia.org/wiki/Subanon_people (accessed June 2019).
[496] "Philippines, Indigenous Women Farmers of the Blaan Tribe in the Philippines, Women's Knowledge in Traditional Crop Production."
"Subanon People."
[497] REDD-Monitor, 2010. "Global Conference on Indigenous Women, Climate Change and REDD Plus in the Philippines." https://redd-monitor.org/2010/11/21/global-conference-on-indigenous-women-climate-change-and-redd-plus-in-the-philippines/ (accessed January 2021)
[498] Lambert, S. J. and Scott, J.C., 2019. "International Disaster Risk Reduction Strategies and Indigenous Peoples." *International Indigenous Policy Journal.* Vol. 10, Issue 2.
[499] *ibid.*
[500] Pimentel. G.B. *et al.,* 2020. *The impact of COVID-19 on indigenous communities: Insights from the Indigenous Navigator*. Copenhagen: the International Work Group for Indigenous Affairs and the International Labour Organization.
[501] *ibid*.

145 As is the case for any indigenous peoples in the world, agriculture and forests are tightly woven together and into their socio-cultural lives. The preponderance of watersheds in the uplands accord special importance to the role of indigenous forest management, which is integrated together with agriculture into landscape and natural resources management. Indigenous women's role in agriculture is fairly well covered, but the full picture of their contribution to forest management is not readily available despite their strong involvement in collection of non-timber forest products.

146 The forests in the Philippines were considered communal and governed by communal laws before the arrival of foreign powers, which weakened the system through colonization.[502] In the years following the Second World War, the country turned to its forests to support an industrialization programme.[503] In the 1960s, the timber and forest-product industry became one of the top foreign exchange earners in the country.[504] Most local governments and population did not benefit from the boom, while the national forest cover diminished from over 14 million ha in 1950 to 10.4 million ha in 1969, and further to about 7.4 million ha in 1980.[505]

147 From the late 1970s to the early 1980s, a movement was born among academia and NGOs to halt deforestation, soil erosion and declining productivity of upland agriculture based on community management.[506] As of early 2000s, the government has recognized under the title of community forest not only cultivated uplands, but also grasslands and brushlands, timberlands previously covered by concessions or other leases and indigenous peoples' ancestral domain, in addition to multiple-use and buffer zones of reservations and protected areas.[507] Communities in such forest areas counted more than 24 million Filipinos in the early 2000s, making them major actors in the management of forests, biodiversity and watersheds.[508]

148 Indigenous women's contribution to forest management is largely undocumented. Their participation in forest management is estimated substantial, considering that women are usually the main foragers and that most foragers are not passive harvesters, but actively manage the environment by sowing wild seeds, irrigating grasses, burning vegetation for new plant growth, replanting roots and so on.[509]

4.7.2 Agta Women

149 The Australoid people are the original inhabitants of the archipelago, comprising of some 32 ethnolinguistic groups.[510] They live on seven islands, mainly on Luzon, and the population was estimated at 31,000 at the turn of the century.[511] Among the provinces targeted by the proposed project, they reside in Cagayan, Bicol and Northern Mindanao.[512] They refer to themselves as Agta, Atta, Arta, Alta, Ayta or Ati.[513] The Agta are traditionally nomadic hunter-gatherers,[514] whose main

[502] Guiang, E. S. *et al.,* 2001. *Community-Based Forest Management in the Philippines: A Preliminary Assessment*. Quezon City: Ateneo de Manila University.
[503] *ibid.*
[504] *ibid.*
[505] *ibid.*
[506] *ibid.*
[507] *ibid.*
[508] *ibid.*
[509] Bharucha, Z. and Pretty, J., 2010. "The roles and values of wild foods in agricultural systems." *Philosophical Transactions of the Royal Society B*. Vol. 365, 2913–2926.
[510] Steinhauer, H., 2005. "3.3.6 Philippines." In Adelaar, K. A. and Himmelmann, K. (eds.)*, The Austronesian Languages of Asia and Madagascar*. New York: Routledge.
[511] *ibid.*
[512] *Country Technical Notes on Indigenous Peoples' Issues: Republic of the Philippines*.
[513] "3.3.6 Philippines."
Country Technical Notes on Indigenous Peoples' Issues: Republic of the Philippines.
[514] Cultural Survival, 1984. "Agta Negritos of the Philippines." Cultural Survival Quarterly Magazine. September 1984. https://www.culturalsurvival.org/publications/cultural-survival-quarterly/agta-negritos-philippines (accessed June 2019).

hunting targets are wild pig and deer.[515] Both women and men engage in hunting, men usually alone and women in a team with other women or men.[516] Women's preferred hunting method is to drive with dogs and use long knives for killing.[517] Men use bows and arrows, which may harm the dogs.[518] Some women hunt with bows and arrows, typically smaller than those used by men.[519] Women sometimes carry small children on their backs when hunting.[520] They succeed in catching more animals per hunting than all-male groups or solo men, and the groups comprised of both women and men have the highest success rate per hunting trip.[521] In total, women contribute less than men through hunting because they participate in fewer ventures.[522] Agta women do not show innate repugnance for killing and are skilled at finishing the animal off at a close range.[523] Meat used to be exchanged with starch foods from the lowlanders.[524]

150 Fishing is a dry season activity, in which women, youth and adult participate.[525] Women are noted for their skills in spearfishing, both in rough, deep waters and shallow streams.[526] It is the women who mainly collect mollusks from the rivers and the sea.[527] Honey is also collected during the dry season by women and men.[528] While mollusk gathering, a rainy season activity, is usually conducted by women, honey collection is preferred by men.[529] Men gather fruits, and women all the other edible plants.[530] It was noted in the mid 1980s that the people had begun to switch from foraged food to cultivated cereal grains and root crops.[531] Women transport and trade their catch and foraged good:[532] the preferred arrangement of Agta men, as they feel inhibited by the histories of conflict and violence with lowland farmers.[533]

151 No forest management rule of the Agta has been documented, but they sustainably managed the forests for thousands of years by abiding by the simple rule to take only what one immediately needed and to share it widely with others in the community.[534] Their culture guides them to eschew saving or hoarding material goods.[535] Many no longer live by the principle, as they realize that they cannot but integrate into the market economy if they wish to survive.[536]

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[515] Cultural Survival, 1984. "Agta Forager Women in the Philippines." Cultural Survival Quarterly Magazine. June 1984. https://www.culturalsurvival.org/publications/cultural-survival-quarterly/agta-forager-women-philippines (accessed June 2019).
[516] Womack, M., 2003. "Two – The Hunt: Power of Life and Death." In Womack, M., *Sport as Symbol: Images of the athlete in Art, Literature and Song*. Jefferson, North Carolina: McFarland and Company.
[517] *ibid.*
[518] *ibid.*
[519] *ibid.*
[520] *ibid.*
[521] *ibid.*
[522] *ibid.*
[523] *ibid.*
[524] "Agta Negritos of the Philippines."
[525] "Agta Forager Women in the Philippines."
[526] *ibid.*
[527] *ibid.*
[528] *ibid.*
[529] *ibid.*
[530] *ibid.*
[531] *ibid.*
[532] *ibid.*
[533] *ibid.*
[534] Headland, T. N., 1999. "Managing the Natural Resources of the Sierra Madre: What is the Role of the Agta?" In: Bernardo, E. G. and Snelder, D. J., eds. *Co-Managing the Environment: The Natural Resources of the Sierra Madre Mountain Range.* CVPED, Leiden: Leiden University and Isabela State University.
[535] *ibid.*
[536] *ibid.*

152 Early in the 20th century and again some 60 years later, the government forcibly tried to settle down the Agta and make them take up agriculture;[537] Both women and men engage in farming at all stages, except for harvesting which is dominated by women.[538] As of the late 1990s, about a quarter of the Agta practiced agriculture; they spent most of their time collecting forest products (wild game, rattan, honey, tree resin, orchids, firewood, etc.) and exchanged them with starchy food and other goods.[539] The Casiguran lowlands of Aurora province, home to one Agta population, were covered mostly by old-growth forests, but the coverage plummeted from 80% before the Second World War to 9% in 1990.[540] Today, the Agta people remain culturally connected to forests and are aware that deforestation is the cause of water shortage that they experience.[541]

153 In Casiguran Valley, the rapidly increasing population of non-Agta people had increased the population density from 1.3 persons/km^2 before the Second World War to 44 persons/km^2 in the mid 1980s.[542] Multinational corporations bulldozed roads through their settlements and hunting and fishing grounds, in addition to destroying forests through logging.[543] The road construction opened up the areas which previously were inaccessible and attracted more extractive activities, for which the Agta were hired as laborers.[544] In the 1970s, they came into contact with diseases, hunting and fishing methods of lowland Filipinos (with firearms, dynamite, pesticides and electric rods), transistor radio, commercial liquor, and commercial rattan buyer: exposure facilitated by a road built by the government.[545] The game population dramatically decreased, as the Agta were pressured by the outsiders to use firearms for hunting, instead of the traditional bow and arrow; in the 1970s the military occasionally took the Agta to remote areas to hunt on their behalf and transported the catch to the capital.[546] The Agta people on the coast were displaced by tourism and infrastructure development.[547] Some of their land was distributed to immigrant families under Marcos government's land distribution programme.[548]

154 Their strategies to live with the nature and its seasonal fluctuations – such as hunting and fishing – were rendered useless as the main means of livelihood by deforestation, population pressure and resource depletion.[549] The majority of Agta people turned into agricultural laborers for lowland farmers or rattan gatherer for commercial buyers. The daily wage for Agta labor in 1983 was the equivalent of 0.72 US cents plus lunch.[550] Agta came to be viewed as impoverished landless squatters on their ancestral lands.[551]. As wage-laborers for the lowland farmers, women dominated all tasks except clearing as of mid 1980s.[552] The growing importance of agriculture signifies the increasing role of women in livelihood.[553]

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[537] "Agta Negritos of the Philippines."
[538] "Agta Forager Women in the Philippines."
[539] "Managing the Natural Resources of the Sierra Madre: What is the Role of the Agta."
[540] *ibid*.
[541] Nevado, N. L., 2014. "Back to the future – why learning from the past can help the future." Fauna and Flora International. https://www.fauna-flora.org/news/back-to-the-future-why-learning-from-the-past-can-help-the-future (accessed January 2021).
[542] "Agta Negritos of the Philippines."
[543] *ibid.*
[544] *ibid.*
[545] *ibid.*
[546] *ibid.*
[547] Persoon, G.A. and Minter, T., 2020. "Knowledge and Practice of Indigenous Peoples in the Context of Resource Management in Relation to Climate Change in Southeast Asia." *Sustainability.* Vol. 12, No. 7983.
[548] Headland, T. N. and Headland, J. D., 1997. "Limitation of Human Rights, Land Exclusion, and Tribal Extinction: The Agta Negritos of the Philippines." *Human Organization.* Vol. 56, No. 1, 79-90.
[549] *ibid.*
[550] *ibid.*
[551] "Agta Negritos of the Philippines."
[552] *ibid.*
[553] *ibid.*

155 Liquor, stressful personal interactions, loss of social status, lowered self-image, and diminishing faith in Agta culture – all have taken a toll on the health of Agta women.[554] For those living close to farming communities, the workload has also increased.[555] In the mid 1980s, an Agta woman over age of 45 had given 7.3 live births on average, half of the children were expected to die, and life expectancy at birth was 22 years.[556] The main causes of death among the adults were tuberculosis, pneumonia, homicide, leprosy, alcoholism, and, among women, also complications from childbirth.[557] In the late 1990s, it was reported that Agta women were increasingly taken as common-law wives by non-Agta immigrants, contributing to Agta population decline.[558]

156 The influx of outsiders is exposing the Agta to more diseases and has resulted in environmental degradation, which has led to further health deterioration from consumption of polluted and depleted resources and to erosion of traditional livelihood.[559] The malnutrition levels were already high,[560] and in the mid 2000s approximately 34% of adults and 17% of children were malnourished.[561] Insufficient protein intake and little variety in foraged foods are said to be the cause.[562] Indirectly, but substantially, alcohol contributes to nutritional insecurity and livelihood degradation.[563]

157 Exploitation and social subordination of the Agta by lowlanders were widespread as of mid 1980s.[564] Women were often sexually abused, and men were cheated and scorned.[565] Women were said to never feel safe from molestation unless Agta men were present.[566] While Agta themselves consider women and men are of equal worth and status, most non-Agta do not share the view and consider men the appropriate negotiators and decision makers.[567] During negotiations, men were wined and dined, cheated and sometimes beaten.[568] Women are removed from decision making and their influence continues to erode as interaction with non-Agta continues to increase and as Agta men are bent by non-Agta values.[569]

158 Although the Agta have not fared well in the conditions created by modern society, they have valuable indigenous knowledge for coping with natural hazards, especially typhoons, floods, storm surges and landslides. [570] One example of Atga's deep knowledge of extreme weathers and adaptability is *kurob,* a one-room hut made of indigenous materials. It is built before the onset of typhoons and storm surges and manages to resist very strong winds. The frame of the house is tied together with rattan and *bakbak* (dried bark of abaca) using special skills and without iron nails. *Kurob* withstood the super typhoon Reming, when other houses in the lowland collapsed. They can also predict the arrival of typhoons through natural signs and plant few months prior a root crop, *camote*

[554] *ibid.*
[555] *ibid.*
[556] "Agta Negritos of the Philippines."
[557] *ibid.*
[558] "Limitation of Human Rights, Land Exclusion, and Tribal Extinction: The Agta Negritos of the Philippines."
[559] "Agta Negritos of the Philippines."
[560] *ibid.*
[561] Crittenden, A. N. and Schnorr, S. L., 2017. "Current views on hunter-gatherer nutrition and the evolution of the human diet." *American Journal of Physical Anthropology*. No. 162, 84-109.
[562] "Agta Negritos of the Philippines."
[563] *ibid.*
[564] *ibid.*
[565] *ibid.*
[566] *ibid.*
[567] *ibid.*
[568] *ibid.*
[569] *ibid.*
[570] Molina, J.G.J. and Neef, A., 2016. "Integration of Indigenous Knowledge into Disaster Risk Reduction and Management (DRRM) Policies for Sustainable Development: The Case of the Agta in Casiguran, Philippines." In: Uitto, J., and Shaw R., eds. *Sustainable Development and Disaster Risk Reduction. Disaster Risk Reduction (Methods, Approaches and Practices).* Tokyo: Springer.

(*Ipomoea batatas*), which is high in fiber and nutrition and requires little input.[571] For Agta's, the decision-making and planning processes of the local government in the area of disaster risk reduction and management do not sufficiently value their knowledge and context, often creating more precarious conditions and compromising the sustainability of their livelihoods.[572] Readily available documentations do not indicate the exact role of women in disaster risk reduction and preparation.

4.7.3 Women in Cordillera Autonomous Region

159 The Cordillera Autonomous Region (CAR) consists overwhelmingly of indigenous peoples, 99% of the population, who are not Agta.[573] According to the various statistics, such as functional literacy, net enrolment and cohort survival rates in primary and secondary schools, and poverty incidence, the women in CAR are not any worse off than other regions. On some accounts they fared better in 2017; the median age of women giving birth for the first time was the highest at 25-49 years, the proportion of women age 15-19 who are mothers or currently pregnant was the lowest; neonatal deaths per 1,000 live births were the second lowest; the proportion of women who have ever experienced physical violence since age 15 was the second lowest at 11% (after 5% in Autonomous Region in Muslim Mindanao).[574]

160 The indigenous peoples in CAR still engage in some foraging, but most of the edible wild plants have been replaced by cultivatable substitutes.[575] The agriculture that they practice has become similar to that of lowlanders, except for their strong preference for traditional rice and organic farming.[576] In Ifugao, a woman of prestige in the village ritually sows the first seeds of the planting season in her seedbed, after which she will confine herself to her house to fast for a day to mark the beginning of the rice planting season.[577] Such rituals are in great decline, and most indigenous farmers encountered by the mission team could not recall any similar practices.[578]

161 Despite the attachment to traditional farming strongly expressed by some indigenous farmers in Cordillera, the adoption of modern agriculture seems to be the trend.[579] They are increasingly influenced by the larger mainstream society, which affects their traditional resource management and puts off kilter the balance between the community's needs and the capacity of their resources to meet the needs.[580] The imbalance is exacerbated by increasing population and demand per person for natural resources, as the available quantity of renewable resources has not kept up with the changes.[581] Although the traditions are in decline, the indigenous peoples have maintained some elements so far.[582] One tribe, *Ikalahan* of Pangasinan Province, is known for embracing entrepreneurship and acquiring information outside their tribal knowledge system on ecological and sustainable agroforestry, but to date others have been less adept at adapting to external changes on their own.[583]

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[571] Barcia, R., 2015. "Coping with climate change using traditional knowledge," http://environews.ph/climate-change/coping-with-climate-change-using-traditional-knowledge/ (accessed January 2021).
[572] "Integration of Indigenous Knowledge into Disaster Risk Reduction and Management (DRRM) Policies for Sustainable Development: The Case of the Agta in Casiguran, Philippines."
[573] *Country Technical Notes on Indigenous Peoples' Issues: Republic of the Philippines*.
[574] Philippine Statistics Authority and ICF, 2018. *Key Findings from the Philippines National Demographic and Health Survey 2017*. Quezon City, Philippines, and Rockville, Maryland, USA: PSA and ICF.
[575] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[576] *ibid.*
[577] "A quiet harvest: linkage between ritual, seed selection and the historical use of the finger-bladed knife as a traditional plant breeding tool in Ifugao, Philippines."
[578] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[579] *ibid.*
[580] Camacho, L. D. *et al.*, 2012. "Traditional forest conservation knowledge/technologies in the Cordillera, Northern Philippines." *Forest Policy and Economics.* Vol. 22, 3-8.
[581] *ibid.*
[582] *ibid.*
[583] *ibid*.

162 Modern varieties of rice have been adopted by many, which requires synthetic inputs, but allow farmers to participate in the growing tourism industry thanks to their faster maturation**.** The modern rice cultivars do not require year-round flooding, which has caused proliferation of *Polypheretima elongata*,[584] a large earthworm which weakens the terrace walls by digging tunnels through them. [585]The natural forests in the ridges are the habitats of the striped shrew rat (*Chrotomys whitebeadi*) which feeds on these earthworms and also on golden apple snails,[586] an invasive species that damages rice plants. However, such forests are in decline as are agricultural lands, because the younger generation prefers livelihoods other than agriculture.[587] Ifugao farmers recognize that the adoption of non-traditional and non-organic farming has created negative impacts on soil and water, especially that the use of synthetic fertilizers led to degradation of soil drainage and fertility.[588] The non-traditional agriculture was also recognized as the reason for infestation of earthworms and snails in the rice paddies.[589] The planting material for traditional trees in Ifugao (e.g., *Samanea saman, Pterocparpus indicus, Lithocarpus spp*. and dipterocarps) are difficult to find, driving the farmers to plant exotic but fast-growing and widely available species (*Swietenia macrophylla* and *Gmelina arborea*). No negative ecological impacts have been identified thus far from the use of exotic species.[590]

163 Indigenous women's knowledge in farming is strongly associated with traditional rice varieties and farming systems in CAR as well as in Mindanao.[591] The critical role of elder female farmers, especially as seed selectors in CAR, has declined with the introduction of non-traditional rice varieties; indigenous rice is harvested with a transverse harvest knife, instead of a sickle for non-traditional rice, whose use requires intensive knowledge of the rice.[592] As the region has opened up to tourism, there is enough construction work for men that typically pays better than farm work; agriculture has become mostly women's task in such cases.[593]

164 The traditional land-use zoning system in Ifugao includes *muyong*, which are private or clan-owned forests and usually predominate mountain peaks and mid-slopes.[594] Each *muyong* is sized one half to three hectares and located upstream of rice fields to provide water and nourishment and to minimize soil erosion.[595] The Ifugao are well aware of the role of the forests as watersheds and their importance in securing stable water supply.[596] The forests are also sources of wood for fuel and house construction, in addition to edible fruits such as the areca nut (*Areca catechu*).[597] The bigger the woodlot, the more respect and recognition a clan of family receives.[598]

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[584] Charette-Castonguay, A., 2014 Assessment of resilience and adaptability of social-ecological systems: a case study of the Banaue rice terraces. Master Thesis. Christian-Albrechts Universität zu Kiel.
[585] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[586] Peñafiel, S., undated. "Ifugao Rice Terraces : Agricultural Heritage Systems dynamic conservation and practices." http://www.fao.org/3/aj006e/aj006e21.pdf (accessed May 2019).
[587] "Indigenous knowledge and practices for the sustainable management of Ifugao forests in Cordillera, Philippines."
[588] Camacho, L. D. *et al.*, 2016. "Indigenous knowledge and practices for the sustainable management of Ifugao forests in Cordillera, Philippines." *International Journal of Biodiversity Science, Ecosystem Services & Management*. Vol. 12, Issues 1-2, 5-13.
[589] *ibid.*
[590] "Indigenous knowledge and practices for the sustainable management of Ifugao forests in Cordillera, Philippines."
[591] "Philippines, Indigenous Women Farmers of the Blaan Tribe in the Philippines, Women's Knowledge in Traditional Crop Production."
[592] "A quiet harvest: linkage between ritual, seed selection and the historical use of the finger-bladed knife as a traditional plant breeding tool in Ifugao, Philippines."
[593] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[594] *ibid.*
[595] *ibid.*
[596] *ibid.*
[597] *ibid.*
[598] *ibid.*

165 According to the Ifugao customary laws, gathering of dead branches as fuel wood in *muyong* by non-owners is allowed without a permission from the owner as long as the gatherer participates in cleaning and tending the forest as a form of payment for the wood collected.[599] The laws recognize the crucial service provided by *Ficus* trees to replenish groundwater and forbid harvesting them for timber or fuelwood.[600] Logging of century-old endemic trees, such as dipterocarps, are avoided as much as possible under the belief that the spirits of their ancestors reside in these trees.[601] In the old times, only *narra* (*Pterocarpus indicus*) was allowed to be used for house construction and rice god sculpture.[602] The forest owner decides which tree can be harvested and which person obtains the harvest; the beneficiary in turn must replace it with two saplings and clean a large area of *muyong*.[603]

166 When a child is baptized, the parents plant four seedlings in their *muyong* to give their blessing to the child, which prevents deforestation.[604] The most common reforestation species today are fast-growing non-indigenous species, such as *Swietenia macrophylla* and *Gmelina arborea*. Also preferred are local species, such as *narra* and rain tree (*Samanea saman)*, principally for traditional construction and woodcarving.[605] To discourage illegal hunting, trespassing on *muyong* is prohibited.[606] If someone is caught stealing from other's *muyong*, the thief is taken to the tribal elders and will be severely reprimanded.[607]

167 With respect to stand management, Ifugao forest owners engage in weeding to facilitate natural regrowth of trees and cut the trees only as needed – crooked and diseased trees for fuelwood and straight ones for posts and wood carving.[608] As mentioned above, logging of *Ficus* trees is prohibited.[609] Felling direction must be chosen so as not to damage other standing trees and nearby farms.[610] The woodcutter must also shout the name of the tree to chase away the bad spirits and at the same time warn the people in the vicinity of felling.[611]

168 Forest management systems by other tribes in Cordillera are composed of similar practices that aim at sustainable use of forests, emphasizing soil and water conservation and encompassing maintenance of ecosystem as a whole.[612] They are supported by spiritual beliefs and taboos: *lapat* in Abra Province,[613] *apa, lakun* and *tadaw* in Mountain Province,[614] and so on. The role of women in forest management could not be found in readily available documents.

169 In general, indigenous ways of life requires great skills to foresee the changes in natural conditions. For example, observations made by the Native Americans match biophysical models remarkably well: 86% for decrease in snow packs, 79% for earlier runoff, and 75% for increased

[599] Serrano, R.C. and Cadaweng, E.A., 2005. "The Ifugao *muyong*: sustaining water, culture and life." In: Durst, B. et al. (eds.) *In search of excellence: exemplary forest management in Asia and the Pacific*. Bangkok: Food and Agriculture Organization of the United Nations.

[600] "Indigenous knowledge and practices for the sustainable management of Ifugao forests in Cordillera, Philippines."

[601] *ibid.*

[602] *ibid.*

[603] "The Ifugao *muyong*: sustaining water, culture and life."

[604] "Indigenous knowledge and practices for the sustainable management of Ifugao forests in Cordillera, Philippines."

[605] *ibid.*

[606] *ibid.*

[607] *ibid.*

[608] *ibid.*

[609] *ibid.*

[610] *ibid.*

[611] *ibid.*

[612] "Traditional forest conservation knowledge/technologies in the Cordillera, Northern Philippines."

[613] *ibid.*

[614] Garcia, M. A. And Naganag, E. M., 2014. "Forest Domain Conservation Management Practices and Beliefs of the Indigenous Peoples of the Cordillera Region, Philippines." *UNP Research Journal.* Vol. XXIII. Jan.-Dec., 124-135.
Dumanghi, M. T., 2010. "The Socio-Economic and Cultural Practices and Beliefs In The Conservation Of The Rice Terraces In Mountain Province**."** *Mountain Province State Polytechnic College Journal*. Vol. VII.

temperatures.[615] The people that the mission team encountered in Ifugao named only a few indicators for the start of seasons or arrival of extreme weathers.[616]

4.7.4 Women in Mindanao

170 The indigenous peoples in Mindanao organize their livelihood around flooded rice cultivation in the lowlands and swidden farming in the uplands.[617] One of the lowland peoples in Mindanao, B'laan, has a social organization yet different from the above two groups, with strong patriarchal traditions and customs resembling their Muslim neighbors.[618] Women do not have decision-making power in cash expenditure, number of children and wives, marriage partners, among others.[619] For girls, marriage and dowry are considered more important than education.[620] At the same time, a leader of the same tribe was a woman when they recently organized opposition to development projects on their lands.[621] The Subanen people in the uplands of Mindanao do not divide tasks based on gender and have little social stratification.[622] They consider birth of a daughter a blessing, because it allows the father to recover the dowry that he paid for his wife.[623] Marriages are arranged through the parents, who negotiate the dowry.[624] The negotiations can take place before the children reach puberty.[625]

171 Multinational enterprises have coveted Mindanao for their fertile land and mineral resources. Not only indigenous men, but also women have stood up against development projects, only to be ignored by their own village leader or assassinated.[626] Nine out of every ten persons in Mindanao were estimated to be Muslim in 2003,[627] and the island has seen armed conflicts involving Muslim groups which seek independence. Around 2010, the Autonomous Region in Muslim Mindanao (ARMM) government allocated approximately 70% of its budget to personnel salaries, not leaving much for basic services in health, education, and economic development.[628] The provincial government has not been given autonomy in accordance with the Republic Act 6734, the Organic Act for the. Autonomous Region in Muslim Mindanao, while the public is weary of its relationship with Manila as well as its endemic corruption and cronyism.[629] The governance vacuum thus created has contributed to the lawlessness in Mindanao.[630] It has been reported that armed groups used rape as a tool of war and terrorized the indigenous communities.[631] Since the 1970s, more than 10,000 families of Teduray-

[615] "Climate change perception, observation and policy support in rural Nevada: A comparative analysis of Native Americans, non-native ranchers and farmers and mainstream America."
[616] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[617] "Philippines, Indigenous Women Farmers of the Blaan Tribe in the Philippines, Women's Knowledge in Traditional Crop Production."
[618] *ibid.*
[619] *ibid.*
[620] *ibid.*
[621] Asia Indigenous Peoples Pact, 2014. *Overview of the State of Indigenous Peoples in Asia.* Chiang Mai, Thailand: AIPP.
[622] "Subanon People."
[623] *ibid.*
[624] *ibid.*
[625] *ibid.*
[626] *Overview of the State of Indigenous Peoples in Asia*
[627] Philippine Statistics Authority, 2003. "Autonomous Region in Muslim Mindanao: Nine in Every Ten Persons were Muslims." https://psa.gov.ph/content/autonomous-region-muslim-mindanao-nine-every-ten-persons-were-muslims (accessed June 2019).
[628] Cowden, R., undated. "Mindanao's Security Dilemma: Localized Violence and the Implications for the Peace Process." In Hopmann, P. T. and Zartman, I. W. (eds.), undated. "Mindanao: Understanding Conflict 2011. Conflict Management Program Student Field Trip to Mindanao." Johns Hopkins University School for Advanced International Studies https://www.sais-jhu.edu/sites/default/files/Mindanao-Report_Complete_Report%20April%205_0.pdf (accessed July 2019).
[629] *ibid.*
[630] *ibid.*
[631] The United Nations Inter-Agency Support Group on Indigenous Issues, 2014. "Thematic Paper on the Elimination and Responses to Violence, Exploitation and Abuse of Indigenous Girls, Adolescents and Young Women."

Lambangian tribe have fled from their homes because of violence;[632] the separationist movement continues to greatly affect the indigenous peoples living in ARRM. Recently the women of the tribe asked to be made part of the peace process and their voices heard.[633] Although the importance of forests to the indigenous peoples in Mindanao is well known,[634] written information on their forest management system and on contribution of women to the practices is not available.

4.8 Youth and Agriculture

172 The country has 30 million people between the ages of 10 and 24, representing 28% of the total population and the largest generation of youth in its history.[635] Although girls and boys have equal and good access to education, girls may be subject to child marriage, unlikely for boys. Girls are further handicapped by insufficient access to reproductive health care. The unemployment rates were around 3-4 times higher for 15-24 year olds than for the total population in 2019, and the gender gap was much bigger for 15-24 year olds than for the total population (Table 6). A high rate of unemployment among the youth means that the next generation is not obtaining sufficient experience and training to become productive workers in the future, which may weaken the economy as the older generation retires. Labor participation rates follow similar trends, posing a considerable obstacle against empowerment of women[636] (Table 7). The rate of civic engagement in the Philippines is high, compared to the other countries in the region, but female youths are 44% less likely to be engaged than male youths and rural youths much less than urban youths. [637]

Table 6: Unemployment Rates in the Philippines (2019)

	Unemployment Rate (%)	
	Female	Male
15-24 Year Old	8.2	5.9
Total Population	2.4	2.0

Source: World Bank, 2021. "World Bank Data."[638]

Table 7: Labor Participation Rates in the Philippines (2019)

	Labor Participation Rate (%)	
	Female	Male
15-24 Year Old	27.0	45.0
15-64 Year Old	48.1	75.4

https://www.un.org/en/ga/69/meetings/indigenous/pdf/IASG%20Thematic%20Paper_%20Violence%20against%20Girls%20and%20Women%20-%20rev1.pdf (accessed July 2019).

[632] Mendoza, F. T., 2018. "Non Moro Indigenous Peoples participation in the peace process and the passage of the Bangsamoro Organic Law and transition period." Canberra, Australia, 2018. http://regnet.anu.edu.au/sites/default/files/events/attachments/2018-11/Presentation-%20Froilyn%20Mendoza.pdf (accessed July 2019).

[633] Philippine News Agency, 2018. "IP women in ARMM seek voice in peace process decision-making." Manila Bulletin. 8 March 2018. https://news.mb.com.ph/2018/03/08/ip-women-in-armm-seek-voice-in-peace-process-decision-making/ (accessed July 2019).

[634] *ibid.*

[635] UNFPA Philippines, undated. "Young People." https://philippines.unfpa.org/en/node/15309 (accessed January 2021).

[636] "Case Study on Youth Issues: Philippines."

[637] "Case Study on Youth Issues: Philippines."

[638] https://data.worldbank.org/indicator/SL.UEM.1524.FE.NE.ZS?locations=PH (accessed February 2021). https://data.worldbank.org/indicator/SL.UEM.1524.MA.NE.ZS?locations=PH (accessed February 2021). https://data.worldbank.org/indicator/SL.UEM.TOTL.FE.ZS?locations=PH (accessed February 2021). https://data.worldbank.org/indicator/SL.UEM.TOTL.MA.ZS?locations=PH (accessed February 2021).

Source: World Bank, 2021. "World Bank Data."[639]

173 Occupations in the agriculture have been long associated with very low income[640] and high costs from living in rural areas, leading farmers to discourage their children from taking up the family livelihood.[641] The young are pursuing non-agricultural professions, which bring in higher income, whether they stay in the rural areas or migrate to the cities.[642] Consequently, the agricultural sector is aging with an estimated average age of 55-59 years in 2013[643] and 57 in 2019.[644] The Department of Agriculture has urged the youth publicly to take up agriculture and suggested as an entry point helping the older generations with marketing products online.[645] A study engaged high school students in the Philippines to pass on the digital information received on nutrient management to their parents and showed that the students satisfactorily served as information mediators.[646] Possibly stimulated by the COVID-19 pandemic, the awareness that the agriculture sector is important is rising among the young, and the Agriculture Students Association of the Philippines was created in August 2020.[647]

4.9 Women's Knowledge

174 Women's knowledge of plants mainly stems from their role as cooks, gatherers, gardeners, herbalists, plant breeders and seed custodians,[648] and these functions are all performed by rural women in the Philippines.

175 Culinary choices and the post-harvest processes that support the dietary preferences are some of the most important drivers for knowledge acquisition on and conservation of plant biodiversity.[649] It is said that about 80% of edible plants are foraged by women in 135 different societies, which are used as everyday food as well as famine food, fodder, mulch, medicine, fuel and materials for crafts and construction.[650] Most foragers actively manage the environment by sowing wild seeds, irrigating grasses, burning vegetation for new plant growth, replanting roots and so on.[651] The differences in responsibilities lead to variations in knowledge between women and men in terms of plant use and forage areas.[652]

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[639] https://data.worldbank.org/indicator/SL.TLF.ACTI.1524.FE.NE.ZS?locations=PH (accessed February 2021).
https://data.worldbank.org/indicator/SL.TLF.ACTI.1524.MA.ZS?locations=PH (accessed February 2021).
https://data.worldbank.org/indicator/SL.TLF.ACTI.FE.ZS?locations=PH (accessed February 2021).
https://data.worldbank.org/indicator/SL.TLF.ACTI.MA.ZS?locations=PH (accessed February 2021).
[640] *Poverty and Agriculture in the Philippines: Trends in Income Poverty and Distribution.*
[641] Medenilla, V., 2020. "A youth organization calls for students to empower the agriculture sector." *Manila Bulletin.* https://mb.com.ph/2020/09/01/a-youth-organization-calls-for-students-to-empower-the-agriculture-sector/ (accessed February 2021).
[642] Cudis, C., 2019. "DA urges youth to take up agriculture." *Philippines News Agency.* https://www.pna.gov.ph/articles/1085918 (accessed February 2019).
[643] Manila Times, 2013. "Aging Filipino farmers to affect food security." *Manila Times.* https://www.manilatimes.net/2013/06/22/news/headlines/aging-filipino-farmers-to-affect-food-security/12166/ (accessed February 2021).
[644] "DA urges youth to take up agriculture."
[645] *ibid.*
[646] Manalo, J. A., VI *et al*., 2019. "Exploring youth engagement in agricultural development: the case of farmers' children in the Philippines as rice crop manager infomediaries." *Journal of Agricultural Education and Extension*. Vol. 25, No. 4, 361-377.
[647] "A youth organization calls for students to empower the agriculture sector."
[648] Howard, P., 2003. *The Major Importance of 'Minor' Resources: Women and Plant Biodiversity*. London: International Institute for Environment and Development.
[649] *ibid.*
[650] *ibid.*
[651] Bharucha, Z. and Pretty, J., 2010. "The roles and values of wild foods in agricultural systems." *Philosophical Transactions of the Royal Society B*. Vol. 365, 2913–2926.
[652] *"The Major Importance of 'Minor' Resources: Women and Plant Biodiversity*. London: International Institute for Environment and Development."

176 Perception of soil fertility may differ because of differentiated tasks. In Northern Mindanao, both women and men named the crops that each group was in charge of as the ones that would grow well in good soil.[653] Hence, for men they were large crops, such as maize and trees.[654] For women, they were vegetables, but maize was also included.[655] Maize was associated the most with the worse soil by both women and men.[656] The second most common land use for the worst soil was pastures according to women and house-lot according to men; each group associated the worst soil with the activity for which they spent the least amount of time.[657]

177 It is the women who cultivate plant crops, fruit trees and others around the house and have knowledge associated with gardening.[658] Herbalists and midwives who treats illness using plants are mostly women,[659] and the knowledge of female herbalists has been increasingly recognized as the backbone of the traditional health care.[660] Women ensure that the varieties cultivated meet the culinary, nutritional, processing and storage requirements, as it is their responsibility to cook and store the harvested material.[661] Women also engage in seed preservation and exchange, which endow them with the knowledge that men do not have the opportunities to acquire.[662] Indigenous rice seed storage practices among the B'laan women include: a*knasong* (storing rice seeds with *anahaw* leaves); *lihub (*storage in a container made from sturdy bark of *dlong* tree which also serves as an insect repellent); *bakog* (storage in a native basket-container for storage of rice before husking and made of indigenous bamboo called *naf*); *tiral* (storage in long bamboo poles); and *saboy* (storage in bottles especially for vegetable seeds).[663]

178 Corn has taken the farmers by storm in many parts of tropical Asia, especially on rainfed farms.[664] The increase in commercial production of corn has been brought about by the growing demand in livestock and its feed at the expense of traditional crops, such as upland rice, *adlai*[665] and coffee.[666] *Adlai*, also known as Job's Tears or Chinese pearl barley, is an alternative staple food to rice and is known among the indigenous communities throughout Asia and serves a source of flour, coffee, tea, wine, beer and vinegar, among other products.[667] Above all, *adlai* grains can be processed and steamed just like rice and served.[668] The grain contains twice as much protein as rice, high in fiber, has antitumor and other medicinal properties[669] that mitigate the symptoms of inflammation, allergies and diabetes.[670] The grain has also proven resilient against extreme weather conditions[671] and continues to be planted for human consumption (grain) and animal feed (both grain and other parts

[653] "Gender and conservation agriculture: constraints and opportunities in the Philippines."
[654] *ibid.*
[655] *ibid.*
[656] *ibid.*
[657] *ibid.*
[658] *ibid.*
[659] *ibid.*
[660] *ibid.*
[661] *ibid.*
[662] *ibid.*
[663] "Philippines, Indigenous Women Farmers of the Blaan Tribe in the Philippines, Women's Knowledge in Traditional Crop Production."
[664] Burnette, R., 2012. "Three Cheers for Job's Tears: Asia's Other Indigenous Grain." ECHO Community. ECHO Asia Note, No. 13.
https://www.echocommunity.org/resources/67c86666-e521-4dae-b0a7-d6952dbb908b (accessed July 2019).
[665] *ibid.*
[666] Farmer Consultations in Bicol and Cordillera (28 January-6 February 2019).
[667] Business Mirror, 2017. "Mutant adlai as alternative staple food crop for Filipinos." Business Mirror. 14 May 2017. https://businessmirror.com.ph/2017/05/14/mutant-adlai-as-alternative-staple-food-crop-for-filipinos/ (accessed July 2019).
[668] Domingo, R. W., 2016. "Developing, promoting 'adlai' as alternative staple food." Inquirer.net. 2 November 2016. https://business.inquirer.net/218105/developing-promoting-adlai-as-alternative-staple-food (accessed July 2019).
[669] "Mutant adlai as alternative staple food crop for Filipinos."
[670] "Developing, promoting 'adlai' as alternative staple food."
[671] *ibid.*

of the plant).[672] The Department of Agriculture has promoted it since 2010 as a staple food under the Food Staples Sufficiency Program and identified several varieties through adaptability trials in various locations in the country.[673] Although no reference to women is made in descriptions of the grain, it is very likely that the women are the primary transmitter of knowledge on this indigenous grain in the communities.

179 Women are recognized around the world as superior caregivers to animals, except for when taking the large-sized ones to the pastures. Women, in comparison with men, are said to be more conscientious, possess higher technical knowledge, better work ethic and more empathy toward the animals.[674] Detailed information is not available on the gender gap with respect to animal care in the Philippines. As noted above, women may be more perceptive than men to climate change, but at present the link remains unclear. In Southern Luzon, almost all women and men surveyed said that climate information service was useful, but women's opinions were much more diverse than men's on how much the information boosted the agricultural production.[675] It is unknown whether this difference in perception could be attributed to that of gender on attention to details or interpretation of disconfirming information.[676]

5. Social Participation of Rural Filipino Women

5.1 Rural Women's Voice in Politics

180 On women's political empowerment, the World Economic Forum concluded in 2018 that the Philippines was the 13th best country measured by the ratios of females with seats in parliament over male, females at ministerial level over male, number of years with a female head of state over male in the last 50 years.[677] Among the Asian countries, Bangladesh ranked the 5th, although it was the 48th in overall gender parity ranking.[678] Another report by McKinsey in the same year reached the conclusion that the gender inequality was high.[679] In 2017, the proportion of women among elected political representatives at the national level was 29.5%, while the global average was 23.4% and the Philippines has no legislated quotas for women for the national parliament.[680] The proportion at the provincial and district/municipal levels were 19.9% and 21.4%, respectively.[681]

181 The higher representation at the national level is thought to be attributable to the domination of elites and political dynasties.[682] It is estimated that close to half of the women elected to the 12th Congress in 2001 were replacements of the relatives who previously had seats in the House of Representatives.[683] For the 14th Congress in 2010, 15% of elected women were identified as wives of

[672] "Three Cheers for Job's Tears: Asia's Other Indigenous Grain."
[673] "Developing, promoting 'adlai' as alternative staple food."
[674] Coleman, G., 2004. "9. Personnel Management in Agricultural Systems." In Benson, G. J. and Rollin, B. E. (eds.), *The Well-Being of Farm Animals: Challenges and Solutions*. Oxford: Blackwell Publishing.
[675] "Developing Climate Services in the Philippines."
[676] Riley, E. *et al*., 2016. "Gender Differences in Sustained Attentional Control Relate to Gender Inequality across Countries." *PLoS One*. Vol. 11, No. 11.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5089545/ (accessed July 2019).
Chung, J. and Monroe, G., 2002. "Gender differences in information processing: An empirical test of the hypothesis-confirming strategy in an audit context." *Accounting and Finance*. Vol. 38, No. 2, 265-279.
[677] *The Global Gender Gap Report 2018*.
[678] *ibid.*
[679] *The Power of Parity: Advancing Women's Equality in Asia and Pacific, Focus: the Philippines.*
[680] Choi, N., 2019. "Women's political pathways in Southeast Asia." *International Feminist Journal of Politics*. Vol. 21. No. 2, 224-248.
[681] *ibid.*
[682] *ibid.*
[683] *ibid.*

the former congressmen who reached their term limits.[684] At the national executive institutions, the proportion of women is 10.2%, while at the provincial and district/municipal levels, slightly over 23% of the positions are occupied by women.[685] These figures indicate that the number of women who actually vote on laws, have the opportunity to propose bills and to speak on behalf of women's interests in the legislative agenda is roughly half of that had gender parity been achieved.[686] Male legislators with an interest in gender parity are considered few and far between.[687]

182 The proportion of females who are committee chairpersons, Senators or House Representatives for the 15th-17th Congress (2010-2016) demonstrates that women are given responsibilities in the areas that are traditionally considered more feminine than others, such as culture and gender.[688] Men are in charge of the committees on public accountability, banks and financial institutions, civil service and government reorganization, ethics and privileges, games and sports, labor and employment, local government, urban planning and housing, ways and means, public works, rules, science and technology, and trade and commerce.[689] No woman has ever headed the departments of agriculture, defense, interior and local government, and public works, which are traditionally male-dominated offices.[690] The share of women among judges was less than 20% in 2000, but increased steadily to 43.8% in 2015, totaling 747 out of 1,699.[691] The chances are small that the plight of female smallholders in the rural areas is well addressed in the legislative and executive branches of the government, perhaps except for lawsuits.

5.2 Farmer Organizations

183 Greater gender equality in participation in the operations of producer organizations is said to improve collaboration among members, increase collective benefits and knowledge, decrease the level of conflict and improve the organizational outcomes, all of which lead to better management of natural resources.[692]

184 Republic Act 9520, Philippine Cooperative Code of 2008, stipulates that the Cooperative Development Authority is responsible for the development of cooperatives,[693] and the authority has taken up the Philippine Commission for Women's Gender and Development (GAD) approach in 2013.[694] Gender Equality Resource Center Inc., an NGO, was established by the Asian Women in Cooperative Development Forum in 2013 to promote gender equality in cooperatives and also in development through cooperatives.[695] To ensure the participation of women in all levels of development planning and program implementation, Republic Act 9710, the Magna Carta for Women, requires that at least 40% of membership of all development councils from the regional, provincial, city, municipal, and barangay levels be composed of women.[696]

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[684] *ibid.*
[685] *ibid.*
[686] David, C. C. *et al*., 2018. *Sustainable Development Goal 5: How Does the Philippines Fare on Gender Equality?* Quezon City, Philippines: Philippine Institute for Development Studies.
[687] *ibid.*
[688] *ibid.*
[689] *ibid.*
[690] *ibid.*
[691] *ibid.*
[692] Kaaria, S. et al., 2016. "Rural women's participation in producer organizations: An analysis of the barriers that women face and strategies to foster equitable and effective participation." *Journal of Gender, Agriculture and Food Security*. Vol. 1, Issue 2, 148-167.
[693] Republic of the Philippines, Congress of the Philippines, 2009. "Republic Act No. 9520. An Act Amending the Cooperative Code of the Philippines to be Known as the 'Philippine Cooperative Code of 2008'."
https://lawphil.net/statutes/repacts/ra2009/ra_9520_2009.html (accessed July 2019).
[694] *Country Gender Assessment of Agriculture and the Rural Sector in the Philippines*.
[695] Gender Equality Resource Center Inc., undated. "Who We Are."
https://gerc.ph/index.php/about-us/who-are-we (accessed July 2019).
[696] Philippine Commission on Women, 2010. "RA 9710. Magna Carta of Women: Implementing Rules and Regulations."

185 Organized by the Department of Agriculture in the 1950s and supported by the local government units (LGUs), the Rural Improvement Clubs (RICs) are non-governmental, barangay-based organizations that seek to raise the self-confidence and living standards of the rural women.[697] Their activities range from agriculture and fishery entrepreneurship, credit provision, pest management, compost making, poultry/livestock/fisheries management to production and processing of fruits, vegetables and seafood.[698] RIC members actively participate in decision-making bodies such as the Regional Agricultural and Fisheries Council (RAFC), the Municipal Agricultural and Fisheries Council (MAFC), cooperatives, bottom-up budgeting and anti-poverty councils.[699]

186 In the Philippines, many female farmers are active members of agricultural and non-agricultural organizations, both female only and mixed.[700] The organizations have clear governance structures, and women have taken up important roles, such as president, vice president and treasurer.[701] The view of the Philippine Commission of Women is that women are still not as well represented as men in agricultural organizations, and the National Coalition of Rural Women (*Pambansang Koalisyon ng Kababaihansa Kanayunan* or PKKK) – composed of organizations of female small-scale agricultural producers, fishers, indigenous peoples, and formal and informal workers in the rural areas – is in agreement.[702]

6. Risks and Opportunities for Female Farmers Facing Climate Change

187 For the most effective implementation of climate resilient agriculture, all engaged in agriculture need to be familiar with the principles and methods, while sharing the risks and benefits. Many female farmers attend the trainings organized by the Department of Agriculture on behalf of the entire household, but their husbands who do not participate as often are the ones who make the final decisions after discussion with their wives. Women's leadership in decision-making is sufficiently common, but it only guarantees meaningful participation in decision making, not finality or autonomy.

188 The landless and/or the poorest are less likely to have the opportunities to attend trainings. They are people are amongst the most vulnerable to climate change, and special attention is required to conduct inclusive targeting to engage poor or landless persons to engage in climate-responsive, gender-equitable and socially inclusive climate-resilient agriculture.[703] Such targeting such not only include monitoring within the project's gender-responsive monitoring and evaluation (M&E) framework, but also include targeted trainings, the consideration of their differentiated contexts and needs within planning, the implementation of climate-resilient agriculture practices, and regular monitoring to facilitate responsive management practices.

189 Indigenous peoples have vast knowledge of local ecosystems, including indigenous varieties and breeds, which constitute the building blocks of climate resilient agriculture as they are some of

Manila, Philippines: Philippine Commission on Women.

[697] Rural Improvement Club, undated. "Description." https://sites.google.com/site/ruralimprovementclub3/home/description (accessed July 2019).

[698] *Country Gender Assessment of Agriculture and the Rural Sector in the Philippines*.

[699] *ibid.*

[700] "Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia."

[701] *ibid.*

[702] *Country Gender Assessment of Agriculture and the Rural Sector in the Philippines*.

[703] Verzosa F, Cabriole MA, Thant PS, Phen B, Itliong K, Myae C, Thong C, Urdelas FG, Naun YW, Moe MZ, Tola C, Barbon WJ, Monville-Oro E, Gonsalves J. 2021. Pathways to Women's Empowerment in the Promotion of Climate Smart Agriculture in the Philippines, Myanmar, and Cambodia. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Available online: https://cgspace.cgiar.org/bitstream/handle/10568/118153/IDRC_Gender_Report.pdf; Quisumbing, A., Pandolfelli, L. 2008. Promising Approaches to Address the Needs of Poor Female Farmers. International Food Policy Research Institute (IFPRI). Available online: https://core.ac.uk/download/pdf/6289074.pdf

the most robust types in each locale even under climate change. Hybrid and non-native varieties require application of external inputs, often leading to negative effects on the environment and are unsustainable. Indigenous women have vast knowledge and skills related to indigenous species, most of which are not documented and hence lost as the occasions to make use of them dwindle. The communities appeared unaware of the increased importance of seed banking, usually maintained by women, under climate change. Thus, it is important the project adequately promotes and enhances the use of traditional and indigenous knowledge, which will have important socio-cultural benefits, will strengthen the resilience of local men and women and the agro-ecosystems upon which they depend, and further generate positive biodiversity benefits (e.g. through supporting seedbanks with local varieties).

190 As coping strategies in face of climate change, the Philippine farmers have resorted to: increased application of pesticides; planting of trees as windbreakers and for shade; changes in planting time of rice; intensified use of gardens and bunds of rice fields for vegetable cultivation; and further reliance on craft making by women. Considering the extent of climate change to come, these measures are not sufficient in the long term, and the majority of farmers seemed unaware of what could help them: the ease with which microfinance could be obtained, the usefulness of indigenous species in climate resilience; the Department of Agriculture's programmes for climate change adaptation, such as promotion of *adlai* crop and other indigenous crops as a sustainable source of livelihood.[704]

191 While some indigenous farmers are keen to continue practicing the traditional agriculture, many consider the adoption of modern agriculture inevitable or desirable. The indigenous peoples are not sufficiently aware of the strengths of their own food production systems compared to modern agriculture; the indigenous systems are holistic in approach (agricultural rules are accompanied by socioeconomic ones), resilient to external shocks (the systems are integrated in the ecosystems) and adaptable (the systems have endured for centuries). The awareness of the indigenous peoples need to be raised on the capacity of their systems to adapt to and mitigate climate change. Since the changes that they face (socioeconomic and climate change) originate outside their lives and are occurring at a pace faster than any other change in the past, external and complimentary information is likely to aid in strengthening the indigenous food production systems with respect to coping with these changes.

192 Climate change has already increased the burden on some women through harsher weather in the field and the necessity to replant rice on some occasions. If the climate resilient agriculture that is best fit to the locale entails more work for women than they currently undertake, it would have serious repercussions on the health of the female farmers, because they are also in charge of the bulk of house chores and caregiving.

193 Women around the world pay more attention to health issues, not only of themselves, but also of the entire family. Such interests in health issues can promote nutritional security, which is possible by crop diversification, one of the elements of climate resilient agriculture. It is also the women who have the knowledge of traditional medicine based on herbs. Since the medical system provided by the government is weak, women's herbal knowledge must be encouraged.

Combined with their knowledge of the latest developments in agriculture obtained through their participation in trainings on the topic, and their overall presence as a key player in the agricultural sector, women are strongly qualified as the agents of change toward climate resilient agriculture. In areas where men have largely left agriculture for off-farm employment, women perform most

[704] Doquila, G. A., 2018. "Agriculture department promotes use of adlai." SunStar Davao. 24 October 2018. https://www.sunstar.com.ph/article/1770782 (accessed July 2019).

agricultural tasks; their responsibilities have broadened, but it is not clear whether they have been more empowered to make strategic decisions. If the final say stays with the men, who typically do not directly take part in acquisition of new agricultural knowledge, farmers' resilience building against climate change would be outpaced by climate change. Women are better educated than men throughout the country, but for both women and men, awareness of environmental and socioeconomic issues is not as high as the overall education level suggests. Female farmers in the Philippines have differentiated vulnerabilities and contexts. Indigenous women, and women from low-income or female-headed households face additional systemic barriers (e.g. considering potentially lower access to past trainings, lower literacy rates in Tagalog or English, among others), that need to be effectively considered within project design and implementation through a participatory and inclusive approach. For instance, female-headed households constitute the poorest among the poor and do not have full access to formal credit or insurance, as the financial institutions are likely to ask for consent of a husband. The chances are high that climate change will put the farmers into situations where financial assistance is required, because of failed harvest or adoption of climate resilient farming systems. Social protection is available in case of natural disasters, but they are not structured so as to encourage farmers to build resilience against climate change.

7. Principles of Project Formulation and Implementation

7.1 Guiding FAO and GCF Policies and Frameworks

194 The following FAO and GCF policies and frameworks specifically guide the above assessment and project Gender Action Plan (refer also to other policies and framework in the Environmental and Social Management Framework in Annex 6). Gender equality and Indigenous People (IP) are co-benefits that the project aims to achieve, in addition to climate change adaptation and mitigation outcomes.

- **FAO Policy on Gender Equality 2020-2030** strives to achieve equality between women and men in sustainable agriculture and rural development for the elimination of hunger and poverty.
- **GCF Updated Gender Policy (2019)** reinforces the responsiveness of GCF to the culturally diverse context of gender equality to better address and account for the links between gender equality and climate change.
- **FAO Protection from sexual exploitation and sexual abuse** (PSAE) N° 2013/27. The principles of integrity, professionalism, respect for human rights and the dignity of all peoples underpin FAO's commitment to preventing and addressing acts of sexual exploitation and abuse (SEA)
- **FAO Policy on the prevention of harassment, sexual harassment and abuse of authority** N° 2015/03 (2015) and FAO policy on sexual harassment (13 February 2019) which states Sexual Harassment in all its forms is contrary to the United Nations Charter, the Staff Regulations and Staff Rules of the Organization and the Standards of Conduct for the International Civil Service.
- **GCF Revised Environment and Social Policy and Policy on the Prevention and Protection from Sexual Exploitation, Sexual Abuse, and Sexual Harassment (2021)** sets clear obligations for GCF-project related persons to prevent and respond to SEAH and to refrain from condoning, encouraging, participating in, or engaging in SEAH.
- **FAO Environmental and Social Management Guidelines (2015)** that include general principles and nine environmental and social standards (ESS), with 1) **ESS 8 - Gender equality**: the fight against discrimination, practices; Equal opportunities for men and women to take part and to benefit; 2) **ESS 7 – Decent Work**: Creation of better employment opportunities, particularly for women and young people; Non-discrimination and equal opportunities; Occupational health and safety; Prevention of child labor; Forced labor; Workers' and producers' organizations; and 3) **ESS 9 - Indigenous Peoples and Cultural Heritage**: Identification of indigenous peoples; Rights to land,

territory and natural resources; Reference impact analysis on indigenous peoples; Free, prior and informed consent; Plan for indigenous peoples.

- These ESS are consistent with the objectives of GCF adopted Performance Standards, **PS 1** - Assessment and Management of Environmental and Social Risks and Impacts; **PS 2** – Labour and Working Conditions; **PS 4** – Community, Health, Safety, and Security; **PS 7** – Indigenous Peoples and PS 8 – Cultural Heritages.

7.2 Principles of Project Formulation

7.1.1 Female Farmers as Agents of Change

195 Climate resilient agriculture will necessarily be based on agroecology, involving diverse indigenous species and landscape management for ecosystem resilience; it will take cue from indigenous systems, which are based on such principles. Female farmers have extensive knowledge of indigenous plants and farm animals, usually more extensive than that of male farmers. Women often have broader and more accurate interpretation of climate than men. Women possess the knowledge on herbal medicine, which is based on plants that constitute the local ecosystem. They engage in seed selection and storage as well, whose importance will only increase under climate change. Craft making based on indigenous plants is an activity reserved for women and so is collection/cultivation of medicinal plants, which are important in remote areas with little access to modern medical services. The new farming systems built on agroecology will encourage cultivation of such plants, providing additional cash income source for women and their families.

196 The division of agricultural work in the Philippines may not be as clearly gender dependent as in other countries, but the general pattern seen elsewhere also prevails in the country. Flood control tends to be considered men's domain, as it involves construction work, while water fetching, harvesting and storing are prone to fall under women's responsibility. The importance of water has only increased under climate change; despite its untimely availability, its distribution must meet the needs of all crops and animals, not only the high value crops, but also the ones in the backyard taken care of by women.

197 The best climate resilient solutions depend on each ecological context, biotic and abiotic, as well as on socioeconomic context. The strategies to cope with climate change already known in the Philippines include home gardens and backyard vegetable growing and animal raising as well as food foraging, which are women's tasks in the majority of cases. Additional attention can be provided through this project on also further valorizing local food production in home gardens and backyard vegetable growing and animal raising, and foraging to strengthen food security and diversify production to strengthen the resilience of female farmers to extreme climate-related hazards and changing temperatures and precipitation patterns. In times of food shortages, women are often deprioritized and are the last to eat,[705] thus implementation of CRA, including within home gardens, will have positive gender benefits in terms of climate-resilience, but also women's health, nutrition and overall food security. Additional recommendations for empowering women through climate-resilient agriculture include:

- Promoting gender-sensitization and gender awareness for men, [706]especially related to the roles of men and women and to support more equitable distribution of responsibilities to support women to overcome time constraints and other systemic barriers. Where possible,

[705] Verzosa F, Cabriole MA, Thant PS, Phen B, Itliong K, Myae C, Thong C, Urdelas FG, Naun YW, Moe MZ, Tola C, Barbon WJ, Monville-Oro E, Gonsalves J. 2021. Pathways to Women's Empowerment in the Promotion of Climate Smart Agriculture in the Philippines, Myanmar, and Cambodia. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
[706] *Ibid.*

attention should be paid to men in leadership roles to serve as 'champions' to promote gender equality and the empowerment of women.

- Ensure CRA-related activities and community meetings are planned considering women's time constraints.[707] Special attention should be paid to ensure the project and CRA activities to not increase time constraints of women. The GCF Project investment plan needs to closely analyze the gender-differentiated constraints, contexts and priorities, and ensure that it reflects both the needs of men and women, including indigenous men and women, and men and women from marginalized households among other key beneficiaries.
- Increasing access to markets and marketing information[708] to contribute to value addition and the overall strengthening of incomes and livelihoods
- Strengthening women's knowledge and ensuring adequate access to project funded activities (including considering suitable timing of meetings)[709]
- Ensuring space for women in climate-resilient value chains, where women should be supported to also benefit from more economic opportunities in spaces that are more typically male dominated.[710] Women should be supported as leaders to scale up best practices.

198 Women are suited as agents of change as they have in general great willingness to improve their livelihoods and as their knowledge on elements of agroecology has not been fully integrated in the prevailing farming systems. Special attention is needed to ensure the project engages diverse women, including considering the differentiated needs of landless and poor women to improve their livelihoods through the adoption of climate-resilient agriculture. The project will also conduct gender sensitization of men and women to valorize women's role in agricultural production, and promote more equitable division of labour (sharing reproductive and care work).

7.1.2 Higher Equality in Strategic Decision Making

199 Non-trivial modifications of farming systems will require willing agents of change who are open to new ideas. For transition to farms with diversified crops based on agroecology, farmers need to be interested in nutrition and possess knowledge of indigenous species. While women fit the bill much better than men, it is the latter who make the final decisions after discussions between women and men. If more men engage themselves in off-farm work, but remain the ultimate decision makers, the efficiency in agriculture is bound to decline. Risks and benefits need to be shared as well for greater ownership and efficacy.

200 No crop production or water management is accomplished by men alone, and food and nutrition management is the responsibility of women; women need decision-making power, not limited to day-to-day household matters, but also on strategic issues. Similar sharing of power is also necessary with other vulnerable groups, such as youth, if the proposed project is to help each community attain its full potential and achieve sustainable development.

201 The chances are very high that climate change will increase the need for credit, which would put female-headed households further at a disadvantage because of customary preference of finance institutions for men as borrowers. The proposed project will engage with selected financial institutions to make credit and insurance accessible to poor farmers, especially female farmers and undocumented indigenous peoples, which will confer them more decision making power. This is particularly relevant, as Verzosa et al. (2021) noted for a case study in the Philippines that "*women are the main borrowers in agricultural households because they have greater access to micro-credit and are under strong pressure to bridge resource gaps. Hence, more women than men fall into chronic*

[707] *Ibid.*
[708] *Ibid.*
[709] *Ibid.*
[710] *Ibid.*

indebtedness related to climate-induced crop failure" (p. 18). Thus, supporting women to have more access to finance with better terms and conditions, while also improving production practices to better safeguard farmers against climate change will improve female farmers' adaptive capacities and overall resilience to climate change.

202 Improvement in strategic decision making power of women will allow easier integration of their advantages into the farming systems: broader observations on weather and climate; intensive knowledge on indigenous plants and animals; interests in food and nutritional security in addition to general health; and cultivation of plants used for craft making. Their comparative strength in communication, financial management and commercial negotiations will also contribute more effectively to the good of the community. In addition, youth empowerment will lead to better use of their capacity in ICT and greater benefits to the communities. Such changes in the roles and social status of vulnerable groups need to be endorsed by the communities concerned, most notably by the community heads/chiefs, to avoid regression.

7.1.3 Working with Nature: observations and adjustments

203 Climate change at the current speed is unprecedented in human history; if we are to adopt a farming system that is sustainable, it must be a system that works with nature under climate change, not against. Farmers need to reclaim their capacity to work with nature, which includes their ability to read the weather and climate from natural indicators. Such competence has been in decline for various reasons: modern agriculture is not strongly based on the functionalities of nature; some traditional indicator species have disappeared; and climate is changing at a tremendous speed and has disrupted some of the established relationships between observable phenomena and underlying causes.

204 While PAGASA strengthens its capacity to provide information on weather and climate based on the latest technology and knowledge in climatology, their forecasts can be well complemented by the observations and forecasts by farmers based on the natural indicators. Such complementarity has been noted between indigenous knowledge and western science.[711] Comparison of both types of forecasts and the actual events allows the different parties involved – PAGASA, DA and the farmers – to strengthen their capacities to understand and foresee the evolution of weather and climate. Citizen's participation in environmental monitoring is cost effective, raises awareness and creates ownership; it is increasingly adopted around the world.

205 Working with nature also means that the technologies for agriculture must be adjusted, including various inputs, to local conditions and changing climate for maximum effectiveness. Since climate change is to alter the ecological conditions progressively, farmers will need to constantly adjust their agriculture, which is most effectively done by close observation and adaptation on the ground with supplementary external information, such as from PAGASA and DA.

7.1.4 Indigenous Peoples as Guardians of Climate Resilient Agriculture

206 One of the salient features of climate change is that rainfall has become very uneven and untimely for agriculture. To thrive under such irregularity, flooding must be resisted and delayed, and floodwater stored and properly discharged by means that are nature-based as much as possible. At the same time, farmers need to transform their farming systems into ones that "create" water to cope with drought conditions. Together it means that the systems need to be based on agroecology, which is exemplified by indigenous food production systems. It also points to the ever increasing importance of watershed management for agriculture. Since watersheds do not fall under the jurisdiction of the

[711] Health Canada, 2004. *Canadian Handbook on Health Impact Assessment. Volume 1: the Basics.* Ministry of Health, Canada. http://publications.gc.ca/collections/Collection/H46-2-04-343E.pdf (accessed November 2019).

main executing entity, the Philippine Department of Agriculture, the proposed project does not include watershed management as an activity and focuses on agriculture in the strict sense of the word. However, the project will consider watershed management of indigenous peoples, which is integrated already in their food production systems, in the framework defined by the Ancestral Domain Sustainable Development and Protection Plan.

207 The indigenous food production systems, including weather and climate forecasting, have endured for centuries and proven their sustainability. Due to the changing environmental and socioeconomic conditions, they may be less successful than before, but the elements that led to sustainability have not been totally abandoned and are contributing to resilience to climate change.[712] Many of the indigenous peoples are unaware of the gaining momentum for indigenous systems and tend to adopt modern agriculture, even in the Cordillera Autonomous Regions where the overwhelming majority are indigenous. Their awareness in the indigenous culture and food production systems needs to be strengthened, as they form the basis for climate resilient agriculture. Possible supplementary actions for strengthening the resilience of indigenous farming systems include: strengthening the capacity of the Department of Agriculture (DA) and its connection with indigenous farmers; increasing the availability of effective inputs (seeds, seedlings, water, weather information and credit); and improving the efficiency and equity of value chains.

7.1.5 Self-Reliance as Climate Change Resilience: ownership, sustainability and collectivity

208 Ownership is paramount in making interventions meaningful and sustainable, and ownership is impossible without strong participation of the end beneficiaries; farmers need a share of the driver's seat, and their strengths, needs and limits should be well reflected in the project.

209 Resilience to climate change is not only a matter of knowing and practicing what is taught as suitable agricultural methods, but also of adjusting and developing the methods to the climate as it continues to evolve. In more general terms, capacity for self-reliance is an element of resilience to any external shock. Seed selection, storage and sharing, usually taken care of by women, are some of the activities that boost such capacity. Independence from outside assistance is also enhanced by: adoption of agroecology which minimally relies on external inputs; cultivation of typhoon and cyclone-proof crops (e.g., root crops) in the backyard and other small areas, which is usually taken care of by women; farmer-to-farmer knowledge sharing; ability to and read the weather and climate on their owns.

210 Many of these activities are infeasible or inefficient if the farmers do not join forces. Once acting together becomes a well-established mode of operation, the farmers will more easily acquire higher economic bargaining power than acting alone, which boosts ownership and sustainability.

7.1.6 Social Media for Rapid Communication

211 The people in the rural Philippines have little access to quality information, including that on government and NGO programmes which may be useful to them. The Filipinos, both rich and poor, utilize the social media often for connecting with family and friends, who relay information on extreme weather events, among others. The proposed project will make use of this already established mode for rapid communication of climate related information, bearing in mind that women have higher

[712] Bertzky, B. *et al*., 2012. *Protected Planet Report 2012: Tracking progress towards global targets for protected areas.* Gland, Switzerland and Cambridge, UK: IUCN and UNEP-WCMC.
Sneed, A., 2019. "What Conservation Efforts Can Learn from Indigenous Communities." *Scientific American*. 29 May 2019. https://www.scientificamerican.com/article/what-conservation-efforts-can-learn-from-indigenous-communities/ (accessed July 2019).

access to the internet than men. Youth will be actively involved in various communication material production, as they are the ones who have the 3G/4G phones in each household.

7.2 Principles of Project Implementation

212 Based on the above project formulation principles, the project activities will be implemented as below to enhance the participation of women (and indigenous peoples and youth) in agriculture with decision-making power. The aspects concerning women, indigenous peoples and youth of the project will be monitored according to the indicators in the Gender Action Plan.

7.2.1 Provision of Ecosystem, Health and Livelihood Services

213 For viable agricultural systems, farmers need to derive direct, sustainable and immediate benefits from the new system. In other words, a food production system should be an ecosystem, and diversification and landscape transformation should be guided by food and nutritional security, integrated pest management (which reduces the use of pesticides), and livelihood requirements. Women have stronger interests than men in such farm attributes; climate resilient agriculture will necessitate the involvement of women and confer them bigger roles in agriculture.

214 For example, windbreakers should double as food forests, and both subsistence and cash crops must be available throughout the year. It is highly desirable from socioeconomic and biological points of view to diversify further and to integrate crops that are used for craftwork by women. Currently the effects of climate change are dealt with mainly by increased application of synthetic pesticides and fertilizers. Women in general are more concerned than men about health issues and can serve as entry points for promotion of nutritional security and integrated pest management.

215 Agricultural tasks are not strictly segregated by gender, except that work which is physically demanding or involves machinery is usually reserved for men. Landless women earn their living by working for landowners, and the latter's decisions to mechanize would put the poorest out of work. Transformation into farming systems based on agroecology will not entail mechanization as seen in industrial agriculture, but any introduction of machines under the proposed project will ensure not to reduce livelihood options. Rice seed and fertilizer subsidies and other programmes may encourage or discourage adoption of climate resilient agriculture and women empowerment along the process; their effects need to be well examined and conditions reformulated, if necessary.

7.2.2 Sharing the Driver's Seat with Farmers

216 Application of agroecological principles results in the most positive socioecological outcomes when restauration of landscapes and diversification of agronomic practices are combined, which points to the necessity of multi-scale and multi-stakeholder approach.[713] Some of the most important actors in this approach are farmers, both female and male, and the proposed project will ensure the largest positive impacts and sustainability of interventions by meaningfully involving the farmers as much and early as possible. Early substantial involvement of farmers will tailor the content of the interventions to the needs of the farmers and create robust ownership.

217 Climate and climate resilient agriculture (CRA) information needed and valued by women and men may vary because of their different roles and concerns at household and community levels. This will be taken into consideration in developing climate information services (CIS) products, CRA training materials and training packages and CRA IEC materials. No crop cultivation and sale are possible

[713] Veen, G. F. et al., 2019. "Aboveground-Belowground Interaction Concept in Agriculture: Spatio-Temporal Scales Matter." *Frontiers in Ecology and Evolution*. Vol. 7, Article 300. https://www.frontiersin.org/articles/10.3389/fevo.2019.00300/full (accessed November 2019).

without women's involvement, and gender parity will be sought in all participating parties: technicians/officials, and farmers. Women-headed households, IP female farmers and farmer organizations/cooperatives led by women and/or with many female members will be prioritized in the identification of target beneficiaries for CRA enterprise training, development and investment planning. The target proportion of women, indigenous peoples and youth among the participants, be it farmers or technicians, will be 10%, 12,5% and 25%, respectively, to reflect the relative population size of each group. In case a sub-activity focuses on one of these groups, the target for the technicians and farmers to be of that group is 100%.

218 Under this project, female and male farmers will participate in meetings that are customarily for government technicians or officials alone, if the subject ultimately concerns the farmers. Such meetings include those on meteorological instrument procurement and high-level inter-departmental review on national agro-meteorological system and its applications. Trainings on basic functionalities, operation and maintenance of agro-meteorological stations and the CIS platforms and Regional and Provincial CIS Centers will be given to female and male farmers alike so that their ownership of the systems and willingness to participate in their maintenance are strengthened.

219 Farmers will also participate in formulation of all products and services whose users are farmers including climate risk-informed financial products, in order to avoid unrealistic expectations on both sides and provide the farmers with what they do need and can use effectively. The engagement of farmers needs to be guided so as to promote understanding between various parties on each other's strengths, as well as their differentiated needs and constraints. This includes understanding women are not a homogeneous group, and thus attention will also be paid to ensure the differentiated needs and contexts of landless women, poor women, and indigenous women are taken into account. Meetings will be held between relevant technicians/officials, the private sectors, banks and farmers preceding development of each product and service, organization of each workshop, conducting each study and review, etc., for which the technicians/officials, private sectors and banks will travel to the field so that they may have the opportunity to speak with many farmers and to see the socioeconomic and ecological conditions that the farmers face. The costs that technicians/officials and farmers will incur from participating in such meetings will be financed by the project: transportation and meals. Project staff, technicians, officials and extension staff will all be trained on gender equality and social inclusion, to ensure that they are aware of the constraints, differentiated perspectives and systemic barriers faced by women, indigenous peoples and other members of the population, as well as best practices for the participatory identification of suitable CRA investments to strengthen their resilience. Special attention will also be paid to ensure promoted investments are appropriate given women's time constraints, and gender-sensitization will be promoted as a cross-cutting element within the project's meetings, trainings and guidelines to raise awareness of women's time constraints and encourage a more equitable redistribution of household tasks and care-related work.

220 All field level trainings will be conducted using the approach of Farmer Field Schools, which builds on the knowledge and strength of adult learners and has proven to improve their capacity beyond the subject in question. In the same vein, interventions on weather/climate comprehension, seed procurement and finance will focus on strengthening of farmers' capacity, particularly what women excel in: weather/climate prediction based on natural indicators; seed selection, storage and exchange; and fund raising and management. For trainings that do not target farmers but others, such as CRA master trainers, CRA enterprise development facilitators and extension workers, on the issues ultimately concerning farmers, pre-training meetings will be organized between farmers and trainers as well as trainees so that all parties have common understanding of the issues to be addressed and how to address them.

221 Farmers and Farmer Organizations will be encouraged to establish networks among themselves, and link with the AMIA Village network, for information sharing (weather/climate and others), agricultural material exchange, fund pooling and other types of mutual aid; women are known to be more proficient than men in establishing networks.

7.2.3 Women, Indigenous Peoples and Youth as Strategic Decision Makers

222 The proposed project promotes gender empowerment, social inclusion and higher parity in decision-making power, which will aid effective adoption of climate resilient agriculture, through involving them in the preparatory meetings for each sub-activity discussed above. While Philippine women are on average better educated than men, their voices are not necessarily heard during discussions when men are also present. In order to boost women's point of view and give women an opportunity to articulate their thoughts, a meeting among women only will be organized prior to the preparatory meetings between all farmers and relevant technicians/officials. Female government technicians/officials will also be present in the meetings for female farmers so that connection between like-minded farmers and government technicians/officials may be established. Half of the participants in the plenary meetings will be women. Enhanced gender parity is also expected to reduce gender-based violence, which remains a great concern in the country. Comparable arrangements will be made for indigenous peoples and youth. Farmer field schools for the indigenous peoples will include sessions on the Theater of the Oppressed to empower them as decision makers in the wider Philippine society.

223 As the project is expected to leverage more funds in the near future, the use of household methodology to further enhance gender parity as well as more extensive use of Theater of the Oppressed will be considered at the Inception Workshop of the project. Since an environment that makes use of the full potential of women and other vulnerable groups improves the outcome of the project, the application of household methodology and the Theater of the Oppressed will be organized at the beginning of the project.

224 Most female farmers already get by with less than eight hours of sleep per day. The manual labor for rice cultivation is quite strenuous for women, but the harsher weather brought about by climate change is said to be straining the health of women even further. Hence any additional agricultural task for women in adaptation to climate change must be balanced by reduction in other tasks, such as household chores and caregiving; more equitable sharing of work around the household will be promoted.

225 Improved decision making power of women may well make men feel unsure of their new roles and perceived status. In order to assure them that the changes are good for them and the entire communities, the proposed project will work with the community heads/chiefs and Barangay committees so that they would endorse the enforced decision making power of women and accompanying changes for men as progress for the community. The roles and contributions of female farmers will be duly acknowledged and considered together with those of the male farmers in all trainings so as to aid the acceptance of women as knowledgeable farmers capable of making wise decisions in agriculture.

226 Female farmers who are heads of households are particularly vulnerable financially, since they do not have male family members who may provide the co-signature which is customarily required by many financial organizations for loans. The project will facilitate access to social schemes for female heads of households engaged in agriculture. Since many indigenous persons are undocumented, they do not qualify for existing social protection schemes or loans. The project will facilitate their access to the schemes with emphasis on female indigenous persons who tend to be financially more vulnerable than male indigenous persons in modern society.

7.2.4 Respecting the Indigenous Peoples: rights to knowledge and self determination

227 Any indigenous knowledge systems and practices on agriculture, weather and climate that the proposed project regards as potentially applicable and beneficial outside the community will be sought and transferred to other communities in compliance with the Indigenous Knowledge Systems and Practices (IKSPs) and Customary Laws (CLs) Research and Documentation Guidelines of 2012 of the National Commission on Indigenous Peoples (NCIP). All activities involving indigenous peoples will ensure their alignment with the Ancestral Domain Sustainable Development and Protection Plan, and Indigenous Cultural Communities and indigenous peoples will be involved through NCIP in all stages of the project within their ancestral domains.

228 The awareness of indigenous peoples on their cultural heritage will be raised through Theater for the Oppressed method. Improved awareness and confidence will help them identify the strengths of the indigenous food production systems, which will be used as a basis for climate resilient agriculture. Women will be of special targets as they are the ones with the knowledge on indigenous plants and seed selection and storing. Strengthening of awareness related to indigenous identity and of women's decision-making power may disorient the farmers with new roles and perceived change in status. The proposed project will work with the community heads/chiefs so that they would endorse the changes as progress for the community.

7.2.5 Building on the Strengths of Women, Indigenous Peoples and Youth

229 Women in general are better than men at forming groups among themselves for information exchange and mutual aid. They can spearhead the efforts for establishing a rapid information dissemination network using social media and a mutual aid system for the villagers. Farmers will also be encouraged to use social media to connect directly with urban customers and reap higher benefits than through middlemen; they will also be trained on organizational development, risk management and finance access.

230 Usually, it is the women who are given the responsibilities to manage the books at household and community organization levels; they should be the first group to be targeted for any kind of finance related activities. Many women engage daily in commercial negotiations as they are considered more capable than men in this aspect; they should be further trained as negotiators at a larger scale.

231 Task segregation in agriculture along the gender lines is minimal is the Philippines. Since it is best that both women and men have good understanding of the tasks that the other gender is engaged in, Farmer Fields Schools (FFSs) will be open to both female and male farmers with the same curricula, which touches upon activities for all groups.

232 The indigenous peoples have strong foundation for climate resilient agriculture based on the indigenous food production systems and culture. They will be trained separately from the non-indigenous farmers so as to focus on the strengths of the indigenous peoples and systems.

233 Youth will be trained on development of ICT products to make use of their interest and capacity in using electronic media, with a focus on mobile phone based technology for technical and financial sustainability.

7.2.6 Preventing increased risks of SEAH and GBV

234 The engagement of women in new activities and their acquisition of new skills may upset the current gender balance and provoke SEAH, or even GBV. The project personnel may wield their new

power that comes with the project to engage in SEAH and GBV. The community gatekeepers may see such development as something that needs to be tolerated in exchange for the opportunities. For prevention of SEAH and GBV, the project trains project-related personnel on the subject and sensitizes and mobilizes village heads/chiefs and Barangay committees for community-driven support measures. FAO's Grievance Redress Mechanism (GRM) will be strengthened so that SEAH and GBV related grievances are adequately managed in inclusive, survivor-centred and gender-responsive ways. GBV pathways will be established and operationalized to provide timely services and redress to survivors. All these activities will be carried out in collaboration with UNFPA.

235 Affected women and men will be able to file complaints and grievances against the project. FAO and project executing entities (EEs) will inform communities about the GRM through culturally appropriate mechanisms, ensuring information on the mechanisms at all three levels is communicated (i.e. GCF Independent Redress Mechanism,[714] FAO-level redress mechanisms and the project-level GRM). Principles to be followed during the complaint resolution process include: impartiality, respect for human rights, including those pertaining to indigenous peoples, compliance of national norms, and coherence with the norms, equality, transparency, honesty, and mutual respect.

236 Affected women and men can make a complaint or appeal on any and all aspects of sub-activities' design and implementation. A complaint and grievance feedback form, as well as a pamphlet explaining the mechanism, will be developed under the project and distributed to all project communities for their use. Complaints and grievances can be filed orally, or in writing (digitally or via post).

237 Project beneficiaries (including men and women from indigenous groups) will be clearly informed of the complaint and appeal channels (as described above, or as delineated through their FPIC process) in community meetings and via other forms of communication that are convenient to them (including local languages where suitable). Women's organizations and networks in the project area will be informed of the project and GRM, and information on the GRM provided to ensure they are able to serve as key resource persons. Detailed information on the project's GRM is provided in Chapter 5.6 of the ESMF in Annex 6a to the Funding Proposal.

[714] For detailed information on GCF's Independent Redress Mechanism, please refer to: https://irm.greenclimate.fund/.

8. Field Consultation: Partners and Questions

8.1 Consultation Partners

Date	Region	Province	Municipality	Barangay	Type of Stakeholders	Participants	
						Female	Male
May 24-25, 2018	Luzon	International Center for Tropical Agriculture Workshop organized with Benguet State University			Rice farmers	1	6
May 24-25, 2018	Luzon				Cabbage and potato farmers	2	4
May 24-25, 2018	Luzon				Corn farmers	n.a.	n.a.
May 27-28, 2018	Mindanao	International Center for Tropical Agriculture Workshop organized with University of the Philippines Mindanao			Corn farmers	2	2
May 27-28, 2018	Mindanao				Coffee farmers	2	2
May 27-28, 2018	Mindanao				Cacao farmers	4	2
May 31 – June 1, 2018	Visayas	International Center for Tropical Agriculture Workshop organized with Visayas State University			Corn farmers	1	2
May 31 – June 1, 2018	Visayas				Rice farmers	1	4
May 31 – June 1, 2018	Visayas				Coconut farmers	1	2
November 15, 2018	Cagayan Valley	Cagayan	Iguig	Salamague	Corn, rice, vegetable farmers	7	5
November 15, 2018	Cagayan Valley	Cagayan	Iguig	Sta. Barbara	Corn, rice, vegetable farmers	16	3
November 15, 2018	Cagayan Valley	Cagayan	Iguig	San Isidro	Corn, rice, vegetable farmers	8	26
November 15, 2018	Cagayan Valley	Isabela	Ilagan	San Victoria	Farmers from the villages targeted by Strengthening Implementation of Adaptation and Mitigation Initiative in Agriculture (AMIA) programme[715]	14	9
November 16, 2018	Cagayan Valley	Isabela	Benito Soliven	Lucban		45	17
November 20, 2018	SOCCSKSARGEN	North Cotabato	Kidapawan	Masibulig	Mabakal Irrigator's Association members	0	9
November 20, 2018	SOCCSKSARGEN	North Cotabato	Kidapawan	n.a.	Agrarian reform beneficiaries and farmers from Manobo, B'Laan, and Tagakaulo ethnic groups	7	14
November 21,2018	SOCCSKSARGEN	North Cotabato	Kidapawan	n.a.	Association of Rural Improvement Club of Kidapawan City, Inc.	13	0
November 21, 2018	SOCCSKSARGEN	North Cotabato	Kidapawan	Ilomavis	Coconut Farmers and farmers from Obo Manobo ethnic group	16	5
November 21, 2018	SOCCSKSARGEN	North Cotabato	Matalam	Manupal	Corn farmers	11	6
November 22, 2018	SOCCSKSARGEN	North Cotabato	Matalam	Patadon West	Muslim corn farmers and farmers from Maguindanaon ethnic group	11	73

[715] A project of the Department of Agriculture, in partnership with the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) and the University of the Philippines Los Baños Foundation, Inc. (UPLBFI), which started in 2015.

Date	Region	Province	Municipality	Barangay	Type of Stakeholders	Participants	
						Female	Male
November 22, 2018	SOCCSKSARGEN	North Cotabato	Matalam	Patadon	Muslim farmers	2	5
November 22, 2018	SOCCSKSARGEN	North Cotabato	Matalam	Ginatilan	Farmers from Manobo ethnic group	21	4
January 31, 2019	Bicol	Camarines Sur	Ocampo	Gatbo	Gatbo San Francisco Irrigators Association members	11	4
January 31, 2019	Bicol	Camarines Sur	Buhi	Burubusoc	Farmers from Agta-Tabangnon ethnic groups	13	7
January 31, 2019	Bicol	Camarines Sur	Iriga City	Sta. Teresita	Farmers from Oyango ethnic groups in a Tribal Settlement	19	2
January 31, 2019	Bicol	Camarines Sur	Pamplona	Cagbunga	AMIA village farmers	19	2
January 31, 2019	Bicol	Camarines Sur	Pamplona	Veneracion	AMIA village farmers	7	9
February 1, 2019	Bicol	Camarines Norte	Talisay	Itomong	Rural Improvement Club members (female) and other villagers (male)	20	2
February 1, 2019	Bicol	Camarines Norte	Vinzons & Talisay	Sto. Domingo & Sta. Elena	Farmers who bring produce to the Agripinoy Trading Center	8	15
February 1, 2019	Bicol	Camarines Norte	Jose Panganiban	n.a.	Farmers from Agta-Mandini ethnic group	10	8
February 5, 2019	CAR	Ifugao	Hingayon	Anao	Farmers from Hingayon-Tuwali ethnic group	6	3
February 5, 2019	CAR	Ifugao	Banaue	Poblacion	Farmers from Banaue-Tuwali ethnic group	15	5
February 6, 2019	CAR	Kalinga	Tinglayan	n.a.	Farmers from Kalinga ethnic group	2	0
February 6, 2019	CAR	Kalinga	Pasil	n.a.	Farmers from Kalinga ethnic group	3	0
					Total Estimate	**317**	**257**

This portion has been redacted in accordance with the GCF Information Disclosure Policy, as the portion is confidential under the disclosure policy of the Accredited Entity

Date	Location	Institution	
		Name	Description
June 5, 2018	Manila City	Philippine Commission on Women (PCW)	Primary policy-making and coordinating body of the Government of the Philippines on women and gender equality concerns
June 7, 2018	Makati City	United Nations Population Fund (UNFPA)	United Nation agency on sexual and reproductive health
November 6, 2018	Quezon City	National Commission on Indigenous Peoples (NCIP)	Responsible for protecting the rights of the indigenous peoples of the Philippines
January 29, 2019	Quezon City	Unyon ng mga Manggagawa sa Agrikultura (UMA Pilipinas)	National progressive center of unions, federations, associations and organizations of agricultural workers in the Philippines

Date	Location	Institution	
		Name	Description
January 29, 2019	Quezon City	Philippine Development of Human Resources in Rural Asia (PhilDHRRA)	Network of sixty-five (65) non-government organizations involved in various development activities in rural comunities all over the country
January 29, 2019	Quezon City	Pambansang Kilusan ng mga Samahang Magsasaka (PAKISAMA)	National peasant confederation composed of 30 local peasant federations with a combined reach of 100,000 small farmers, fishers and rural women in 28 provinces nationwide
January 29, 2019	Quezon City	Asian Farmers' Association for Sustainable Rural Development (AFA)	Asian alliance of national farmers organizations composed of small scale women and men family farmers, fishers, indigenous peoples, forest users, herders and pastoralists
January 29, 2019	Quezon City	Good Food Community	An enterprise that promotes community shared agriculture by connecting socially aware city-dwellers with small holder farmers in a relocalized food economy
January 29, 2019	Quezon City	National Commission on Indigenous Peoples (NCIP)	Responsible for protecting the rights of the indigenous peoples of the Philippines
January 30, 2019	Pili, Camarines Sur	Department of Agriculture, Field Office, Region V	Promotes agricultural development and growth in the region
January 30, 2019	Naga City, Camarines Sur	Regional Agricultural and Fishery Council (RAFC), Region V	Regional forum for consultative and continuing discussions within agriculture and fisheries sectors

Date	Location	Institution	
		Name	Description
January 31, 2019	Daet, Camarines Norte	Office of the Provincial Agriculturist, Camarines Norte, Region V	Frontline of delivery of basic agricultural services
February 4, 2019	Baguio City, Benguet	Department of Agriculture, Regional Field Office, Cordillera Autonomous Region	Promotes agricultural development and growth in the region
February 4, 2019	Baguio City, Benguet	National Commission on Indigenous Peoples, Cordillera Autonomous Region	Responsible for protecting the rights of the indigenous peoples in the region
February 4, 2019	Baguio City, Benguet	Indigenous Peoples' International Centre for Policy Research and Education (Tebtebba)	Indigenous peoples' organization born out of the need for heightened advocacy to have the rights of indigenous peoples respected, protected and fulfilled worldwide
February 5, 2019	Lagawe, Ifugao	Provincial Agriculture, Environmental and Natural Resources Office (PAENRO), Ifugao, Cordillera Autonomous Region	Frontline of delivery of basic agricultural services
February 6, 2019	Tabuk City, Kalinga	Office of the Provincial Agricultural Services (OPAS), Kalinga, Cordillera Autonomous Region	Frontline of delivery of basic agricultural services
February 6, 2019	Tabuk City, Kalinga	Mandiga Community Center	Non-profit that advocates on ancestral domain, sustainable agriculture and alternative health
March 19, 2019	Quezon City	National Commission on Indigenous Peoples (NCIP)	Responsible for protecting the rights of the indigenous peoples of the Philippines

8.2 Consultation Questions

8.2.1. Core Consultation Questions for Institutions

- How are you dealing with climate change in your work?
- What is the most important gender issue in your work with farmers?

8.2.2 Core Consultation Questions for Female Farmers

- What are the main crops grown and women's involvement in different stages of crop production?
- What type of animals do you keep?
- Who owns which animals?
- How has the farming situation changed in the past few years?
- Which everyday tasks are performed by men? By women?
- Who sells agricultural and livestock products?
- Who keeps the cash income?
- Who makes the decisions on spending?
- Are you engaged in vegetable cultivation?
- Do you have a mobile phone?

PART II: GENDER ACTION PLAN

1. INTRODUCTION

238 The Gender Assessment above included brief assessments of indigenous peoples and youth, as they represent two other important characteristics of the population that intersect with gender in target regions. Gender gaps exist in these subgroups, but how these attributes interact with each other is not clear, especially given the generally more egalitarian nature of indigenous communities. In view of the importance and complexity of these three characteristics, the Gender Action Plan of the proposed project touches upon indigenous peoples and youth, while maintaining the primary focus on women.

239 The Gender Assessment above included brief assessments of indigenous peoples and youth, as they represent two other important characteristics of the population that intersect with gender in target regions. Gender gaps exist in these subgroups, but how these attributes interact with each other is not clear, especially given the generally more egalitarian nature of indigenous communities. In view of the importance and complexity of these three characteristics, the Gender Action Plan of the proposed project touches upon indigenous peoples and youth, while maintaining the primary focus on women.

240 Mainstreaming of gender, indigenous peoples and youth is seen from two angles: participation in activities; and the content of activities, where activities include events as well as development of events and products. Mainstreaming in terms of participation will be ensured by setting the target proportion of participants from each of the three groups to be roughly equal to the relative population sizes at the national level: 50%, 12.5% and 25% for women, indigenous persons and youths, respectively. Of course in project areas like the Cordillera – the proportion of indigenous people will be much greater, a high majority depending on the local population. Mainstreaming in terms of content will be ensured by requiring the proportion of topics that mainly concern women, indigenous peoples and youths to be the same as the participation ratio defined above. Every training will devote 10% of its time to lecture the importance of mainstreaming. The indigenous food production systems as the foundation of CRA will be also included in the content of various events and products as well as indigenous weather and knowledge systems in order to encourage citizen monitoring in accordance with the Indigenous Knowledge Systems and Practices (IKSPs) and Customary Laws (CLs) Research and Documentation Guidelines of 2012 of the National Commission on Indigenous Peoples (NCIP). Watershed management, a prominent component of indigenous food production systems, will be incorporated in FFSs for indigenous peoples, as long as it is aligned with the Ancestral Domain Sustainable Development and Protection Plan. The indigenous stakeholders will be involved in all stages of the project in their ancestral domains.

241 Changes in the roles and social status of vulnerable groups need to be embraced by the communities concerned, most notably by the community heads/chiefs. Each FFS will include sensitizing sessions for community gatekeepers on social inclusion, its necessity and benefits. Since half of the persons who participate in any activity will be women farmers/technicians and half of the content of any activity will be for women farmers/technicians, the Gender Action Plan claims half of the total project budget. The relationships among the project formulation and implementation principles, indicators, targets and baselines are as shown below (Table 8). In order to simplify the presentation of Gender Action Plan, each indicator is labelled, to which the Plan refers.

242 The day-to-day implementation of the GAP for the project will be led by the National Gender and Social Inclusion Specialist, who will be recruited by the project. The Specialists will work as part of the

Project Management Office (PMO) and in close collaboration with the Regional Project Offices. The Specialist will also collaborate with the implementing partners/sub-contractors to ensure adequate integration of gender-differentiated needs as well as those of indigenous peoples and youth into the complementary support that the Entities provide for the project. Specifically for gender issues, the Specialist will coordinate with the Philippine Commission on Women to achieve gender empowerment in the country in an effective manner.

Table 8: Project Formulation/Implementation Principles and Indicators[716]

Project Formulation Principle	Project Implementation Principle	Indicator, Baseline and Target	Label in the Action Plan
- Female farmers as agents of change - Higher gender parity in strategic decision making and meaningful participation - Working with nature - Indigenous peoples as guardians of CRA - Social media for rapid communication (in case of IT subjects)	- Sharing the driver's seat with farmers - Women as strategic decision makers - Cultural awareness among the indigenous peoples - Building on the existing strengths of women/indigenous peoples/youth	Number of pre-event and pre-product-development information exchange meeting between technicians/officials (in case of training, both trainers and trainees) and female/indigenous/youth farmers on climate and agriculture, including agri-food systems. *Baseline: 0* *Target: 1 for each group (female/indigenous/youth) and for each event/product.*	*Pre-event and pre-product-development information exchange*
		Proportion of female/indigenous/youth farmers in pre-event and pre-product-development information exchange meeting between the trainer/s, trainees and farmers on climate and agriculture, including indigenous agri-food systems. *Baseline: 0/0/0%* *Target: 50/12.5/25 (60 in case of IT subjects) % of participating farmers.*	*Composition of farmers participating in pre-event and pre-product-development Information exchange*
		Proportion of female/indigenous/youth farmers collaborating with technicians for product development. *Baseline: 0/0/0%* *Target: 50/12.5/25 (60 in case of IT subjects) % of participating farmers.*	*Composition of farmers participating in event and product-development*
		Proportion of female/indigenous/youth farmers (or farmer groups focusing on female/indigenous/youth farmers) trained, including site visits. *Baseline: 0/0/0%* *Target: 50/12.5/25 (60 in case of IT subjects) % of farmers.*	*Composition of farmers/farmer groups trained*
		Proportion of topics that mainly concern female/indigenous/youth farmers are addressed in each event/product or set of events/products. *Baseline: 0/0/0%* *Target: 50/12.5/25% of topics in each event/product or set of events/products.*	*Composition of topics in event/product by target group*

[716] Product includes: Technical Working Group, CIS, CRA training, CRA services, reviews, studies, assessments, CIS platform and Regional/Provincial centers, IEC materials/products, agriculture input packages.

		Importance of gender/indigenous/youth mainstreaming in agro-meteorological data management and CRA is touched upon during each training. *Target: 10% of training time devoted to what kind of data management and agriculture could improve the lives of women/indigenous/youth and why it is beneficial to the rest of society.*	*Integration of mainstreaming as a topic into training*
- Higher parity in strategic decision making - Working with nature - Indigenous peoples as guardians of CRA	- Women as strategic decision makers - Cultural awareness among the indigenous peoples - Building on the strengths of women/indigenous peoples/youth	Proportion of female/indigenous/youth technicians/officials who participate in each event/product development. *Baseline: 0/0/0%* *Target: 50/12.5/25 (60 in case of IT subjects) % of participating technicians/officials*	*Composition of technicians/officials participating in event and product-development*
		Proportion of female/indigenous/youth technicians/officials trained. *Baseline: 0/0/0%* *Target: 50/12.5/25% of technicians.*	*Composition of technicians/officials trained*
- Working with nature - Indigenous peoples as guardians of CRA - Self-reliance as CC resilience	- Provision of ecosystem, health and livelihood services - Sharing the driver's seat with farmers - Women as strategic decision makers - Cultural awareness among the indigenous peoples - Building on the strengths of women/indigenous peoples/youth	Number of indigenous food production and weather and climate knowledge systems discussed/integrated in each event/product. *Baseline: 0* *Target: 1 per each indigenous group in target area and per event/product.*	*Integration of indigenous food production, weather/climate knowledge systems*
		Number of easily observable agrometeorological indicators, including indigenous peoples', discussed/integrated in each event/product. *Baseline: 0* *Target: 3 or more per each event/product.*	*Integration of on-the-ground weather/climate knowledge systems*
- Female farmers (and youth, Ips where applicable) as agents of change - Higher parity in strategic decision making	- Sharing the driver's seat with farmers - Women as strategic decision makers	Number of training session on basic functionalities and operation and maintenance (O&M) of agro-meteorological stations and CIS platform and CIS Regional and Provincial Centers. *Baseline: 0* *Target: 1 for basic functionalities and 1 for O&M per CRA/CRA enterprise development training.*	*Integration of training on agromet stations and CIS platform/regional and provincial centres for farmers*
- Female farmers as agents of change - Higher parity in strategic decision making	- Sharing the driver's seat with farmers - Women as strategic decision makers	Number of awareness raising session of community gatekeepers included in CRA training, FFS/CRA demonstrations, encompassing prevention of SEAH and GBV. *Baseline: 0* *Target: 2 per CRA training and CRA enterprise development learning.*	*Integration of sensitization of community gatekeepers*

	- Building on the strengths of women/indigenous peoples/youth		
- Female farmers as agents of change - Higher parity in strategic decision making - Working with nature - Indigenous peoples as guardians of CRA - Self-reliance as CC resilience	- Provision of ecosystem, health and livelihood services - Sharing the driver's seat with farmers - Women as strategic decision makers - Cultural awareness among the indigenous peoples - Building on the strengths of women/indigenous peoples/youth	Number of climate resilient subsistence and cash crops, both to be available throughout the year discussed/integrated in event/product. *Baseline: 0* *Target: 3 or more of each crop at barangay level.*	*Integration of climate resilient livelihood sustaining crops*
		Number of craft crops, medicinal plants and seed banking discussed/integrated in event/product. *Baseline: 0* *Target: 2 at province level.*	*Integration of women-oriented activities*
		Number of typhoon and cyclone-proof and low emission indigenous or traditional crops to be grown in the backyard and other small areas discussed/integrated in event/product. *Baseline: 0* *Target: 4 at province level.*	*Integration of climate resilient and low emission indigenous/traditional crops*
- Working with nature - Indigenous peoples as guardians of CRA - Self-reliance as CC resilience	- Provision of ecosystem, health and livelihood services - Sharing the driver's seat with farmers - Cultural awareness among the indigenous peoples	Number of indigenous agri-food production system, including watershed management, discussed/integrated as the base CRA in event/product for indigenous peoples and as an important reference for non-indigenous peoples. *Baseline: 0* *Target: 1 system per each indigenous group in target area per event/product.*	*Integration of watershed management for indigenous peoples*

2. GENDER ACTION PLAN[717]

Gender Action Plan of the project "Adapting Philippine Agriculture to Climate Change - APA"				
Project Expected Results	**Indicators and Targets**	**Timeline**	**Responsibility**	**Budget**
GCF Outcome level: Reduced emissions and increased resilience				
Core Indicator 2: Direct and indirect beneficiaries reached	Number of direct and indirect beneficiaries. **Direct**: Baseline: 0 Target: 250,000 farmers (125,000 women, 31,250 indigenous and 62,500 youths) **Indirect:** Baseline: 0 Target: 5 million (2.5 million women, 0.65 million indigenous and 1.25 million youths)	By end of Project Year 7	FAO (as Executing Entity), particularly National M&E Specialist	80% of total project budget
	Number of direct beneficiaries relative to total population. **Direct:** Baseline: 0% Target: 1.2% (0.63% women, 0.16% indigenous, 0.31% youth) **Indirect:** Baseline: 0% Target: 5% (2.5% women, 0.63% indigenous, 1.25% youth)	By end of Project Year 7	FAO (as Executing Entity), particularly National M&E Specialist	80% of total project budget
Core indicator 1: GHG emissions reduced, avoided or removed/sequestered	GHG emissions reduced, avoided or removed/sequestered Baseline: 0 Target: 1.86 MtC02	In 20 years	FAO (as Executing Entity), particularly National M&E Specialist	20% of total project budget

[717] The number of population in Cordillera Autonomous Region constituted 8.5% of the total population of target regions according to the latest available region-wise statistics (Section 4.1.2). About 99% of Cordillera inhabitants are said to be indigenous (Cariño, 2012). The proportion of indigenous peoples in Northern Mindanao is unknown. Since 10-15% of the total population is believed to be indigenous, the Plan aims for 12.5% of total beneficiaries to be indigenous. Given that 28% of total population is between the age of 10 and 24, 9.3 % aged 20-24 and 8.6% aged 25-29 (Section 4.1.2), the youth population (persons aged 15-30 as defined by the country) is estimated 25%.

Core indicator 4: Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice	Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice. Baseline: 0 Target: 250,000	By end of Project Year 7	FAO (as Executing Entity), particularly National M&E Specialist	
GCF Outcome level: Enabling environment				
Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate-resilient development pathways in a country-driven manner	Number of effective coordination mechanisms established and sustained by government/LGUs with budget and staff Baseline: 0 Target: All of coordination mechanisms established under the project consider female, indigenous and youth farmers as important topics in climate change adaptation.	By end of Project Year 7	FAO (as Executing Entity), particularly National M&E Specialist	Included in project budget
	CRA strategic planning adopted by DA and LGUs Baseline: 0. Target: All CRA Strategic Plans feature information on climate vulnerability, needs and perceptions of women, indigenous peoples and youth farmers.			
	CRA mainstreamed into national and LGU programmes Baseline: 0. Target: All CRA Strategic Plans feature information on climate vulnerability, needs and perceptions of women, indigenous peoples and youth farmers.			
	Support systems for CRA established and sustained by government Baseline: 0. Target: All CRA training programmes, services development and dissemination, IEC materials, mainstreamed policies and programmes and CRA supportive value chains and financial products are inclusive of and address the needs of women, indigenous peoples and youth farmers			
Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation	Number of males and females use localized CIS and adopt CRA technologies and practices Baseline: 0 Target: 205,000 (50% women, 12.5% indigenous persons and 25% youth)	By end of Project Year 7	FAO (as Executing Entity), particularly National M&E Specialist	Included in project budget

Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards	Number of males and females act upon receipt of localized CIS and CRA information Baseline: 0 Target: 500,000 (50% women, 12.5% indigenous persons and 25% youth National CRA Monitoring System established and sustained Baseline: 0 Target: 1 system established and start operational in project 5 target regions	By end of Project Year 7	FAO (as Executing Entity), particularly National M&E Specialist	Included in project budget

GAP Expected Outcomes, Activities and Targets													Cost	
Project activity	**GAP activity**	**Indicator**	**Baseline**	**Target**	**Y 1**	**Y 2**	**Y 3**	**Y 4**	**Y 5**	**Y 6**	**Y 7**	**Responsibility**	**Exclusively dedicated for GAP**	**Included in Project Activity**
Project Component 1: Institutional capacities for CRA services development **Expected gender outcomes**: Component 1 addresses gaps of DA, PAGASA and other institutions, and develops institutional capacities from national to municipality levels for the production, delivery, and utilization of localized CIS and CRA services and feedback systems. Gender activities aim to achieve the following outcomes: Women from diverse social-cultural background (including indigenous women) and women groups (including indigenous women groups) are empowered and capacitated to be part of the enhanced institutional capacities for CIS and CRA services (i.e. being TWG members at national and regional level, contributing to CIS Platform/Regional and Provincial CIS Centres, being Master Trainers and CRA enterprise development facilitators), able to contribute and to and benefit from improved CIS and CRA services, trainings, and Provincial CRA Strategic Planning that are gender inclusive, gender sensitive and gender responsive. This will ensure women's role within their project, while strengthening their capacities on climate change and climate-resilient agriculture, facilitating female entrepreneurship and leadership, improving women's rights and access to information and services, and leveraging gender equality advancements in the Philippines while addressing specific gender issues in the project regions.													
GAP Output 1.1: Women including indigenous women equal participation in capacity building for CIS and CRA services development														
PMC	Assign gender focal points in project coordination and implementation mechanisms	Number of project coordination mechanisms with an assigned gender focal point	0	At least 04 mechanisms (DA Project Management Unit (PMU), PAGASA PMU, Regional Project Implementation Unit (RCO) coordination meetings and Programme Steering Committee (PSC)								National Gender and IP Specialist, NPC, FAO TA, DA and PAGASA focal points	73,410	73,410
PMC	Invitation to Women Groups, including indigenous women groups and Women FOs/cooperatives to participate in the RCO-led project regional	Number of Regional project coordination mechanisms with participation of women's groups/women Fos	0	At least in 03 out of 5 target regions (60%)								National Gender and IP Specialist, NPC	73,410	73,410

	coordination mechanisms													
PMC	Training of trainers/facilitators on GESI	Number of PMU, RCO, DA, PAGASA and FAO TA staff trained on GESI to facilitate project gender interventions	0	At least 11 (01 each from DA, PAGASA and FAO, 01 each from 5 RCOs, NPC, M&E specialist, ESS Specialist)								National Gender and IP Specialist, National ESS Specialist, International ESS Consultant	25,200	25,200
PMC	Training of project personnel on SEAH and GBV and the FAO GRM to handle such incidents	Number of project personnel trained on SEAH, GBV and project GRM	0	At least 50 (5 PMU staff, 3 each from 5 RCOs, 2 each from DA, PAGASA PMU and FAO TA, 2 each from 9 provincial LGUs, 6 from Service Providers)								National Gender and IP Specialist, National ESS Specialist, International ESS Consultant	30,000	30,000
PMC	Ensure gender considerations in the review/update of selection criteria of project municipalities, farming HH beneficiaries and professional beneficiaries	Number of sets of selection criteria with due considerations of gender and IP issues	0	03 sets of selection criteria (for municipalities, farming HH, professional beneficiaries)								National Gender and IP Specialist, National ESS Specialist	73,410	73,410
PMC	Ensure that the TOR, design and development of questionnaire for baseline, mid and end-line surveys integrate inclusion, gender and IP considerations	Number of surveys that capture gender and IP issues and feedback to facilitate improved knowledge management, learning and adaptive project management "03 surveys (baseline, mid- and end-line surveys)"	0	03 surveys (baseline, mid and end-line surveys)								National Gender and IP Specialist, National ESS Specialist, International ESS Consultant	73,410	73,410
Cross-cutting	Mainstream GESI and integrate gender-sensitization into all training materials and trainings	Percentage of training materials and curricula reviewed by a gender specialist	0	100%								National Gender and IP Specialist	Included within activity budgets	-

1.1.1, 1.1.2, 1.2.2	Identify female professionals to be members of TWG (at national and regional levels), participate in trainings for CIS production and to be trained as CRA Master Trainers and CRA enterprise development facilitators	Number of female master trainers and CRA enterprise development facilitators, who participate in and benefit from capacity building on CIS, CRA and CRA enterprise development	0	a) 100 professional beneficiaries trained on CIS production, 50 female, at least 12 indigenous women b) 220 Master Trainers/CRA enterprise development facilitators (110 female)								National Gender and IP Specialist, NPC, technical staff and consultants	1,754,416	3,508,832
1.1.1, 1.1.2, 1.2.2	Ensure gender and IP considerations in the project capacity assessment tools (Institutional Capacity Index, Core knowledge and skills rating tools, Pre and Post training/workshop surveys, etc.)	Number of project developed capacity assessment tools with gender and IP considerations mainstreamed into the tools	0	At least 03 tools								National Gender and IP Specialist, NPC, technical staff and consultants, FAO staff	877,208	1,754,416
1.2.1	Conduct gender sensitization campaign in each province to valorize women's role in society and promote domestic labour division	Number of awareness raising campaigns on gender sensitization and the promotion of domestic labour division	0	9 (1 per province)								National Gender and IP Specialist, NPC Technical Staff and consultants, FAO staff		
1.2.1	Engage women and women groups including indigenous women in CVRA and preparation of CRA Strategic Plans, the selection of 100 target municipalities and farming HH beneficiaries	Number of provinces with women, women groups participation in CVRA and CRA strategic planning process	0	Participation of at least one women organization in each of the 9 provinces 22,500 beneficiary farmers are women (50% of 45,000 target farmer beneficiaries), including indigenous women and women								National Gender and IP Specialist, NPC, PMU technical staff and consultants, FAO staff, RCO	649,381	1,298,762
GAP Output 1.2: CIS and CRA services and CRA strategic planning are gender inclusive, gender responsive and gender transformative														

1.1.1, 1.1.2	Ensure that CIS products, CRA advisories are gender inclusive and gender responsive	Number of CIS/CRA products and advisories that have information/sections on gender and indigenous knowledge	0	At least 540 climate/agromet advisories (12 monthly advisories from Y3 onward/5 years for each of 9 provinces that will include information and sections on gender and indigenous knowledge)								National Gender and IP Specialist, PMU, RCO, DA, PAGASA, FAO staff	1,486,596	2,973,192
1.2.1	Incorporate gender and IP issues in CVRA and CRA Strategic Planning	Number of CRA Strategic Plans with a section on gender and IP	0	9 Provincial CRA Strategic Plans								National Gender and IP Specialist, PMU, FAO staff, DA and LGUs	162,345	324,690
1.2.2	Ensure gender inclusive and gender transformative and responsive CRA training materials	Number of CRA training packages that incorporate gender and IP issues	0	a) 01 CRA Training of Trainer/Facilitator package b) 01 CRA training package for extension workers, facilitators c) At least 07 specific training modules for prioritized CRA options								National Gender and IP Specialist, PMU, DA, ATI, FAO staff, Service Provider(s)	267,820	535,640
Project Component 2: CRA Enterprise Development **Expected gender outcomes**: Component 2 aims to strengthen capacities of farmers to develop CRA enterprises and adopt economically viable and financially sustainable CRA practices to enhance resilience of their households and communities. The expected gender outcome of the Component is increased climate resilience of women, especially indigenous women and women-headed households through 1) gender inclusive, gender sensitive and gender responsive CRA enterprise plans and investments; 2) women and girl -led CRA enterprise development; and 3) targeting poor and vulnerable women and women-headed HH in CRA investment planning for special groups, leveraging social protection.													
GAP Output 2.1: Gender inclusive, gender sensitive and gender responsive CRA enterprise development training, CRA enterprise plans and investments														
2.1.1	Ensure that CRA enterprise development training materials and learning programme are gender inclusive, responsive and gender-transformative	Number of CRA training packages that incorporate gender and IP issues	0	01 CRA enterprise development training package and Farmer Group Learning Score (linked to GAP Output 1.1 activity for Project activities 1.1.1, 1.1.2, 1.2.2, 1.2.3 above)								National Gender and IP Specialist, PMU, FAO staff, DA, ATI, RCO, LGUs, Service Provider(s)	1,393,958	1,393,958
2.1.1	Strengthen outreach to women, including women from indigenous	Number of women including indigenous women and young women complete CRA enterprise	0	22,500 (50% of target 45,000 farmer beneficiaries, approx. 2,800 indigenous women)								National Gender and IP Specialist, PMU, DA, PAGASA and FAO staff, Mass	2,787,915	2,787,915

	nationalities and marginalized groups	development learning year									media, Service Provider(s)		
2.1.1	Promote gender sensitive and gender responsive CRA options selection, testing and demonstration	Number of farmer learning groups select and test/demonstrate CRA options that address gender related drivers of climate vulnerability	0	a) 750 (50% of 1500 farmer learning groups) b) Gender-focused review of the selected CRA options to follow up and assess if there are any unintended impacts on women (e.g. related to time poverty, etc.)							National Gender and IP Specialist, PMU, FAO staff, DA, LGUs	2,787,915	2,787,915
GAP Output 2.2: Women led CRA enterprise development													
2.1.2	Target women/women-led FO capacity building for CRA enterprise development	Number of specific trainings for women including indigenous women and women-led CRA learning groups	0	At least 10 trainings on leadership, rights (to information, land and other resources), use of CIS/CRA services, business development, group marketing, group finance management								50,000	394,956
2.1.2	Promote and provide special support for women-led FO/AMIA villages in preparing CRA investment plans and mobilization of resources	Number of women-led CRA enterprises (FO/AMIA villages) "Women-led" is defined as either women only farmer groups/cooperatives or mix men-women cooperatives, FO/AMIA Village with women holding board and management positions.	0	150 FO/AMIA villages (30% of target 500) Targeting 30% is ambitious yet realistic because 1) women account for over 50% of cooperative membership and over 50% of the clientele in the Philippines. While women occupy way less than 50% of the co-operative board and management positions, women only co-operatives have produced visionary leaders and successful businesses. The Philippine Plan for Gender-Responsive							National Gender and IP Specialist, NPC and technical staff/consultants, FAO staff and TA team	118,487	394,956

				Development (1995-2025) mandated the implementation of gender and development in public and private sector, in accord with the provision of human rights guaranteed by the Constitution. The Cooperative Development Authority mandates all the registered cooperatives to mainstream gender and development.										
2.1.2	Target poor women including indigenous women and women-headed HH - beneficiaries of social protection - in preparing CRA investment plans for special groups	Number of poor and vulnerable women, beneficiaries of social protection programmes, supported to leverage social protection to prepare CRA investments	0	6,750 (50% of the estimated 13,500 poor among the 45,000 target farmer beneficiaries)								National Gender and IP Specialist, International social protection expert, other PMU technical staff/consultants, DA, DSWD, and FAO staff	157, 982	526,608
2.1.3	Facilitate women group loan application and women saving groups	Number of women-led FO/AMIA Villages that apply for group loan and able to manage group finance	0	75 (50% of women-led FO/AMIA Villages)								National Gender and IP Specialist, NPC, LGUs, ACPC, DA, FAO and DSWD	2,820,490	11,281,960
Component 3: Enabling Environment for Mainstreaming CRA **Expected gender outcome:** Component 3 aims to raise awareness for CRA adoption at scale, beyond the project target municipalities/provinces/regions, which is supported by strengthened capacities of Government agencies and LGUs to mainstream CRA into national and local policies and programmes and monitor CRA implementation, of the private sector to use CIS/CRA services to support CRA value chains and of the banks and financial institutions to strengthen and/or develop climate responsive/CRA supportive financial products. The expected gender outcome is 'Women from diverse social-cultural background (including indigenous women) are capacitated to contribute to and benefit from gender inclusive and gender sensitive CRA IEC materials and campaigns, national and local policies and programmes that have mainstreamed CRA, as well as CRA value chains and supportive financial products that improve women's access to finance and enable sustainable CRA adoption at scale in the Philippines'.														
GAP Output 3.1: Gender inclusive and gender sensitive CRA IEC materials and campaigns and national and local policies and programmes that have mainstreamed CRA														

3.1.1 and 3.1.3	Strengthen outreach to women including indigenous women, girls and women organizations to reflect their knowledge and needs on CIS and CRA	Number of women organizations invited/participate in the development of IEC materials, CRA campaigns and National CRA Monitoring System	0	Approximately 20 women's organizations (At least one women's organization for each of 05 CRA IEC products, 15 campaigns (1 national, 5 regional and 9 provincial) and the design/implementation of National CRA Monitoring System)								National Gender and IP Specialist, PMU, FAO staff, RCO, LGUs	1,763,050	3,526,100
3.1.1	Ensure that CRA IEC materials and dissemination channels are gender inclusive and gender sensitive	Number of women, including women farmers, report that they a) act upon CIS and CRA information received and/or b) adopt CRA	0	a) 250,000 women, 31,250 indigenous (12.5%) and 62,500 youths (25%) (50% of project target of 500,000 people reporting that they take some actions as the result of CRA awareness raising) b)103,000 women, 12.875 indigenous, 27,750 youth (50% of project target 205,000 farmers adopt CRA as a result of project CRA awareness raising and peer learning)								National Gender and IP Specialist, PMU, DA, PAGASA and FAO staff, Mass media, Service Provider(s), RCO, LGUs, NGOs	248,485	496,970
3.1.2	Ensure that mainstreaming of CRA into national and local policies and programmes consider gender and IP	Number of a) national and b) sub-national policies and programmes that have mainstreamed CRA and included gender considerations	0	a) 3 national policies/programmes (60% of target 5 national policies/programmes) b) 3 provincial and 30 municipality policies/programmes (50% of target 6 and 60 respectively)								National Gender and IP Specialist, PMU, DA, DENRA, LGUs	1,029,610	2,059,220
GAP Output 3.2: Gender inclusive and gender responsive CRA supportive value chains and financial products														
3.2.1	Engage and capacitate women from the private sectors	Number of female staff from the private sectors participate in project training/workshop	0	At least 50% of each event's total number of participants[718]								National Gender and IP Specialist, NPC, FAO staff, DA staff, RCO	131,004	436,680

[718] Approximately 44% of micro-, small- and medium-enterprises in the agriculture sector in the Philippines are women. Asia Pacific Foundation of Canada. 2018. 2018 Survey of Entrepreneurs and MSMEs in the Philippines. Available online: https://apfcanada-msme.ca/sites/default/files/2018-10/2018%20Survey%20of%20Entrepreneurs%20and%20MSMEs%20in%20the%20Philippines_0.pdf

		and CIS Platform events												
3.2.2	Make improved and/or new financial products gender inclusive and responsive to the needs of women and women groups	Number of improved and/or new financial products with 1) gender analysis, 2) awareness raising, engagement of and specific support to women and women groups/women-led FO/AMIA Villages and 3) gender sensitive feedback mechanism	0	At least 01 financial product								National Gender and IP Specialist, NPC, FAO staff, DA staff and ACPC staff, RCO		
		Number of Decision Support Tools for banks/financial institutions in designing and screening CRA loan that have a gender marker	0	At least 01 Decision Support Tools									190,840	381,680