

The Global Goal for Adaptation under the Paris Agreement: Putting ideas into action



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Foreword

The comprehensive scope of the Paris Agreement, which includes not only mitigation, but also specific provisions on adaptation and support - particularly finance - provides a renewed sense of hope for African countries. The international community should be commended for pursuing the goal to limit global average temperature rise to less than 1.5°C above pre-industrial levels, since increases beyond this level are unfathomable for economies and communities in Africa, and many other developing countries, that depend on natural resources.

The establishment of the Global Goal on Adaptation as well as the associated adaptation provisions in the Paris Agreement are significant steps taken by the international community towards achieving material parity between mitigation and adaptation. However, it requires a significant amount of technical work and political will to achieve such parity, and the work presented in this paper helps us forge the way ahead.

It is inconceivable that global climate action can be considered effective and fair if it fails to address the concerns of vulnerable people in the developing world. The structure of the Paris Agreement provides an excellent opportunity for putting the Global Goal on Adaptation idea into action, as it provides for the assessment of collective progress by individual country contributions to agreed goals, with the latter explicitly linked to the temperature goal.

It is time to act!

Ambassador Hussein Seyni Nafo
Climate Change Envoy, Republic of Mali
Chair of the African Group of Negotiators

Acronyms

AGN	African Group of Negotiators
a-(I)NDC	Adaptation component of (Intended) Nationally Determined Contribution
APA	Ad hoc Working Group on the Paris Agreement
AR5	Fifth Assessment Report of the Intergovernmental Panel on Climate Change
BR	Biennial Report
BUR	Biennial Update Report
CAF	Cancun Adaptation Framework
COP	Conference of the Parties (to the UNFCCC)
GGA	Global Goal for Adaptation
GHG	Greenhouse gas
IAR	International Assessment and Review
ICA	International Consultation and Analysis
(I)NDC	(Intended) Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
LDCs	Least Developed Countries
LEG	Least Developed Countries Expert Group
M&E	Monitoring and evaluation
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

Executive summary

The African Group of Negotiators (AGN) has proposed a Global Goal for Adaptation (GGA) to rally developing countries and, at the same time, bring in some of their concerns as a means of enriching the original proposal. This goal, as further elaborated by the Group, not only serves the purpose of having a target to work towards, but also forms part of a complete adaptation regime under the Paris Agreement, with the aim to ensure an adequate adaptation response in light of inadequate mitigation ambition. The narrative identifies a need for setting the required effort (i.e. a benchmark need), the communication of ex-post and ex-ante information for both action and support, and a review mechanism to assess progress and gaps.

The Paris Agreement addresses various aspects of the adaptation goal in nine of its Articles and articulates/defines the GGA. However, the elements of the GGA are reflected in several Articles and, as such, greater effort is required to achieve coherence in the operationalisation of the Agreement. The key elements are in place, since the Paris Agreement not only recognises the link between mitigation and adaptation, but also, in defining the goal, calls for adequacy in action and support for adaptation. This however requires further technical work in order to understand how progress towards such an adequate response can be tracked.

Closely linked to the ability to track climate action, the Paris Agreement makes provision for all countries to communicate their priorities, implementation and support needs, plans and actions primarily through an adaptation component of their Nationally Determined Contributions (a-NDC), with flexibility provided for Parties with limited capacities to use other communication vehicles. While the Paris Agreement provides advice for some key elements of the information that Parties should communicate in their a-NDCs, there is limited guidance on the associated rules to ensure the information can be aggregated to make a meaningful assessment of progress. This limitation was quite evident in the United Nations Framework Convention on Climate Change (UNFCCC) secretariat synthesis report of the adaptation component. As such, the 22nd Conference of the Parties (COP 22) in Marrakech needs to make progress on providing further guidance on the a-NDCs, including agreeing the minimum information requirements.

The pivotal nature of defining such minimum information lies in the fact that the modalities, procedures and guidelines for the transparency framework for assessing performance on a previous cycle is largely dependent on the consistency of information contained in the NDCs. It also depends on information reported on implementation through the appropriate reporting tools, such as Biennial Reports, Biennial Update Reports and other National Communications. Setting a minimum for information is particularly important for developed countries' obligations for biennial communication on indicative provision of support for an upcoming cycle, which can build on the methodological guidance developed by the Standing Committee on Finance and adopted by Parties at COP 21 in Paris.

The Paris Agreement further defines a comprehensive review mechanism as part of the 'global stocktake'. This provides for a review of overall progress towards the GGA, while also reviewing the adequacy of support provided for adaptation and the enhanced implementation of adaptation action. The stocktake also has provision for recognising the adaptation efforts of developing countries as part of their contribution to the required global effort to address climate change, which is particularly important for African countries with low mitigation potential.

However, a significant amount of elaboration is needed to fully operationalise the adaptation provisions of the Paris Agreement, including achievement of the GGA. Some of these elaborations are technical in nature and can be addressed by intergovernmental science bodies such as the Intergovernmental Panel on Climate Change (IPCC) and specialised bodies established under the UNFCCC. However, others are political in nature and the Ad hoc Working Group on the Paris Agreement (APA) needs a standing agenda item to address the coherence of the operationalisation of adaptation provisions by providing further guidance to those bodies in undertaking their work.

1. Introduction

The Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC)¹ recognises sub-Saharan Africa as the African region most vulnerable to drought and the impacts of climate change. The report predicts that annual precipitation is likely to decrease in south-western parts of South Africa, while projected rainfall change over sub-Saharan Africa is uncertain. Conversely, regions of complex topography, such as the Ethiopian Highlands, are likely to experience an increase in rainfall, particularly extreme rainfall events, by the end of the 21st century. In addition, with no further mitigation action, average global temperatures could reach as much as 4.8°C above pre-industrial levels by 2100.

At a global level, warming of this magnitude will bring unprecedented climate variability and extremes, which would permanently alter both marine and terrestrial ecosystems and cause sea level to rise by as much as 100 cm¹. For Africa, a +4°C world could translate into an increased average temperature of as much as 6°C in some areas. Climate impacts on agriculture, lives and livelihoods will already be significant with a 2°C global average warming (or up to 3°C on the continent), so an increase of 4°C would magnify these impacts to intolerable levels in many regions of the continent².

Climate change is likely to increase the frequency and magnitude of many extreme weather events and will certainly increase the risk of slow-onset events like sea level rise or desertification³. Africa's vulnerability to climate change and climate variability is exacerbated by multiple stresses and low adaptive capacity⁴. Low adaptive capacity is attributed to developmental challenges, which include endemic poverty; complex governmental and institutional aspects; limited access to capital, markets, infrastructure and technology; ecosystem degradation; and complex disasters and conflicts. Africa therefore potentially faces mutually reinforcing challenges associated with a changing climate and these threaten development prospects and lead to a reduced ability to respond to a more variable and changing climate. This is despite Africa being responsible for just 3.3% of global CO₂ emissions (excluding land use change and forestry), as of 2012⁵. The costs of adaptation will thus continue to rise.

While mitigation action could limit the costs of adaptation significantly and reduce the negative impacts on sustainable development, without swift and concerted mitigation effort, adaptation needs and costs will continue to swell and the adaptation gap – the gulf between current funding for adaptation and what is needed to reduce rapidly rising climate change damage – will continue to widen. This concept is behind the African call for a global climate governance regime that delivers material parity between mitigation and adaptation. It is informed by the consideration that a global climate response could threaten the ability of African countries to industrialise, based on the mitigation regime. On the other hand, global inaction poses the threat of eroding development gains made in the past decades.



While there are established provisions to address adaptation under the United Nations Framework Convention on Climate Change (UNFCCC, also referred to as 'the Convention'), their implementation in the first 20 years of the UNFCCC have been rather patchy, opportunistic and philanthropic in nature, rather than being delivered as obligations, as envisaged under the Convention. The progress made under the UNFCCC, particularly the agreed outcome under the Bali Action Plan, has primarily been limited to institutional aspects of delivering on adaptation. The Adaptation Committee, for instance, focuses on normative guidance to the international collective response, whereas the Cancun Adaptation

Framework (CAF) provides guidance to national actions, with no explicit provision for international responsibility in the implementation of the UNFCCC provisions.

In pursuing the material parity of adaptation and mitigation, the African Group of Negotiators (AGN) made a proposal for the Paris Agreement to reflect a Global Goal for Adaptation (GGA), which encompassed some key considerations. These included a reflection of the links between mitigation effort, temperature increase and adaptation needs, as well as considering adaptation as a global responsibility rather than a sovereign burden resulting from a global commons problem. The goal further provided for adaptation planning, the communication of adaptation needs by developing countries, support by developed countries, recognition of adaptation efforts by developing countries and a multilateral process for assessing the delivery of commitments and their adequacy.

The objective of this paper is to reflect on how the GGA elements envisaged by the AGN are captured in the Paris Agreement, as well as how these elements can be further elaborated to fulfil the objective of the GGA, as outlined in the Paris Agreement. In the context of this paper, giving effect to the goal in Article 7.1 constitutes its operationalisation. In addressing these objectives, the paper reflects on the UNFCCC provisions on adaptation, and briefly reviews elements of the AGN proposal. This is followed by a generic and brief outline of adaptation provisions in the Paris Agreement, and how they relate to and address the elements of the AGN GGA proposal. The main body of the paper covers how these provisions relate to various aspects of the Paris Agreement and the further work required for its operationalisation, including the processes needed to achieve implementation.

2. Adaptation provisions in the UNFCCC

The UNFCCC, as the name suggests, is a framework convention and, as such, presents its objective and how to achieve it through multilateral processes. However, it does not provide sufficient detail for clear implementation. This is evident in how the Kyoto Protocol further elaborated Article 4.2 (b) of the Convention on further emission reduction commitments by developed countries. The negotiations under the UNFCCC have therefore focused on providing further detail to implement its provisions. In order to have an understanding of the adaptation-related proposals of the AGN in the Paris Agreement, it is necessary to understand the provisions of the Convention in relation to adaptation and to understand the perspective of the AGN regarding how these could be operationalised. The most important provision by far is embedded in Article 2 of the Convention, which reads:

“The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.”⁶

While the first part of the Convention’s objective predominantly addresses mitigation, the second part explicitly addresses adaptation, thereby highlighting the need to ensure food production and sustainable development are not threatened. It can be argued that adaptation imperatives are the primary objective of the Convention, since the poorly defined concept of ‘dangerous anthropogenic interference’ can be understood only in the context of climate impacts driven by changing temperatures due to greenhouse gas (GHG) concentrations. Therefore, if changes in the climate system do not negatively impact people and ecosystems, there may be no rationale for mitigating GHG concentrations. The Cancun Conference at the 16th Conference of the Parties (COP 16) made progress in improving the granularity of understanding of what constitutes dangerous anthropogenic interference through the decision to keep temperature increases to less than 2°C above pre-industrial levels by the end of the century, with provisions for further refining that temperature goal every seven years.

On the basis of this progress, the AGN was of the view that the Paris Agreement should provide the next step for operationalising the adaptation component of the temperature goal, particularly since the agreement being negotiated during COP 21 in Paris was to be under the Convention and aimed to enhance its implementation. To achieve this high-level objective, the UNFCCC provides for specific commitments by Parties in respect of adaptation, such as Article 4.1, which reads:

“All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

(f) Take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health



and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change”⁶.

This is a general obligation applicable to all Parties in respect of undertaking adaptation to the impacts of climate change. The importance of this obligation pertains to outlining who should undertake what type of action under the Paris Agreement. It has been an unsubstantiated perception that only developing countries have this obligation, whereas it is applicable to all.

The Convention, in Article 4.4, further outlines a specific obligation for the countries that are included in Annex II to the Convention⁷ (Annex II countries), which reads:

“The developed country Parties and other developed Parties included in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects”⁶.

Article 4.5 further obliges Annex II Parties to take practicable steps to facilitate finance and the transfer of and access to technologies for developing countries to implement provisions of the Convention. The importance of these obligations again provides guidance on who should have what type of obligations under the Paris Agreement, beyond those that are applicable to all.

Other provisions in the Convention that pertain to adaptation are Article 4.1 (e) in respect of cooperative action on planning, which reads:

“All Parties [...] shall [c]ooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods;”⁶.

This is particularly important in the elaboration of planning provisions under the new Agreement to ensure that the obligatory nature of this provision is not limited to collective/global aspects of planning, but includes the actions of individual Parties.

Lastly, Articles 5 and 4.1 (g) of the Convention pertain to adaptation and science, research and systematic observation, with the latter reading:

“All Parties [...] shall [p]romote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;”⁶.

These Articles provide the basis for linking the necessary scientific work and assessment across mitigation and adaptation, since they relate to the temperature goal. It was therefore the view of the AGN that climate action under the Paris Agreement should be informed by science, reflecting the dynamism of the climate system and the effort required for adaptation as it relates to mitigation ambition.

The AGN position and proposal for adaptation in the Paris Agreement was therefore premised on the enhancement of implementing these provisions of the Convention, which are the

collective obligation of all Parties to take action on climate change adaptation, the obligation of Annex II Parties to provide means of implementation to developing countries in taking climate action, and cooperation in scientific research to understand climate impacts and the associated needs in light of plausible temperature scenarios. The position, including its rationale for the GGA, is presented in Section 3.

3. AGN position on adaptation

The AGN proposal on adaptation, particularly the GGA, is based on two submissions to the UNFCCC. The first was made in 2013 regarding the adaptation elements of the agreement as an input to a technical paper prepared by the secretariat pursuant to paragraph 36 (b)⁸. The second concerned the AGN vision of the 2015 Agreement. The first submission outlined specific aspects of the GGA as well as the associated processes and approaches to its operationalisation⁹. The second submission presented various aspects of adaptation in the overall agreement. These include the GGA and its relevance in a principle-based reference framework under aggregate commitments, the specific commitments on adaptation on the basis of common but differentiated responsibilities, the operational mechanisms under the Convention to support the implementation of adaptation provisions, accountability and compliance provisions pertaining to adaptation, and the review mechanism as it relates to adaptation¹⁰.

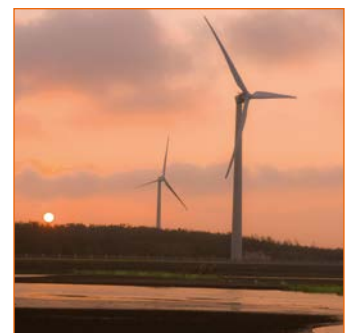
The AGN further prepared an internal working paper on the GGA in 2015. This took into account developments in the negotiations, such as the advent of Intended Nationally Determined Contributions (INDCs) during the 2013 and 2014 Warsaw and Lima Conferences of Parties (COP 19 and 20)¹¹. This section outlines the main points of the working paper, which include the rationale for the GGA as well as the elements that should be manifested in different Articles of the Paris Agreement.

3.1 Rationale for the GGA

The IPCC AR5 strengthened the assertion of the AGN in its rationale for having a GGA in the Agreement. The AR5 asserted that, even if high levels of mitigation were to be achieved, the impacts of climate change will still need adaptation measures and there will be unavoidable loss and damage, both of which come at a high cost. The AGN further noted the additional demand of adapting to climate impacts on the poverty burden, particularly since the economies of many developing countries are heavily reliant on natural resources, which are highly vulnerable to climate change. Citing the 2007 Stern Review¹², the AGN also addressed the negative impacts of climate change on economic growth, which render developing countries even more vulnerable to the future impacts of climate change, creating a vicious circle of underdevelopment.

The AGN asserted that implementing policies and plans to address the impacts of climate change has an opportunity cost since it diverts resources away from other pursuits like poverty eradication and sustainable development. Therefore, the AGN suggested that a GGA encompassing both quantitative and qualitative elements would help to attract more attention to the issue of adaptation and enhance the operationalisation of provisions and commitments related to adaptation under the UNFCCC. Such a goal would also galvanise political will and help to secure the necessary means of implementation to ensure the enactment of adaptation actions on the ground.

Reflecting on global progress made on adaptation, the AGN lamented the mitigation focus, with adaptation having been addressed to some degree in recent years despite a focus on institutional and mechanism development under the UNFCCC. Despite the absence of focus on adaptation, current mitigation efforts are not sufficiently adequate to avoid increased costs for adaptation. Noting the current levels of mitigation, the AGN highlighted the insufficiency of adaptation support provided to developing countries, citing the adaptation needs quoted



by the United Nations Environment Programme (UNEP) Gap Reports. These stated adaptation needs of the order of USD 35 billion by 2040 in a +2°C world and significantly higher for a +3.5–4°C world within the same time period¹³. The AGN therefore envisaged a GGA that would ensure adequacy in adaptation support for developing countries.

In rationalising how the GGA would be operationalised, the AGN outlined the importance of linking adaptation costs and needs with the impacts expected from actioned mitigation contributions and the level of support needed to adapt to those impacts. The AGN argued that global climate governance does not recognise that, even if the 2°C global temperature goal is achieved, there will still be significant adaptation needs and costs. The AGN also argued that the UNFCCC fails to acknowledge that adaptation is a significant burden on developing countries and that, despite this burden, these countries are already contributing to the global adaptation effort.

The AGN called for a longer-term vision for adaptation in the new agreement that provides a framework to address the limitations mentioned above, and provides the institutional architecture and support to meet the adaptation needs of developing countries. The following sub-sections articulate how the AGN envisaged a GGA that would enhance provisions for adaptation under the UNFCCC and, in doing so, close the adaptation gap.

3.2 Elements of the AGN GGA

The GGA proposal by the AGN comprises four main elements: planning, communication of adaptation costs and needs, recognition of adaptation efforts by developing countries, and tracking progress.

3.2.1 Adaptation planning under the new agreement

The first element, adaptation planning, is based on the premise that there is currently a lack of international collective processes regarding national responsibilities to achieve increased resilience. The existing institutional arrangements, mainly the Adaptation Committee and the CAF, provide normative guidance to the international collective response and guidance to national actions, with the only target towards taking such a response being Article 2 of the UNFCCC.

From an AGN point of view, it was therefore necessary to firstly define an international collective planning objective that codifies the overall target under the objective of the UNFCCC. Secondly, such an objective could build on the vision of the Least Developed Countries Expert Group (LEG) for supporting adaptation in Least Developed Countries (LDCs). At its 29th meeting in Timor-Leste, LEG adopted its overall vision for supporting adaptation towards 2020, one element of which is the vision for all LDCs to formulate a National Adaptation Plan (NAP) by 2018, and no later than 2020¹⁴. Building on this vision, and extending it to cover other developing countries, the international collective planning objective could be formulated as 80% of developing countries being supported to generate and implement their NAPs by 2020 or 2030, in accordance with agreed guidelines for the development of NAPs, and full coverage of implementation by 2030.



The AGN asserted that translating such an international collective objective on planning into national action requires building on the CAF, with the Adaptation Committee facilitating best practice sharing and identifying areas in which science can advance planning.

3.2.2 Communication of adaptation needs and assessment of adequacy of support

Following COP 20, held in Lima in 2014, the AGN narrative was that the decision provided space for Parties to periodically communicate their adaptation priorities and implementation and support needs, as well as their plans and actions, through the adaptation components of their Nationally Determined Contributions (NDCs). These should build on the information Parties generate from NAPs, National Communications, Technology Needs Assessments and the adaptation components of their INDCs (a-INDCs), which provide a sense of the future effort needed to build resilience. From the AGN perspective, the information provided upfront would therefore include, as a minimum:

- 1. Planning objectives** for adaptation in the context of national development priorities, outlining how resilience considerations are taken into account in national development planning and, where appropriate, into sectoral plans.
- 2. Adaptation needs of developing countries** based on/informed by temperature scenarios and outlining needs associated with the implementation of the plans for an upcoming commitment cycle, at national level of analysis, or with specific needs per sector as appropriate.
- 3. Adaptation support by developed countries** outlining support available for an upcoming commitment cycle, including information on sectors, geographies/regions targeted and the type of support offered in terms of grant/loan components. This is important from a transparency perspective.
- 4. Adaptation efforts by developing countries** for recognition as part of their contribution to the global effort. This information could provide details of actions in a preceding five-year period, outlining information on the types of programmes/projects undertaken and, where appropriate, a reflection of international support received.

These are necessary for addressing the collective aspects of adaptation needs and support, and the assessment of adequacy to be undertaken in the review mechanism of the Paris Agreement.

3.2.3 Recognition of adaptation efforts by developing countries

According to the UNFCCC and its Article 4, developed country Parties have the obligation to support developing countries in their efforts to take adaptation action, including through financial support, the development and transfer of technology and through capacity building⁶. This provision of support by developed countries has been recorded, albeit without clarity and transparency, in developed countries' National Communications and Biennial Assessments, as well as in overviews of climate finance flows prepared by the Standing Committee on Finance on a biannual basis.

However, African countries and other developing countries are also contributing to adaptation action from their domestic budgets and expenditures or through south–south cooperation, and this is not currently recognised as a contribution to the global effort on climate action. For instance, according to a report by the Overseas Development Institute, between 2008 and 2011, Ethiopia spent 14.5% and Uganda 0.9% of their national budgets on climate change activities. For Ethiopia, this was far greater than the support received^{15,16}. In actual figures, Ethiopia spent USD 440 million of its domestic expenditure on climate action, with 87% (USD 382.8 million) spent on adaptation activities. Uganda spent USD 25 million of its domestic expenditure on climate action, with 61% (USD 15.25 million) going to adaptation activities^{15,16}.

The AGN's GGA proposes recognition of these efforts by developing countries as their intended and inscribed NDCs to take climate action, should a country wish to communicate such information for recognition and/or assessment of adequacy of adaptation support – including transparent information on support provided – and as part of the global stocktake.

3.2.4 Tracking progress on implementing commitments for support of adaptation efforts

The GGA offers an approach against which adaptation support can be assessed for adequacy during each global stocktake (scheduled to take place every five years, commencing in 2023) and a review to assess performance against achieving the GGA. This is particularly important to ensure that adaptation support is consistent with adaptation needs, within the confines of mitigation efforts and temperature scenarios.

The first element assesses the adequacy of the means of implementation provided for and received by developing countries to meet their adaptation needs, as communicated in their a-NDCs that constitute the backward-looking elements of such an assessment. It also assesses the adequacy of support pledged by developed country Parties for developing countries to meet the global temperature goal and to be commensurate with mitigation ambition for an upcoming commitment cycle (forward-looking element).

The second element encompasses overall assessment of progress towards achieving the GGA and the objectives of the Paris Agreement, and the adequacy of the GGA in light of countries' mitigation efforts and associated scenarios for temperature increase. Such an assessment was proposed to have both technical and political components, i.e. it will include consultations with national decision-makers and scientists and will be informed by the latest scientific information, including recent findings of the IPCC. The output of the review could be captured in a report to the Subsidiary Body for Implementation (SBI), which would include recommendations for Parties and groups of Parties for enhancing their adaptation efforts in the subsequent cycle^{17,18,19}.

One of the key principles of the UNFCCC drawn upon by the GGA is that of equity. Equity in the adaptation discussion is based on the premise that poorer countries are less responsible for anthropogenic climate change and less well equipped to deal with the consequences. Equity therefore requires ensuring developing countries are provided with means of implementation according to their needs and capabilities to adapt to the impacts of climate change. To implement equity, the AGN has proposed establishment of a principle-based reference framework. This assesses the adequacy of Parties' contributions to the global adaptation effort in relation to mitigation action and the temperature goal²⁰.

The principle-based reference framework is based on a pre-defined and agreed understanding of what constitutes equity by determining an index of metrics reflecting different dimensions. The AGN has proposed the dimensions of historical responsibility, current capability and development needs of Parties²⁰. The latter includes recognition of developing and developed countries' adaptation efforts that count towards their contribution to the global effort, thus enabling an assessment of the overall fairness of the Paris Agreement in the efforts of Parties.

4. Adaptation provisions in the Paris Agreement

The Paris Agreement contains nine articles that have a direct bearing on post-2020 adaptation arrangements. This section briefly identifies them, bearing in mind the elements outlined in Section 3 (planning, communication of adaptation costs and needs and assessment of adequacy, recognition of adaptation efforts by developing countries, and tracking progress) and the related aspects in their operationalisation. Table 1 (overleaf) outlines the elements of the AGN GGA and the relevant provisions in the Paris Agreement.

Many developing countries have sought an agreement that takes the first step towards achieving material parity between mitigation and adaptation. This is particularly important because, in the past, adaptation has been dealt with on a philanthropic basis or as part of development assistance, despite the fact that the objective of the UNFCCC defines the need for GHG stabilisation in the context of adaptation. The Cancun Agreements, in operationalising the objective of the Convention and to limit temperature increases to well below 2°C above pre-industrial levels, were therefore seminal in that they provided a basis for operationalising and quantifying what would constitute dangerous anthropogenic interference.

To effectively codify and operationalise the adaptation provision, as set out in the objective of the UNFCCC and the purpose of the Paris Agreement, the key ask for developing countries is to ensure their adaptation needs are addressed through adequate means of implementation that will enable them to respond to the adverse effects of climate change. Article 7, the adaptation Article, provides the means for this in terms of: 1) identifying and communicating adaptation needs and priorities, implementation and support needs, plans and actions; 2) assurance of provision of financial resources to enable planning and implementation based on developing countries' needs; 3) assessment of adequacy and effectiveness of adaptation action and support; and 4) recognition of developing countries' adaptation efforts as part of their contribution to the global response to climate change. All of these actions should be part of the GGA.

4.1 Identifying and communicating adaptation needs and priorities

In accordance with Articles 3 and 7.10 of the Paris Agreement, all countries must submit adaptation communications, which may include priorities, implementation and support needs, as well as plans and actions. Article 7.9 further defines what adaptation planning could entail; namely the formulation and implementation of NAPs; the assessment of climate change impacts and vulnerabilities; monitoring and evaluation (M&E) and learning from adaptation plans, policies, programmes and actions; and/or building resilience in socioeconomic and environmental systems, including through economic diversification and sustainable management of natural resources. In this instance, Parties can draw from several national adaptation processes, such as NAPs, National Adaptation Programmes of Action (NAPAs), adaptation-technology needs assessments, or other national plans, policies and projects. While Article 3 provides the framework for using NDCs as the primary means for adaptation communication, Article 7.10 provides countries with flexibility, in light of their capacities and national circumstances, to use other vehicles such as NAPs, National Communications or other means.

In the same vein, the adaptation Article provides for the process of developing, communicating, assessing and updating adaptation communications, with further flexibility to use different vehicles for such communication.



Table 1. Elements of the AGN GGA and relevant provisions in the Paris Agreement

Category	Provisions in the Paris Agreement	Element of the GGA
Considerations/context in implementing adaptation provisions of the agreement	Article 7: The article further captures adaptation as a global responsibility, the linkage of adaptation with mitigation, as well as the recognition of adaptation efforts by developing countries in paragraphs 2, 3 and 4.	The reflection of an all-inclusive goal for adaptation and the explicit link with mitigation provides a basis for developing countries to express future needs in the context of mitigation ambition, as well the opportunity to outline their mitigation effort and adaptation investments in highlighting their ambition.
Assessment of adequacy and effectiveness of adaptation action and support; communicating adaptation needs and priorities	Article 2: Provides for the objective of the agreement being to enhance the implementation of the Convention by identifying a temperature goal and increasing the ability to adapt, whilst recognising the importance of finance pathways that are consistent with climate-resilient development.	The GGA calls for adaptation needs to be linked with the temperature goal, as well as ensuring that the adaptation needs communicated by developing countries in their a-NDC receive adequate support through finance pathways that are consistent with climate-resilient development.
Identifying and communicating adaptation needs and priorities	Article 3: Provides for Parties to communicate actions in relation to adaptation, finance, technology and capacity building as NDCs, as such setting adaptation and its financing at the centre of undertakings for Parties, with provisions for ambition to achieve the purpose in Article 2 of the Agreement.	The GGA calls for the communication of adaptation needs by developing countries and support from developed countries for upcoming commitment cycles. Further details of this aspect are contained in Article 7 on adaptation and Article 9 on adaptation.
	Article 7: Paragraph 9 provides for all Parties to engage in adaptation planning to include the implementation of their adaptation undertakings/ NDCs/adaptation communications; the formulation of adaptation plans; assessment of impacts and vulnerability; monitoring and evaluation of plans, policies and programmes; and building resilience. The Agreement provides further clarity beyond Article 3 on adaptation communications that are primarily communicated through the NDC, with flexibility for the use of other vehicles. Such undertakings have a scope that includes priorities, implementation and support needs, plans and actions, with such communications contained in a public registry in paragraphs 10 and 11.	The paragraphs operationalise the planning aspects of the GGA, while providing for the sharing of best practice and highlighting the nationally determined nature of such action, as per paragraph 5 of the same Article.

<p>Adaptation support regime</p>	<p>Article 6: Provides for the share of proceeds from the mechanism on internationally transferred mitigation outcomes to assist countries that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation in paragraph 6.</p>	<p>While the GGA did not explicitly pronounce on the sources of adaptation support for developing countries, the provision does contribute to the objective of adequate support for adaptation being made available to developing countries.</p>
	<p>Article 7: In paragraph 6, the article 'recognises' the importance of adaptation support in the context of the adaptation needs of developing countries, which when read with paragraph 13 reaffirms the obligation that developed countries shall 'provide support, ex ante information as per Article 9.4 and 9.5, to developing countries, which includes the planning and implementation of adaptation actions in paragraph 9 of the Article. Article 9.3 further provides that adaptation finance should address the needs and priorities of developing countries.</p>	<p>These provisions address the GGA element of differentiated responsibilities in terms of adaptation, where developed countries provide support to developing countries for them to fulfil their adaptation obligations, as well as the 'matching of needs with support'.</p> <p>The Article brings about a definition of the adaptation commitments for all Parties which are communicated ex ante, with a specific piece of information required from developing countries beyond adaptation planning to include their adaptation needs.</p>
	<p>Article 9: In paragraph 1, the Agreement reaffirms the obligation of developed countries to provide financial resources to developing countries, with paragraph 4 emphasising the balance between adaptation and mitigation, with an emphasis on the need for public and grant-based resources for adaptation.</p> <p>In paragraph 9.5, the Article provides for an obligatory biennial communication of indicative quantitative and qualitative ex ante information on public finance available to developing countries in the context of Article 9.1. It provides for such biennial communications to include 'mobilised finance', as per paragraph 3 of the same Article.</p>	<p>The Article supports the AGN position for adaptation support to be primarily from public and grant-based sources, while working towards a balance between mitigation and adaptation finance.</p> <p>The Article supports the call for ex-ante information on adaptation support, even though the information to be provided is yet to be defined.</p>

Table 1. Elements of the AGN GGA and relevant provisions in the Paris Agreement (continued)

Category	Provisions in the Paris Agreement	Element of the GGA
Adaptation support regime (continued)	<p>Article 10: Paragraph 2 recognises the importance of technology for the implementation of adaptation and mitigation actions, thereby achieving a balance between adaptation and mitigation support (paragraph 5), and Parties shall strengthen cooperative action on technology development and transfer.</p> <p>Paragraph 6 provides for the global stocktake to take into account available information on efforts related to support on technology development and transfer for developing country Parties</p>	<p>As part of the global stocktake, the information communicated by Parties in their NDCs relating to technology needs and priorities for adaptation will be assessed for adequacy of provision and in light of the GGA.</p> <p>An important outcome of the global stocktake is to inform Parties how to update and enhance their actions and support, as well as enhancing international cooperation for climate action. This, together with the technology article, can be read as identifying immediate technology needs from a-NDCs and other processes like the technical examination process on adaptation.</p>
Adaptation support regime; assessment of adequacy and effectiveness of adaptation action and support	<p>Article 11: in paragraphs 1 and 2, developed countries are required to provide support to developing countries to enhance their capacity and ability to take effective climate action, including the implementation of adaptation actions.</p> <p>Paragraph 2 further stipulates that capacity building should be country-driven and based on and responsive to national needs. Paragraph 4 provides for all countries to regularly communicate actions or measures on capacity building, and developing countries should regularly communicate progress made on implementing capacity building plans, policies, actions or measures to implement the Agreement.</p>	<p>The provisions respond to the GGA elements of adaptation planning and communication of needs and priorities pertaining to capacity building to take adaptation action that Parties can undertake in their a-NDCs. At the global stocktake, the adequacy of such provisions for capacity building for adaptation can be assessed with a view to providing recommendations to the Paris Committee on Capacity Building on developing national programmes and projects.</p>
Adaptation support regime; assessment of adequacy and effectiveness of adaptation action and support	<p>Article 9: Developed countries are expected to provide transparent information on assistance provided and mobilised to support developing countries in paragraph 7; whereas paragraph 6 provides for the stocktake of climate finance information.</p>	<p>The AGN in its GGA working paper called for specific information to achieve transparency and assess the adequacy of support for specific sectors and geographies for adaptation action. The clear articulation of adaptation support is necessary for supporting Article 7 provisions in the stocktake in respect of adequacy.</p>
Assessment of adequacy and effectiveness of adaptation action and support	<p>Article 7: This is the main adaptation article in the Agreement, which establishes the GGA in paragraph 1, and explicitly provides for ensuring an 'adequate' adaptation response in the context of the adaptation goal.</p>	<p>This provision is consistent with the AGN GGA proposal, which sought to ensure that the adaptation response is consistent with the mitigation actions and resulting temperature increases, particularly in respect of provisions of finance for adaptation.</p>

	<p>Article 7, paragraph 14 makes provision for an ex-post assessment of progress towards the overall achievement of the adaptation goal with a view to informing upcoming undertakings by Parties, which should be a progression from previous undertakings. The paragraph further outlines other adaptation considerations in the global stocktake, which include the recognition of developing country adaptation effort, as well as the review of the adequacy and effectiveness of adaptation action and support provided for adaptation.</p>	<p>The paragraph supports the GGA notion of periodically assessing adaptation needs and support on the basis of the mitigation/temperature benchmarks.</p>
	<p>Article 13: Paragraphs 5 and 6, in defining the purpose of the transparency framework, outline the benchmark against which adaptation actions and support in Article 7 should be based, which is Article 2 of the Agreement. The paragraphs further provide for the availability of clear information on support received and provided in order to understand the aggregate view and inform the global stocktake, with the latter having the objective of assessing progress towards achieving the purpose of the Agreement.</p>	<p>These provisions are consistent with the AGN adaptation position as well as with how to operationalise the GGA, in that the information provided must be aggregated with a view to assess adequacy in relation to the adaptation needs of developing countries.</p>
	<p>Article 14: Provides for a periodic assessment of implementation in respect of the progress being made towards achieving the purpose of the agreement. It is of critical importance that the inputs are as per information provided from the specific Article of the Agreement, with the benchmark being Article 2. Paragraph 1 indicates that the assessment of collective progress will be undertaken in light of science and equity, which still has to be elaborated as part of the modalities of the global stocktake.</p>	<p>This article supports the intent of the GGA in terms of assessment of the adequacy of adaptation action and support. Adequacy of action is understood as the adaptation action that is consistent with the temperature goal, while adaptation support should be adequate for the required effort. In this regard, recognition of the adaptation efforts of developing countries is consistent with the principle-based reference framework, which asserts that adaptation investments by developing countries should count towards the assessment of their contribution to the global effort, rather than only their mitigation ambition.</p>
<p>Recognition of efforts</p>	<p>Articles 7.2 and 14 provide for the recognition of adaptation efforts by developing countries as part of the global stocktake. Article 9 encourages developing countries to provide support for adaptation and mitigation, such as through south–south cooperation.</p>	<p>One of the elements of the GGA is to recognise developing countries' adaptation efforts that will take place at the global stocktake. Recognition of adaptation efforts and provision of support (e.g. in the form of south–south cooperation) constitute important elements of the principle-based reference framework, which assesses the adequacy of Parties' contributions to the global adaptation effort in relation to mitigation action and the temperature goal.</p>

4.2 Adaptation support regime

Enablement of adaptation action requires adequate means of implementation, including finance, technology development and transfer, and capacity building. Article 7.13 assures the provision of continued and enhanced international support, with Article 9.3 further providing that climate finance should take into account the needs and priorities of developing countries and represent a progression beyond previous efforts. The Agreement further provides for a biennial ex-ante communication of indicative support available to developing countries, with an emphasis on public and grant-based finance for adaptation, which must be balanced with mitigation finance. This is a good starting point for further elaboration of the information that should be provided by developed countries in this respect, with scope for defining a less onerous manner of reporting such information by developing countries who choose to do so.

To ensure support is provided to developing countries, the Agreement includes provisions to assess the adequacy of the support that is provided at the global stocktake. The principle of progression means that Parties can only improve on previous targets, as contained in Article 9.3. It also provides space to adjust the global finance goal in light of the temperature goal and the related increased adaptation costs and needs based on science, particularly the long-term periodic review of the global goal and the IPCC special report. In a similar manner, the Agreement provides space for technology and capacity building support for adaptation action to be provided to developing countries, with provision to assess the adequacy of the support provided and received against their needs, as identified at the global stocktake.

4.3 Assessment of adequacy and effectiveness of adaptation action and support

While developing countries sought an assessment of the adequacy of adaptation support, the outcome contains a compromise between the adequacy and effectiveness of adaptation action and that of support. This provision can be further differentiated in: 1) adequacy of adaptation action; and 2) adequacy of adaptation support; where both assessments take place during the global stocktake. Here, it is important to note that the collective efforts of Parties will be assessed, hence the need for aggregation.

With regards to the adequacy of adaptation action, Article 2 of the UNFCCC outlines the intrinsic relationship between adaptation and mitigation, which is further exemplified in Article 7.4. Given that dangerous anthropogenic interference is codified as the global temperature goal (limiting the increase to well below 2°C above pre-industrial levels), adequate adaptation action can be viewed as the global adaptation response associated with the global temperature goal. As such, the assessment of adequate adaptation action answers the question of whether or not the collective adaptation action taken by Parties is adequate in relation to the temperature goal, as set out in Article 2 of the Agreement. In this context it is important to agree upfront the information and guidelines Parties should communicate in their a-NDCs or as part of other communications to enable aggregation at the multilateral level, as well as multilaterally defined methodologies and approaches for aggregation.

With regards to adequacy of support, developing countries must engage in adaptation planning processes and the implementation of actions, and shall be provided with the necessary financial resources (Art. 7.9 and 9.3). They periodically submit and update their adaptation communications, including their priorities, needs, plans and actions, as well as their adaptation efforts for recognition (Art. 7.3 and 7.10). Developed countries, on



the other hand, must support developing countries in planning and implementing their adaptation actions. These include adaptation communications as well as other actions, such as strengthening institutional arrangements and scientific knowledge; sharing information, good practices and lessons learned; conducting impact and vulnerability assessments; or M&E, as set out in Article 7, paragraphs 6, 9, 10 and 13, and Article 9.3.

Assessing the adequacy of support can be undertaken using a hybrid approach, i.e. both bottom-up and top-down. The bottom-up approach determines the costs of addressing adaptation needs and priorities. It is based on multilaterally defined methodologies and rules for aggregating the information contained in the synthesis report of adaptation communications, the information provided through the transparency framework, and the costs provided and received – including voluntary support provided by developing countries and their domestic investments for recognition. In contrast, the top-down approach determines the adaptation support required based on the IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels. To ensure continued assessments, the IPCC special report should be published periodically, prior to the global stocktake, to serve as input to it.

Both approaches will serve as inputs to the global stocktake to provide a benchmark against which to assess the adequacy of the provision of support. Here, the global stocktake will include both forward-looking and backward-looking elements. Forward-looking elements include setting benchmarks for needs based on the synthesis and special IPCC reports for the upcoming NDC cycle, while backward-looking elements include assessment of the previous cycle.

4.4 Recognition of adaptation efforts

As part of the global stocktake and the assessment of adequate adaptation action and support, Parties must recognise developing countries' efforts as part of their contribution to the global response to climate change efforts. In developing the methodologies of recognition, a number of guidelines need to be considered. These include modalities for a-NDCs and the information contained in them pertaining to planning and implementation, as well as further guidance for Parties who use other vehicles of communication, including NAPs, NAPAs and National Communications.

In the first round of INDCs, Parties were invited to indicate why they considered their INDC to be ambitious and equitable. As mentioned earlier, many developing countries are already funding adaptation actions from their domestic expenditures, thus redirecting investments away from development resources. Therefore, recognition of those investments should form part of the rationale of ambition, since they constitute an investment in climate action.

4.5 The global stocktake

As outlined in the mitigation Article, the global stocktake will track progress made on adaptation in light of Article 2, with the aim to: 1) recognise the adaptation efforts of developing countries; 2) enhance the implementation of adaptation action, taking into account adaptation communication; 3) review the adequacy and effectiveness of adaptation action and support; and 4) review the overall progress made in achieving the GGA and identify further actions needed to address adaptation in light of the global temperature goal.

The outcome of the global stocktake is defined as to inform Parties' upcoming NDCs or adaptation communications, and provides a platform to enhance international cooperation. This is particularly important in identifying adaptation gaps and additional activities, together with the necessary resources, that differ from those contained in adaptation communications. The goal is to fill the gaps while avoiding double counting of support. A range of possible opportunities for support are contained in paragraph 7 of Article 7 on adaptation.

5. Operationalising the adaptation goal in the Paris Agreement

This section provides the modalities, procedures and proposals needed to operationalise the GGA, as part of preparing the Paris Agreement for implementation. In contrast with some proposals on the GGA, which focused on setting an aspirational target for adaptation without substantive implementation objectives, the AGN has proposed a broader GGA that includes elements and processes to ensure adaptation arrangements will create parity between mitigation and adaptation.

The adaptation goal reflected in Article 7.1 of the Paris Agreement is semi-quantitative in that it links the qualitative concept of an 'adequate adaptation response' with the quantitative aspect of a temperature goal in Article 2. This requires further work to ensure that the pursuit of an adequate adaptation response can be realised through processes related to Article 2 (b). Furthermore, the global stocktake needs to account for implementation towards achieving the GGA, therefore the two aspects are interlinked.

Lastly, regarding the two key dimensions of Article 7 (action and support), a considerable amount of work is needed to establish practice in relation to adaptation action. Support information should also be provided in a manner that is transparent and supportive of the intentions contained in the Agreement.

5.1 Adaptation goal and purpose

The central theme of the adaptation goal addresses the question of adequacy of action and support in relation to adaptation needs and plausible temperature scenarios based on mitigation ambition. For adequacy to be understood, it is important to have clear information on efforts, as well as clear benchmarks against which to assess them. Therefore, the operationalisation of the GGA in Article 7.1 requires further elaboration of the concepts of climate resilience, vulnerability to climate change and adaptive capacity in relation to the temperature goal. The adequacy of global efforts, however, cannot be understood in abstract, but should be placed in the context of investments being made to achieve resilience. Hence the second aspect of operationalising the GGA is to further elaborate the adequacy of the support component, which can be understood only on the basis of adaptation needs.

From an action perspective, the concept of adequate adaptation action is complex. This is due to the multi-sectoral nature of adaptation, which cannot be addressed through a single metric. It is therefore necessary to develop sector-specific technical guidelines and standards. At both the international and national levels, risk-based metrics covering populations, infrastructure and economy can be used for most sectors as a proxy on which effectiveness and adequacy of adaptation can be assessed. However, regarding the assessment of adequacy in relation to planning at a global level, metrics could be based on the presence of comprehensive national planning regimes and the implementation of such plans.

The quantitative tracking measure that links the GGA with Article 2 would therefore be a judgement based on information provided in a-NDCs. This would assess whether, on the basis of the risk-based metrics for different sectors, countries are coping with risks posed by the temperature goal in terms of the interventions implemented. It would also assess whether all countries have the plans and actions needed to implement the adaptation options available



to them; i.e. measure the comprehensiveness of planning. These are important metrics since they inform the global community on whether the temperature goal is ambitious enough, and assess the need for revision towards a 'safer' temperature goal. Figure 1 presents a framework for metrics that could be used to track implementation of the GGA.

The operationalisation of the GGA in relation to the purpose of the Paris Agreement, as defined in Article 2, requires technical work that can be undertaken by the IPCC to reflect sector-specific risk profiles and decisions on how targets for averting risk can be developed in each country. Temperature-linked risks can be expressed through a compendium of metrics for various sectors (including water, health, coastal and low-lying areas, agriculture and food security, natural systems and biodiversity), showing a global picture that can be used at national levels. Guidelines for the compilation of such metrics would assist in the aggregation process and aid understanding of how the world is progressing.

Assessing the adequacy of support is not as obvious as it sounds, primarily because developing countries have an obligation to act in Article 4.1 of the UNFCCC, which has financial implications. As such, it is not only about support provided by developed countries to developing countries. However, information on the economic impacts of climate change has been improving over the years. Such studies are important since they provide a basis on which to articulate the required global investments based on a defined temperature scenario, with a view to understanding the required benchmark investment. Such projections typically use top-down approaches, where climate and impact projections are used to estimate impact on economies. The complementary methods are more bottom-up, based on actual adaptation options selected by specific localities and then extrapolated to larger scales. Such methodologies have their strengths and weaknesses; while the former provide a more objective relationship with temperature, they are weak in terms of basing the costs on appropriate or selected adaptation options. The latter, although more representative of choices made with regard to adaptation, fail to reflect the temperature-related variations in the cost of adaptation.

Further work is required to synthesise the various studies and approaches to reflect the required adaptation investments in light of different temperature scenarios. The a-INDC communicates the adaptation needs of developing countries and, as such, provides the most authoritative and nationally determined benchmark for required adaptation support,

Figure 1. A framework for metrics to track implementation of the GGA



with the temperature impact studies complementing that understanding. A hybrid of these approaches would therefore provide a credible envelope of required investments that is consistent with different temperature scenarios. To operationalise this aspect, guidance to adaptation needs and costs should be provided to developing countries as part of further direction on NDCs. Such guidance would provide a suite of methodologies developed by the Adaptation Committee and the LEG. As a precursor, the secretariat should commission a study to establish the inventory of such methodologies. This could be done in conjunction with in-session workshops to obtain feedback from Parties on the approaches they use to estimate adaptation needs and costs.

In summary, technical work is needed to establish temperature-related benchmarks for action. The IPCC can play an instructive role here by setting benchmarks for climate resilience, as envisaged in Article 2 of the Paris Agreement. The supporting aspects could benefit from further guidance from the Ad hoc Working Group on the Paris Agreement (APA) to the Adaptation Committee and the secretariat to ensure the information emanating from a-NDCs can be aggregated.

5.2 Adaptation goal and INDCs

One of the most significant achievements made by developing countries was the Lima decision to work towards a balanced agreement and the inclusion of an “undertaking in adaptation planning or consider including an adaptation component in their INDCs” in paragraph 12 of the Lima Call for Climate Action²¹. This understanding is evident in the fact that 137 Parties (i.e. 83% of the submitted INDCs) included an adaptation component, a call heeded by all African countries²². Some developed countries communicated their undertakings in adaptation planning separately and not as an integral part of their INDCs. This decision was limited by the fact that no minimum information was defined for the preparation of the adaptation component of INDCs. The AGN therefore prepared its own guidelines on adaptation information that could be included in countries’ INDCs.

This shortcoming of no agreed guidelines was evident in the diversity of information provided by Parties and the secretariat’s difficulties in aggregating the information and preparing the synthesis report in 2015²². The further elaboration and guidance contained in the a-NDCs is important if information provided by Parties is to be used to assess progress towards achieving the GGA, as provided for in Articles 7 and 14 within the global stocktake. Going forward, minimum information for a-NDCs, which includes qualitative and quantitative indicative support by developed countries to developing countries, is indispensable. As such, the ability of the Paris Agreement to achieve the intended objectives of Articles 2 (c) and 14 (c) depend on the clarity of supporting information, as envisaged under Article 13.6 from the transparency framework.

The Paris Agreement provides guidance on further elaboration of the character of the a-NDCs in Article 7.10. This consists of the broad categories of information that should be contained in the a-NDCs. Such information includes priorities, plans and actions; implementation and support needs; and adaptation efforts for recognition, with the latter being provided for in Article 7.3. Furthermore, in the decision to give effect to the Paris Agreement, some actions are proposed in line with certain aspects of the broad categories. The Adaptation Committee (in paragraph 43) is requested to develop methodologies for assessing adaptation needs. This, however, falls short of providing the necessary guidance on the minimum information, including guidelines for reporting on adaptation needs.

The APA therefore has responsibility to resolve the character and minimum information for the a-NDCs (see Figure 2). Should it be necessary, further work can be mandated to various bodies under the UNFCCC, based on clear guidance.

The same applies for the definition of minimum information in respect of the indicative support in the biennial communications from developed countries. To benefit from existing templates, decision 9/CP.21 presents methodologies for reporting public financial information by Parties included in Annex I to the Convention in a tabular format. This provides a sound starting point and, with minor adjustments, it can serve the purpose of communicating ex-ante information of indicative support. The tabular format includes information on allocation channels, specificity to climate or in general, allocation to mitigation versus adaptation or cross-cutting, funding source, financial instrument and sectors, with amounts specified under each category of information. The decision to give effect to the Agreement, however, does not provide guidance on the actual information that should be communicated biennially by developed countries. Instead, it provides for the Subsidiary Body for Scientific and Technological Advice (SBSTA) to develop modalities to account for mobilised resources in paragraph 58. Hence, the APA should provide guidance in this respect, since failure to do so would result in this important provision of the Agreement not being implementable (note that Article 9.7 referred to in paragraph 58 is ex-post reporting).

In summary, by COP 22 in Marrakech, the APA should decide on a process for providing further guidance on the character and minimum information for a-NDCs, as well as minimum information for reporting indicative support and support provided to developing countries building on existing modalities.

5.3 Adaptation goal and support

An important element of the GGA is the provision of adequate support to meet developing countries' adaptation needs. The Paris Agreement provides for such an assessment to take place in several parts, including Articles 7.14 and 14. In meeting this aspect of the GGA, it is important to consider two elements: 1) assessing the adequacy of provision of support to developing countries against their needs; and 2) revising the finance goal to set a benchmark against the overall needs of developing countries (as set within the global finance goal).

Figure 2. Minimum information to be provided in the a-NDCs

Vulnerability and priorities	Plans and actions	Implementation and support needs	Recognition of adaptation efforts	Indicative adaptation support
<ul style="list-style-type: none"> Understanding of risk for sectors and the economy Prioritised sectors and options for climate adaptation response 	<ul style="list-style-type: none"> National and subnational level policy development/ implementation objectives Climate change adaptation options and programmes 	<ul style="list-style-type: none"> Planned climate change adaptation programmes and projects per sector and duration Support required for implementation of the programmes/ projects 	<ul style="list-style-type: none"> Adaptation investments made per sector for a previous period of implementing the a-NDC 	<ul style="list-style-type: none"> Indicative support per sector and region; channel of delivery Support provided in the previous implementation cycle

Regarding the assessment of adequacy of provision of support, the adaptation Article in paragraph 14 clearly provides for assessment of the adequacy of support received. In operationalising this provision, at least three processes feed into the global stocktake: 1) the communication of adaptation needs through a-NDCs and other vehicles, as provided for in Article 7.10, including all means of implementation; 2) the communication of support provided and received as per Articles 13.9 and 13.10; and 3) the indicative support to be communicated by developed countries in their biennial communications, as outlined in Section 5.1. This requires multilateral accounting rules for climate finance as well as a definition of climate finance to ensure consistency and to provide a basis for aggregation and assessment at the global stocktake. This also provides for modalities, procedures and guidelines for aggregating needs, and for the provision of support and receipt of support, as elaborated in Section 5.1.

The assessment therefore entails forward-looking and backward-looking elements. The backward-looking element considers the support (including all means of implementation) provided and received against the needs communicated by developing countries in their a-NDCs. The forward-looking element assesses whether the indicative support communicated by developed countries in their biennial communications meets the needs of developing countries, identifies the gaps, if any, and provides recommendations on how to fill them. Given that the indicative aspect of the support to be provided by developed countries is on a biennial basis, a synthesis report of the last two biennial communications that are provided in the five-year cycle can be produced by the secretariat to serve as an input to the global stocktake.

The second element is the adjustment of the global finance goal, which is provided for in Article 2.1 (c). In defining “making finance flows consistent with climate-resilient development”, it is important to recognise that adaptation needs and costs vary according to mitigation action (or inaction), and are thus dynamic in nature. This notion of dynamic provision of finance is further provided for in Articles 7.13 and 9.3. As part of the Cancun Agreements, developed country Parties committed to a goal of “mobilising jointly 100 billion USD per year by 2020 to address the needs of developing countries”²³. However, this figure fails to build on any scientific premise, and hence does not take into account the current adaptation needs of developing countries, nor those of the future based on mitigation and temperature scenarios. Paragraph 53 of Decision 1/CP.21 provides for setting a new finance goal from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries. To operationalise the second part of this decision, in formulating the new finance goal, a hybrid approach can be taken following both bottom-up and top-down approaches. The bottom-up approach would be to aggregate financial support needs, as communicated by Parties in their NDCs, covering both mitigation and adaptation. The top-down approach involves global assessments of the required adaptation finance, based on the temperature goal and the impacts of mitigation scenarios on adaptation needs. These could be informed by the special IPCC report, which, as aforementioned, would become a periodic report to be considered at the global stocktake, as well as other reports such as the UNEP Gap Reports on adaptation and finance²⁴.

5.4 Adaptation goal and transparency

The transparency framework under the UNFCCC has been an ex-post process, through which Parties have communicated the results of their implementation activities. The Paris Agreement is no exception to this; in fact, Article 13, paragraphs 3 and 4 recognise that the transparency framework shall build from the experiences of the current arrangements under



the Convention. The current transparency framework is built on the following key blocks: National Communications, Biennial Report (BR)/Biennial Update Report (BUR), Technical Expert Review, and International Assessment and Review (IAR)/International Consultation and Analysis (ICA). The modalities, procedures, rules and guidelines for these processes are clearest for mitigation, with some finance considerations built into the BR/BUR, yet no adaptation information.

The Paris Agreement paves way for a new transparency framework, yet to be developed but understood to supersede the current arrangements, as reflected in paragraph 99 of decision 1/CP.21. The framework is instructive on mitigation and support, as per provisions in paragraph 11 of Article 13, since such information is expected to go through a technical expert review. However, limited guidance is provided as to the adaptation information and processes (common modalities, procedures and guidelines) envisaged in Article 13, paragraphs 5 and 13 in respect of adaptation. However, paragraph 5 explicitly defines action as including both mitigation and adaptation. The reason for such limited guidance can be attributed to the fact that accounting rules for adaptation have not been agreed to in the international space.

The Paris Agreement sets a platform for the development of adaptation transparency arrangements, which can benefit from the processes outlined in the current transparency system. However, there is limited precedence to build from. In terms of the scope, the basis for the development of such a transparency system is Article 13.5, with the purpose of tracking adaptation actions under Article 7 with a view to inform the global stocktake, with Article 13.8 providing for information related to climate change impacts, and adaptation coming under Article 7. This raises two key questions: what information will be provided by Parties and how will the adaptation information be processed? The answers to these questions should take into account the principles of the transparency framework. This encompasses flexibility and facilitation, and is non-intrusive, non-punitive, respectful of national sovereignty and avoids placing undue burdens on Parties, as outlined in Articles 13.2 and 13.3. Furthermore, it should be consistent with the nature of obligations under the Agreement, which is towards conduct rather than outcomes.

Regarding adaptation information, Parties should submit information in accordance with their obligations under the Agreement. This requires information on actions to be presented on the basis of common guidelines based on the NDC categories of vulnerability and priorities; plans and actions; implementation and support needs; and adaptation efforts for recognition. The minimum information for each of these categories (as outlined in Section 5.2) shall be the basis for such information. On vulnerability and priorities, information shall cover sector-based risks (as envisaged in Section 5.1), showing current levels of vulnerability and targeted reductions of these risks, based on identified priority adaptation options and agreed rules. On plans and actions, the important information includes planning objectives for development and implementation of policies, strategies and plans for adaptation, which may include both economy-wide and sectoral plans based on agreed guidelines.



On implementation and support needs, the information should be based on guidelines and methodologies (as envisaged in Section 5.1) that highlight plausible needs over a given timeframe. Such needs should be further presented in a manner that is consistent with the template for communication of support information in terms of sectors. On the recognition of adaptation efforts by developing countries, the basic information required is the value of effort seeking recognition, including sector specificity on the basis of agreed counting and accounting methodologies. The information provided for recognition is not target-based, but a reflection of efforts made; hence the role of the transparency framework would be primarily to ensure procedural and methodological consistency with counting and accounting rules.

The second question on how the adaptation information will be processed should build on the existing processes, as envisaged for other elements. As such, the National Communication would continue to provide a platform for more comprehensive and detailed information on implementation of adaptation action and provision of support. Meanwhile, the BR/BUR, Technical Expert Review and IAR/ICA, together with the associated multilateral consultation process, can focus on information contained in the a-NDC. In addition, these outputs can report on progress in implementation, with a view to support understanding of overall progress in the implementation of the Agreement in light of Article 2.

5.5 Adaptation goal and the global stocktake

The global stocktake envisaged in Article 14 is an important aspect of the Paris Agreement in that it provides a feedback loop for upcoming cycles of NDCs regarding adaptation and mitigation, as well as a means of implementing obligations under the Agreement. Although the modalities of the stocktake have yet to be agreed, the assessment will cover collective progress towards achieving the purpose of the Agreement in Article 2. It will also cover the associated three goals, of which the adaptation goal of “[i]ncreasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production” (Article 2.1 (b)) is translated into the global goal for adaptation, as established in Article 7.1. Furthermore, the stocktake will assess collective progress every five years in light of equity and best available science, and the scope will cover all aspects of substantive obligations under the Agreement.

Theoretically, for the stocktake to be functional and, as a minimum, there must be a defined benchmark against which to measure the assessment as well as information on performance, with everything else being process-related. In addition to the general provisions of the stocktake, specific outcomes for adaptation are listed in Article 7.14. These include: 1) recognizing adaptation efforts of developing country Parties; 2) enhancing the implementation of adaptation action taking into account the adaptation communication; 3) reviewing the adequacy and effectiveness of adaptation and support provided for adaptation; and 4) reviewing the overall progress made in achieving the GGA.

The benchmarking aspects of the stocktake are addressed in the processes proposed in Section 5.1. This, however, addresses only the needs for 7.14 (c) and (d), specifically in relation to the temperature goal in Article 2.1 (b) and (c), while Article 7.14 (a) and (b) are covered by proposals in Section 5.4 on transparency, which covers vulnerability and priorities, plans and actions, implementation and support needs, and adaptation efforts for recognition, in terms of how benchmarking can be achieved for each of these aspects. Figure 3 outlines the adaptation process of the global stocktake.

The minimum sources of inputs must include the NDCs and, where appropriate, adaptation communications contained in NAPs and National Communications. This information will provide a sense of the gap between undertakings for an upcoming period and the required effort. Such information would be provided through a synthesis report compiled by the secretariat. Further identification would highlight areas of high impact not fully exploited by Parties and options for realising that potential. The inputs could also include periodic reports from the IPCC to support the benchmarking exercise. The outcomes of the transparency framework are important; firstly, by providing information on the current world position in terms of achieving the purpose of the Agreement; and secondly, in providing a perspective on how a Party performed in a previous cycle and thereby identifying how they could consider enhancing their ambition.

Figure 3. Adaptation process of the global stocktake

INPUTS	PROCESS	OUTCOMES
<ul style="list-style-type: none"> • Benchmarking of the Global Risk (IPCC) Report; benchmark planning needs; required adaptation investment from Section 5.1 of this document • Previous cycle performance in terms of progress made in planning and implementation; support from transparency provisions in Section 5.4 • Upcoming cycle, vulnerability, planning objectives, adaptation needs, adaptation support pledged to developing countries as in the NDC synthesis report envisaged in Sections 5.2 and 5.3 	<ul style="list-style-type: none"> • Synthesis report of the ex-post information on implementation of NDCs based on the minimum information provided • Synthesis report of upcoming NDCs, including in relation to the benchmarks from the IPCC Report • Sector-based information sharing and identification of high-impact activities and technologies, including through the Technical Examination Process on adaptation 	<ul style="list-style-type: none"> • Elaboration of the vulnerability gap, planning gap, support gap for adaptation • Report of best practice sharing to inform the updating of NDCs for inscription • Outline of international cooperation for climate action that could support the closing of the various gaps arising from inadequate action

From an adaptation perspective, the information synthesised from NDCs provides a basis for the assessment to understand expected performance in relation to an upcoming cycle. Paragraph 46 of decision 1/CP.21 requests the Adaptation Committee and the LEG to develop methodologies for reviewing the adequacy and effectiveness of adaptation and support, as envisaged in Article 14 (c). However, in respect of the previous cycle, no further guidance is provided nor process defined as part of the transparency system that would deliver the information necessary to assess the previous cycle at the global stocktake. Such information therefore needs to be provided to Parties in respect of the adequacy and effectiveness of both actions and support provided to developing countries.

On the modalities of the global stocktake, the key elements pertain to the periodicity and timing of adaptation aspects of the global stocktake, currently set at every five years. The second aspect is the process that has to be followed in undertaking both the assessment of adequacy of adaptation action in a previous cycle, which is undertaken at individual Party perspective, as well as the aggregate assessment of undertakings for an upcoming period, which is collective in nature.

6. Process and institutional aspects of operationalising the adaptation goal

A number of aspects need to be achieved in the operationalisation of the GGA, as initially proposed by the AGN, building on consensus achieved in the Paris Agreement. Several issues are technical in nature and can be addressed better by bodies other than the APA, while other aspects are political in nature and require the APA to provide further guidance. Table 2 presents a summary of activities and timelines for operationalising the GGA.

Table 2. Summary of activities and timelines for operationalising the GGA

Element	Activity	Key bodies	Timeline	
Character and further guidance on the a-NDC	Submission by Parties to the Adaptation Committee on approaches to adaptation needs and costs; preparation of guidelines for Parties	SBSTA/SBI	Completed by March 2017	
	Consider progress and ensure coherence of work from multiple bodies on further guidance to the character of a-NDCs	APA	Completed by 2018	
	Guidelines for sector-specific and economy-wide assessment and reflection of risk	IPCC and SBSTA	Completed by 2018	
	Guidelines for planning regimes in terms of setting comprehensive planning objectives	LEG, Adaptation Committee and SBI	Completed by 2018	
Transparency of action and support	Minimum information for the a-NDC, including the minimum information for the biennial communication of support, further guidance for NAPs, National Communications, as appropriate	APA	Details completed by 2018, however COP 22 must define the broad elements	
	Common guidelines based on the NDC categories of vulnerability and priorities, plans and actions, implementation and support needs, and adaptation efforts for recognition	APA	Completed by 2017	
	Further guidance on information provided in National Communications, BR/BUR	APA	Completed by 2018	
	Modalities and guidelines for the multilateral assessment process, IAR/ICA being the basis	APA	Completed by 2018	
	Global stocktake	Guidance to the IPCC on the preparation of a benchmarking report for risk, planning and required investment	APA/IPCC	2017 with the report made available in 2022
		Further guidance to the Adaptation Committee and LEG in the development of methodologies for adequacy and effectiveness of adaptation and support	APA	Completed by 2017
	Agreement on the modalities for the global stocktake	APA	Completed by 2017	

Certain aspects are important to avoid bottlenecks, and these include minimum information for a-NDCs, which will provide guidance to other bodies in terms of their technical work. This minimum information (or at least elements of it, including what is required for biennial communication of indicative support) should be identified by COP 22 in Marrakech. This would unlock and provide direction to the required guidance.

While countries are provided with flexibilities, it is important that the adaptation communications are submitted in a timely manner, prior to both the global stocktake and the publication of the synthesis report to be prepared by the UNFCCC secretariat²². It is important that the synthesis report captures not only the information communicated in NDCs, but also all communications to inform the global stocktake and hence the assessment of adequate adaptation action and support, as well as recognition of developing countries' efforts. If the adaptation communication not contained in the NDCs is also omitted from the NDC synthesis report, this should be captured in another input to be considered at the global stocktake and to ensure that the same methods of aggregation are applied to provide the basis for assessment.

Building on experience gained during the INDC process, it is of utmost importance to allow for aggregation for adaptation to be considered at the multilateral level. Although more than three-quarters of the countries had an adaptation component in their INDCs, the synthesis report prepared by the UNFCCC secretariat failed to aggregate the information provided in the a-INDCs due to the lack of guidelines and upfront information contained in the Lima decision²². While Article 7.10 of the Paris Agreement contains the provision for adaptation communications to include "priorities, implementation and support needs and plans and actions", these guidelines are very general, particularly compared with the upfront information provided for mitigation NDCs. As such, it is essential that developing countries further define the upfront information to be contained in Parties' adaptation communications, based on the common types of information provided by countries in their a-INDCs or other guidelines developed by different organisations.

7. Conclusions

There is a general sense and recognition that adaptation has not received sufficient attention in the first 20 years of implementing the UNFCCC. It was in the context of achieving parity between mitigation and adaptation that the AGN proposed a GGA comprising contextual and substantive elements. The Paris Agreement establishes a GGA and comprehensively covers the contextual and substantive aspects of that proposal. These aspects are contained in various provisions of the Agreement, beyond the Article that establishes the goal.

The key contextual and substantive elements of the goal proposed by the AGN include setting a collective understanding of adaptation as a global responsibility. They also include linking mitigation with adaptation as a step towards promoting a more adequate adaptation response as well as defining obligations of Parties towards adaptation as a basis to ensure an adequate adaptation response. The Agreement provides for these aspects directly for some, such as the relationship between mitigation and adaptation and adequacy of adaptation, but indirectly for others, such as adaptation being a global responsibility.

On defining the obligations of Parties in accordance with their different responsibilities, obligations are codified in the Paris Agreement through the adaptation communications. These are produced primarily through the adaptation component of the NDCs, albeit with flexibility to use other vehicles for Parties with limited capacities. The guidance provided by the Agreement on aspects to be covered in the a-NDCs includes all the elements proposed by the AGN, with key elements of information to be communicated by all Parties.

However, most elements of the GGA are dispersed throughout the Agreement, and need to be looked at holistically to understand how some of these aspects can be operationalised to give effect to the Agreement. The global stocktake is central to the operationalisation of the GGA, as envisaged in Article 7.14 (d). However, to enable such an assessment of progress towards achieving the GGA, constituent elements need further elaboration. For an effective assessment of progress towards achieving this target, the goal itself, particularly in respect of the required effort, needs to be further elaborated so as to present concepts such as vulnerability, resilience and adaptation needs in a manner that can be meaningfully assessed.

For such an assessment of progress towards achieving the GGA, a central and urgent input is the description of the minimum information that Parties will communicate as part of their a-NDCs, as well as reporting according to that information under the transparency framework. It is as crucial as setting benchmarks by the IPCC that Parties communicate clear information that can be aggregated in respect of vulnerability, plans and actions, adaptation needs, and adaptation efforts for recognition. The associated rules for generating that information need to be further developed in order to ensure consistency of such information, and to provide the basis for aggregation to be considered at the multilateral level.

Adaptation is lagging behind mitigation in terms of international practice, since methodologies and guidelines need to be developed in many respects. Hence, it is important for the APA to have oversight of processes that contribute to Article 7 of the Agreement and the related support and assessment paragraphs. The communication of ex ante (pertaining to envisaged implementation in an upcoming period) and ex post (reflecting outcomes of a previous implementation period) information on support, as applicable to adaptation, need to be given special attention. This might include a joint meeting to include the adaptation agenda item with finance, as well as finance with the global stocktake.



It is therefore important that groups having an interest in meaningful operationalisation of the GGA consider a clear work programme to meet the requirements of Article 7 in its entirety, rather than only of Article 7.1, at COP 22 in Marrakech. Several bodies, including the IPCC, the Adaptation Committee, LEG, SBSTA and SBI, have a role to play in affecting the Agreement. However, the role of the APA cannot be diminished as there are a number of issues requiring further political guidance to these bodies in order to effectively deliver on expectations.

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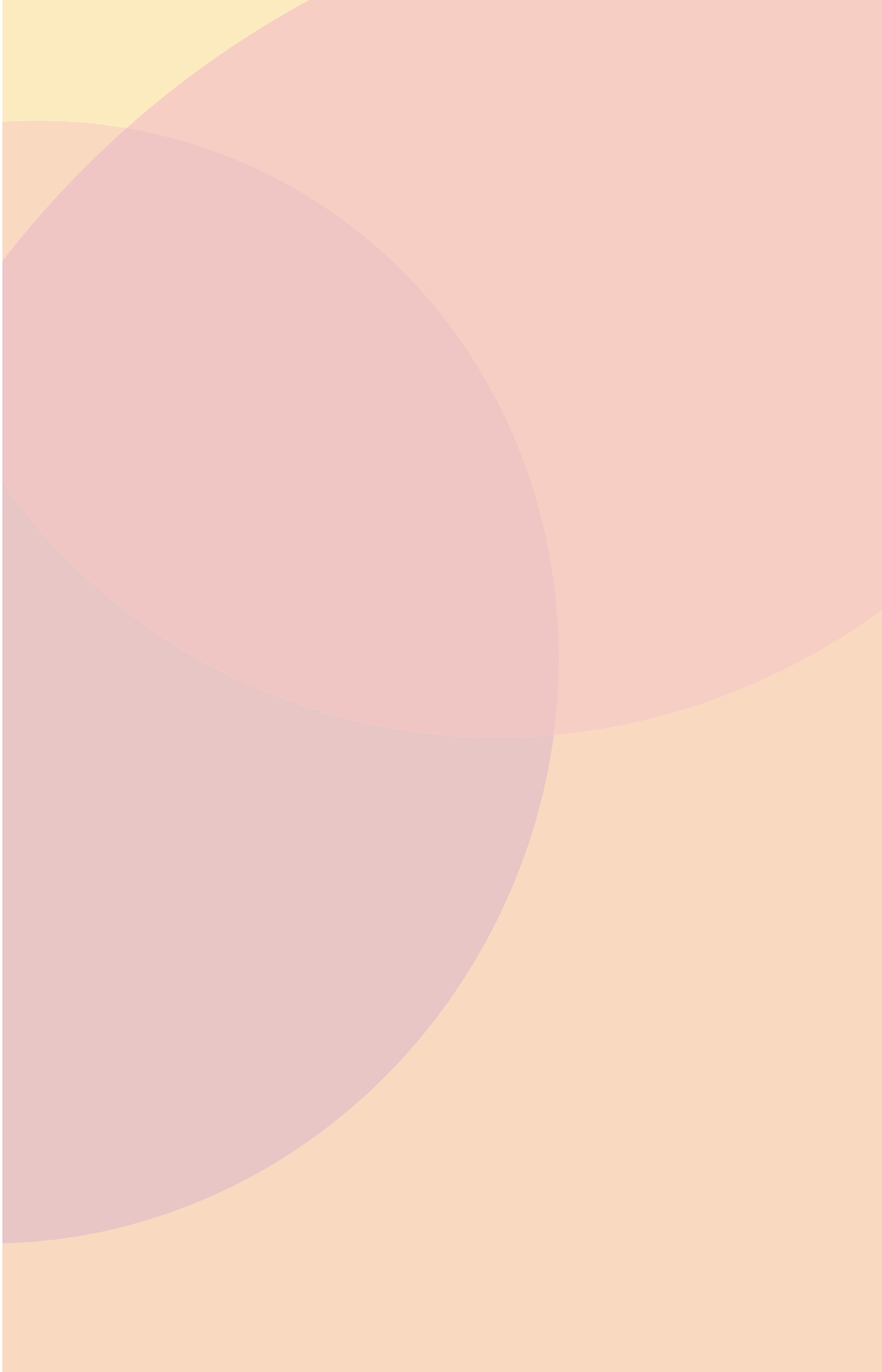
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