Toolkit

Toolkit for Article 17 of the WHO Framework Convention on Tobacco Control

FCTC
WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL
SECRETARIAT

UN INTERAGENCY TASK FORCE ON NCDs
#beatNCDs
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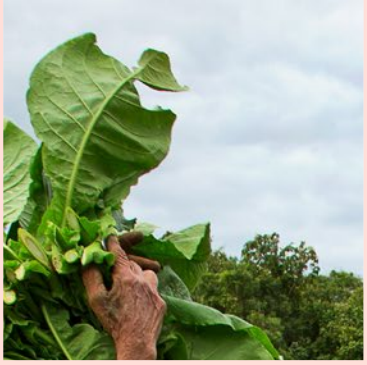








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Abbreviations

ARET	Agricultural Research and Extension Trust
ARI	Agricultural Research Initiative
BRICS	Brazil, Russian Federation, India, China, South Africa
CAP	common agricultural policy
CAPA	Center of Assistance for Small Farmers (Brazil)
COP	Conference of the Parties
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FISP	Farm Input Subsidy Programme
GDP	gross domestic product
ITF	input trust funds
NCD	noncommunicable disease
NCM	National Coordinating Mechanism
NGO	nongovernmental organization
PEDSA	Strategic Plan for Agricultural Development (Mozambique)
REMSEC	Regional Multi-Service Extension Centres
SDG	Sustainable Development Goal
UNIATF	United Nations Inter-Agency Task Force on Non-communicable Diseases
WFP	World Food Programme
WHO	World Health Organization
WHO FCTC	WHO Framework Convention on Tobacco Control
ZBNF	Zero Budget Natural Farming











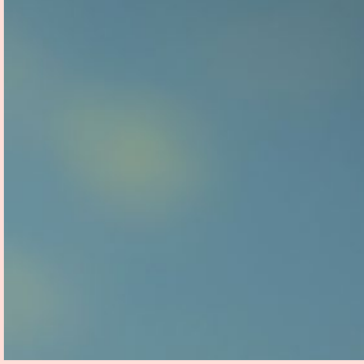

1. Introduction

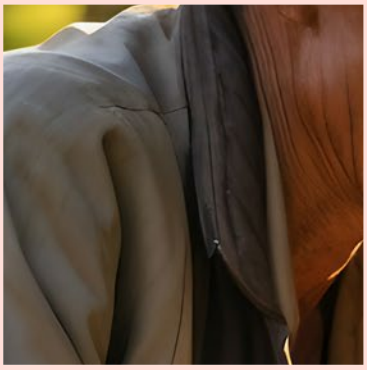
The WHO Framework Convention on Tobacco Control (WHO FCTC) enshrines a comprehensive range of multisectoral evidence-based measures that aim to reduce tobacco use and exposure to tobacco smoke. At the same time, it also recognizes the need to promote economically viable alternatives to tobacco production as a way to prevent adverse social and economic impacts on populations whose livelihoods depend on tobacco production. In addition, Parties to the Convention are committed to protecting the environment and the health of people working in tobacco cultivation and manufacture.

Article 17 of the WHO FCTC states that Parties shall, in cooperation with each other and with competent international and regional intergovernmental organizations, promote, as appropriate, economically viable alternatives for tobacco workers, growers, and as the case may be, individual sellers. Article 18 of the WHO FCTC states that in carrying out their obligations under the Convention, Parties agree to give consideration to the protection of the environment and the health of people working in tobacco cultivation and manufacture within their respective territories.

The Conference of the Parties (COP) to the WHO FCTC adopted policy options and recommendations[1] on economically sustainable alternatives to tobacco growing at the Sixth Conference of the Parties (COP6) to the WHO FCTC in Moscow, Russian Federation, in October 2014.

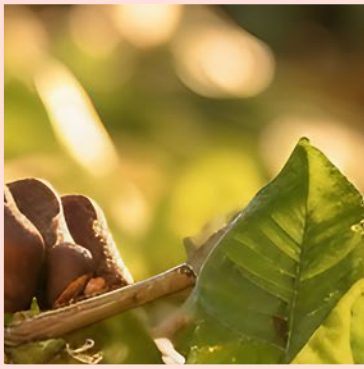
1 https://fctc.who.int/publications/m/item/policy-options-and-recommendations-on-economically-sustainable-alternatives-to-tobacco-growing









2. Background

Article 17 of WHO FCTC is about the pursuit of human dignity, community well-being, environmental protection and a fairer economic environment. In a resolution establishing the *2030 Agenda for Sustainable Development*, governments agreed to "build a better future for all people, including the millions who have been denied the chance to lead decent, dignified and rewarding lives and to achieve their full human potential" *(1)*. The resolution is one of the foundations on which the new development agenda was rolled out and one that touches on the precarious livelihood that tobacco farming provides to so many.

The Sustainable Development Goals (SDGs) call for transformation in how governments approach development *(2)*. This call for transformation recognizes the numerous ills that plague global society, from environmental degradation to rampant inequality and the systems that perpetuate and deepen these conditions. Transformation is sought particularly in the way that economic goals are pursued, the nature of these goals, and their bearing on health, social well-being and the environment *(3)*. Transformation is encouraged to foster greater coherence among sectors of government as they seek to address the intersecting issues at the heart of sustainable development. The situation of smallholder – or family – tobacco growing is one where the old ways of operating do not deliver their purported benefits and require transformation. Article 17 of the WHO FCTC provides the basis for governments to pursue this transformative agenda and improve the lives of millions.

Tobacco growing and the corresponding supply chain is a critically important issue facing governments and civil society with implications for rural livelihoods, health and social well-being, food systems, and environmental protection. Tobacco growing has significant detrimental health implications for farming households, including green tobacco sickness, a devastating condition that causes chronic dysfunction from exposure to raw tobacco leaves, respiratory conditions caused by the curing and stacking of tobacco leaves after harvest, and other physical and mental health conditions *(4)*. The social and economic consequences of tobacco growing are numerous. Tobacco is one of the most labour-intensive crops, with labour requirements that drive the need for family labour, including children, and hired labour *(5,6)*. The extensive labour costs limit the profits generated from tobacco growing, and in many countries tobacco-farming households accrue debt or barely generate enough income to pay farming-related debts.

The cycle of poverty among tobacco farming households is significant and pervasive *(7–10)*. Often families choose to grow tobacco because it is initially viewed as a viable and lucrative crop, often with the aim of generating income to support the education of their children and to meet basic household needs (*11,12)*. The high expense of inputs – such as fertilizer, seeds, and herbicides and pesticides – as well as cash loans can combine with lower-than-anticipated prices for tobacco leaf and huge labour costs to push families into a situation where the income generated only covers expenses. When tobacco farmers are asked if they would wish for their children to grow tobacco, the universal response is "no" *(13)*. The environmental problems associated with tobacco growing are also well documented. Nutrient depletion of soils and deforestation are just two of the many detrimental environmental consequences of tobacco growing *(4,14)*. Given the host of

negative consequences to the economic, social, health and environmental conditions of tobacco-growing communities, farmers express a strong desire for alternatives.

One of the least visible problems with tobacco growing is the challenge it poses for the advancement of tobacco-control measures. The presence of tobacco growing is associated with deeper entrenchment of the tobacco industry in policy decision-making across sectors *(15–18)*. Across tobacco-growing countries, the tobacco industry is consistently more integrated into the decision-making of sectors associated with tobacco production, like agriculture and trade. This situation is often perpetuated by the power to shape the story of the contribution of tobacco to farmer livelihoods and the economic prosperity of countries. This narrative of prosperity drives resistance to both pursuing alternatives to tobacco growing and upsetting the tobacco industry by implementing strong tobacco-control measures *(19)*. Despite these barriers to implementing supply- and demand-reduction measures, governments are increasingly recognizing that the harms of tobacco production far outweigh the benefits. Countries that have historically been heavily supportive of tobacco production are beginning to pursue an agenda oriented towards alternatives to tobacco *(20)*.

Efforts to support alternatives to tobacco growing converge with the broader development agenda to recognize the importance of smallholder farms to sustainable food production and rural well-being. This is the United Nations Decade of Family Farming (2019–2028), which draws important attention to the critical role that family farms play in the health and well-being of the global population. Over 600 million farms are operated by families, contributing to one third of the global food supply *(21,22)*. Smallholder tobacco growing has risen significantly over the past three decades and accounts for most of the tobacco leaf produced in the global market. While the number of farmers growing tobacco represents a small portion of total agricultural production (< 1% in all but two of the top 10 tobacco-producing countries) *(23)*, there is potential to improve the lives of families currently involved in tobacco production by pursuing viable alternatives.

The emphasis on alternatives extends beyond replacing tobacco with other crops and seeks to expand consideration to the wide gamut of alternative livelihoods including alternative crops and other forms of employment and entrepreneurial initiatives. In line with the transformative agenda of the SDGs, the pursuit of alternatives to tobacco growing must include innovative approaches and systematic intersectoral support to current tobacco-growing communities and to those along the supply chain. This initiative represents an opportunity to redirect efforts towards rural livelihoods, individual and social well-being, environmental protection, and sustainability and overall prosperity.

3. Objective of the Toolkit

Ten years ago, it was predicted that any reduction in the number of smokers and in total tobacco consumption over the next 20 years would occur gradually. Half of this 20-year time frame time has passed, and there has been clear progress in implementing many WHO FCTC articles and achieving reductions in tobacco demand. Progress on Article 17 of the WHO FCTC, however, has been less encouraging. The pursuit of alternatives is a multifaceted endeavour requiring coordination across ministries, departments and levels of government, as well as engagement with several market factors. Despite the intersecting and complex requirements, there is a growing evidence base to guide actions on alternatives. This *Toolkit for Article 17 of the WHO Framework Convention on Tobacco Control* brings together the existing knowledge base, including years of consultations drawing out the knowledge and experience of relevant stakeholders, to guide actions on alternatives.

The Toolkit draws from common lessons learned in tobacco-growing countries around the world. It consolidates these common lessons and provides approaches to adapt and apply these lessons in unique country contexts. The Toolkit builds from the six principles developed at COP6 to guide the implementation of Articles 17 and 18 (Box 1), and includes seven specific tools:

Tools

- **Tool 1.** The reality of tobacco growing: Debunking common myths
- **Tool 2.** Situational analysis
- **Tool 3.** Key factors required to facilitate alternatives
- **Tool 4.** Sectoral contributions to implementation of Article 17 of the WHO FCTC
- **Tool 5.** Where and how Article 5.3 can support efforts to implement Article 17
- **Tool 6.** Policy options and mechanisms of support (the types of government that policy facilitate agricultural production)
- **Tool 7.** Measuring change (key indicators)

Additional annexes and case studies complement the Toolkit with “fast facts” and overviews of policy frameworks, global scenarios, concepts, indicators and innovative practices. Together the content of this Toolkit is meant to support governments as they develop intersectoral strategies to pursue alternatives to tobacco growing in their respective countries.

The Toolkit begins with an overview of tobacco growing in various countries. This background information provides context to the pursuit of alternative livelihoods and informs the subsequent section that identifies six domains that governments can address to support alternatives. The Toolkit then introduces seven tools to assist governments in the implementation of Article 17.

The Toolkit was developed within the framework of the United Nations Inter-Agency Task Force on Non-communicable Diseases (UNIATF). The role of UNIATF is to bring the United Nations system and other intergovernmental organizations together to support governments in meeting the noncommunicable disease (NCD)-related SDG

targets, which include mental health. The Task Force supports governments in meeting high-level commitments made at the United Nations General Assembly and the World Health Assembly, including the WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2030*. The Task Force was established by the United Nations Secretary-General in June 2013 and placed under the leadership of the World Health Organization (WHO). It reports each year to the Economic and Social Council of the United Nations.

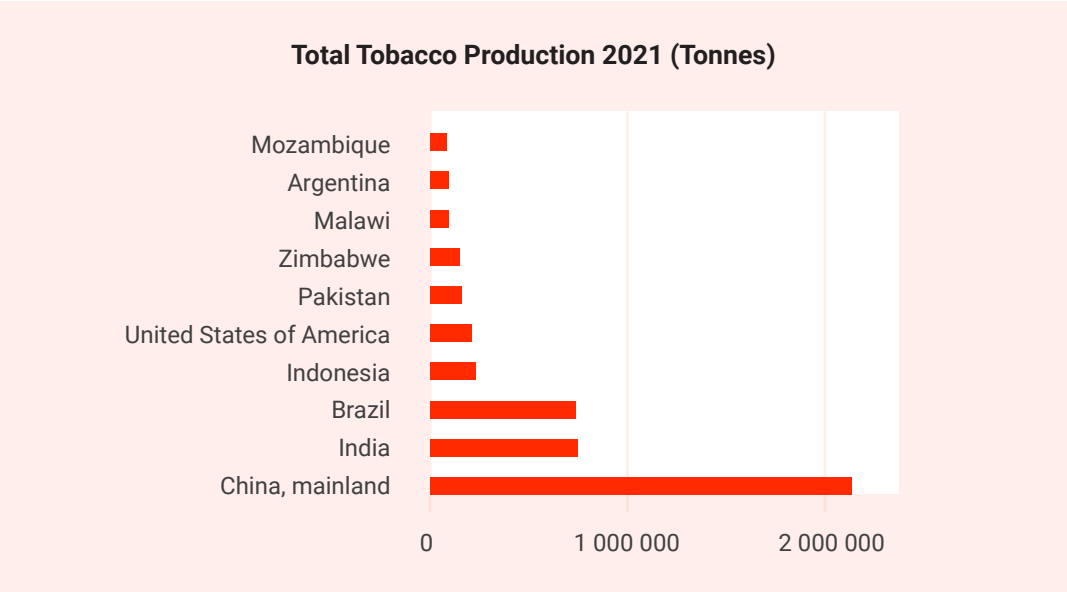
Box 1. WHO FCTC Knowledge Hub on Articles 17 and 18

The WHO FCTC Knowledge Hub for Articles 17 and 18 in Brazil – the Oswaldo Cruz Foundation through its Center for Tobacco and Health Studies of the National School of Public Health Sergio Arouca – joins other WHO FCTC knowledge hubs in assisting Parties to strengthen their implementation in specific areas of the Convention. The Articles 17 and 18 Knowledge Hub develops, analyses, synthesizes and disseminates to the Parties to the Convention knowledge and information relating to matters under its expertise in relation to those articles, with a view to promoting and fostering scientific and technical international cooperation among the Parties. The Knowledge Hub assists the Secretariat of the WHO FCTC in capitalizing on opportunities regionally and globally to provide better coordination of efforts to promote alternatives to tobacco growing, based on the experience of Brazil and primarily targeted at low- and lower-middle income tobacco-growing economies, particularly those in Africa.

4. Overview of tobacco growing: Recent patterns, trends and narratives

Tobacco is grown in countries around the world. While there is a steady decline in tobacco growing in most high-income countries, driven in part by government commitment to support a shift to alternatives, many countries continue to increase production. Countries including Brazil, Canada and Kenya have put in place incentive programmes or cash buy-outs to ensure movement away from tobacco growing to alternatives. At the same time many countries have sought tobacco as a key contribution to their economic development plans. As Fig. 1 illustrates, there is a countervailing trend towards an increase in tobacco production in low-, middle- and middle-high-income countries *(24)*. China remains a major producer. Proportional to land size and gross domestic product (GDP), smaller countries such as Malawi, Mozambique and Zimbabwe contribute substantially to global tobacco production. To implement Article 17 of the WHO FCTC there needs to be an international commitment to alternatives. Global supply chains and a highly resourceful and mobile transnational tobacco industry ensure that unless deliberate and coordinated actions are undertaken across countries, we will likely see the industry shift from one country to the next to source its raw tobacco leaf. For example, despite noted fluctuations in production in China and an apparent decline in the past decade, there has been a rise in the China National Tobacco Corporation in purchasing leaf from the African continent, notably Zimbabwe *(15,24,25)*. While it is clear that tobacco companies are highly resourceful and mobile, with the ability to shift to favourable markets for the production of raw leaf, research suggests that there are several factors that shape tobacco supply. It is important for governments to understand which factors drive tobacco growing and how these factors can be addressed in efforts to encourage and support alternatives.

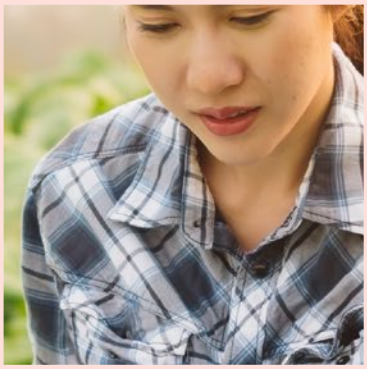
Fig. 1. Top-10 tobacco-producing countries by volume



Source: FAO. FAOSTAT Unmanufactured Tobacco 2021. 2023

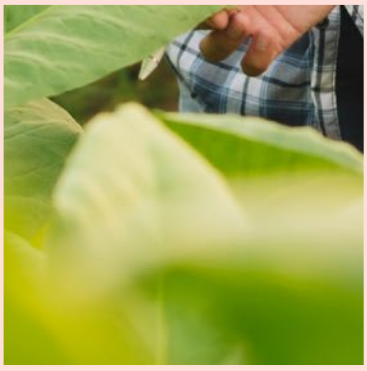
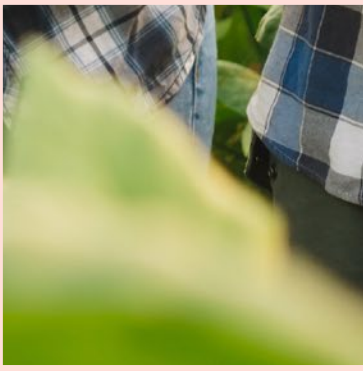










5. What drives tobacco production? Understanding the political economy of tobacco growing

As noted, there are several factors that shape farmer receptivity and government orientation to tobacco growing. One critical factor that fosters tobacco growing within countries is the general understanding that tobacco is a lucrative economic commodity *(11,12)*. This idea tends to drive new initiatives to support tobacco growing and justify existing operations. The economic sector in particular, including agribusiness, industry, investment and trade, argues that tobacco contributes importantly to rural livelihoods and to revenue generation for the government *(19)*. In many cases the absence of country-level data related to both domains (rural livelihoods and revenue generation) perpetuate this narrative. In the past 10 years, research examining the economic livelihoods of tobacco farmers has provided important insights in the conditions experienced by farming households.

First, it is now clear that despite slight variations across growing seasons and country contexts, smallholder tobacco farmers earn very little from tobacco growing and often accrue debt *(9,27,28)*. The reasons behind the low level of profits are multifaceted. Tobacco growing is highly labour intensive. When unpaid household labour is considered along with hired labour, tobacco farming is one of the most labour-intensive crops. The extensive research on the environmental challenges of tobacco growing has also found that the high labour costs are partly driven by the fact that tobacco growing is also highly input intensive *(6,10,29,30)*. Tobacco requires high levels of inorganic fertilizer, pesticides and herbicides. The input requirements pose problems for the environment, including the depletion of nutrients from the soil and deforestation, and for the income of farmers given the volume and cost of these inputs across the duration of the growing season *(31,32)*. Together these issues erode the profits of farmers. Many farmers note that at the end of the season they are unable to earn enough to pay individuals hired to assist with farm activities, often breaking even or incurring debt.

An important question to understand in the pursuit of alternatives is: If smallholder tobacco farmers experience so much hardship, why are they growing tobacco? Research from key tobacco-growing countries point to common reasons. The most consistent reasons given by farming households is the combination of market access and access to inputs. The issue of “viability” noted in Table 1 is tied to these two conditions. Farmers note that there are alternatives crops that could be grown instead of tobacco, and in many cases, farmers often shift voluntarily to these crops after recognizing that tobacco is not as lucrative as initially thought. However, they note that tobacco has a very well-organized supply chain that ensures that leaf is sold each season. They also note that leaf-buying companies offer inputs and financial loans, which are key factors missing in the supply chains of many other cash crops. These two factors are reflected in Table 2, which summarizes a study conducted with tobacco farmers in Indonesia and the Philippines. In this case, viability is viewed from the perspective of perceived profitability, availability of market and environmental conditions. Another factor tied to the relationship with leaf-buying companies is that often farmers do not have sufficient extension services, which provide information and support, when growing other crops. Leaf- buying companies often provide technical and other support to farmers who are in contractual relationships with these companies. In many cases governments have limited budgets dedicated to extension services in the agricultural sector, a point highlighted by one farmer in a prominent tobacco-growing country: “We don’t have the platform to go and share it out

because we are not facilitated, extension is not facilitated. The county is killing extension." *(13)*. Another farmer from the same region confirmed the provision of extension services as one benefit of tobacco growing: "At least the tobacco farming has the technicians, the other farming of things like maize, beans you work it out on your own." *(13)*. In this way tobacco farmers often become stuck in harmful arrangements in part because the supply chains for alternative crops are not as well developed as those for tobacco. Many governments, intergovernmental organizations and civil society organizations are working around the world to build reliable and sustainable food-based agricultural supply chains. For example, the Food and Agriculture Organization of the United Nations (FAO) partnered with the Asian Farmers' Association for Sustainable Rural Development in 2023 to support sustainable agriculture in the Asian region *(33)*. Part of the work of the Asian Farmers' Association is to foster farmer arrangements that scale food production and link with ready and fair markets. Civil society organizations can play an important role in supporting communities with technical and supply chain needs.

Table 1. Reasons for growing tobacco

Reasons	Malawi		Kenya		Zambia	
	Initiation (%)	Currently (%)	Initiation (%)	Currently (%)	Initiation (%)	Currently (%)
Ready market	6	9.2	13	12	12	16
Only viable crop	63.5	58.8	31	50	31	31
Inherited	8.5	N/A	7	N/A	4	N/A
Accustomed to growing	N/A	10.9	N/A	6	N/A	6
Availability of land	0.3	0.3	2	2	0	1
Influenced by other tobacco producers	15.3	1.5	12	5	15	2
Incentives from tobacco companies	0.3	0.1	8	7	6	5
Highly lucrative	6.1	3.9	19	7	15	19

Source: Appau, A., Drope, J., Goma. F., Magati, P., Labonte, R., Makoka, D., ... & Lencucha, R. (2020). Explaining why farmers grow tobacco: evidence from Malawi, Kenya, and Zambia. *Nicotine and Tobacco Research, 22(12),* 2238-2245.

Table 2. Factors driving tobacco growing

Category	SubCategory	Representative Quotes
Perceived Viability	Profitability	*"The other crops can only give us a minimal income."*
	Availability of Market	*"You have to scout for buyers, unlike in tobacco that regardless of the amount you want to sell, there is always a market."*
	Environmental Factors	*"I have said before; the land is only suitable for tobacco and marijuana."*
Financial Context	Access to Financial Loans and Lack of Capital	*"Despite the hardship in planting tobacco, I will still plant tobacco. If I stop, I will not be able to borrow money."*
	Lump-Sum Accumulated Savings	*"As long as we have sent it to (company), then going home with money is already called refreshing."*

Source: Appau, A., Drope, J., Witoelar, F., Chavez, J.J., & Lencucha, R. (2019). Why do farmers grow tobacco? A qualitative exploration of farmers perspectives in Indonesia and Philippines. *International Journal of Environmental Research and Public Health, 16(13),* 2230.

The consistency of these findings across diverse country contexts suggests that initiatives targeting alternatives can draw from experiences across countries and consolidate challenges and lessons learned. As noted, the factors that shape the attraction to tobacco and the ability of a country to pursue alternatives is multifaceted and multilevel. The next sections review the policy and market dynamics that perpetuate tobacco growing.

5.1 Development agendas and value addition

Important shifts can be seen in the way that tobacco is positioned in the national development agendas of countries. In the past decade, there have been shifts away from positioning tobacco as a prominent economic commodity and a means for economic development. When tobacco is positioned as a key contribution to economic development in national development and investment plans it shapes sectoral policy that in turn favours tobacco production. Governments should not be faulted for positioning tobacco in this way. In countries where tobacco is and has been grown, it is understandable that emphasis would be placed on “scale up” and “value addition”. And because tobacco leaf is accessible, it makes sense to find ways to add “value” to the crop and enhance production based on economic goals. This emphasis had historically come directly from international agencies involved in trade and investment *(18,34,35)*. The impact of this nexus of encouragement from international agencies, prioritization in national development plans, and subsequent policy and programming supporting tobacco production can be seen in recent support provided by governments to tobacco companies to establish processing and manufacturing facilities *(18,36)*. These developments have historically served to further entrench tobacco growing within countries *(16)*.

Tobacco is often viewed as a lucrative commodity by representatives in the economic and agribusiness sectors of government. While these perspectives are changing with shifts in understanding of the economics of tobacco growing, there remain strong views that tobacco production is a separate domain than tobacco control. One being economic and the other being health. This perspective serves to perpetuate historical separations between the economic and health sectors and corresponding approaches taken to tobacco either as an economic commodity to be supported or a health-harming product to be controlled. The Article 17 agenda provides an important opportunity to bring these domains more closely together and eventually in service of synergies that foster development agendas, health and social well-being, and environmental protection.

The following section provides an overview of the ways that tobacco as an economic commodity has and continues to be embedded within government. This information is intended to provide baseline information to better understand how support for tobacco operates within government. Conventional views on government support for tobacco – and often corresponding opposition to tobacco-control efforts – is tied to the influence exerted by the tobacco industry. While this is certainly true and demonstrated universally across countries and contexts, there are other contributing factors that exist at the institutional level and at the level of government mandates.

5.2 Understanding the landscape of tobacco interests: Looking to institutions and mandates

Tobacco-growing countries present a unique context to understand the influence of the tobacco industry in decision-making spaces. Industry employs typical pathways to influence tobacco-growing countries, such as lobbying, indirect financial contributions to government and society through so-called corporate social responsibility initiatives, and litigation. The influence is perhaps more deeply embedded in tobacco-growing countries because of the institutional embeddedness of tobacco interests and the official government mandates that support tobacco as an economic commodity. What does this embeddedness look like? In tobacco-growing countries often there are agencies and departments that either exclusively or in part have it within their mandate to support tobacco supply. For example, tobacco boards exist in many countries to manage issues pertaining to the provision of support to tobacco growers and the sale of tobacco leaf. These agencies often have industry representation alongside government representation, creating a dynamic whereby industry and government are working together or at least in close contact with one another *(17,37)*.

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Importantly, these institutions often have the expressed mandate to perpetuate and even increase tobacco growing, which runs in direct contradiction to the provisions of the WHO FCTC. Underlying this institutional dynamic is the agenda that links tobacco growing with economic development. More specific information is provided in the following sections on sectoral mandates, but briefly this agenda often views tobacco as any other commodity and seeks opportunities to scale up growing, processing and manufacturing as a means to generate revenue, foreign exchange and employment *(38,39)*. This situation is challenging for governments that legitimately want to improve the economic conditions within their countries, while having committed to reducing tobacco supply and demand. It is important to work towards coherence with the WHO FCTC across sectors, and Article 17 is an important catalyst for this coherence. Efforts to identify and support alternatives align with the principle articulated in the guidelines for Article 5.3 that require countries to recognize that “because their products are lethal, the tobacco industry should not be granted incentives to establish or run their businesses” *(40)*.

Implementing this principle in tobacco-growing countries requires significant engagement with institutions and sectors that have historically supported tobacco as an economic commodity. For example, Zambia established special economic zones, a common strategy of governments seeking to attract investment, with a host of provisions meant to attract companies to establish their operations in this zone *(18,36)*. The provisions included tax incentives, infrastructure support such as buildings, roads and electricity at reduced rates, and other benefits. The problem with this initiative in relation to WHO FCTC implementation is that the provisions did not exclude tobacco companies, and in turn tobacco processing and manufacturing facilities were established with the intent of

increasing sales in the domestic market and drawing from local leaf growing. This is a common example across tobacco-growing countries and reflects the ongoing challenge of aligning economic, health and other goals *(41,42)*. It is important for health ministries to attend to the institutional context that exists across sectors and identify opportunities to shift mandates in these sectors to better align with provisions of the WHO FCTC. This effort is part of the broader development agenda that seeks to align health, social well-being, environment protection, inclusion and participation, and economic prosperity.

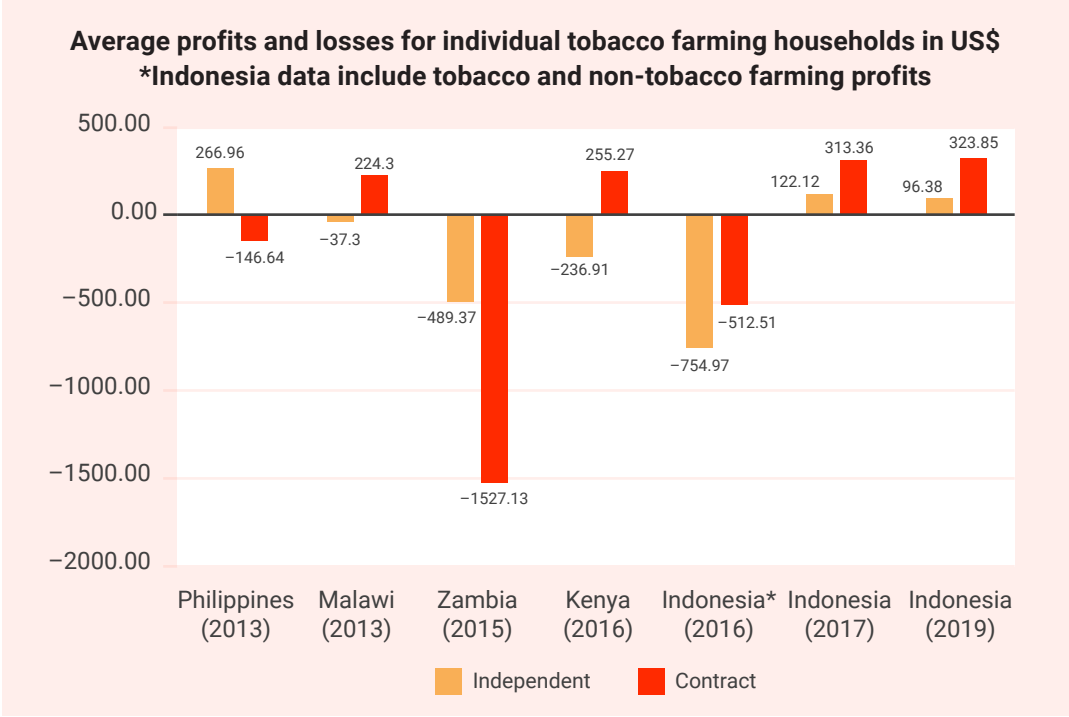
5.3 Supply chain and other market dynamics

Given the challenges associated with tobacco growing, it is important to examine why farmers choose to grow tobacco. There are several intersecting conditions that shape the decision to grow tobacco. Studies conducted with smallholder tobacco farmers across various countries have found consistencies in these conditions. First, at the community level, farmers note that there are options to the agricultural crops that they choose to grow. What tends to channel households into tobacco growing is the supply chain dynamics *(11,12)*. In communities, it is noted that it is difficult to access capital and inputs like seed, fertilizer, materials and other necessary supplies *(43)*. The majority of smallholder tobacco farmers enter into contracts with leaf-buying companies *(9,26,44–46)*. Agents enter communities and approach farmers to offer them these contractual relationships for the growing of tobacco leaf. The benefits of these contracts involve the provision of necessary inputs on loan, at times financial loans, and a guarantee to purchase the leaf at the end of the season. These provisions are often not available for other crops. Farmers consistently note that the promise of cash returns, combined with the initial access to inputs, is the reason for growing tobacco.

Despite the apparent benefits of the availability of these contracts, there remain several challenges with these arrangements. Dissatisfaction with contracts and tobacco growing in general is another consistent finding across countries. A study conducted in Mozambique found that 85% of farmers surveyed noted the negative effects of contract farming *(47)*. The same was found in Thailand *(48)*, Kenya, Malawi, and Zambia *(11)*, Indonesia and the Philippines *(12)*, and Zimbabwe *(9,25)*. The dissatisfaction with

contracts and tobacco growing in general stems from many factors, but ultimately the promise of profits does not materialize for most farmers. The cost of inputs, labour and poor prices all contribute to the more common situation of indebtedness and poverty *(6,7)*. Fig. 2 illustrates the earnings of smallholder tobacco farmers across four countries *(23)*. More facts about the reality of tobacco growing can be found in Tool 1.

Fig. 2. Average profits across countries



In addition to the problem of profits is the environmental toll that tobacco growing places on the environment. Erosion and nutrient depletion of the soil is a major problem with tobacco growing. An environmental assessment conducted by the Government of Sri Lanka illustrates how tobacco growing results in two to three times more soil depletion than other food crops like carrots or beans *(49,50)*. Deforestation is another persistent problem associated with tobacco growing *(32,51)*. The ecological problems of tobacco cultivation are extensive, and the associated health risk for farmers has been widely documented *(30,52,53)*.

The agenda to pursue alternatives to tobacco growing aligns with the SDG agenda that aims to improve environmental protection, economic conditions, health of individuals and their communities, and social well-being. Strictly from an economic perspective, there are numerous alternatives to tobacco growing. What is required is a concerted assessment of the conditions that would foster these alternatives, as well as sustained effort to implement measures that ensure that the viability and sustainability of these alternatives.

6. How to pursue alternative livelihoods: Ingredients for success

The Secretariat of the WHO FCTC published a document with six key principles to inform the pursuit of alternatives following COP6 *(54)*. These principles were informed by research and widespread consultation with government representatives, civil society organizations and representatives for farming communities. The principles provide a framework to consider what is needed in the pursuit of alternatives and a reference point to inform community-oriented approaches to identify these alternatives.

The following section introduces six domains for governments to consider in the pursuit of alternative livelihoods. The "ingredients for success" found in these six domains are not exhaustive, nor are they prescriptive, rather they provide an evidence-informed basis to consider the various facets involved in identifying, implementing and sustaining alternative livelihoods. The facets identified in this section address conditions within and between governments, communities and markets and illustrate some of the factors that facilitate interactions among the three in order to support alternatives to tobacco growing.

Box 1. Six principles that guide the implementation of Article 17 and 18 *(54)*

Principle 1: Livelihood diversification should be the concept guiding the implementation of economically sustainable alternatives to tobacco growing.

Key consideration: *The diversification-of-livelihoods approach does not merely mean growing other crops in the intervals between tobacco growing or associated with tobacco growing (intercropping). It goes beyond the idea of substituting one crop with another. It is a greater set of opportunities and alternatives that are fundamental to establishing successful strategies to livelihood diversification to combat the various forms of vulnerability to which tobacco-growing families are exposed to, particularly in poor rural areas. It is important that diversification of livelihoods go beyond the farm level and be integrated into the broader development strategy to facilitate successful and sustainable implementation.*

Principle 2: Tobacco growers and workers should be engaged in policy development concerning Articles 17 and 18 in line with Article 5.3 of the WHO FCTC and its guidelines.

Key consideration: *Tobacco growers and workers should be engaged in the process of policy development concerning Articles 17 and 18 and involved in implementation, in accordance with national laws, through a bottom-up and territorial approach, making sure that their involvement is insulated from the commercial and vested interests of the tobacco industry.*

Principle 3: Policies and programmes to promote economically sustainable alternative livelihoods should be based on best practices and linked to sustainable development programmes.

Key consideration: *A successful shift from tobacco growing to alternative economic activities requires profitability, the provision of technical assistance, research, capacity-building, the promotion of community organization, and market and social support, with special emphasis on the transition period. Where appropriate, financial mechanisms*

should be developed. The alternatives should be developed under the principles of promoting sustainable development and poverty eradication, enhancing the ability of growers to manage natural resources sustainably with lower negative environmental impacts, increasing resource efficiency and reducing waste.

Principle 4: The promotion of economically sustainable alternative livelihoods should be carried out within a holistic framework that encompasses all aspects of the livelihoods of tobacco growers and workers, including the health, economic, social, environmental and food security aspects.

Key consideration: *Diversification activities need to be incorporated into the policies of agrarian development through appropriate public policies that guarantee quality of life to growers and the agrarian population as a whole. Such policies should aim at taking full advantage of the existing regional and local resources. Every tobacco grower has the right to be duly informed about the risks that tobacco growing poses to his or her health and to the environment and about how to prevent them. National programmes and policies to protect workers' health and the environment should also address the risks related to tobacco production. Adequate human, material and financial resources are required to establish and sustain the promotion of alternative livelihoods at local, municipal, national/federal, regional and international levels.*

Principle 5: Policies promoting economically sustainable alternative livelihoods should be protected from commercial and other vested interests of the tobacco industry, including leaf companies, in accordance with Article 5.3 of the WHO FCTC and its guidelines.

Key consideration: *There is a fundamental and irreconcilable conflict between the interests of the tobacco industry and public health. The tobacco industry produces and promotes a product that has been proven scientifically to be addictive, to cause disease and death, and to give rise to a variety of social ills, including increased poverty. Therefore, Parties should protect the formulation, implementation and funding mechanisms to implement Articles 17 and 18 of the WHO FCTC from the tobacco industry to the greatest extent possible. The tobacco industry should be liable to the extent proven for the health and environmental harms related to tobacco growing and all activities connected with tobacco growing and the supply chain, and for ensuring respect for human rights for those working in connection with tobacco growing and the supply chain.*

Principle 6: Partnership and collaboration should be pursued in the implementation of these policy options and recommendations, including in the provision of technical and/or financial assistance.

Key consideration: *Adequate human, material and financial resources, where appropriate, should be available to establish and sustain the promotion of alternative livelihoods at local, municipal, national/federal, regional and international levels. To ensure sustainability of the programme, existing funding sources should be used, and other potential sources explored, in accordance with Article 26 of the WHO FCTC. Where appropriate, parties should also consider creating incentives for promoting, supporting or shifting to alternate livelihoods and avoiding incentives for tobacco growing. International cooperation, mutual support, cost-effective technology transfer, and sharing of information, knowledge and relevant technical capacity are vitally important for strengthening the capacity of Parties to meet their obligations under Articles 17 and 18 of the WHO FCTC and to successfully counter the socioeconomic and environmental consequences of tobacco production at all levels.*

6.1 Engage with and shift mandates across sectors

Each sector has a role to play in pursuing alternatives to tobacco growing. Multisectoral planning and coordination are essential components of Article 17 implementation. As noted above, tobacco is often embedded in government through various institutions (agencies, departments, working groups) and mandates. To transition out of these mandates there needs to be directives from and within different levels and sectors of government.

6.1.1 National development plans

From the outset, national-level plans must ensure that tobacco is not positioned as a priority. National plans and strategies provide direction and priorities for sectoral action within government. These time-bound plans serve as a reference point in the establishment of sector-based mandates and provide an opportunity to ensure coherence across sectors. Over past decades, national development plans have emphasized tobacco production as a means to economic growth and development. This is typically the case in countries seeking to scale up agricultural production and establish a value addition along agricultural supply chains. For example, if soy is grown within a country, there is added value to transform the raw crop into consumer products like soy milk and other soy-based foods. Value addition in the agricultural supply chain has involved an emphasis on establishing processing and manufacturing for raw goods including crops such as coffee, soy and tobacco. The establishment of processing and even manufacturing of raw material can serve as an important means of increasing supply and access to diverse products in the local market and to increase revenue in international trade. The alternatives agenda can be linked with these plans to identify opportunities for tobacco farmers to enter new income earning endeavours. Governments can integrate the agenda to pursue alternatives by: 1) shifting the emphasis from tobacco as an economic commodity, to one that provides limited opportunity for income generation; and 2) by explicitly linking other development priorities as opportunities to shift away from tobacco growing. Box 2 provides suggestions on the topics that can inform the integration of alternatives to tobacco growing in national development plans. These suggestions also apply to different sectors of government that will be discussed in the following section.

Box 2. Suggestions on issue framing for national development plans

ENVIRONMENT

- **Tobacco is an input-intensive crop**

  As far back as 1962, a study carried out by the India Council on Agricultural Research found that tobacco growing led to far more soil erosion than any other crop. Tobacco was found to cause 45 kg of topsoil loss per acre per year. This was four to five times higher than other crops included in the study: cotton (7.5 kg), grapes (11 kg), and groundnuts (12.5 kg). The scale and toxicity of pesticides used in tobacco growing has been shown to damage ecosystems and disrupt food supply (for example, fisheries via water toxicity) (14).

- **Tobacco growing is a major contributor to deforestation**

  Conservative estimates suggest that over 200 000 hectares of forests/woodlands are removed by tobacco farmers each year (51). The curing process requires significant firewood and in some countries accounts for over one fourth of deforestation (32,55).

ECONOMICS

- **Tobacco growing is not a major contributor to gross domestic product (GDP)**

  The contribution of tobacco-leaf imports and exports to GDP is small (< 1%), with the exception of tobacco-leaf exports in Malawi, Mozambique, North Macedonia and Zimbabwe (56). A study published by FAO modelling the impact of a declining global cigarette market on tobacco growing noted that even a country that is heavily reliant on tobacco growing would be minimally impacted by shifts in the tobacco market. The study notes that "a fall in tobacco prices of 20 per cent would depress Malawi's GDP by 0.4 per cent. If this were to occur over a 4-year period, the impact might be to reduce economic growth from 5 per cent to 4.9 per cent annually" (57). While the contributions to GDP are often exaggerated, the need to support the millions of farmers growing tobacco globally remains a critically important consideration for governments.

- **Tobacco growing is not a lucrative crop and often does not generate profits and leads to debt**

  Smallholder tobacco farmers are struggling. Financial costs often outweigh benefits due to the intensive use of labour in the various stages of tobacco production (including family labour), the high cost and large quantity of external inputs such as fertilizers and pesticides used to support the crop, variable and uncertain tobacco yields, local manipulation of tobacco leaf prices by tobacco traders and the financial burden of recurring indebtedness (6,23,27,28,58).

HEALTH

- **Tobacco is a risky crop to handle and poses numerous health challenges**

  Exposure to agrochemicals is a common problem among farmers growing a wide variety of industrial crops due to the reliance on chemical methods of pest control. Tobacco growing is particularly concerning because it routinely uses much higher amounts of chemicals than most other industrial crops. These chemical products include insecticides, herbicides, fungicides and fumigants as well as growth inhibitors and ripening agents. Tobacco growing is associated with acute nicotine poisoning, respiratory disorders, neurological and psychiatric conditions, and musculoskeletal conditions (4,31,59). Green tobacco sickness inflicts over 8 million farmers around the world, including children (60).

- **Substituting tobacco for food crops has potential to increase the food security and social well-being of rural communities**

  While tobacco is a small portion of total global agricultural production, it effects the lives of millions. The shift to alternatives needs to consider the well-being of communities including food security and the uses of time. Moving to less labour-intensive, health- and environment-harming, and precarious crops can free up time for more meaningful and stable community enterprises. Other crops can also contribute to greater community food security. The potential for a better livelihood is great in the pursuit of alternatives, but the path requires interventions that consider government, community and market conditions.

There is much scope in national development plans to articulate an agenda that pursues alternatives to tobacco growing. The example of Mozambique provided in Box 3 demonstrates how the emphasis on nutrition and food security in a national development plan in part drove support for tobacco growing, hoping that this cash crop would generate income for households to purchase necessary foods. However, farmers and those

working closely with farming communities began to see the limits of tobacco to address malnutrition and food security, and this discontent stimulated the pursuit of alternatives. While the dynamics illustrated in this case are ongoing and tensions remain between the goals of the national development plan and the situation of tobacco growing, the case provides insights into both the tenuous dynamics and possible opportunities that arise when the Article 17 agenda is linked with national development plans.

Box 3. Linking Article 17 with National Development Plans: The case of Mozambique

Mozambique is vulnerable to climate shocks which hinder efforts to achieve environmental sustainability and food security *(61)*. The Government of Mozambique recently launched a new *Strategic Plan for Agricultural Development* (PEDSA) (2030) to sustainably contribute towards food security and nutrition and to increase farmer incomes *(62)*. Although food crops were given high priority, tobacco was included as a cash crop within the PEDSA as a strategy to secure farmer livelihoods. Within this context, between 72 000 and 124 000 households grow tobacco out of 3.9 million farming households nationwide *(63,64)*. However, tobacco farmers still state issues of corruption, debt, low leaf prices and unfair leaf classification as drawbacks to production: "Sometimes it brings a lot of debt, mainly related to tobacco fertilizer and firewood; we spend a lot of money on commercial firewood, that's why most producers prefer to leave it because we will just sacrifice, there is nothing to gain" *(65)*. Furthermore, some government informants expressed disapproval for tobacco production due to health reasons such as green tobacco sickness, echoed the sentiments of unfair labour conditions highlighted by tobacco farmers, and stated environmental damage as a growing concern *(65)*.

Established supply chains and the promise of a guaranteed market are among the main factors that attract farmers to tobacco production. However, the case of Mozambique shows that with investment and a guaranteed market, transitioning from tobacco to viable food alternatives is possible. Data from national surveys conducted from the Ministry of Agriculture demonstrate consistent declines in tobacco production in Zambezia Province, where alternative livelihoods have been promoted. The Government of Mozambique partnered with Technoserve to implement the seed-multiplication project to empower smallholder farmers from 1 March 2016 to the 31 January 2019. The objective of the programme was to increase the productivity and profitability of smallholder farmers and small commercial farmers in Zambezia, resulting in financial benefits for these rural farming communities. The project invested heavily in extension services, machinery, post-harvesting technologies and a seed factory. Before the programme in 2002, it was observed that about 3.5% of farmers in Zambezia cultivated tobacco, while no farmers grew soybeans. However, in the first year of the programme in 2017, the percentage of tobacco growers in Zambezia had declined to 0.8%, and there was a shift to soybean production (0% in 2002; 4.6% in 2017). This shift was attributed to the guaranteed market for soybean seeds, both locally and in neighbouring Malawi. Moreover, unlike tobacco producers, soybean farmers faced no classification issues at purchase points. Notably, soy is also included within PEDSA 2030 as a priority crop needed to contribute to zero hunger by 2030 *(62)*.

Such programmes, which are established in partnership with local and international partners and do not include tobacco production and focus on alternative food crops, present an opportunity to explore alternative crops while engaging Mozambique's commitment to zero hunger by the year 2030.

Crops	Percentage of Smallholder Farmers Who Cultivated Crops (by Year)									
	2002	2003	2005	2006	2007	2008	2012	2014	2015	2017
Cotton	7.2	5.2	6.6	6.1	5.1	3.9	6.3	4.2	3	2.4
Tobacco	3.8	3.1	3.1	3.7	2.6	2.6	1.5	2	2.2	2
Sisal	0.2	0	0	0.1	0.1	0.1	0	0	0	0.1
Tea leaves	0.1	0	0	0	0	0.1	0	0	0	0
Sugar cane		13.8	8.1	8.6	9.1	6.1	4.4	3.8	3	2.9
Sunflower	2.5	1.2	0.5	1.4	1.4	0.9	0.6	0.6	0.7	0.8
Sesame	7.7	5.2	8.1	7.2	6.7	7.4	8.2	10.2	10	7.2
Soybeans	0.3	0.4	0.7	0.8	0.9	0.8	0.9	1.2	2.1	2.4
Paprika	0.2	0.1	0.1	0.1	0	0	0	0	0	0
Ginger	0.4	0	0.1	0	0	0	0	0	0	0

Source: Ministry of Agriculture survey data; Percentage of smallholder farmers who cultivated cash crops by year in Zambezia province, Mozambique

Key Messages

Key Messages:

- Although tobacco production is viewed as an important economic commodity in Mozambique, tobacco farmers continue to struggle financially.
- Market access investment programmes can empower farmers to explore sustainable alternatives.
- Implementation of the WHO FCTC Article 17 presents an opportunity to address broader national development agenda while also adopting supply side measures.

6.1.2 Ministry- and department-level mandates

Tobacco growing is driven directly and indirectly by government decisions. The decisions in the form of legislation (Box 4) at the national level, the policies and programmes developed and implemented at the ministerial level, and the mandates and actions of departments and agencies all have implications for whether tobacco is grown or not. Tool 4 provides detailed points to guide action across ministries. To begin, it is important to understand how the landscape of government decisions shape tobacco growing. As noted above, national development plans and other national-level plans or strategies set the overarching agenda for sectoral priority setting. Tobacco has historically been viewed as a means to strengthen rural livelihoods and the wider economy. The ministry of agriculture is an important player in supporting tobacco and alternative crops. In some countries, the agriculture ministry has listed tobacco as an unscheduled crop. This decision is often driven by the strength of the tobacco supply chain, meaning that the government can defer to market players to provide inputs, loans, research supports and extension services *(66)*. This situation shifts power to these market actors leaving farmers in a vulnerable position, beholden to the dictates of these actors. When tobacco falls under the purview of the agricultural ministry, there are many ways that the actions and institutions of this ministry serve to support tobacco growing.

In many countries, there are agencies specifically dedicated to providing research-informed support to tobacco farmers. For example, the Agricultural Research and Extension Trust (ARET) in Malawi is a farmer-supported (through a levy) research institution "responsible for conducting research and providing technical and extension services on tobacco" with the mission of promoting "sustainable production of tobacco and other high value export agricultural crops for the realization of improved farm profits while conserving natural resources and protecting the environment" *(67)*. The Ministry of Agricultural in Malawi supports the work of ARET and holds two seats on its eight-person Board of Trustees. This is a common situation in countries where tobacco is grown. The institutional arrangements serve to directly and indirectly maintain tobacco growing even when it does not provide the purported benefits. These arrangements become rooted in the institutional context making it more difficult to shift to other priorities, like alternatives to tobacco.

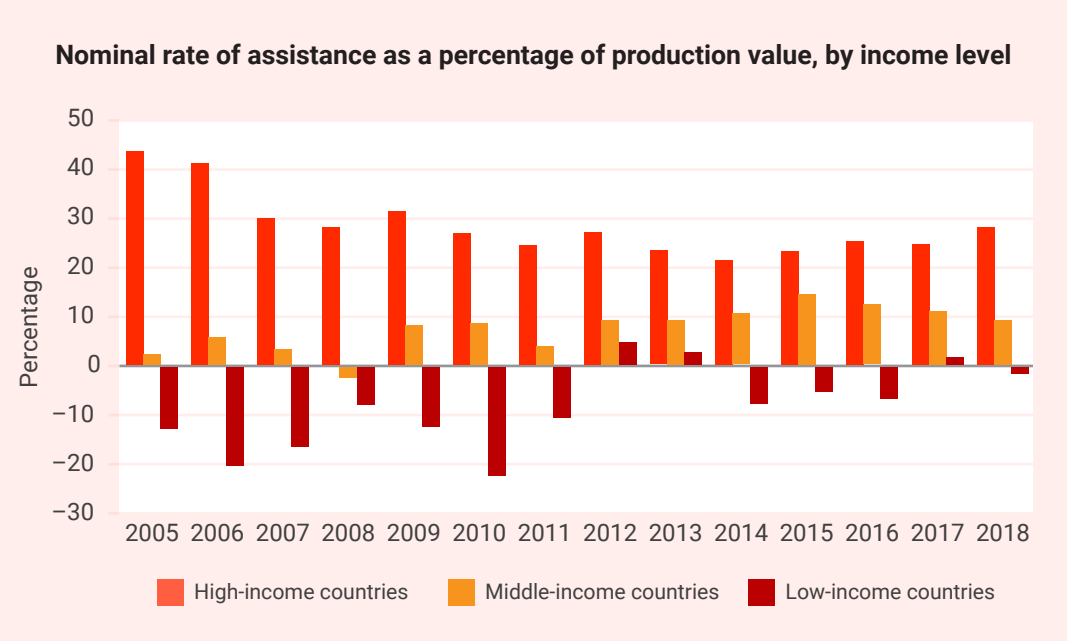
Tobacco and alternatives also fall under the purview of ministries of finance, trade, industry, investment and others. Some more directly than others. For example, as noted earlier in this Toolkit, farmers consistently seek to grow tobacco in order to generate income to pay school fees. This is where the broader development agenda comes into play. In contexts where governments are able to provide free public education, rural communities do not have this same motivation for income-generating crops and can channel income into other enterprises that benefit households. Ministries of finance, trade, industry, investment and other economic sectors have more direct impact on tobacco farming and alternatives. For example, subsidies, generally orchestrated through ministries of finance, agriculture and relevant sectors, are a powerful tool to shape the landscape of agricultural production, and generally to stimulate sector-specific enterprises. A subsidy is a financial intervention that lowers the price of a commodity. Subsidies can have important impacts when used to facilitate staple food supply within countries. For example, Malawi's input subsidy programme provided affordable fertilizer and seed to farmers to stimulate the production of maize.

Subsidies are a widely used tool to stimulate agricultural production. When directed towards tobacco growing, they can lead to both increased production while at the same time providing industry with indirect support by offsetting costs along the supply chain and potentially increasing the quality of leaf received. Subsidies in this case can distort the calculus of profitability for tobacco growing. In other words, subsidies for tobacco growers represent a decision to maintain tobacco growing within the country, often with little benefit resulting from the government revenue that is required. Research on the provision of agricultural subsidies in North Macedonia finds that despite heavy subsidies provided to farmers, farmers end up selling only a small portion of their leaf at competitive prices and the bulk is sold as "surplus" leaf and that the subsidies end up being the only reason tobacco remains a viable crop for farmers *(68)*. The research also notes that tobacco subsidies displace production of other agricultural goods that are potentially more lucrative. At the international level, subsidies are a highly controversial topic.

Agricultural subsidies have been shown to serve as a barrier to market access. While much of the research has focused on subsidies provided by wealthier governments and the distorting effects of these actions, the employment of agricultural subsidies is widespread *(69)*. A recent report by FAO, the United Nations Development Programme and the United Nations Environment Programme shows the disparity in the provision of agricultural assistance across countries based on income categories (Fig. 3). The same report points to the current opportunity to "repurpose agricultural support in ways that act as incentives across food systems to specifically achieve the SDGs and deliver on other global commitments" including the SDG commitment to implementing, in full, the provisions of the WHO FCTC *(70)*. The purposeful utilization of agricultural supports can have important positive implications for sustainable, healthy and viable alternatives. The

issue of fair subsidization is one that must occur as governments pursue alternatives. For example, while alternatives crops like soy or maize may be suitable to the environments of tobacco-growing regions, these crops are heavily subsidized in the international market, with implications for the ability of smaller countries to compete in terms of quantity and price.

Fig. 3. Agricultural assistance by region



Source: Author's own calculation based on data from Ag-Incentives (forthcoming).

Agricultural subsidies have been shown to serve as a barrier to market access. While much of the research has focused on subsidies provided by wealthier governments and the distorting effects of these actions, the employment of agricultural subsidies is widespread.

Box 4. Legislation as a tool to mandate alternatives *(71)*

The case of Bangladesh – Legislative requirements to discourage tobacco cultivation

Tobacco is primarily grown in three districts in Bangladesh: Bandarban, Kushtia and Rangpur. The land where tobacco is cultivated grew from about 74 000 hectares in 2012–2013 to 108 000 hectares in 2013–2014, but has since decreased to 39 235 hectares in 2016–2017. Although land area is decreasing, tobacco production is increasing because of the use of hybrid or high-yielding varieties. Tobacco began to be grown commercially in 1976. There are about 100 000 tobacco growers in the country, 25 000 of whom are associated with British American Tobacco.

Farmers have been slow to switch to other crops citing reasons such as difficulty in obtaining inputs for other crops, problems with the marketing of other crops, perishability of other crops, difficulty in getting loans for other crops, poor technical knowledge on alternatives and incentives provided by the tobacco industry to sustain tobacco growing, such as loans

Section 12 of the Smoking and Using of Tobacco Products (Control) Act 2005 states that loans were to be provided for cultivation of alternative crops in lieu of tobacco products. It further specifies that:

(1) the Government shall, for the purpose of discouraging the tobacco cultivator to cultivate tobacco product, and encouraging to cultivate alternative cash crops, grant loans on easy terms, such opportunity shall continue for a period of next five years after the commencement of this Act; and

(2) the Government shall make necessary policies to comprehensively discourage the production and use of tobacco products and to discourage the establishment of tobacco products industry.

Between 2005 and 2010, the Bangladesh Bank instructed all commercial banks to comply with the tobacco-control law by giving soft loans to tobacco growers for growing alternative crops.

The Government also established a district taskforce committee and sub-district taskforce committee to encourage farmers to shift to alternative crops. The Ministry of Agriculture has dropped tobacco from its cash crop list, and the Ministry of Industry stopped giving subsidies on fertilizers to British American Tobacco. Between 2002 and 2009, the Northwest Crop Diversification Project covered 16 districts and 16 *upazilas* (an administrative division) in the North West Region. There were efforts to do crop zoning and to better utilize the land, and support was given to market the agricultural products. From 2010 to 2016, there was a second crop diversification project covering 27 districts and 52 *upazilas* in the South West and North West regions. Support and credits were given to promote high-value crops.

The National Tobacco Control Cell under the Ministry of Health subsequently drafted the *Health Improvement Surcharge Management Policy* in 2016. The policy was approved by the Cabinet in October 2017. The plan is to use the surcharge on programmes that aim to reduce demand as well as the supply of tobacco. The fund will support 14 sectors and support efforts, among other things, to discourage farmers from cultivating tobacco, create alternative employment opportunities, and conduct research and training.

Summary

Summary

- The transition to alternatives will involve repurposing tobacco-supporting agencies to strengthen support for alternative crops.
- Ministries of agriculture and finance have important roles to play in providing necessary financial support to farmers if the aim is to transition to other crops.
- Other ministries have a role to play to ensure that the social and economic context is conducive to transitions towards alternatives. Upholding labour standards and ensuring access to education for children of farming households are examples of how ministries can support alternatives.

6.2 Implement WHO FCTC Articles 5.2 and 5.3

The relationship between the WHO FCTC Articles 5.2, 5.3 and 17 is critically important. The success of Article 17 will depend on the success of multisectoral coordination and the protection of conflicts of interest and industry influence in decision-making spaces. Article 5.2a requires governments to establish national coordinating mechanisms that bring together the various sectors of government in the pursuit of comprehensive implementation of the WHO FCTC. This article is premised on the recognition that:

> … some of the biggest gains in tackling tobacco can be made through direct involvement of sectors other than health, for example finance to tax tobacco products, agriculture to support alternative economic activities to tobacco growing, justice and law enforcement to approve and enforce tobacco control legislation, and tourism and hospitality authorities to help implement smoke-free places *(72)*.

Many governments have established functioning coordinating mechanisms that regularly bring together representatives from the various sectors of government to discuss WHO FCTC implementation. The implementation of Article 17 confronts the challenges faced by other articles that have implications for tobacco companies by controlling their core business. For example, tobacco companies are particularly opposed to measures that prevent their ability to advertise their products or expand their market. Likewise, the pursuit of alternatives has implications for the ability to source cheap tobacco leaf, and thus is an area where companies mobilize opposition to government intervention. This is where Article 5.3 becomes a critical component involved in implementing Article 17. Article 5.3 serves as a foundation for policy efforts by protecting decision-making from the influence of industry and other economic interests. The challenge of merging Articles 5.2a, 5.3 and 17 is that often the agribusiness, trade, investment and industry sectors of government view the tobacco industry and associated companies along the supply as a stakeholder. The institutional arrangements in these sectors often involve industry representatives on bodies where government representatives also serve as illustrated in the sections above. Often these institutional arrangements and the close relationship between industry and government is supported by mandates that require ministries, departments, and agencies to support the activities of the tobacco industry in the pursuit of economic development. The ways that industry and related interests are enmeshed with government sectors poses a major obstacle for consensus building in the pursuit of the articles of the WHO FCTC in general and particularly articles like Article 17, which runs contrary to government support of tobacco supply.

It is important for health and other sectors that do have tobacco farming within their mandates to be sensitive to the mandates of other sectors that do. Certainly, these mandates create institutional conflicts and access for industry to oppose health measures. At the same time, acknowledging that economic sectors may view tobacco as an important part of their mandate and that many institutions directly support tobacco supply without assuming that these mandates reflect “industry interference” can avoid more intractable conflicts. Evidence suggests that mandates can change. Change in this setting requires patient and deliberate effort to articulate the problems associated with tobacco growing and emphasize the overarching commitment to implement *all* provisions of the WHO FCTC within government.

This must begin with a need to shift mandates towards alternatives. There are several reasons why this shift can be attractive to economic sectors that have historically supported tobacco supply (Box 4). Many of the economic sectors of government have already been shifting away from viewing tobacco as an important economic commodity and have been exploring alternative crops and economic enterprises in their national

development plans and associated sectoral policies and programmes. This shift can be further encouraged through national coordinating mechanisms that frame the issue of alternatives in terms that pertain to the different sectors including environmental protection, labour, health and social well-being, and sustainable and inclusive economic development. At the same time, it can be explicitly recognized that the pursuit of Article 17 requires a shift in the way that tobacco interests are viewed in these sectors. It will take time to establish new rules for government–industry relations given the entrenched nature of these relationships in the context of tobacco growing and production. To begin, the implementation of the recommendations from the Article 5.3 guidelines can help shift these relationships to ensure there is accountability, transparency and the eventual elimination of any partnerships or institutions that involve both government and industry representatives *(40)*. The guidelines established for Articles 5.2a and 5.3 provide detailed guidance for governments to create intersectoral mechanisms that are free from industry interference.

Summary

Summary

- Coordination of alternatives across sectors can be facilitated through the national coordinating mechanism required by Article 5.2a.
- The implementation of Article 5.3 guidelines will help protect the Article 17 agenda from tobacco industry interference.
- It is important for tobacco-control advocates to identify and understand how tobacco is embedded in the institutional environment and to work with partners in these sectors to repurpose existing institutions to facilitate alternatives.
- The mandates of institutions that currently support tobacco directly or indirectly must be shifted to reflect an agenda to pursue alternatives.
- For agricultural alternatives, farmers will need access to technical assistance and extension services to support the transition.
- Part of the shift of mandates involves shifting away from the view that tobacco interests are relevant stakeholders in the process of pursuing alternatives.

6.3 Work directly with farming communities

One of the persistent challenges identified in the literature on smallholder agriculture is that farmers are often not represented when key decisions are made. The research on the political economy of tobacco production finds that while narratives of tobacco's contribution to the prosperity of farmers and the broader economy persist within government sectors, farmers consistently note that tobacco farming poses challenges. This disconnection between what farmers say about tobacco growing and how tobacco is viewed by economic sectors within government reflects the need to bridge the two worlds. The work conducted by the International Labour Organization (ILO) in Uganda, Zambia and other countries finds that smallholder farmers are often "price-takers" with little ability to negotiate crop price. Farmers consistently express that when they sign a contract at the beginning of the growing season, they are promised a particular price that ends up being much higher than the price received at the end of the season. The imbalance between buyers and growers is reflected in many practices that ensure that the loans provided to the farmers at the beginning of the season are repaid with little incentive

for the companies to purchase beyond the reclaiming of debt owed. As one farmer from Mozambique puts it:

> The company never loses. They usually say that when they give us loans, they'll collect their money because they don't leave anyone with a debt. They say: "If you have a debt, we'll sort it out at the selling point." They don't care; all they care about is their money. Suppose I owe money to the company, a debt of 15 000 MT [Mozambican meticals]. The company will collect all the money I sell until I complete the sum. If I fail to sell more than that, I'm left with a debt towards my helpers.

One of the solutions to enhance the power of smallholder farmers is to establish and encourage community organizing that can leverage fairer deals and contribute to efforts to locate and establish alternatives to tobacco growing. This community organizing can take different forms. For example, in the case of alternative crops, farmers can establish cooperatives that can serve to channel a collective voice when negotiating with companies along the supply chain. Such cooperatives have also been found to establish mechanisms of support that lift the economic conditions of members through resource sharing and pooling funds. In projects to support shifts from poppy growing to alternatives, the United Nations Office on Drugs and Crime in collaboration with the Government of Myanmar were successful in shifting 1000 households to coffee growing with the establishment of the Green Gold Cooperative. The farmers' cooperative formed a partnership with the French coffee company Malongo to ensure a market for the beans and establish a stable and predictable supply chain. Reflections on the organization and functioning of the cooperative revealed that this type of arrangement helped create a more level playing field for farmers to negotiate with big multinational players. It also supported "social inclusion, community involvement and economies of scale".

Those involved in the project noted that "creating community involvement helps transferring ownership of the project to the farmers, which is key to create a local culture around the intervention. Moreover, united farmers have better chances to vertically integrate their business and to capture more value along the supply chain." To ensure the sustainability of alternative crops when farmers decide to switch from tobacco to other crops it is critical for communities to organize their efforts and be systematically linked to markets, whether they be local, national or international. When communities are organized they are better positioned to ensure fair prices for their products. They can also better coordinate production to ensure that the supply meets the market demand. In addition to collective approaches to organizing production, it is important that farmers have linkages with and supports from government. In many communities, the presence of extension services is critically important to receive technical support and to ensure that information from these communities can be channelled to decision-making spaces in local and national governments.

Box 5. Farming cooperatives to support alternative crops *(71)*

***The case of Brazil* – Farming cooperatives**

A key issue of any crop substitution programme is the returns from tobacco compared to alternative crops. Tobacco remains an attractive crop as it provides a higher net income yield per unit of land than other conventional food crops. An initiative within the Rio Pardo Valley was able to support alternative agriculture that offered comparable and sometimes higher income for the farmers.

Efforts to support an alternative and sustainable model of rural development in Rio Pardo Valley resulted in initiatives to promote tobacco crop substitution, particularly

through agroecological endeavours. Nongovernmental organizations (NGOs) began providing technical assistance to groups of family farmers in the Valley in the late 1980s. It is perceived that a key factor for expansion of agroecological production in the region was the strong presence of family farms.

Agroecological production primarily aims to avoid using pesticides and minimize the use of inorganic chemical inputs. Efforts to consolidate agroecological production as an alternative to tobacco farming led to the emergence of new partners and stakeholders, such as farmers associations, municipal governments, the public extension agency of the state and NGOs. Agroecological production is usually based in family farms smaller than 15 hectares and produce more than 40 products (for example, erva-mate, peaches, oranges, beans and corn, among others), which are then sold in fairs and regional and local supermarkets and to restaurants.

The Center of Assistance for Small Farmers (CAPA), associated with the Brazilian Evangelical Lutheran Church, is the main organization in the Rio Pardo Valley working on crop substitution and diversification initiatives aimed at addressing the production, distribution and sale of agroecological products. CAPA has offices in different states and represents several thousand farmers organized into cooperatives, groups and associations dealing with ecological food production and integral nourishment. CAPA also supports the establishment of agro-industries and operates a seed-processing facility. CAPA also created a Regional Cooperative of Ecologists and Family Farmers composed of farmers dedicated to the production and marketing of agroecological products such as vegetables, rice and erva-mate. The main marketing channels were weekly ecological fairs.

CAPA has been instrumental in promoting diversification and tobacco crop substitution initiatives in the tobacco-growing municipalities. The funding for the project was secured by CAPA through agreements with municipal authorities and partnerships with farmers' associations, as well as through grants received from international and national agencies. Preliminary estimates of revenues showed that agroecological products attracted comparable or even higher profits than tobacco farming. The project teams were composed of agriculture, health, management and communication professionals.

A project born out of the South–South Cooperation programme with the support of the FAO sought to enhance rural aquaculture and agriculture practices through a collaboration between China and Nigeria *(73)*. The first phase demonstrated several successes including the establishment of new, high-yielding complimentary aquaculture-agriculture practices such as the rice–fish farming, establishment of fish hatcheries, a move from net to cage fishing and the introduction of charcoal fish-smokers. In some cases, the introduction of charcoal fish-smokers doubled the income of local merchants. The establishment of fish-cage culture allowed local fishermen to significantly improve the predictability and stability of the fish market and triple yields. There also was collaboration among local governments, experts from China and local communities. One of the key lessons from this initiative has been the importance of coordination, training and ongoing support in each locality to enhance the work of local farmers, fishermen and merchants. Regional Multi-Service Extension Centres (REMSEC) were established in each of the six geopolitical zones. These centres employ individuals who assist with aquaculture and agriculture initiatives, provide training and support, and act as a bridge between communities and local governments. Importantly, these centres established relationships with local extension services, a key enabler of agricultural production and one often absent in many tobacco-growing communities. The presence of extensive services is a critical ingredient in the provision of technical support and training and provides a channel

to communicate community needs to decision-making spaces within government. One of the positive features identified in the China–Nigeria initiative was that REMSEC could serve as a conduit to link needs with resources. For example, in one of the states, REMSEC pooled information from the local community to identify key equipment needs required for various activities including fish smoking and rice growing. REMSEC coordinated the training of a local blacksmith to create the necessary tools. This blacksmith then trained and employed 30 blacksmiths in the state. The initial assessment found that 200 smallholder families had purchased tools from these blacksmiths, feeding the local economy and contributing to more efficient and high-yielding practices.

Alternatives to tobacco cultivation, as the examples above illustrate, can draw from different patterns of organization including cooperatives and enlisting the support of for- and non-profit partners. It is particularly important to note that the supply chain dynamics that characterize smallholder tobacco growing also characterize food crop production, with unequal arrangements that often leave farmers in precarious economic situations. A message presented throughout this report is that while cash crops traded on the global market may provide one alternative approach to tobacco, there are numerous other examples where cultivation can be tied to local markets, the food needs of communities, or national processing and manufacturing companies.

Summary

Summary

- To facilitate alternatives, communities can establish collective arrangements to ensure that supply is coordinated and meets market demand, enhances bargaining power in determining price and pools resources to ensure efficiency in production.
- Local or regional centres can serve to provide technical training and supports for different initiatives and can serve as a conduit to channel community needs and experiences to decision spaces in relevant local and national governments.

6.4 Gather and generate relevant information

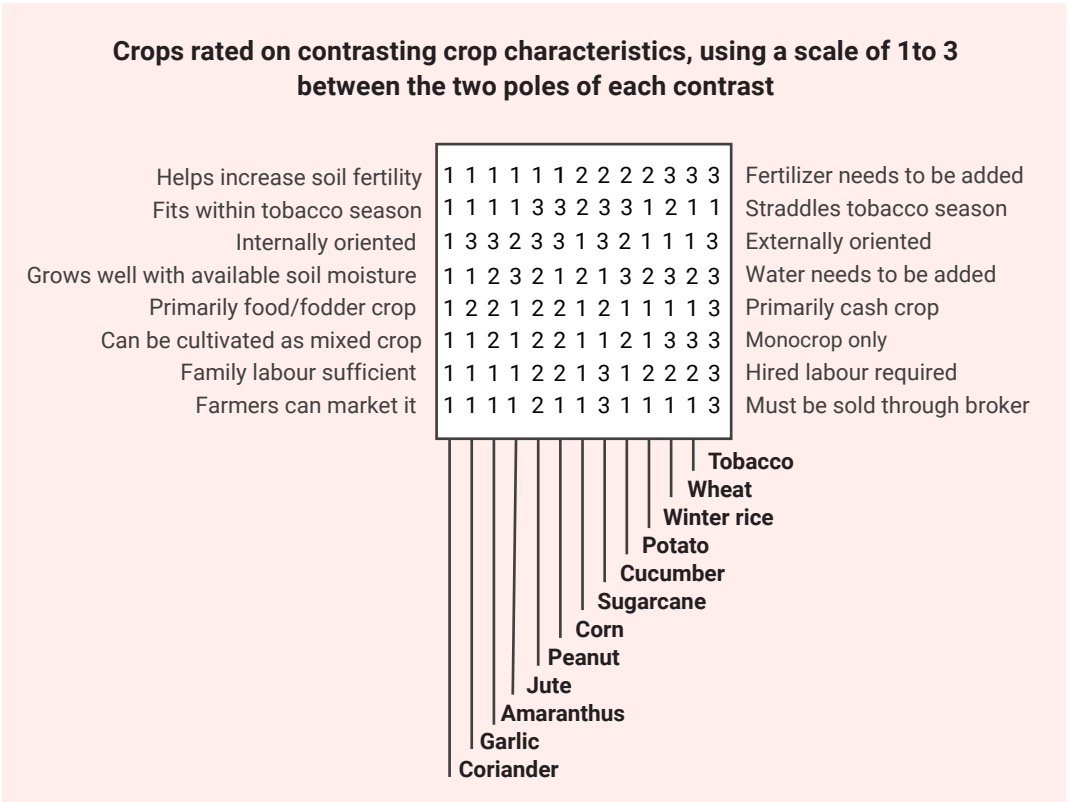
Information is proven to be a critical ingredient in the pursuit of alternatives. As noted, the understanding that tobacco is a beneficial economic commodity for both farmers and the wider economy has historically been driven by the influence of economic interests and less by accurate information *(74)*. The information needs to pursue alternatives and ensure that they are sustainable are multifaceted.

Identifying and supporting alternatives requires the generation of information at different levels and the interactions between factors at these various levels. Assessment of factors at the level of the farm, community, province or state, and national and international levels is important to consider. In terms of alternative crops, it is important to generate information on supply chain dynamics for both cash and subsistence crops. Both categories require an assessment of current suppliers of inputs and materials and a mapping of the trajectory of prices. It is often the case, as indicated earlier, that farmers struggle to acquire the necessary inputs and tools to grow crops. Tool 2 can help guide an analysis of the relevant actors, resources, information, and policies and programmes to better establish support to farming households. Tool 7 provides a comprehensive list of indicators to structure information gathering.

Assessment of market dynamics is another critically important factor. Market dynamics for both cash and subsistence crops can include information gathering across the levels identified above. For example, community-level market dynamics may include collective arrangements to pool resources to grow particular crops or arrangements to diversify the staple food needs of a community. Mapping the local, provincial or state, and national retail market can provide insights into consumption patterns, price trends, and the potential for coordinated storage, processing or manufacturing needs for the crops being grown for in-country markets. Information on the technical needs of crop production is also critically important in the pursuit of alternative crops. In many countries where smallholder tobacco farming is conducted there are robust research, training and technical support programmes. Information on the technical requirements of alternatives and resources to generate new information will contribute greatly to this enterprise of alternatives. Linking information gathering systems such as household surveys with market systems can contribute to the linking of contextual factors with general trends. As diversification of tobacco cultivation is a long-term task, financial support for the information and support centres undertaking this work should be ensured for several years to facilitate sustainable diversification and alternative livelihoods.

Several tools exist to collect relevant information to meet the needs of households, communities and systems. The collation of relevant information and the establishment of user-friendly "knowledge products" such as newsletters, information briefs or web-based resources can be facilitated by the national coordinating mechanism and focal points. Dedicating resources to support a coordinator under the supervision of the focal point may be necessary to ensure that the information gathering, collation and sharing is sustainable and meets the needs of the target communities. Fig. 4 is one example of a tool developed by the International Development Research Centre to facilitate the necessary information to pursue alternative crops *(4)*. Tools 2, 3 and 7 provide an overarching approach to identifying the information required to facilitate alternatives.

Fig. 4. Example of a tool for evaluation



Source: Tobacco Control and Tobacco Farming, International Development Research Centre. 2014

Summary

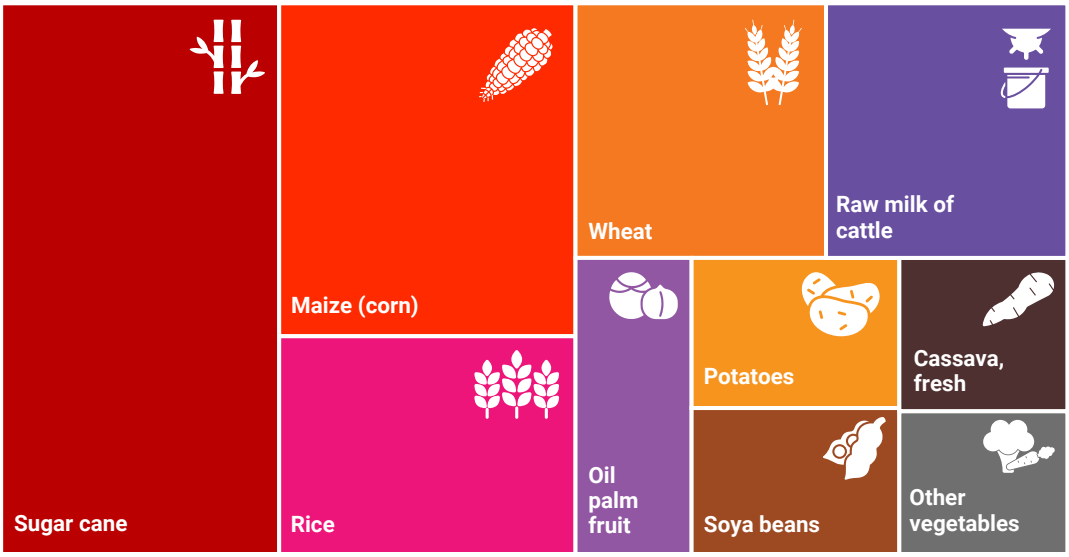
Summary

- Identifying and supporting alternatives require the generation of information at different levels and the interactions between factors at these various levels.
- Rural extension services can support institutions that promote the commercialization of alternative agricultural products.
- Several tools exist to collect relevant information to meet the needs of households, communities and systems.

6.5 Identify and support markets for alternative crops

The global market for food-based crops is large (Fig. 5). Tobacco crops hold a marginal position in the global agricultural market, but they remain prominent in countries around the world. Establishing predictable and stable markets for alternative crops is a key challenge facing governments in the implementation of Article 17. As noted throughout this document, farmers often chose tobacco growing due to its viability, a decision that includes but extends beyond profitability to include access to inputs and other loans and guaranteed market access at the end of the season. Access to international markets for food-based crops requires: 1) fair and predictable international trading systems; 2) equitable and harmonized limits on national supports including subsidies; 3) fair and transparent pricing along the supply chain; and 4) markets that encourage nutrient-rich food crops.

Fig. 5. Most-produced agricultural crops by total global market value 2021



It is important for governments to work with communities and market actors like suppliers and retailers to foster markets for alternative crops. This is perhaps the most complicated feature of the agenda to support alternatives. As the tools illustrate, there are numerous intersecting factors making the supply of alternative crops difficult to manage and markets difficult to predict and sustain. The important piece for governments to consider is that crops should be identified and supported based on a host of factors conditions that exist within communities, including environmental conditions that shape consideration of which crops best align with the ecosystem of the area, and markets, including local

and national food needs and pathways from farm to retail markets. For example, the existence of processing and storage capacities is an important consideration and may facilitate diversity of food crop production for local consumption. The interagency Tobacco-Free Farms Initiative is an important example of a programme that considers the host of factors including market access in the implementation of alternative nutrient-rich food-based crops. The first pilot project was initiated in the Migori region of Kenya and implemented a range of support to encourage farmers to move from tobacco growing to food crop production.

Trade and investment ministries can play an important role in negotiating fair conditions in international markets. These ministries can also facilitate investment in alternatives by providing incentives and inducements. These ministries can ensure that communities and supply chain actors have the necessary information including market forecasts, price trends in inputs and materials, and tariff rates across markets and other potential barriers/facilitators of market access. Importantly, ministries involved in rural and national development can work with communities, with particular emphasis on meeting local food needs. These ministries can provide and incentivize linkages along the supply chain to make it easy and affordable for local processers, distributors and retailers to source crops from within the country.

Box 6. Building market access for alternative crops – The case of the Tobacco-Free Farms project in Kenya

Background. Tobacco-Free Farms is a joint project of WHO, FAO and the World Food Programme (WFP) in collaboration with the Government of Kenya *(75)*. The main purpose of the project is to create an enabling and supportive crop production and marketing ecosystem to help tobacco farmers shift from tobacco growing to alternative crops. The project was initially launched in Migori County and has since expanded to cover Bungoma, Busia and Meru counties. From an economic perspective tobacco provides poor profit margins for farmers resulting in accumulation of debt *(76)*. Government data indicate that tobacco only contributes to 0.03% of the GDP of Kenya, countering the arguments of tobacco as a key revenue generator *(77)*. Environmentally, as advocates point out, since 1960s, 7000 hectares of forest have been cleared for tobacco farming and related fuel purposes. Currently, only 20 000 hectares of forest cover is left in Migori County, impacting the ecosystem of Kenya *(77)*. Tobacco farming has also contributed to water resource depletion and increased reliance on chemical fertilizer due to high demand for nitrogen, phosphorous and potassium for the crop. The health of tobacco farmers is at risk due to green tobacco disease, which is caused by working with wet tobacco leaves leading to nicotine poisoning. Additionally, tobacco curing has negative implications for health *(77)*.

Both the Government of Kenya and the county government of Migori remain in strong support of this initiative as the project has positive implications for health and livelihoods of farmers and sustainable food crops contribute towards food security. Kenya ratified the WHO FCTC in 2004 and has been proactive in implementing the Convention within the country through the Kenya Tobacco Control Act of 2007, including supply-reduction measures such as supporting alternatives to tobacco production *(75)*.

Transitioning from tobacco growing. Migori County was selected as the first region to launch the Tobacco-Free Farms project, which covers the sub-counties of Kuria West, Suna East, Suna West and Uriri. The high-iron common bean (Nyota variety) was selected as the alternative crop since it is drought resistant, has a short maturation

period and cooking time and is a highly nutritious food source. In the second growing season, high-protein Rosecoco beans were selected as a second "value chain" in addition to Nyota beans. In contrast to tobacco, high-iron beans also improves soil quality through nitrogen fixation and reduces harmful health impacts for farmers *(78)*.

WHO, FAO and WFP have supported the project through access to quality inputs (certified seed, fertilizer, crop protection), training on good agricultural practices and post-harvest handling, and support with aggregation and offtake. In addition to harnessing the purchasing power of WFP, the initiative also creates linkages to private and public market players to offtake the crops through a WFP programme called the Farm to Market Alliance. Through partnership with the United Nations Capital Development Fund, the initiative will deploy a portfolio guarantee to a microfinance bank to provide micro loans to eligible farmers in Kenya and Zambia to support their shift away from tobacco growing to alternative livelihoods. In the first phase over 700 farmers registered for the programme, with 330 switching to Nyota beans and in the second phase, 1100 farmers registered with 740 switching to Rosecoco beans *(78)*.

The summary below summarizes key statistics in both phases.

Summary outputs from 2021–2022 Tobacco-Free Farms project

604 acres dedicated to alternative crops in phases 1 and 2	**1070** active farmers in the programmes via phases 1 and 2	**1105** farmers trained in best agronomic practices in phase 1
> 1000 farmers and their families sensitized on health risks of tobacco farming	**1800** farmers registered for training in phases 1 and phase 2	**481.8** metric tonnes of high-iron beans sold in phases 1 and 2

The key to achieving good traction and success in this project is the focus of all United Nations agencies and partners in strong community engagement, through Farmers Service Centres and leveraging the Farm to Market Alliance for building a proper ecosystem using market-shaping strategies. The objective of better health, better environment and better income to farmers and community is the end goal, and seems to be achievable.

COST–BENEFIT ANALYSIS PER ACRE

Activity	Nyota Beans (average) KES	Tobacco (average) KES
Crop establishment	14 600	81 800
Crop management	4 000	15 700
Harvesting	2 400	11 500
Post-harvest management	9 000	76 500
Other costs (loan burden at 24%input cost)	–	19 776
Other indirect costs (household health)	–	4 500
Total cost of production	30 000	209 776
Gross revenue	63 000	225 000
Other benefits	16 350	–
Total gross revenue	79 350	225 000
Net income per season	49 350	15 224
Net income per annum	98 700	15 224

Harvest	Nyota Range	Nyota Average	Tobacco Range	Tobacco Average
Quantity harvested (Kg)	200 to 1 000	630	900 to 2 600	1 500
Current average price (KES)	60 to 120	100	80 to 230	150

N.B. 1 US$ = 119 Kenyan Shillings (August 2022)

Source: Food and Agriculture Organization of the United Nations

Key Messages

Key Messages

1. Tobacco-Free Farms project is a partnership between WHO, WFP, FAO and the Government of Kenya.
2. Year 1: 1070 active farmers, and the initiative aims to reach 4000 within a few months.
3. FAO provides agricultural training, WHO uses its convening power of Member States to support shift to alternative crops, and WFP supports farmers with inputs and market access.
4. Farmer Service Centres developed by Farm to Market Alliance of WFP have been instrumental in the success of this project.
5. Average Net Income: 98 700 Kenyan shillings for Nyota beans versus 15 224 Kenyan shillings of tobacco

Summary

Summary

- Facilitating access to markets requires a multifaceted analysis of community and market conditions.
- While international markets have dominated cash-crop agricultural production, the establishment of local markets for food-based crops is critically important.
- Repurposing institutions that support tobacco to support alternatives crops is one way that market access can be strengthened and governed.
- Ministries of trade and investment can provide relevant information on international markets and negotiate fair deals to support the international trade of crops and other goods.
- Ministries of rural and national development can work to strengthen local supply chains where processers, distributors and retailers can access local agricultural commodities for national markets.

6.6 Provide or link financial and agricultural resources to support transitions

The financial aspect of tobacco growing serves as a powerful mechanism to both sustain and transition out of tobacco growing. Often financial supports in the form of subsidized inputs, equipment or other material requirements for agricultural production are needed to sustain tobacco growing. For example, the government of Türkiye subsidized tobacco production prior to the era of market liberalization. Since the late 1980s, foreign companies have entered the Turkish market, significantly impacting the supply of tobacco products in the local market. The local companies were privatized and in some cases acquired by foreign companies. In 2002, the Government removed the subsidy programme and tobacco growers largely moved to a quota-based contracting system and the Government channelled funds into a programme to support alternatives *(79)*. Without government subsidies, many tobacco farmers were unable to sustain their production resulting in a decline in the number of farmers growing tobacco from 478 000 producers in 2001 to 207 000 by 2007. From 2002 to 2007, the Government implemented a programme to support alternatives. The programme implemented a quota system that limited the amount of tobacco that could be produced and sold, provided financial support to grow alternative crops on retrieved land, and gave direct cash support for lost income during the transition (approximately US$ 80/decare).

The programme resulted in 30% of the land where tobacco was once cultivated being used for other agricultural purposes. In the Aegean Region, the shift involved movement to diverse livelihoods including tourism, greenhouse production, cattle stock and dairy farming, with many migrating to provinces where industry was developed. In terms of agricultural production, in this region, olive and thyme cultivation and cattle stock and dairy farming are encouraged by the provincial agricultural directorates, and aid has been given for these purposes. The programme came with mixed success with many farmers reluctant to switch to other livelihoods. The case illustrated the complex intersection of market, environmental and social factors that shape the ability to sustain alternatives. An assessment of the programme found several factors that limited the success of the programme (Box 7).

Box 7. Challenges observed from Türkiye's programme to facilitate alternatives include:

- most of the producers do not own the land they farm;
- tobacco production is a major contributor to employment in these regions;
- unwillingness to change to unfamiliar products, as tobacco has been produced in the region for so long;
- fear of loss of production quotas if producers stop growing tobacco and then see the government later decide to once again support tobacco production;
- inadequate facilities for storing, processing and drying alternative products;
- anxiety about marketing new products;
- incomplete demonstrations of the cultivation of alternative products to leading farmers to encourage them so they can serve as role models; and
- Tekel's (major tobacco company in Türkiye) advance payments in cash during the implementation of the project *(79)*.

It is important to highlight that most programmes that support alternatives do not result in a complete shift to alternative livelihoods. Given that tobacco is a legal crop and the market for tobacco products remains high, there will be pressures placed on growers to cultivate tobacco leaf. However, these programmes can begin to shift the culture of acceptance away from tobacco and can provide significant benefits to families and communities that move to other types of livelihoods. The important point to highlight is that smallholder tobacco growing brings a host of harms to the environment, the economic well-being and health of families who grow the crop, among other harms *(4)*.

Despite the challenges of eliminating tobacco growing entirely within a country, there are some examples where this has been possible through government intervention. Both Canada and New Zealand were able to remove tobacco growing largely or entirely through both the removal of subsidies and supports and the purchase by government of quotas. In Canada's case, the provincial Government of Ontario used funds acquired through a lawsuit filed against the tobacco industry over harm to human health. The Government implemented a quota system where tobacco growing was licensed and farmers received quotas that controlled the quantity of leaf sold. Following the successful suit against the tobacco industry, the Government used the money to purchase back the quotas, meaning that farmers could no longer grow tobacco, and the sums involved in the purchase allowed farmers to invest in alternatives *(80)*.

In New Zealand, an act passed in 1935 instituted government protections for tobacco farmers, including guaranteed fixed prices managed by the Tobacco Board and a clause stating that manufacturers were required to use 30% domestic leaf. In the 1970s, the government-protected industry was coming under scrutiny, and as a result in 1980 the Government removed the licensing system for tobacco, including the requirement for manufacturers to purchase local leaf. In addition to other factors making tobacco unattractive to growers, there was a mass movement out of tobacco growing. This movement was supported by government payouts to farmers to shift to alternatives. The last commercial tobacco crop was planted in 1995 *(81)*.

Box 8. Access to finance: the case of India

Farmers often choose to grow tobacco because of the provision of inputs and cash loans by leaf-buying companies. Across countries, farmers say that they have limited access to finances to purchase inputs and materials and to hire labour, which is why they are attracted to the contractual relationships with leaf-buying companies that offer these types of loans. In India, loans from the formal banking system are available to any farmer for growing crops that are economically viable. The banks grant loans only after due evaluation of the credit-worthiness of the farmer and his ability to return the loan without defaulting. It is, therefore, essential to demonstrate to the banks the commercial viability of alternate crops before loans are advanced by them.

Public sector banks have encouraged crop loans and farm credits to groups of farmers, who usually form self-help groups. This has worked very successfully in the state of Andhra Pradesh, where 15–20 farmers generally pool their resources and apply for a loan. The banks have favoured this arrangement, as it assures them of greater accountability and a more assured return.

The public sector and rural banks have also introduced the concept of rolling credit for various crops. This enables farmers to roll their loans over in subsequent years, even if they have switched to a different crop. There is also the option of staggered payment schedules, depending upon the agro-economic conditions of the cropping season. Tobacco farmers may not be aware of the scheme that enables credit rolling to alternate crops in subsequent years and would need to be duly informed of this possibility.

Kisan ("farmer" in Hindi) credit cards have also been introduced by most public sector banks for the benefit of farmers. These cards are like any other credit card, and the value of the card is usually linked to the size of the land holding of the farmer. Since tobacco farmers are in the business of commercial planting, they have large farm holdings, which would enable them to take higher credits from the banks and financial institutions. It is felt that the availability of higher credit to the tobacco farmers could be gainfully used in facilitating the shift to alternate crops. The farmers only need to be sensitized to the risks and adverse consequences of long-term monocropping of tobacco and to the benefits of shifting to alternate crops or inter-cropping tobacco with other crops.

The provision of financial support is multifaceted. For alternative crops the general provision of inputs, equipment support, and technical training and support is a key ingredient to success. Access to key inputs often requires capital at the beginning of the growing season. The situation of lack of capital, absence of low-interest loans and subsequent exploitative lending practices from a small pool of lenders are persistent challenges for farmers. These challenges exist on both ends. Often farmers do not have the capital to purchase necessary inputs to grow cash-earning crops, and when loans are issued the lenders risk default given the precariousness of smallholder agriculture.

Local lending schemes have shown promise in some communities. There is not a one-size-fits-all approach to these schemes *(82,83)*. Different cases illustrate diversity in the conditions that lead to positive financing arrangements and note that gender and other considerations are required to ensure inclusive financing. While the technical and procedural features are important in terms of the text of contracts or the timing of financing and provision of inputs, other social factors have been shown to be equally important, including trustworthiness of lenders along with trustworthy practices among farmers *(84)*. On this basis of trust, there are a number of arrangements that can facilitate

the provision of fair loans, predictable repayment schemes and cooperative supports to ensure season-to-season access to necessary cash loans and or direct inputs. The case of cashews in the United Republic of Tanzania described in Box 9 illustrates some challenges with lending schemes and opportunities for overcoming these challenges.

Box 9. Local lending schemes – Cashew growing in the United Republic of Tanzania

The problem of strategic default and its implications for commercial lending are well illustrated in the case of cashews in the United Republic of Tanzania. Here the purchased input required by farmers is sulphur dust (or an organic alternative) for the control of powdery mildew disease, together with the service of a petrol-driven blower with which to "dust" the trees. Prior to 1991 sulphur was distributed and blower services provided to farmers by the Ministry of Agriculture working through village cooperatives. Free services encouraged farmers to use sulphur, which at that stage was a new technology in the country. Once cashew output marketing was liberalized, so was the supply of sulphur and blower services. In the early 1990s, two traders imported sulphur for sale to rural stockists. These stockists were only able to pay for half of the sulphur on a cash basis, so the importers resorted to advancing the rest on credit. Many stockists subsequently defaulted on loan repayments, having themselves failed to obtain repayment from farmers. These episodes quickly gave the business of sulphur supply a bad name among traders, most of whom either avoided it altogether or resorted to selling sulphur on a cash-only basis.

The local authorities in the major cashew-producing regions felt compelled to intervene, so set up input trust funds (ITFs) that use levies on cashew nut sales within each district to purchase sulphur for the following season. However, the performance of the ITFs is extremely variable as accountability for the use of funds is poor. Moreover, in some districts ITF sulphur is now only sold on a cash basis, so that only the better-off farmers can obtain it, though all farmers pay levies on their nut sales. Thus, overall levels of sulphur use remain suboptimal, restricting recovery in cashew production, while benefits from sulphur use are very unevenly distributed.

In southern Tanzania, however, a few smaller traders have continued to experiment with sulphur lending. This they do indirectly through the officials of village cooperatives or other prominent individuals within villages. The trader enters into a contract with these intermediaries, who guarantee to pay the trader for the sulphur at harvest time. Sometimes, the intermediaries put up collateral, such as the cooperative warehouse and weighing scales. However, the value of such assets is rarely more than a small fraction of the value of the sulphur and, in any case, the assets are never seized; rather the collateral element serves to instil a little fear into the intermediaries. The intermediaries use their detailed knowledge of villagers to decide who should receive a sulphur loan. The recipients are required to repay the value of the loan once they market their nuts. Repayment is greatly facilitated by the fact that all nuts have to be sold at registered buying points, one per village, normally, the warehouse of the local cooperative. Intermediaries can thus be present at the point of sale to collect loan repayments from borrowers. Even when a farmer takes his nuts to a buying point in another village, information quickly circulates allowing the intermediary to track him down to collect loan repayment before he has spent his harvest income.

Under such circumstances, the trustworthiness of the intermediaries in handling the sulphur lending is crucial. The traders who have succeeded in lending sulphur are those with years of experience trading in the districts concerned, who have developed relationships with influential individuals in their villages of operation, and know who is personally trustworthy and who is not.

A few sulphur lenders have other ways of ensuring repayment. Two cases from villages in Tandahimba district provide illustrations. In the first case, the lender was a trader living in a neighbouring village, who demanded collateral from his borrowers in the form of their cashew trees and ensured repayment of his loans through his control of the local court. His proximity to the borrowers enabled him to monitor their activities, but he was not so close as to experience the full hostility of the village community when he confiscated the trees of those who failed to repay.

In the second case, farmers were dependent on credit in a way more typical of Asian than African farmers, because of the particular circumstances of that part of Tandahimba. Cashew trees dominate the landscape and the soil is poor, such that, other than cashews, there are few opportunities for earning a cash income. A farmer wanting to marry, build a house or accumulate capital for a project has to farm cashew or migrate outside the district. To get a return from cashews, he has in turn to use sulphur, which entails taking credit. Even if the harvest fails one season, he is forced to roll over his debt to the next, as he has no other way of paying it off. Default would cut him off from future credit, removing his only hope of betterment. For the few lenders with the combination of capital and knowledge of local farmers, lending in this situation is not as risky as it would first appear. – Case study taken from *(19)*

Governments can also pursue creative alternatives to current approaches to agricultural production. As noted, access to inputs remains a critically important factor in determining farm-level decisions. Given that smallholder farmers have limited savings, they are often required to acquire inputs via loans, and often generate income that only marginally covers the loan expense. The example provided below (Box 10) illustrates a novel experiment with low- or zero-input agricultural practices and subsequent support by the state governments in India to support this type of practice *(70)*.

Box 10. Impacts of Zero Budget Natural Farming – Andhra Pradesh, India

In 2016 the Indian state of Andhra Pradesh decided to centre its agricultural and rural development policy on Zero Budget Natural Farming (ZBNF), through a training programme on ZBNF practices offered to the state's 6 million farmers. As an alternative to conventional farming, ZBNF supports the adoption of chemical-free agriculture and requires no external investments, as it is based on traditional farming methods. The initial success of ZBNF has encouraged its uptake by policy-makers in other Indian states and at the national level.

ZBNF aims to reduce input costs, preserve ecosystem services and biodiversity on farms, strengthen resilience of crops to climate change, enhance soil fertility and improve incomes. It is a bottom-up transition strategy where smallholders, including tenant farmers and poor farmers, along with women, are key stakeholders in the process of transition to agroecology practices. The data indicates there are multiple benefits from the adoption of ZBNF. For example, almost 90% of surveyed farmers reported an increase in yields and a decline in costs, thereby improving livelihoods. The table below summarizes differences in yields, cost of cultivation and income between ZBNF and non-ZBNF methods across a sample of rainfed crops (678 pairs). Results also show benefits for biodiversity between ZBNF and non-ZBNF: for example, around 232 earthworms per square meter were found in ZBNF fields, compared with 32 in non-ZBNF fields. Anecdotal evidence also indicates enhanced status for women in their communities, as they are able to act as master farmers and transfer knowledge about ZBNF to new farmers and villages.

TABLE A

Key indicators for Zero Budget Natural Farming (ZBNF) versus non-ZBNF methods

	ZBNF COMPARED WITH NON-ZBNF	ZBNF ACTUAL	NON-ZBNF	SIGNIFICANCE
Yields (tonne/ha)	+16.5%	4.80	4.12	P < 0.001
Cost of cultivation (INR* thousands)	–23.7%	22.9	30.0	P < 0.0005
Gross income (INR thousands)	+14.2%	80.6	70.6	P < 0.001
Net income (INR thousands)	+50.0%	54.0	36.0	P < 0.01

* = Indian rupees

Source: Bharucha, Bermejo Mitjans and Pretty, 2020.

The local government aims to scale up ZBNF to cover all six million farmers and eight million hectares of agricultural land in the state by 2024. It has been assessed that if ZBNF covered 25% of the total crop area in Andhra Pradesh, US$ 70 million would be saved in fertilizer subsidies every year. If the adoption rate were increased to 75%, the savings would exceed US$ 200 million annually, while full adoption would result in subsidy savings of US$ 300 million per year.

Summary

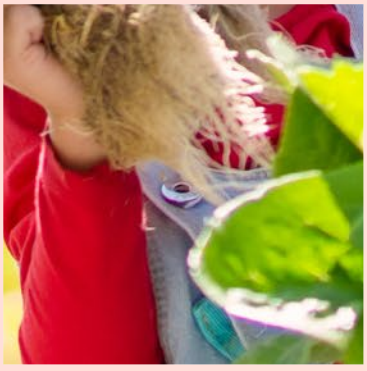
Summary

- Financial inclusion requires access to timely, predictable and fair lenders.
- Sustainable financing is required to maintain alternative crops.
- Flexible and low-interest lending can facilitate year-to-year access to necessary inputs for agricultural production and alternative enterprises.









7. Conclusions: need for integrating with the broader development agenda

The time is right to systematize and strengthen efforts to implement Article 17 of the WHO FCTC. This new era for Article 17 builds on decades of research, advocacy and policy work to examine and pursue alternatives to tobacco growing. In this era, the agenda for alternatives aligns with powerful global and national agendas to transform systems towards sustainability, community well-being and rural development, among other intersecting initiatives. This is the United Nations Decade of Family Farming (2019–2028) and governments have contributed to and have access to important guidance and resources to align these agendas with the SDGs. For example, the *United Nations Decade of Family Farming 2019–2028: Global Action Plan* provides a framework to identify the various needs, opportunities, and contributions of family farming to both the sustainable development and the agenda to transform food systems. The action plan notes that "Enabling and supporting family farmers to attain diversified, innovative and dynamic agricultural systems can increase the availability of nutritious, sustainably produced and culturally appropriate food, which can incentivize healthy diets while promoting the transition towards context-specific, diversified, resilient and sustainable food systems" and goes on to identify the ways that family farms can contribute to transforming food systems:

> Viable food systems that are built around family farmers can offer new economic opportunities and attractive employment. They also promote rural services (which are complementary to agricultural activities), while at the same time increasing rural-urban linkages and synergies through a short food supply chain, which can provide promising solutions to eliminating food loss and waste. *(85)*

In this era, the agenda for alternatives aligns with powerful global and national agendas to transform systems towards sustainability, community well-being and rural development, among other intersecting initiatives.

Governments are reimagining national development in ways that bring out synergies across sectors while reorienting sectoral goals to foster coherence around shared principles of sustainability, inclusion and participation. The potential for Article 17 implementation to contribute to the development needs of countries is enormous. Many of the countries where tobacco is grown are striving to develop sustainable food systems tied to local agricultural production. While the desire for cash crops remains an important goal, the international supply chain and the companies and policies that shape its operation often do not provide the desired economic benefits to households and communities. A conscientious approach to community–government–market relations is needed to develop sustainable, community-enhancing, economically viable and environmentally enriching alternatives. As noted, governments can catalyse movement towards alternatives with the judicious and evidence-informed provision of technical,

financial and other support *(86)*. What is clear is that governments are confronting numerous challenges and are compelled to act towards the betterment of humanity on many intersecting levels.

Specific to food systems and agricultural production, it is clear that "the transformation to healthier, more sustainable, equitable and efficient food systems needs to be accelerated if we are to meet the SDGs". The same document published by United Nations agencies on the state of government–market interactions in the domain of agricultural production further notes: "Agricultural support is not providing desirable results for sustainability and human health but repurposing it can be a game changer. It offers governments an opportunity to optimize the use of scarce public resources to transform food systems in ways that make them not only more efficient, but also more supportive of the SDGs" *(70)*. It is hoped that the information and guidance provided in this Toolkit can assist governments in the lofty and important goal of supporting the transition from tobacco growing to alternative livelihoods. Smallholder tobacco farmers have toiled long enough with very few benefits. The confluence of environmental degradation, overwhelming labour requirements, costly inputs and low prices characterize the smallholder tobacco-growing enterprise. In pursuing alternatives governments will play a critically important role in improving the lives of millions of families who are seeking new opportunities.

8. Tools

The implementation of Article 17 will require a multifaceted approach. Smallholder farmers are often attracted to tobacco growing because of the promise of profits. They are also attracted to the structure of the tobacco supply chain and the ability to enter contracts that lead to the provision of necessary inputs, like seeds and fertilizer, and a guaranteed market for tobacco leaf at the end of the growing season. The reality of tobacco farming is that the promise of prosperity does not materialize. Smallholder farmers are often in debt or merely cover the costs of production. Governments play an important role in supporting alternatives to tobacco growing. There is a growing evidence base to guide these efforts. This *Toolkit for Article 17 of the WHO Framework Convention on Tobacco Control* brings together the existing knowledge base, including years of consultations that drew out the knowledge and experience of stakeholders, to guide actions on alternatives.

The Toolkit draws from common lessons learned in tobacco-growing countries around the world. It consolidates these common lessons and provides approaches to adapt and apply these lessons in unique country contexts. The Toolkit builds from the six principles developed by COP6 to guide the implementation of Articles 17 and 18 (Box 1). Additional annexes and case studies complement the Toolkit with “fast facts” and overviews of policy frameworks, global scenarios, concepts, indicators and innovative practices. Together the content of this Toolkit is meant to support governments as they develop intersectoral strategies to pursue alternatives to tobacco growing in their countries.

Tools

8.1 Tool 1. The reality of tobacco growing: Debunking common myths

There are several common assertions advanced about the benefits of tobacco growing. These assertions often inform government action and attract farmers to tobacco growing. But the facts, as well as the experience of tobacco growers around the world, show that in fact tobacco growing is rarely profitable for smallholder farmers, and Tool 1 shows how we can address the myths about growing tobacco.

Assertion

Assertion 1. Tobacco-growing benefits tobacco farmers economically

Reality:

- Labour costs are high
- Inputs and loans are costly and often inaccessible
- Leaf purchasing price is low
- Farmers often just break even or incur debt from tobacco growing

What do farmers say?

> "I grew a lot of tobacco for almost 20 years, but now it doesn't bring money. On the contrary, it leaves you even poorer." Mozambique farmer

> "It's like the money is all yours, but only for a while because you need to pay… The following day the money is all gone, you've used all the money. One-day millionaire." Philippine farmer

The cost of tobacco growing is high. The costs of inputs and labour deplete the income received from selling tobacco leaf. Farmers also note that when leaf is brought to auction or is purchased by leaf-buying companies via contracts, the price is always lower than expected and promised. Leaf-buying companies provide loans to contract farmers at rates often higher than market value. The contracts also constrain the ability of farmers to receive fair prices for their leaf. The table below illustrates this dynamic using longitudinal data from Kenya and the following figure gives a snapshot of tobacco profits in five different countries.

Type of farmer	Input cost	Levy	Transport	Interest	Household labour	Hired labour	Income	Profit	Monthly net income	International extreme poverty standard (2.15/ person/day) Monthly equivalent for 4-person household
Contract	321.93	39.02	13.33	1.53	252.87	117.08	1 349.9	604.14	50.35	258
Independent	257.31	7.26	10.24	0	338.72	109.95	1 204.35	480.87	40.07	

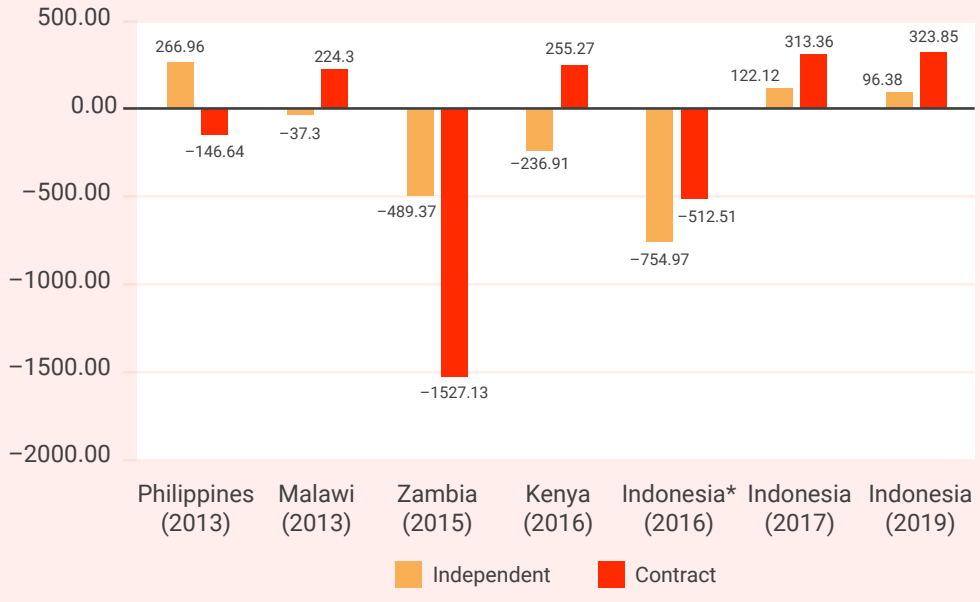
Source: Magati P, Hecock RD, Li Q, Drope J. 2020. The Economics of Tobacco Farming in Kenya: A Longitudinal Study. Nairobi: International Institute of Legislative Affairs // Chicago: Tobacconomics, University of Illinois at Chicago.)

Evidence from Bangladesh in the table below shows that input costs for farmers who grow tobacco can reach more than double that of farmers growing other crops.

Type	Number Observed	Fertilizer Cost	Pesticide Cost	Other Variable Input Cost	Durable Input Cost	Misc. Cost	Total Input Cost
Current tobacco farmer	646	14 288	1 926	25 523	7 312	128	47 176
Contract farmer	197	19 218	2912	31 988	10 051	188	64 358
Independent farmer	445	12 202	1 500	19 932	6 147	102	39 884
Former Tobacco Farmer	319	5 638	796	7 150	5 034	67	18 685
Never tobacco farmer	604	6 941	1 296	13 490	4 520	711	26 956
Tobacco area	447	6 721	1 157	13 486	4 097	961	26 423
Nontobacco area	157	7 566	1 690	13 502	5 723		28 481

Source: Hussain, A. G., Rouf, A. S. S., Shimul, S. N., Nargis, N., Kessaram, T. M., Huq, S. M., ... & Drope, J. (2020). The economic cost of tobacco farming in Bangladesh. *International Journal of Environmental Research and Public Health, 17*(24), 9447) *Obs refers to individuals who participated in the study

Average profits and losses for individual tobacco farming households in US$
***Indonesia data include tobacco and non-tobacco farming profits**



Source: Lencucha, R., Drope, J., Magati, P., & Sahadewo, G. A. (2022). Tobacco farming: overcoming an understated impediment to comprehensive tobacco control. *Tobacco Control*, *31*(2), 308-312)

The poverty rates among tobacco farmers equal or exceed those of households in the same region. Tobacco farmers often find themselves in debt. A 2021 study from Zimbabwe noted: "Among the 263 contract farmers in the sample, 66% were in tobacco-related debt, compared with only 31% of the 84 independent farmers in the sample." The extent of this debt is illustrated in the following table.

Distribution of debt by value

Debt amount	Frequency	Per cent	Cumulative
Less than or equal to US$ 1000	26	7	7
US$ 1001–US$ 2000	20	5	12
US$ 2001–US$ 3000	32	9	21
US$ 3001–US$ 4000	23	6	27
US$ 4001–US$ 5000	73	20	47
More than US$ 5000	36	10	57
No debt	158	43	100

Source: Chingosho, R., Dare, C., & van Walbeek, C. (2021). Tobacco farming and current debt status among smallholder farmers in Manicaland province in Zimbabwe. *Tobacco control*, 30(6), 610-615)

The table below shows that tobacco farmers in Kenya consistently experience higher rates of poverty than former tobacco farmers. The information is presented from two waves of survey data with the same cohort of farmers. The numbers indicated in each wave column represent the number of individuals surveyed.

Households below poverty line

Regions	Current Farmers		Former Farmers	
	Wave 2	Wave 3	Wave 2	Wave 3
Bungoma	24	22	4	8
	83.33%	59.09%	75.00%	62.50%
Busia	77	55	14	32
	87.01%	74.55%	71.43%	71.88%
Meru	56	19	26	57
	50.00%	21.05%	26.92%	17.54%
Migori	41	35	70	87
	85.37%	57.14%	57.14%	33.33%
Total	201	134	114	186
	74.63%	58.21%	52.63%	36.02%

Source: Magati P, Hecock RD, Li Q, Drope J. 2020. The Economics of Tobacco Farming in Kenya: A Longitudinal Study. Nairobi: International Institute of Legislative Affairs // Chicago: Tobacconomics, University of Illinois at Chicago)

Assertion

Assertion 2. Tobacco growing contributes to the economy of the country

Reality:

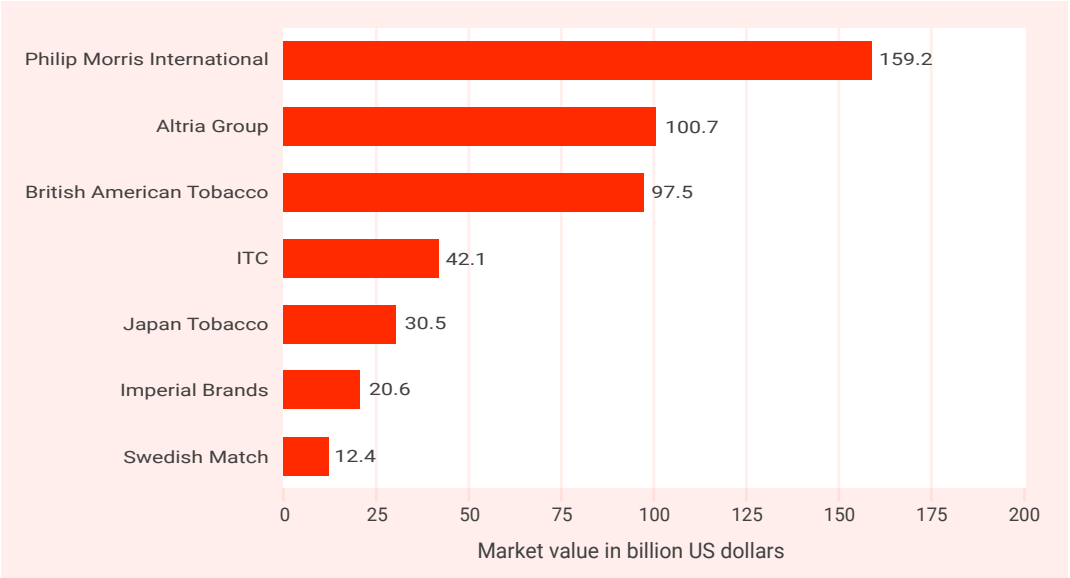
- The contribution of tobacco to GDP in tobacco-growing countries is minimal.
- Most of the economic benefits of tobacco production are channelled to transnational tobacco companies, not governments.

Country-level data of tobacco production for the top tobacco-producing countries in the world

Country	The share of tobacco farming to GDP in 2018 (%)	Numbers of tobacco farmers by country	Share tobacco farmers to total employment in agriculture sector (%)	Share of tobacco farmers to overall employment (%)	Share of tobacco exports to toal commodity export in 2018 (%)	Share of tobacco exports to overall exports in 2018 (%)	Share of agricultural land for tobacco farming in 2014 (%)
China	0.06748	5 497 000 (2017)	1.9262394	0.7127087	0.0564555	0.0539464	3.57
India	0.037924	348 806 (2020)	0.13539	0.0744266	0.3136025	0.3078659	14
Brazil	73748	160 200 (2020)	0.7302897	0.1692893	0.8351883	0.8214403	0.15
Zimbabwe	2.881452	122 323 (2020)	2.4862904	1.830032	15.3586822	13.8091314	0.49
United Sates of America	0.005314	6 150 (2020)	378173	38069	0.1077477	0.1157419	4
Indonesia	0.025456	527 688 (2017)	1.0117532	0.4248894	0.4017758	0.4022222	0.37
Zambia	1150362	17 637 (2020)	0.3775204	1709508	2.0192082	1.5741121	18
Bangladesh	0.030106	100 000 (2017)	0.3119531	0.1550109	0.3457389	0.2576211	0.55
Tanzania	0.006931	60 005 (2018)	0.3016069	1327625	9.6420765	6.2570922	0.22
Argentina	0.041801	21 389 (2019)	0.6571323	0.1140339	0.6106504	0.6136438	0.04
Kenya	23098	36 000 (2019)	0.2112974	0.1557356	2.5454545	2.3123123	4
Malawi	0.201952	50 816 (2020)	1.0161168	0.6692127	69.3137976	58.9067308	2.14
Mozambique	399495	137 042 (2017)	1.5167903	1.1456254	5.2399423	3.1689756	0.15

Data sources: tobacco raw production value data from Food and Agriculture Organization (http://www.fao.org/faostat/en/#data/QV2). Tobacco farmer data from the database of various sources (eg, COMESA) at the International Tobacco Growers Association (an active opponent to tobacco control with direct ties with industry) (https://atlas.tobaccoleaf.org/) and tobacco farmer data for Kenya from Tobacco Tactics (https://tobaccotactics.org). Sectoral employment data for elementary occupations and skilled agricultural, fishery and forestry workers and overall country level employment data from International Labour Organization (https://www.ilo.org/shinyapps/bulkexplorer35/?lang=en&segment=indicator&id=EMP_2EMP_SEX_OCU_NB_A4). Export data of commodities from Total Trend Economy (https://trendeconomy.com/data/commodity_h2/TOTAL) and Bangladesh commodity export data from Bangladesh Bank (https://www.bb.org.bd/econdata/export/exp_rcpt_comodity.php). Tobacco export data and total export data from The Observatory of Economic Complexity (https://oec.world/en) that uses source data from CEPII French Economic Research Center and country-level data.6 The share of agriculture land from Tobacco Atlas (6th edition) (https://tobaccoatlas.org/).

Leading tobacco companies worldwide in 2021, based on market value (in billion US dollars)



Source: Forbes, © Statista 2023
Additional information: Worldwide; Forbes; 2021

Assertion

Assertion 3. Tobacco production is strictly an economic concern and does not impact tobacco consumption or control

Reality:

- Tobacco growing creates conditions where tobacco interests become embedded in government decision-making and ultimately exert influence to oppose, stall or stop efforts to implement WHO FCTC-compliant measures.
- Tobacco growing creates opportunities for industry to establish so-called corporate social responsibility programmes to enhance their public image.

"The bill has not been accepted yet in parliament but looking at the work that we have done, if the bill goes through I would say, comfortably it is compliant [with the WHO FCTC]. … We cannot take the Convention in totality because of one or two things," alluding to the economics of tobacco *(19)*.

The above quote comes from a government official in a country where tobacco is grown. In this country the national tobacco-control strategy has been stalled by 13 years in part

because of the strength of the economic sector in arguing that such a strategy would harm farmers and the economy. One representative from the key development agency notes: "It is a key industry especially for the farmers … We have more than 20 000 small-scale farmers growing tobacco at the moment, meaning that each farmer is able to take care of about six members of the family and when we do the math, we will actually see how important this sector is in this country and how critical this industry is in reducing poverty levels *(18)*." Despite evidence to the contrary (see Assertion 1), this narrative persists, and it is brought into government decision-making by tobacco interests. Tobacco growing, despite the problems it brings to families, provides an entry point for industry to shape public policy *(87)*.

Assertion

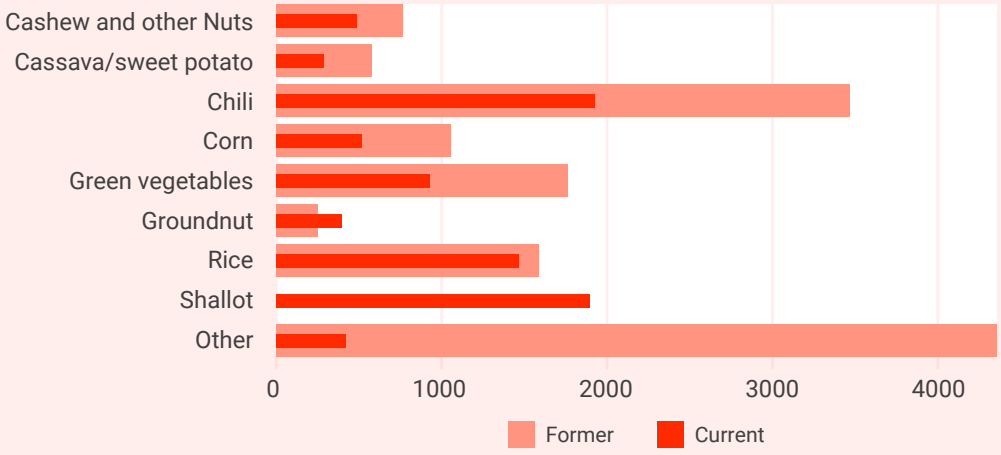
Assertion 4. There are no viable alternatives to tobacco growing

Reality:

- There are several alternatives to tobacco.
- With concerted attention to strengthen and support fair local, national and international supply chains, there is huge potential for alternative crops to contribute to healthier food systems and greater community well-being.

Profitable non-tobacco crops

Comparison of cash-generating, non-tobacco crops grown by current vs former tobacco farmers in Indoneisa, 2019



Both former and current tobacco farmers throughout tobacco-gowing countries are more profitably growing many other crops so successful transitions away from tobacco are already happening.

THE TOBACCO ATLAS

Source: 1) Drope J, Li Q, Araujo E, Harimurti P, Sahadewo G, Nargis N, Durazo J, Witoelar F, Sikoki B. The Economics of Tobacco Farming in Indonesia. Indonesia Tobacco Employment Studies. Washington DC: World Bank. October 2017. 2) Sahadewo, G.A., Drope, J., Witoelar, F., Li, Q., & Lencucha, R. (2021). The Economics of Tobacco Farming in Indonesia: Results from Two Waves of a Farm-Level Survey [Report].

The viability of alternatives depends on several factors. Farmers access to inputs and markets is a critical factor. The need to harmonize global markets and the provision of in-country agricultural supports are critically important to provide a fair playing field for export-oriented crops. The establishment of local and national markets for agricultural commodities is significant to establish viable supply chains and healthy and sustainable food systems. The example from Indonesia illustrates the viability of alternative crops in relation to tobacco.

Tools

8.2 Tool 2. Situational analysis

Given the complex set of factors that shape tobacco production and the potential to pursue alternatives, this tool provides guiding categories and questions. These categories and questions can be used by government and civil society organizations to assess the factors that are perpetuating tobacco growing, and those that may support alternatives.

Situtional analysis

8.2.1 Situational analysis according to actor category

Actor	Aims	Guiding questions
Government	To identify the policies and programmes currently in place that have implications for tobacco growing. To identify policy priorities and better understand where tobacco production fits in these priorities. This exercise is also meant to locate who is committed to tobacco production and who can contribute to alternatives.	Does the national development plan include tobacco? How is tobacco positioned in the government priorities? How is tobacco production framed, positive or negative? (For example, does the development encourage more tobacco growing or less?) Which government ministries, departments and agencies have tobacco in their mandate? Which government ministries, departments and agencies have other crops in their mandate? For those government ministries, departments and agencies that have tobacco and other crops in their mandate, in what forums do they meet (if any)? If they meet, how frequently? What do they meet about? Does the policy and/or programme encourage tobacco production? If yes, how? Does the policy and/or programme align with the national development plan? What other crops are listed as a priority by government? Are there multisectoral forums where tobacco and other crops are discussed? Are industry representatives included in these forums?
Civil society organizations	To identify the civil society organizations working with rural communities towards livelihood development and with emphasis on rural well-being. To identify the programmes and projects that have bearing on tobacco production and livelihood development. To identify specifically those organizations working in agricultural communities and are actively working to support the growing and marketing of non-tobacco agricultural crops.	Are there health, environment, labour, agriculture, or environmental civil society organizations working on issues of tobacco production? Are there organizations that work on other crops and/or rural livelihoods in general? Who are these organizations funded by? Do they encourage tobacco production? What programs have they implemented to enhance rural livelihoods? To what extent do these organizations work with each other? What is the time frame of existing programmes and projects? Which programmes have direct involvement in tobacco-growing regions? What types of collaborations and partnerships exist among organizations? What types of programmes meet greater receptivity in communities? How do these organizations engage with communities? (For example, identify mechanisms of communication, planning and implementation) Do cooperatives or other community-based schemes exist to support agricultural production? How do the agricultural organizations support farming households? How do these organizations organize the provision of resources? How is the revenue from agricultural production distributed between the organization and the community?

Actor	Aims	Guiding questions
Industry and related non-state economic interests	To identify the economic actors involved in tobacco supply within the country. To differentiate who does what along the supply chain and the level of involvement. To identify the non-industry actors that have an interest in tobacco production.	Which companies are involved in tobacco across the supply chain? Who are the leaf-buying companies involved in contract farming? Who are the buyers if tobacco is sold at auction? Who are the input supply companies involved in providing fertilizer, seed, herbicide/pesticide and equipment to tobacco growers? Are these companies different than those providing inputs and supplies to non-tobacco growing farmers? Who are the non-industry economic interests involved in agricultural production in the country? Are there organizations or entities that facilitate tobacco supply? For example, tobacco growers associations, farmers unions, agricultural research and support services. To what extent are companies involved in the tobacco supply chain involved in supporting other crops? Do any of the companies identified participate in forums or boards with government representatives? What is the relationship between companies along the supply chain and economic interests?
Tobacco-farming households	This situational analysis provides a baseline to understand the current context of tobacco growing within the country. These questions guide can guide decision-makers to identify the target communities. Understanding whether farmers are currently in contractual relationships with leaf-buying companies can inform efforts to meet the needs of households when exploring alternatives. The information generated on costs and profits is important both for decision-makers to communicate across sectors and mobilize the necessary resources for alternatives and to feed information back to farming households.	In which provinces is tobacco grown? How many tobacco farming households are there? How many of these tobacco farmers are contract farmers? How many are independent farmers? What is the average size of land per household? What are the average costs per hectare including paid and unpaid labour? What is the average income per hectare? What are the average profits per hector accounting for total costs?

Situtional analysis

8.2.2 A situational analysis to support alternatives to tobacco growing

	Steps	Guiding Questions
Information	Conduct a modelling evaluation of the socioeconomic impact of potential alternatives to tobacco growing including their impact on income, labour, health and the environment for each tobacco-growing region. Establish data access mechanisms including public platforms that push information to farmers. Establish training mechanisms to link market conditions with environmental and labour scenarios, for example, establish training and support for extension workers to help farmers respond and adapt. Establish pull mechanisms to identify and channel farmers needs and perspectives into decision-making, for example, create text-based platform to allow farmers to send information to relevant agencies and departments.	Are there any demand forecast data on food crops and on other rural activities to support diversification in your country? Is there any standard information set for potential alternatives to tobacco growing in your country? Is data pooled across agencies? (For example, do product-specific marketing boards share information?) Is there regular collection of information on farmers needs and perspectives? What channels exist to move this information to decision-making forums? Is there are platform that provides information on funding sources, compares rates and indicates other relevant financial information pertaining to supply chain materials and activities?

Resources	Generate a list of financial institutions that provide low-interest loans to households. Create a system to update this list biannually. Publish this list on the relevant ministry and agency webpages. Generate a list of all input suppliers by input type, for example, seeds, fertilizer and pesticides. Separate the list into contract-based and open suppliers. If possible, update the list annually and include price updates. Create a crop map that identifies production by region and locality. In addition to the type of crop, it would be beneficial to list production quantity, price received per kilogram, quantity sold and other key indicators. This will provide farmers with a clearer understanding of the options available, and the market associated with these options. Linkages can be made across the various agencies and departments that generate research on non-tobacco crops and employment across regions and sectors. Where possible, the ministries of health and agriculture can support the production of brief reports (quarterly, biannually or annually) that provide a snapshot of employment rates across sectors, employment opportunities and information on agricultural production for non-tobacco crops.	What are the financial resources available to households? Do households have access to loans for financial institutions? If so, what is the interest rate offered by these institutions? If farmers seek to pursue alternative crops, do they have access to inputs? Where do they receive their inputs and are their mechanisms in place to receive inputs on loan? Are farmers aware of research and support mechanisms provided through the Ministry of Agriculture and relevant agencies? How many farmers already access these research and support mechanisms? Does your country have a national programme to promote food security? Does it purchase food for institutional markets such as public schools, hospitals and prisons? Is there a rural transport system that links agricultural products to and from markets? Do farmers have access to extension services in their community? What crops are included in the public provision of extension services? How many farmers are linked with each extension officer and how often to the farmers have access to the officer?
Policy and programme linkages	Alternatives to tobacco growing require a multifaceted approach linking policies and programmes across sectors. The aim of this aspect of the situational analysis is to identify policies and programmes that can support financial and social well-being in the transition to alternatives. Governments can channel existing programmes in pursuit of alternatives including financial support, targeted investment incentives, infrastructure development and other actions. This analysis also identifies the needs of the family, including educational opportunities for children and youth.	What programmes exist to promote healthy diets across regions? To what extent do these programmes support local agricultural production for the local food system? Who is involved in these programmes? In what ways are food systems linked to agricultural production within the country? What types of investment incentives are provided to companies investing within the country and how are these tied to agricultural production? In what ways do trade policies benefit actors along the agricultural supply chain? Are there financial and other support available to individuals to participate in education, skills training and career advancement? Is education affordable and accessible within communities? Do youth have access to educational and recreational opportunities outside of school hours?

Tools

8.3 Tool 3. Key factors required to facilitate alternatives

This tool provides guidance for four key factors known to facilitate both the perpetuation of tobacco growing and the shift to alternative crops. The tool consolidates key findings from research on tobacco growing and draws from existing research in other areas of agricultural supply.

Key factors

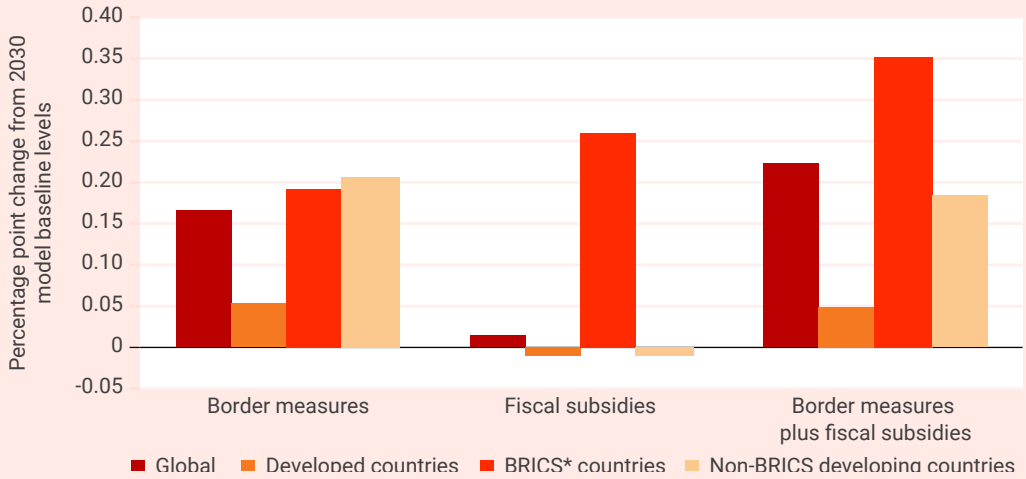
8.3.1 Access to inputs and financial supports

Farmers consistently note that access to inputs is a key factor informing their decision to grow tobacco. Fertilizer represents the largest share of input costs *(88)*; however, smallholder farmers are heavily dependent on access to seeds, pesticides and herbicides, and farm equipment *(11,12)*.

"Price distortions can prevent producers and other economic actors from making production decisions based on efficiency considerations, widen the income gap between small and large farms, reduce the competitiveness of the food industry… as well as hinder consumers' access to nutritious food, particularly for the poorest"

Significant controversy is associated with border measures, such as import tariffs or export taxes. When large, wealthy countries control a particular commodity through border measures there is a risk of distorting international markets by artificially lowering the price of the commodity and reducing the incentives for smaller, less-wealthy countries to attempt to compete in the global market, with negative implications for current producers of that commodity to move their yields to the international market at price that covers the costs of production. Another potentially distorting policy is the provision of fiscal subsidies linked to a particular commodity. For example, price supports to encourage the production of corn or soybeans. It is noted that "by reducing the cost of the specific input, this form of support provides strong incentives to increase the use of that input … [potentially leading to] misuse of agrochemicals, water and other inputs"*(70)*.

Increase in the percentage of population who can afford a healthy diet due to removal of agricultural producer support

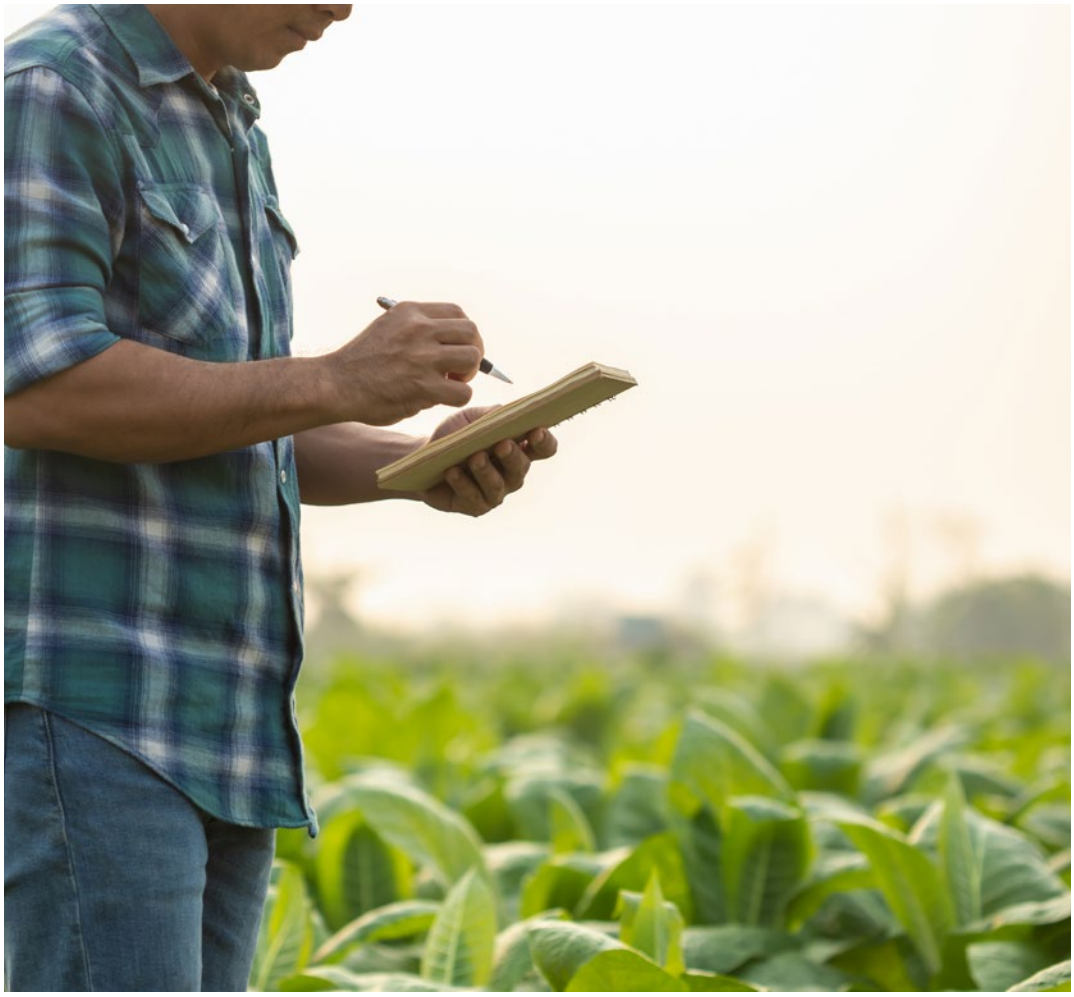


* BRICS = Brazil, Russia, India, China, and South Africa

Source: FAO, UNDP and UNEP. 2021. A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems. Rome, FAO. https://doi.org/10.4060/cb6562en

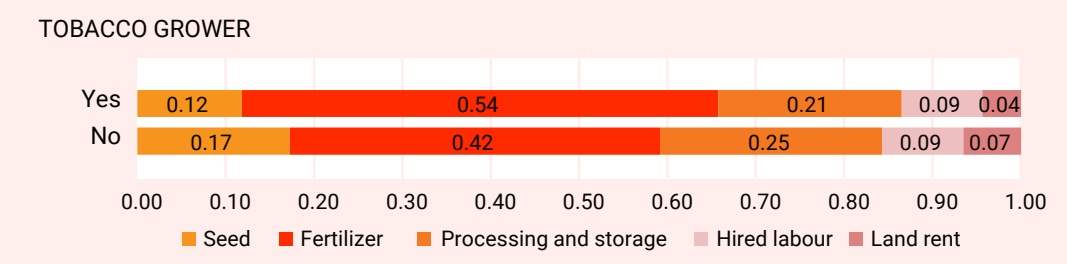
Supports in the form of “decoupled fiscal subsidies”, a type of support not linked to production decisions such as planting a specific crop, can have a less distorting effect on international markets. General support for infrastructure development, such as roads, extension services, research and development, and marketing services, have also been found to lead to more positive outcomes.

With this in mind, it is also important to consider the current international reality. The system is not perfect and remains deeply imbalanced. Some countries have resources to bolster national production of specific crops or the power to impose border measures that distort the price and movement of goods, which does create an uneven playing field for some producers to compete in a global market. For example, modelling suggests that the removal of discriminatory border and fiscal measures would have a positive impact on the affordability of healthy foods across income classifications, with important benefits for the BRICS countries (Brazil, the Russian Federation, India, China and South Africa) – and low-income countries *(70)*. Finding the right policy measures to support alternatives to tobacco in this global context is not straightforward and requires in-depth assessment of local, national, regional, and international political and market contexts. This illustrates that while national supports are critical to support alternatives in many of the lower-income countries currently growing tobacco, the ability to maintain sustainable alternatives will require a more balanced international political economy. The case of reforming the farm-input subsidy programme in Malawi below illustrates this dynamic.



The cost of inputs is particularly high for tobacco growers. Of the inputs used in tobacco growing, fertilizers remain a huge cost of growing. A report from Malawi quotes one stakeholder who says "the largest share (44%) of households allocated their income for purchasing fertilizer. Over 50% of tobacco growers allocated their income for purchasing fertilizer" *(88)*.

Proportion of input costs for tobacco and non-tobacco farmers in Malawi



Source: MwAPATA. Malawi Rural Agricultural Livelihoods Survey (MRALS) 2019 Survey Report. Lilongwe, Malawi: MwAPATA; 2022.

Governments can support the provision of low-cost inputs using different mechanisms. Financial supports can serve as a key tool to support alternatives and diversify agricultural production. Globally, governments have experimented with various policies to assist with shifts in agricultural production. The *Swiss Agricultural Policy (2014–2017)* is one example of the use of financial supports to assist producers to shift production towards sustainability and biodiversity *(70)*.

Reforming fiscal subsidies to support biodiversity

The main goal of the reform of the *Swiss Agricultural Policy (2014–2017)* was to remove direct payments for intensive livestock farming to meet policy foals, including on biodiversity protection. The reform included transition payments to ease the negative economic impacts on farmers. The reform was developed through consultations with key stakeholders, such as the farmers' union, NGOs and economic institutions. An impact assessment was performed to estimate the benefits under four scenarios: (a) business-as-usual; (b) implementation of the Federal Council Agricultural Policy 2014–2017 proposal; (c) adaptation of the Agricultural Policy 2014–2017 scenario to meet demands from farmers; and (d) adaptation of the Agricultural Policy 2014–2017 scenario to meet demands from conservation groups. Scenario "b" was found to produce better results than the business-as-usual scenario across nearly all indicators. For example, incomes would increase by 13%, while livestock would decline by 10%, decreasing pollution from nitrates and phosphate and greenhouse gas emissions. Despite a decline in the total number of livestock, to total calories produced would increase by 3% due to higher dairy yields and a shift toward arable farming (i.e. from lower feed imports).

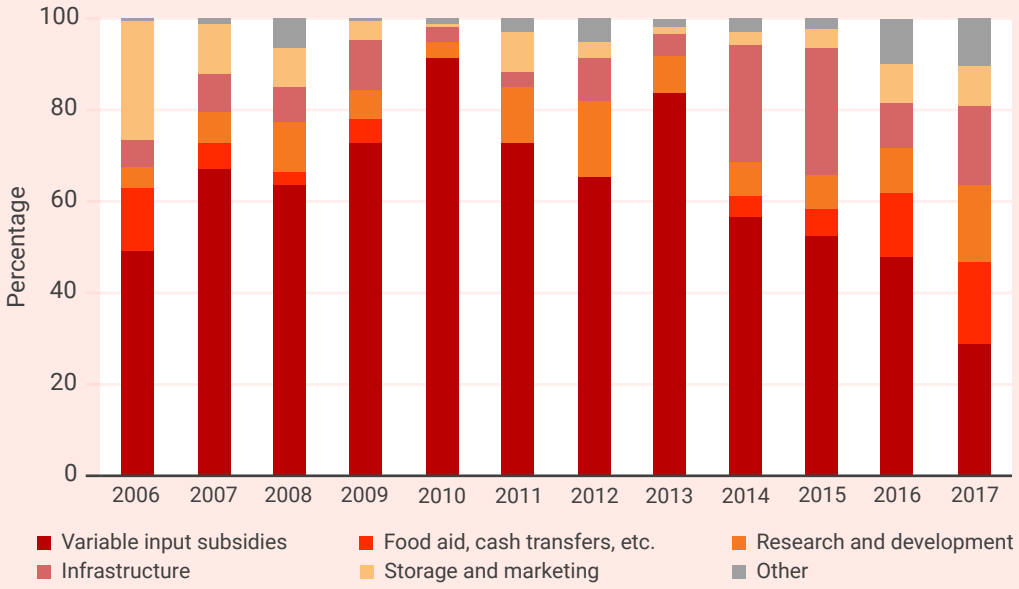
Source: Organisation for Economic Co-operation and Development. 2017.

To illustrate some of the opportunities and challenges involved in input supports, governments can look to the example of Malawi's input subsidy programme *(70)*. The programme itself can serve as a model for how to implement farm subsidies. The external conditions, including those tied to international markets, illustrates the challenges of linking country-level initiatives within international contexts.

Fiscal support towards resilience measures

The Farm Input Subsidy Programme (FISP) reintroduced agricultural input subsidies in Malawi during the 2005–2006 cropping season, after they had been abolished in the 1990s. Its main aim was to provide fertilizers and seed subsidies for maize, targeting poor smallholder farmers through vouchers. Prior to this, inputs for other crops were subsidized, such as fertilizers for tobacco (until 2008–2009), legume seeds, cotton seeds and chemicals in certain cropping seasons. Evidence suggests that the FISP has had positive effects on maize productivity thanks to increased fertilizer use. Studies show an increase in maize yields of up to 500 kg/ha and higher production after the first year of implementation (from 1.2 million tonnes in 2004–2005 to 2.6 million tonnes in 2005–2006), reaching a record production level of 3.7 million tonnes during 2011–2012. At the same time, the programme accounted on average for 60 percent of the total budget for food and agriculture (Fig. A), and 8% of Malawi's total budget, during 2005–2017. Its total cost increased nominally until 2016, mainly driven by the devaluation of the national currency and the subsequent hyperinflation starting in 2012. These factors raised the cost of inputs, almost all of which are imported.

FIG. A.
Breakdown of spending in the food and agriculture sector in Malawi



Cost-cutting efficiency measures and shifting spending priorities

To tackle the humanitarian crisis brought on by weather-related shocks in 2015 and 2015, as well as the fiscal constraints caused by the rising cost of imports and interest on debt repayment, the government has been determined to rationalize public spending. Efficiency-enhancing reforms of the FISP promoted since 2015–2016 have included fixed prices for delivering subsidized fertilizers, increased farmer contribution and, most importantly, the involvement of the private sector in importing and selling subsidized fertilizers (Chirwa, Muvula and Matita, 2016). The latter seems to have contributed significantly to reducing programme costs, especially during the 2016–2017 season. In 2017, the FISP budget was halved – dropping to 27% of food and agricultural spending – which made room for increased maize procurement for food aid to address the humanitarian crisis. While some challenges persist in the FISP implementation, particularly on beneficiary targeting these cuts – approximately 31.2 billion Malawian Kwachas in investments. The fiscal savings have mainly been redirected towards public

goods, such as irrigation, agricultural research and technology transfer, as well as social protection measures, for example in cash-for-work/food programmes. These measures are better aligned with the top priority objective for the sector in all sub-Saharan Africa countries: namely, enhancing the resilience and capacities of farmers to cope with the negative externalities generated by harmful agricultural producer support in developed and emerging economies.

Source: FAO, United Nations Development Programme and United Nations Environment Programme. 2021. A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems. Rome, FAO. https://doi.org/10.4060/cb6562en

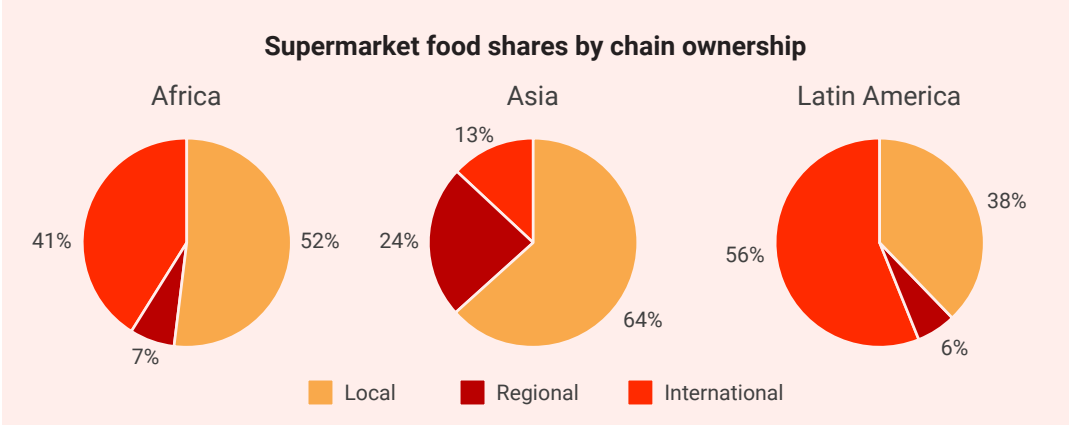
It is also important for governments to encourage research and technical assistance to support low- or no-input agricultural practices. Many of the challenges with high-yield monocropping is the environment degradation that results from this agricultural practice. The depletion of nutrients in the soil and the loss of topsoil are some of the challenges that result from tobacco and other crops that require high levels of fertilizer, pesticides and herbicides. The provision of equipment and training for composting, intercropping and crop rotations are critically important to reduce dependence on unequal contractual arrangements and unbalanced power dynamics along the supply chain, as well as environmentally sustainable practices *(89,90)*. These practices can be linked with local food cultures that foster crop production based on ecosystem alignment and the food needs of local populations. Part of the equation is to assess the power dynamics that exist within communities and regions, and the sites of control over production and market decisions *(91)*.

Key factors

8.3.2 Access to facilities and infrastructure supports

Results from the 2019 Malawi Rural Agricultural Livelihoods Survey found that "processing and storage is the second most important crop expenditure category. On average, 24% of households reported to have total input expenditure on processing and storage, and the highest is noted in female headed households, with expenditure of about 31%." *(88)*

Supermarket food shares by chain



Source: Barrett CB, Reardon T, Swinnen J, Zilberman D. Agri-food Value Chain Revolutions in Low- and Middle-Income Countries. J Econ Lit. 2022 Dec;60(4):1316–77.

The establishment of processing, storage and transportation infrastructure is a critically important factor in strengthening opportunities for alternatives. The desire for cash-based, export-oriented crops drives tobacco growing. However, there are other considerations involved in sustainable, healthy and socially constructive alternatives. The integration

of different health, environmental and social considerations is necessary to establish agricultural and other livelihoods that contribute to the betterment of communities and countries. While the emphasis is often on export commodities, the potential for national supply chains for national markets holds promise, particularly in relation to food systems. For example, the establishment of staple food markets that are tied to local supply can ensure stability, predictability and sustainability. Studies indicate, as shown in the figure above, that local supermarkets remain an important actor in the food system landscape *(92)*.

The table below illustrates three versions of agricultural supply chains and points to the benefits and requirements across each of the three approaches *(92)*. Whether the endpoint for the agricultural product is local, regional or international, there is a need for infrastructure supports to ensure the quality of the crop is maintained and that the processed material is linked to manufacturers or directly to consumer markets.

The three stages of transformation of agri-food value chains

	Traditional AVC	Transitional AVC	Modern AVC
Main enterprise type in:			
Retail	**Home enterprise**	**SMEs, wet markets**	**Supermarkets**
Food service	None (home cooking)	Street vendors, independent restaurants	Fast-food chains
Processing	None (home-processing)	SMEs such as small mills	Large processors and food manufacturers
Wholesale	Brokers based in rural villages	Wholesaler based in urban markets	Off-market distribution companies
Logistics	Own logistics by brokers	SMEs in third party logistics	Large third-party logistics companies and freight forwarders
Supply chain length	Short, local	Long, rural–urban	Long, rural–urban, international
Exchange arrangements	No contracts, no standards	No contracts, public standards, some vertical integration	Emerging contracts, private standards, vertical integration
Technology	Labor intensive	Labor intensive	Capital intensive
Foreign direct investment	None	Emerging	Significants

AVC = agri-food value chain
SME = Small- and medium-sized enterprises

Source: Barrett CB, Reardon T, Swinnen J, Zilberman D. Agri-food Value Chain Revolutions in Low- and Middle-Income Countries. J Econ Lit. 2022 Dec;60(4):1316–77.

Key factors

8.3.3 Access to extension services and technical supports

Part of the attraction to contractual relationships with leaf-buying companies is the provision of technical support for the growing of tobacco. Most countries with major agricultural production provide extension services to farmers through a public system. This technical support is important to facilitate high-quality production. Such support includes calculations to ensure optimal use of inputs, the safe and timely application of inputs, irrigation, harvesting, storage practices and primary processing activities.

Smallholder agricultural production benefits greatly from extension services and other technical support. To enhance production of alternative crops governments and communities must invest in this type of support. The example in the table below from Malawi points to the gaps that continue to exist in the provision of such support in countries *(93)*.

Adoption of agricultural production technologies, by scale of production (percentage)

Statistics	National	Small-scale food producers	Non-small-scale food producers	Difference
Households trained in use of improved inputs, share of crop farm households	36.5	33.8	39.8	6.0***
Households using chemicals, share of crop farm households	13.2	8.9	18.4	9.5***
Households using inorganic fertilizers, share of crop farm households	66.8	58.0	77.3	19.3***
Households using agricultural mechanical equipment (owned or rented), share of total farm households	22.6	20.9	24.6	3.7***
Households with access to agricultural production training or extension, share of total farm households	39.5	36.2	43.7	7.5***
Households with irrigation systems, share of total crop farm households	13.5	8.9	19.0	10.1***
Irrigated crop land, share of total crop land	17.6	10.6	21.0	–

*: *p-value < 0.1* **: *p-value < 0.05* ***: *p-value < 0.01*

Source: FAO. 2022. RuLIS – Rural Livelihoods Information System. In: FAO. Rome. Cited March 2022. https://www.fao.org/in-action/rural-livelihoods-dataset-rulis/data-application/data/by-indicator/en

Key factors

8.3.4 Access to fair and predictable markets (local and international)

The global market for food-based crops is large, as the illustration below shows. Tobacco crops hold a marginal position in the global agricultural market, but they remain prominent in countries around the world. Establishing predictable and stable markets for alternative crops is a key challenge facing governments in the implementation of Article 17 of the WHO FCTC. As noted, farmers often chose tobacco growing due to its viability, a decision that includes but extends beyond profitability to include access to inputs and other loans and guaranteed market access at the end of the season. Access to international markets for food-based crops requires: 1) fair and predictable international trading systems; 2) equitable and harmonized limits on national supports including subsidies; 3) fair and transparent pricing along the supply chain; and 4) markets that encourage nutrient-rich food crops.

Viable food systems that are built around family farmers can offer new economic opportunities and attractive employment. They also promote rural services, which are complementary to agricultural activities, while at the same time increasing rural–urban linkages and synergies through a short food supply chain, which can provide promising solutions to eliminating food loss and waste. *(85)*

Tools

8.4 Tool 4. Sectoral contributions to implementation of Article 17 of the WHO FCTC

Each sector has something uniquely important to contribute to Article 17 implementation. The SDGs place strong emphasis on coherence across sectors and illustrate the interdependence involved in addressing social, economic and environmental goals. Alternatives to tobacco farming are no different. For example, evidence indicates that farmers choose to grow tobacco because of a lack of access to money and inputs. The financial sector plays an important role in addressing these limitations by encouraging financing and investment schemes that recognize that up-front financing is an important ingredient in any agricultural or other type of enterprise.

Farmers consistently express that their attraction to tobacco is also based on the initial understanding that it is a lucrative cash crop. One of the findings that cuts across countries and regions is that farmers hope that tobacco will earn enough income to allow them to pay school fees for their children. Studies almost universally find that tobacco farmers do not want their children to grow tobacco and instead would prefer they seek other career opportunities, all tied to the desire for these children to pursue the path of formal education. It is only after multiple seasons that farmers realize that tobacco does not bring the desired income.

Ministries of education have critical role to play in the provision of free primary and secondary education and to find ways to remove barriers to continuing education and career development. Farmers also express that they continue to grow tobacco because there are often not well-established supply chains to grow and earn stable income from other crops. It is here that trade and investment ministries, in partnership with the agribusiness sector, can identify and support alternative supply chains. Trade and investment ministries can also work to ensure an equal playing field in the global market by negotiating and encouraging adherence to trade principles and norms that eliminate barriers to trade. At the same time local governments, across sectors, play a critically important role to channel the needs of communities to decision-making forums and can work with communities to develop creative economies where the trade and sale of local goods and services contributes to the individual and community well-being.

Building political support

If a government does not view tobacco control as a priority, efforts to create a multisectoral strategy may stall. Even if a national strategy is endorsed and initiated without true underlying political support, it may encounter opposition during implementation or not be adequately funded and resourced by the administration. Further, low political will can lead to watered-down tobacco-control policies, that is, policies with exceptions and loopholes and/or are under-resourced, not enforced or otherwise rendered ineffective.

Objective of political buy-in is to identify advocates for tobacco control, those neutral and those against. To also identify opportunities to leverage the resources and capacities of advocates, activate those who are neutral and craft arguments to counter opposing forces. Efforts can be made to communicate the linkages between tobacco growing and poverty and encouraging sustainable food and agricultural commodity systems that can meet the food and nutrition needs and security of the current global population without compromising the ability of future generations to meet their needs. The issues and information provided in Box 2 on page 17 can serve these efforts to communicate effectively across sectors. The intersecting benefits of alternative crops can include the conservation of land, water, plant and animal genetic resources; the protection of existing

environments; resilience promoting, technologically appropriate, economically viable and socially acceptable alternatives: fairness; and equity, and these benefits can be more inclusive of poor and marginalized groups such as women, youth or ethnic minorities.

Prerequisites to accelerate tobacco control and sustainable development in an integrated manner, and to strengthen policy coherence, include the following, drawn from a discussion paper developed by the United Nations Development Programme *(94)*:

- Tobacco control requires good governance to fulfil the WHO FCTC's general obligations, including the development and implementation of comprehensive multisectoral national tobacco-control strategies as well as the establishment or reinforcement of national coordinating mechanisms for tobacco control.
- Advancements in meeting these obligations can promote a range of broader governance objectives in turn, including: enhanced capacities for intersectoral engagement and conflict- of-interest management; greater transparency and accountability; reduced corruption and stronger protection against undue interference in policy-making (for example, from the tobacco industry); and progress in combating organized crime (for example, with respect to the illicit trade of tobacco products).
- National coordinating mechanisms and tobacco-control focal points, under the leadership of treaty coordinating bodies, should promote inclusion of the WHO FCTC within SDG implementation plans, and identify sectors where the potential win–wins across mandates are strongest for deeper partnerships:

    a. Foster strong partnerships within the health sector itself.

    b. Where appropriate, demonstrate the relevance of Article 17 on alternative livelihoods and Article 18 on environmental protection to sustainable development.

        - Many countries derive revenue from growing, processing, managing and exporting tobacco. Such revenue must be weighed carefully against the social, economic and environmental harms tobacco inflicts upon individuals and societies.

Align with national priorities, for example, in some countries the national focus will be around strengthening the economy and job creation, in others around child protection, and in others the greening of policies.

- Alternative tobacco-crop initiatives can help directly or indirectly:
    - to accelerate Poverty alleviation efforts;
    - to reduce premature death and disability of breadwinners who support women and girls;
    - to prevent the children and adolescents denied the opportunity to stay in school or productive employment;
    - to support sustainable food production systems;
    - to improve nutritional outcomes with the increased production of nutrient-rich food crops; and
    - to improve forestation initiatives.
- Pro-poor tobacco-control policies can confront the debilitating tobacco-poverty dynamic, especially when combined with adequate social protection and universal health coverage, including access to tobacco cessation support.

- Recognizing and reiterating these cross-SDG benefits can spur attitudinal and policy changes around tobacco production.
- But the key consideration is that the industry-backed front groups that include tobacco growers' associations must be excluded from policy-making, and legitimate groups included.

There are two main contributors to low political will for tobacco control.

- Attitudes and existing contributions of the executive branch, various government ministries and parliamentarians: The government may not recognize the tobacco epidemic as a health and development priority, especially if the extent of the burden is not apparent. For example, the links between tobacco and lung cancer may be well known. Similarly, a narrow focus on tobacco's health impacts obscures its significant relevance to different development dimensions; for example, it has implications on national economies through lost productive capacities or the potential for tobacco taxation to finance sustainable development, environmental concerns, food security, social erosion and the lack of sustained growth in the region where tobacco growing takes place.
- The second main factor contributing to low political will is that leaders may view tobacco control, or specific tobacco-control measures, as against their duties/ mandate and/or personal interests and beliefs. Strong advocacy is needed to offset the way the tobacco industry propagates misinformation and funds scientific studies to produce counter-narratives, shape public opinion and hinder policy-makers from taking action. Examples include the misconceptions that increased tobacco taxes will reduce government revenue, lead to unmanageable illicit trade, result in job losses and, more broadly, that the tobacco industry is vital to a country's economy.

If the political buy-in is still a challenge, then tobacco-control focal points should gather evidence-based advocacy models for political buy-in and strengthen partnerships within national coordination committee, NGOs, academic and international institutions, etc. This advocacy can strengthen pollical will and lead to efforts to draft a national development plan with clear goals, objectives, and required resources and outputs.

- Political will can be generated by sound evidence and a strong communications campaign, together with a firewall between the tobacco industry and policy-making processes.

- Findings from the situation analysis can shed light on the nature and extent of the tobacco burden, including which populations are disproportionately affected and the need for a stronger response.
- Targeted messaging opportunities to various stakeholders, including potentially disputatious ones, extends beyond tobacco-control economics.
- Investment case analyses can demonstrate tobacco's costs to public and private health systems, to individuals through out-of-pocket spending, and to the national economy through lost productive capacities.
- Investment cases also demonstrate the significant return on investment from implementing a set of WHO FCTC measures to avoid these losses.
- Sensitization and resensitization of key stakeholders should occur throughout the strategy development and implementation process and be reinforced by outreach communications to garner public support.
- Detailed country-specific report on land deforestation due to tobacco crops, soil erosion scenarios, and food security and scarcity.
- Green tobacco sickness: scenarios and cases reported from the country may be used.
- Link the tobacco-related burden with SDGs and how they contribute and prevent achieving SDGs.

Mitigation measures *(95)***:**

- Securing high-level political support is critical for effectively addressing alternative tobacco crops and livelihood plan development aligned with Article 17 and 18 recommendations provided by the WHO FCTC.
- Even in light of these actions, concerted efforts should ensure all relevant stakeholders are consulted before and during the preparation of the national action plan for alternative crops and livelihood initiatives. Their concerns and preferences should be heard and acted upon so they are not in conflict with overall objectives.
- This coordination with the interministerial committee and various other identified stakeholders must be substantive and go beyond mere courtesy: relevant ministries/departments involved should be represented on the strategy committee and/or coordinating body, and different ministries should be encouraged to take lead roles in specific priority areas.
- On interministerial coordination, the importance of action plans for alternative crops and for livelihoods for tobacco growers and workers cannot be overstated. While this may not be feasible prior to forming an interministerial committee, a strong multisectoral and stakeholder planning can support coordination of the alternative crops and livelihoods process, perhaps later evolving into a formal national-level committee. Issues of time and overburdened staff can be mitigated by finding synergies between alternative crops and livelihoods and other aspects of representatives' core portfolios.
- Alternative tobacco crop is not just fundamental to agriculture and livelihoods and at the core of its NCD agenda, which intersects with different ministerial commitments such as alleviating poverty, improving education, livelihoods, economic growth, sustainable development, the environment, food security and combatting communicable diseases and achieving universal health coverage.
- Directly addressing tobacco's role in the economy is especially important for multi-stakeholder engagement. This not only includes highlighting health-care costs, productivity losses and tobacco industry export of capital, but also considering and articulating how tobacco farmers/workers can be supported to shift to other viable and sustainable livelihoods.

SECTORAL CONTRIBUTIONS

Each sector of government has something to contribute to the pursuit of alternatives to tobacco. The following section is a non-exhaustive list of roles and actions that can be taken by each ministry. Where available, the roles and actions have been coupled with a relevant case to illustrate the ways in which the ministry can contribute to the pursuit of alternatives.

Ministry of Health

Potential role

- Act as Secretariat for the national interministerial committee and its technical work groups.
- Ensure effective multisectoral coordination of alternative tobacco crops, livelihoods to tobacco farmers and prevent child labour in tobacco farming.
- Provide technical guidance and support for agriculture, livelihoods, child education, alternative income sources for tobacco farmers and workers, infrastructure and financial support to tobacco farmers.
- Facilitate the adoption and scale up of the recommendations in Article 17 of the WHO FCTC and guidelines issued by the Conference of the Parties to the WHO FCTC.
- Monitor the progress of alternative tobacco-crop initiatives
- Coordinate and plan training and sensitization programmes for people and groups involved in alternative crops and livelihoods.
- Work across sectors to develop strategies to support sustainable and healthy food systems.

Ministry of Agriculture & Agribusiness

Potential role

- Work with existing departments, agencies and boards to transition from tobacco resource development and provision and other support to alternative crops.
- Promote and support economically viable alternatives to tobacco growing.
  - Ensure that farmers have:
    - information on markets
    - fair pricing on inputs and materials
    - fair pricing when selling the crop at auction
    - supply chain linkages to ensure movement along the supply chain.
- Work with the ministry of health to merge initiatives to develop and sustain healthy food systems.
- Establish and chair working groups with relevant ministries and non-state actors, including companies that provide inputs, transportation and other services along the supply chain, ensuring that the tobacco industry and corresponding interests are excluded from participation.

- Provide information, training and support on sustainable agricultural practices for tobacco growers, such as organic pesticides and fertilizers.
- Work with local government to ensure adequate research and extension services to support alternative crops.
- Ensure that subsidies, investment incentives, and other support are excluded from the tobacco supply chain and channelled to support alternatives.

The case of Malaysia: Supporting kenaf as an alternative crop to tobacco *(71)*

Malaysia assessed the growing of kenaf, a plant whose core and fibre can be used to produce environmentally friendly products, as a tobacco alternative crop. It was first introduced to Malaysia in 2000. In 2005, the Malaysian Government decided to initiate the phasing out of tobacco farming and from 2006 to 2010, kenaf was promoted to tobacco growers as an alternative.

In 2010 the National Kenaf and Tobacco Board replaced the National Tobacco Board through the coming into force of the National Kenaf and Tobacco Board Act 2009, repealing the National Tobacco Board (Incorporation) Act 1973. The new Board functions are to implement policies and programmes to ensure viability of the kenaf industry, to implement policies to regulate the tobacco industry, and to develop other economic activities and commercialize value-added products.

Malaysia included kenaf in its *National Commodity Policy 2011–2020* and developed a *Master Plan for the Development of Kenaf Industry* in 2013. The Master Plan aimed to make kenaf a commodity just like rubber and palm oil by 2020. In parallel, since 2013, the Government has ceased to support and promote tobacco. To promote the growing of kenaf, the Government provided financial support (2300 Malaysian ringgits per hectare), bonuses and other assistance to incentivize farmers to shift from tobacco to kenaf. The kenaf cultivation area and number of kenaf growers have been increasing since 2004 while those used for tobacco have decreased significantly. The area used for tobacco cultivation was 15 764 hectares in 2000 which decreased to 2354 hectares in 2012; and the number of tobacco growers fell from 23 020 to 2428 in that period.

The benefits of growing kenaf include: good return on investment; farmers are less likely to fall into debt; does not use as many chemicals as tobacco; grows fast and in crop rotation with rice; and children are not involved in its cultivation. However, there remain challenges associated with kenaf cultivation such as its economic viability (that is, market demand), low yield, growers acceptance of kenaf and a lack of awareness of the product. There are also concerns on the long-term sustainability of the kenaf sector, as it is now heavily dependent on government subsidies and other forms of assistance.

To continue this effort, there is need to further support research, strengthen promotion of kenaf as a commercial and alternative crop to tobacco, identify suitable land for further extending the acreage, strengthen automatization for more efficient harvesting and processing, and involve growers in midstream activities. In the 2016–2020 phase, the focus was on commercializing new applications and branding of Malaysia's kenaf products. The new Board has worked to establish a market by collaborating with kenaf-based industries, and Malaysia has exported manufactured goods to China, Europe, Japan, the Republic of Korea and Thailand.

Ministry of Finance and Planning

Potential role

- Allocate or endorse funding for alternative resources to pool funds for the welfare of tobacco farmers.
- Invest in alternative livelihoods and more economically viable crops for tobacco farmers. Part of this investment can involve investment in public education and healthy and sustainable food systems initiatives.
- Integrate tobacco alternative crops and livelihood priorities into broader development/ welfare plans and processes across various ministries.
- Consider earmarking tobacco tax revenue for sustainable funding of alternative tobacco crops and livelihoods for tobacco farmers and workers.
- Chair working groups and subcommittees on tobacco taxation, funding support to alternative livelihoods.
- Support government initiative to disinvest in tobacco and the tobacco industry.

The case of the European Union (EU) – The EU's shift away from tobacco farming subsidies *(71)*

Tobacco is grown in 12 EU countries, with five EU countries (Bulgaria, Greece, Italy, Poland and Spain) accounting for over 85% of the EU tobacco cultivation area. Tobacco production in EU continues to decrease and in 2016 the area utilized for tobacco growing was 76 383 hectares, with about 45 000 primarily small-scale farmers.

Efforts to convert tobacco production to other crops or economic activities began in the late 1990s. The EU, under Council Regulation 1636/98, a modification of Article 13 of Council Regulation 2075/92, established a Community Tobacco Fund in 1998. This was financed from the support for coupled production.

The Fund supported two types of projects: one on activities aimed at improving knowledge about the harms of tobacco and the other concerning measures directing community production towards other crops or other economic activities through producer training and creation of marketing structures for quality products other than tobacco.

Within the frame of the first project, € 83 million were provided for programmes informing of the health risks of tobacco. As part of the second project, € 51 million were provided to finance 72 studies, experiments, and the provision of advice and guidance, as well as the projects of 1200 farmers. The last conversion measures funded were submitted in 2006 and the support ended in 2010, at the time EU aid completely decoupled from production. This project found that: 1) there were barriers related to conversion, structure, organization, human resources and professional capacities; 2) investments have already been made in the form of existing crops and livestock; and 3) there were little innovations.

Aside from the Community Tobacco Fund project, in the EU Council agricultural ministers decided to reform the raw-tobacco sector in April 2004, following the principles of the 2003 *Common Agricultural Policy* (CAP) reform. Member States are

to remove production quotas and decouple subsidies from production levels. This means producers can grow other crops, if they wish, while maintaining stable incomes. Tobacco-growing EU Member States were given a transition period to adjust, between 2006 and 2009. Since 2010, EU aid has been completely decoupled from production. For tobacco, half of the previous aid was incorporated into the direct payment system (CAP Pillar I) and the remaining half went into the EU's rural development programmes (CAP Pillar II), particularly in tobacco-growing regions.

Under CAP Pillar I, subsidies have been converted into a flat rate support per hectare and farmers can produce what they consider is best for them. There is support for specific crops, but tobacco is not eligible for such support. Under CAP Pillar II, the rural development programme that is co-financed by the EU and Member States aims to support restructuring, investment, diversification and reconversion to non-agricultural activities and agri-environmental measures. Half of the previous subsidies for tobacco has been redirected to this rural development programme with priority given to tobacco-growing areas, including the possibility to help small farmers to do reconversion to non-agricultural activities.

More information on these research programmes are available at: https://cordis.europa.eu/home_en.html

Ministry of Foreign Affairs

Potential role

- Monitor, initiate and provide information on bilateral and multilateral agreements affecting tobacco alternative crops and livelihoods, as well as international collaboration for technical and financial support.
- Participate in and endorse the national contributions of the WHO FCTC Conference of the Parties (COP) sessions.
- Collect lessons learned from the pursuit of alternatives to share at the COP sessions and other relevant international forums.
- Participate in intersectoral initiatives with ministries of agriculture and health to translate lessons learned in other countries in national and subnational initiatives.

The case of Brazil: Sharing experience with Jamaica, the Philippines and Uruguay *(71)*

As part of the South–South and Triangular Cooperation on promoting alternatives to tobacco growing, Brazil, as know-how provider, hosted a study visit for officials from Jamaica, the Philippines and Uruguay on 28–30 March 2016. The objective of this project was to share Brazil's more than 15 years' experience in supporting diversification from tobacco growing and identification of alternative livelihoods through the National Programme for Diversification in Tobacco Growing Areas. The representatives of countries that visited Brazil found the exercise useful and indicated that the lessons they have learned were multiple.

Uruguay indicated that in their country, they face several challenges to making progress in this area. They explained that there is insufficient understanding among tobacco farmers of the damage caused by tobacco cultivation, there are no regulations to protect children from labour abuses, and there are no networks that could support

diversification. They also highlighted that tobacco industry tries to sustain the dependence of farmers on tobacco cultivation. Furthermore, the Government still supports tobacco production. As a result of the project, they felt that there may still be opportunities in promoting small organic farms in higher-income areas to replace tobacco growing and they see it bringing the issue of tobacco cultivation to the attention of policy-makers from a health perspective.

The Philippines admitted that there is recognition of the importance of connecting the goods farmers produce to markets or government food programmes. Representatives from the Philippines also admitted that there is need for more training programmes involving farmers and that conditions for crop diversification should also be improved. The team participating in the study visit have developed ideas for alternative agricultural activities, food processing and crafts and planned to develop a project concept in which family farmers could be directed towards contributing to school feeding programmes.

They also considered providing new opportunities for farmers to increase their access to markets, to promote awareness about the harms of tobacco cultivation among farmers and to conduct management and production skills training for farmers, among other efforts. They also recognized the relationship between farm lessees and farm owners as an important contextual element when promoting alternatives to tobacco growing.

Jamaica noted that there must be a certain level of commitment of the farmers to shift away from tobacco cultivation to other crops, and in this context, it is important for farmers to recognize the health risks associated with tobacco farming. Participants in the study visit noted that there might be some opportunities to encourage transition to alternative crops that could then be linked to school feeding programmes, to programmes promoting agroecological tourism, and to programmes that aim to increase productivity and market access. They also felt it would be important to involve the Jamaica Organic Agriculture movement in tobacco diversification programmes.

The reflections above indicate that the study visit enlightened participants and generated ideas that could be transformed in project proposals and plans. The sharing of experiences has also led to a better understanding of the participants:

- on the importance of stimulating organic production to minimize risks to the health of farmers, consumers and the environment;
- of the need to develop policies that support farmers in their diversification efforts and give them a sense of security, such as access to credits, markets, technical assistance and capacity-building programmes; and
- on the importance of establishing cooperatives (networks) of growers and further developing the necessary infrastructure and value chain for the new crops. It is vital that alternative crops or livelihoods are profitable compared to tobacco.

Ministry of Trade and Investment

Potential role

- Monitor and provide information on tobacco trade and related activities.
- Identify international markets for alternative crops including food and fuel crops.
- Protect obligations to Article 17 in bilateral and multilateral trade and investment agreements.
- Pursue investment opportunities to support alternative livelihoods (agricultural and non-agricultural) in tobacco-growing communities.
- Target investment in sustainable food systems with a local supply of goods and services.

Ministry of Labour

Potential role

- Protect young people from being used as child labour in tobacco farms and factories.
- Provide regular status reports on child labour in tobacco farming, measures taken, details of children protected from tobacco farming, and alternative arrangements such as school education, employment/livelihoods and income sources.
- Support sustainable alternative livelihoods for tobacco growers, in line with decent, economically viable work.
- Raise awareness of and ensure safeguards against tobacco industry, associations, labour unions, etc. which claim to accurately represent the concerns of farmers, producers, sellers, businesses, consumers and/or the general public.

Head of State/federal (President, Prime Minister, Chief Ministers)

Potential role

- Sustain political commitment and keep Article 17 on the national agenda.
- Use political authority to convene actors across sectors.
- Arbitrate incentive clashes (real or perceived) between government institutions.
- Ensure policy coherence and health in policies and alignment of mandates across sectors.
- Hold all government actors accountable to engage in the national action plan regularly, monitor mechanisms, review and measure outcomes, and conduct effective interdepartmental convergence and reporting.

Legislative body (Parliament, Congress, Senate)

Potential role

- Create trust among the public that the priority of the WHO FCTC is to the health and welfare of tobacco farmers, not the tobacco industry.
- Advocate for tobacco farmers' health and welfare, as well as environmental land safety, alongside the public health perspective of tobacco control.

Ministry of Urban Planning/Transport

Potential role

- Work with the ministry of agriculture and other concerned ministries to create market access and infrastructure for alternative crops.
- Plan urban-level innovative/digital solutions that give the best income from alternative crops and alternative livelihood creation, such as poultry, livestock and other income sources.

Ministry of Education

- Ensure effective implementation and monitoring of legislation and other measures to protect children from child labour without formal education and protect youth from tobacco, working with other sectors as appropriate.
- Educate students, out-of-school youth and parents on the harms of tobacco products and second-hand smoke, including by integrating lessons into school curricula.
- Support a national action plan for tobacco farmers/workers' children's education and welfare, monitor the interventions, measure the outcomes and generate regular reports.
- Work with community groups or relevant organizations to implement affordable, accessible after-school activities including sports, arts and skills-development initiatives.

Ministry of Social & Family Welfare, Ministry for Gender Issues

Potential role

- Ensure vulnerable and marginalized populations (including women, children engaged in tobacco farming and the tobacco industry, contract/smallholders of tobacco farming, tobacco workers/laborers) receive adequate welfare schemes and provide customized welfare schemes, as the needs and geographic conditions of this segment is unique.
- Raise awareness on sex-specific risks (for example, pregnancy risks associated with working in tobacco farming, tobacco exposure).
- Raise awareness of the tobacco industry's marketing tactics, such as marketing towards vulnerable populations and appropriating movements such as "independent youth" and "women's empowerment" to increase sales.
- Welfare of tobacco workers.

Checklist of preparatory work

Steps

Step 1. Designate the National Coordinating Mechanism (NCM)/officials to oversee the process, and reinforce high-level support:

- If an NCM exists, its chairperson should designate the NCM secretariat and tobacco control focal point to oversee the national development plan process. If the chairperson does not have the authority to do so, they should request support from the appropriate high-ranking authority.
- If an NCM has not been established, the health minister should designate officials within the ministry and/or among the national tobacco-control unit to oversee the process, working in parallel to establish an NCM to ensure effective implementation of the strategy.
- The Ministry of Health or NCM should request the executive branch to mandate the work and invite other appropriate sectors to contribute to the strategy's formulation.

Step 2. Conduct or update a national mapping and situation analysis to assess/identify:

- the nature of the tobacco crop, contribution, type of soils used and dependency;
- the state of current tobacco production, export, domestic use, disadvantages of dependency on the tobacco crop, alternative crops available;
- opportunities and challenges in tobacco alternative crops, providing livelihoods to tobacco farmers; and
- the farmers' knowledge, opinions, beliefs and attitudes towards acceptance of tobacco alternative crops and livelihoods.

Step 3. Create a process proposal which:

- identifies which stakeholders to include and how;
- proposes timelines for completion of milestone deliverables and the final strategy;
- proposes how to coordinate the process and draft the strategy; and
- includes an intention to request the executive branch and/or minister of health to invite key stakeholders to a multisectoral retreat and/or to formally establish a multisectoral committee as appropriate.

Step 4. Convene an initial multisectoral strategy meeting:

- to increase buy-in from different sectors for tobacco alternative crops and livelihoods that would slowly end tobacco farming; and
- to agree on the process of creating the NCM including a strategy committee, working groups and/or other coordinating arrangements.

Tools

8.5 Tool 5: Where and how Article 5.3 can support efforts to implement Article 17

Article 5.3 of the WHO Framework Convention on Tobacco Control states the following:

> In setting and implementing their public health policies with respect to tobacco control, Parties shall act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law.

The identification of commercial and vested interests is the first step to protecting public health policies from these interests. As noted in other sections of the Toolkit, commercial and other vested interests are embedded in policy landscape in countries where tobacco is grown. This tool provides an illustrative example to assist governments in identifying tobacco interests in order to protect the pursuit of alternatives from tobacco interests and repurpose relevant agencies in service of this pursuit. To begin governments can turn to the *Guidelines for Implementation of Article 5.3* to inform their efforts *(40)*.

Guiding Principles

Principle 1: There is a fundamental and irreconcilable conflict between the tobacco industry's interests and public health policy interests.

The tobacco industry produces and promotes a product that has been proven scientifically to be addictive, to cause disease and death and to give rise to a variety of social ills, including increased poverty. Therefore, Parties should protect the formulation and implementation of public health policies for tobacco control from the tobacco industry to the greatest extent possible.

Principle 2: Parties, when dealing with the tobacco industry or those working to further its interests, should be accountable and transparent.

Parties should ensure that any interaction with the tobacco industry on matters related to tobacco control or public health is accountable and transparent.

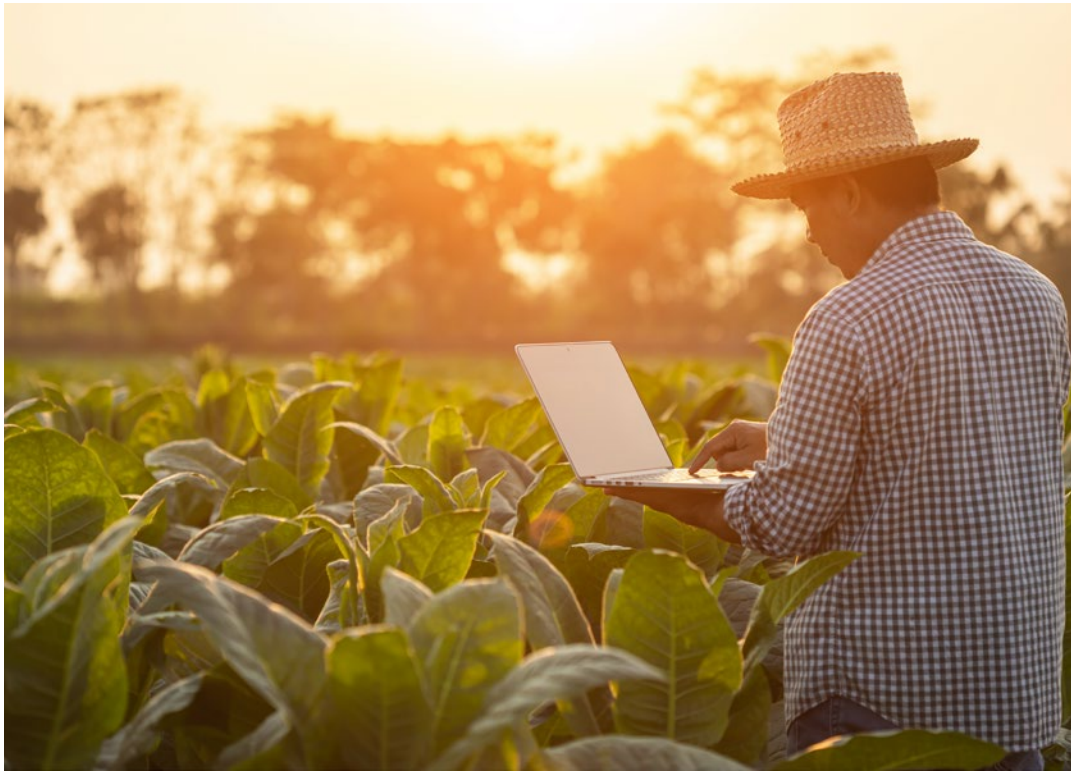
Principle 3: Parties should require the tobacco industry and those working to further its interests to operate and act in a manner that is accountable and transparent.

The tobacco industry should be required to provide Parties with information for effective implementation of these guidelines.

Principle 4: Because their products are lethal, the tobacco industry should not be granted incentives to establish or run their businesses.

Any preferential treatment of the tobacco industry would be in conflict with tobacco control policy.

The following resources can aid governments in the implementation of Article 5.3. The WHO FCTC Knowledge Hub on Article 5.3 (Resource 1) is an excellent starting point to access relevant resources and support to understand how the tobacco industry can influence efforts to implement provisions of the WHO FCTC and approaches to prevent influence. Resources at the Knowledge Hub include research articles that illustrate how the tobacco industry operates in policy and other environments and how governments

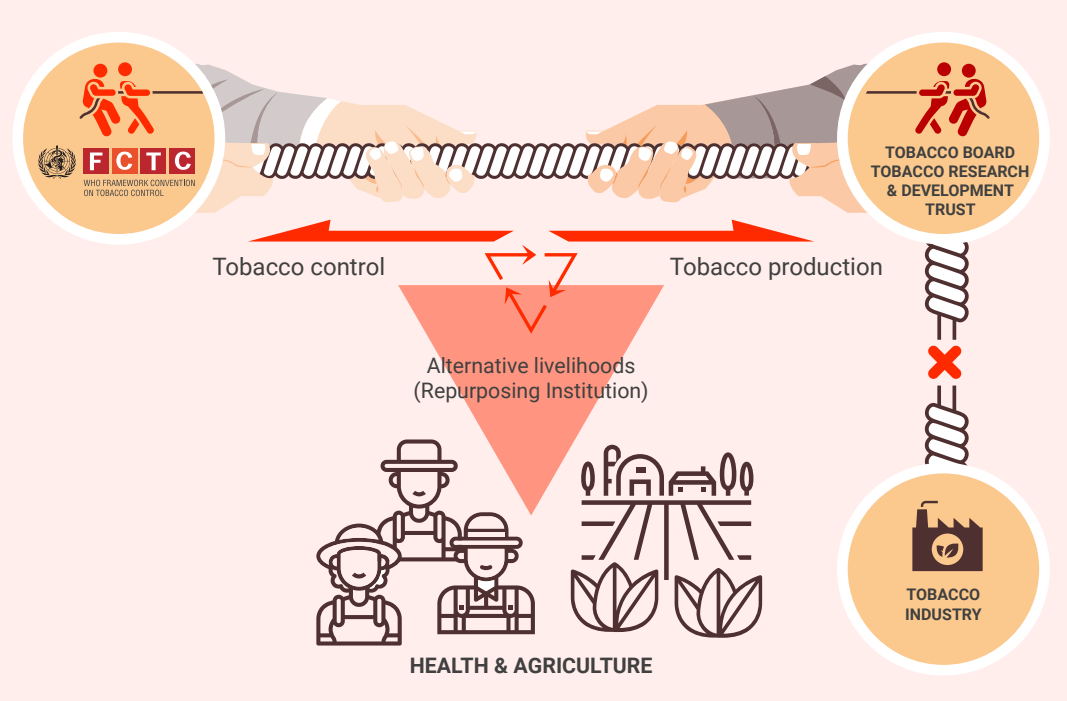


have approached the management of this industry activity. Resource 2 is an open access special issue published in the journal Tobacco Control in 2022 that presents research on tobacco industry influence in policy spaces, including countries where tobacco is grown. Resources 3–7 include toolkits, fact sheets and other resources published by nongovernmental and intergovernmental organizations. Resources 3–5 are toolkits that explain common strategies used by the tobacco industry to influence public policy and programming and provide user-friendly guidance on how to insulate government from industry influence. Resources 6–7 provide information to help define what is meant by "tobacco industry", conflict of interest and commercial influence.

Resources

1. https://extranet.who.int/fctcapps/fctcapps/fctc/kh/TIInterference
    a. https://ggtc.world/knowledge/article-5.3-resources-%26-tools
    b. https://ggtc.world/library/handbook-on-implementation-of-who-fctc-article-53-policies-and-practices-that-protect-against-tobacco-industry-interference-2021
2. https://tobaccocontrol.bmj.com/content/31/Suppl_1
3. http://seatca.org/dmdocuments/toolkit%20for%20policy%20makers%20and%20advocates%20preventing%20tobacco%20industry%20interference.pdf
4. https://theunion.org/sites/default/files/2020-08/The%20Union%20Toolkit%20for%20FCTC%20Article%205.3.pdf
5. https://ash.org.uk/resources/local-toolkit/toolkit-article-5-3-of-the-who-framework-convention-on-tobacco-control
6. https://tobaccotactics.org/wiki/framework-convention-on-tobacco-control/
7. https://applications.emro.who.int/docs/Fact_Sheet_TFI_2017_EN_20146.pdf?ua=1

Importantly, the tobacco industry can appear in various ways in different tobacco-growing countries and can be viewed as a legitimate stakeholder by sectors of government that support agribusiness. The following example is meant to illustrate how "industry" becomes embedded along the supply chain and within government agencies charged with supporting and governing tobacco supply. Tobacco boards are important agencies in tobacco-growing countries and particularly challenging when it comes to implementing Article 5.3 of the WHO FCTC. These boards have representation from industry and government, and they provide a forum where tobacco interests can gain favour with government. At the same time these boards represent the challenge of controlling conflicts of interest when tobacco Is viewed and supported as an economic commodity. This challenge is why Article 17 is critically important not just for farmers and communities, but to shift influence away from tobacco interests in government decision-making.



Where are the connections between the tobacco industry and government in countries where tobacco is grown?

Tobacco interests are deeply connected with government ministries in tobacco-growing countries. The following example illustrates where these connections exist. While this graphic highlights institutions in two countries, these types of institutions exist in all tobacco- growing countries. Initiatives to implement Article 17 can draw on these existing institutios as a strength and an opportunity to repurpose tobacco-based institutions to support alternative crops. The infrastructure and governance arrangements are in place. Government now needs to replace tobacco with other crops that bring well-being to households and communities.

Example

EXAMPLE 1. Tobacco-control boards (identifiers have been removed)

Tobacco-control boards are policy-making bodies often affiliated with government departments and agencies. Below is an example of one tobacco-control board in a tobacco-growing country. The structure and function is usually consistent across countries.

The tobacco-control board and its structure has an eight-member board of directors. It has a secretariat headed by the board secretary who is also the chief executive officer of the institution. Other offices include operations, finance, human resources and administration, information and communication technologies, procurement, regional tobacco offices, inspectorate and other general offices.

Representatives

- Ministry of Agriculture
- Ministry of Commerce
- Ministry of Finance
- Attorney General
- Chamber of Commerce and Industry
- Environmental Management Agency
- Small-scale tobacco growers association
- Large-scale tobacco growers association
- A representative with proven knowledge and experience in matters relevant to the Tobacco Act

Functions/agenda of the Board

- Promote, protect and maintain the production, sale, preparation for subsequent use and export of tobacco growing in the country.
- Promote, protect, and maintain the sale of tobacco grown in the republic, having regard to buyers and trade interests and the stability of the market.
- There is need for the crop to be produced further as it has a positive impact on alleviation of poverty in countries. Any attempt to stop tobacco production will simply enhance poverty in the rural household that depend on tobacco production for their livelihood. The tobacco is produced for export.

Cigarette manufacturers

- British American Tobacco
- Company 2
- Company 3

Input suppliers

- Barn materials
  - Four local companies

- Tobacco seeds
  - Alliance One International and five local companies
- Fertilizers
  - Five companies
- Chemicals
  - six companies
- Packaging Materials
  - Alliance One International
  - Growers Association
  - Four additional companies
  - Tobacco Association of (country)
  - (Country) Leaf Tobacco Company

Example

EXAMPLE 2. Agricultural Research (initiative) (identifiers removed and name altered)

"The Agricultural Research [initiative] (ARI) is (country's) premier research institution responsible for conducting research and providing technical and extension services on tobacco."

To deliver on its mandate ARI is organized as follows:

- Board of Trustees which sets policy and approves programmes;
- executive management which runs the daily operations of ARI; and
- members of staff in various departments who are responsible for implementing all activities.

Currently the Board of Trustees consists of eight members representing various trustee organizations as follows:

- Tobacco Association of (country) has four members
- Ministry of Agriculture has two members
- Tobacco merchants have one member
- National smallholder famers association has one member.

The Trust's **Executive Management** is headed by a chief executive officer and has five departments as follows:

- Research and Technical Services headed by the Head of Research and Technical Services;
- Extension and Specialist Services headed by the Head and Extension and Specialist Services;
- (Local) College of Agriculture headed by the college principal;
- Internal Business Unit headed by the Internal Business Officer; and
- Finance and Administration headed by the Finance and Administration Manager.

CHIEF EXECUTIVE OFFICER STATEMENT: "The tobacco industry is facing a lot of challenges; both at international and local level. In spite of these challenges, however, alternatives to tobacco remain elusive and the country will continue to depend on tobacco for its socioeconomic development in the short to medium term. … While acknowledging the positive strides we have made over the years in addressing our stakeholders' interests, we also recognize the various challenges that we face. However, through continued interaction with various stakeholders we continue to get important feedback which helps us surmount the challenges and achieve our goals. ARI scientists and specialists are more determined than ever to fulfil the vision to be the centre of excellence in technology development, dissemination and training in tobacco and other high-value export-oriented crops. It is my hope that, together, we will be able to address the various challenges that we face as an industry."

ARI collaborates with stakeholders in the tobacco industry including:

- Ministry of Agriculture and Irrigation on policy matters and technically in the provision of extension services and sharing of research information;
- Tobacco-control board on issues of tobacco quality control and policy formulation;
- auction holdings on matters of tobacco quality control and implementation of the demands from merchants;
- tobacco association of country in the delivery on matters of policy formulation and technology development; and
- tobacco exporters association on matters of tobacco marketing as related to issues of quality and extension services.

ARI collaborates with several international institutions including:

- The Tobacco Research Board of Zimbabwe
- Industrial Crops Research Institute of South Africa
- CORRESTA
- International Tobacco Growers Association

Example

EXAMPLE 3. Tobacco Commission (identifiers removed)

The Tobacco Commission (the Commission), … is a statutory corporate body formed in (year) and established by an Act of Parliament with the mandate to regulate the production and marketing of tobacco in (country)."

Headed by the Board of Commissioners, the Commission falls under the Ministry of Agriculture and Food Security.

1 February 2023 "The new Board Chairperson of the Tobacco Commission has urged staff to encourage smallholder farmers to grow more tobacco because they are assured of a market."

Tools

8.6 Tool 6. Policy options and mechanisms of support (the types of government policy that facilitate agricultural production)

Governments have several options available to support alternative crops. This tool focuses on agricultural support, with an emphasis on matching government support with community needs. The important consideration is to work with communities to identify their needs and identify the desired support that attend to local, national and international contexts. The other tools can complement the use of this tool by helping identify unique contextual factors (Tool 2, situational analysis) that may impact the type of support needed and the effectiveness of this support. A situational analysis of the policy, market and farmer-community landscape is a critically important first step. For example, input support may facilitate the increase in the volume and quality of production, but it may require intervention in price controls to ensure fair and transparent pricing, and further may require an assessment of market conditions to determine the demand for the crop being encouraged. The starting point to implement necessary supports is to establish connections with participating communities.

Steps

Step 1. Community engagement

"It is partnerships at the national, sub-national and city level – those that can best harness and optimize the resources available – that will drive forward the real change required to deliver the SDGs and impact people's lives for the better. The challenge for all stakeholders is thus: how can we systematically collaborate across different societal sectors toward delivering the shared vision of the SDGs? How can partnerships genuinely become 'the new normal'?" *(96)* (p. 12)

Government–community relations are a critical starting point in the establishment and implementation of mechanisms of support. Fragmentation is one of the key challenges to the successful pursuit of alternatives. Fragmentation has several implications for the pursuit of alternatives. First, we see that the lack of communication between farming communities and governments perpetuates the myth that tobacco is benefiting these communities. While information challenges are one of the symptoms of fragmentation, one of drivers of fragmentation is the influence of tobacco interests in decision spaces. The power of these interests to mute the voice of communities is a major barrier to change. It is important to establish spaces where tobacco-farming communities can communicate their experiences with decision-makers and, importantly, participate actively in identifying pathways to alternatives. Engaging communities also reflects a commitment to long-term sustainable and adaptable transformation of current systems. It is important to consider how current systems can create disadvantages for smallholder farmers. In relation to smallholder tobacco farmers, they are heavily reliant on companies to provide the resources to engage in the enterprise of tobacco growing. The limited financial and other resources of households and the community can create the conditions for unfair terms in relation to the interest and cost of loans, as well as the purchase price *(97)*.

Example of channelling voices from communities in Guatemala

While gender equality has advanced in Guatemala, male hegemony still characterizes the rural culture. Less than 8% of Guatemalan women farmers own the land they farm. This makes it difficult for them to obtain credits and undermines their decision-making power.

FAO worked with the Ministry of Agriculture, Livestock and Food to develop a gender equality policy, with technical advice to support a new Special Cabinet for Women. FAO also helped establish a technical working group on rural development that would operate across institutions and sectors, with a focus on gender and indigenous people.

In August 2016, the Guatemalan Government ratified its first policy for gender equality in the areas of national food security, nutrition and rural development. FAO and other United Nations agencies have facilitated the country's cultural shift by bringing together government officials and civil society to turn the policy into practice.

Such policies are milestones in implementing the United Nations Convention on the Elimination of All Forms of Discrimination against Women. FAO, through strengthening the institutional and legal framework of countries, makes progressive and lasting improvement in the quality of life of rural and Indigenous women a reality, especially in developing countries.

Source: https://www.fao.org/3/CC2063EN/online/fao-sustainable-development-goals-2022/chapter-6.html

Steps

Step 2. Linking policy and programmes to community needs

Governments are best positioned to provide sustainable support to rural communities through both national and subnational policies and programmes. Lessons from tobacco supply highlights to the importance of having formal oversight to ensure fair dealings between market and community.

Policy Types	
Type 1: Financial Support	Financial aid provided to farmers in the form of credits, tax benefits, loan aid, insurance aid or financial incentives
Type 2: Input Support	Materials provided to farmers to aid in production in the form of subsidized seeds, fertilizer or machinery
Type 3: Output Support/ Restrictions	Aid for or restrictions on farmers regarding post-production activities, such as supply chain support, price supports, price controls, production quotas
Type 4: Technical Support	Aid provided to farmers in the form of extension services, investment in structural development (e.g., road construction, rural development), or in the organization of farming cooperatives

There are different types of policy that can support alternatives as noted in the table above. The table below *(98)* illustrates the outcomes of studies conducted to evaluate how different types of support shape agricultural production. The table illustrates the principle that there is no one-size-fits-all approach that can alone predict outcomes, while pointing to the types of supports governments can pursue to encourage alternative crops.

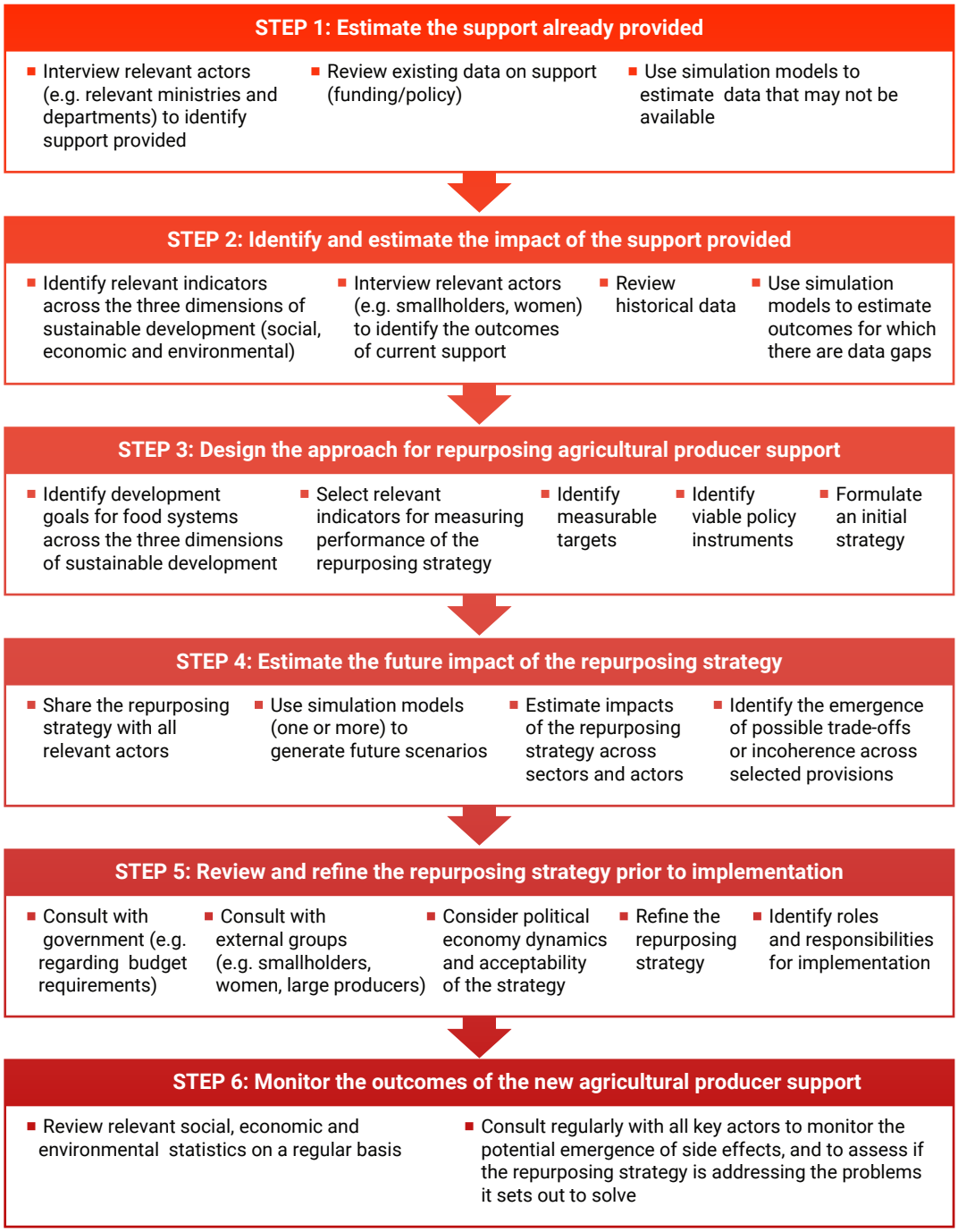
Number of studies demonstrating policy impact by catergory

Selected Outcomes Measured (↑ = Increase, ↓ = Decrease)	Input Support			Output Support/ Restriction			Technical Support			Financial Support		
	Positive	Negative	No Effect	Positive	Negative	No Effect	Positive	Negative	No Effect	Positive	Negative	No Effect
↑ Production	9	5	4	6	3	1	4	2	4	9	7	12
↑ Net Profit	2						2		3			
↑ Farmer Income	4	1		1			5	1	1	11	4	2
↑ Crop Diversification	1	2		2	1					1		
↑ Land Allocated to farming	1	1	2			1				6	1	1
↑ Off-farm Employment	3	1					1	1	1	5	1	3
↑ Yield	6		1				2			3		1
↑ Land not allocated to farming	1									2		
↑ On-farm Employment	1			1			1		1	6	6	3
↓ Poverty Severity	1											
↓ Relative Deprivation	1											
↑ Exports	1			1							1	1
↑ Productivity (output/hectare)	1						3			1		
↑ Farm Size			1				3			1		2
↑ Efficiency	1		1						8	14	5	
↑ Land allocated to one crop from another	2		1		1	1	1			3		2
↑ Number of Farms							2			5		1
↑ Proportion of Livestock							2			5		

Source: Lencucha, R., Pal, N.E., Appau, A. *et al.* Government policy and agricultural production: a scoping review to inform research and policy on health agricultural commodities. *Global Health* 16, 11 (2020). https://doi.org/10.1186/s12992-020-0542-2

The following six steps *(70)* can inform the government approach to identifying, establishing, implementing and monitoring support.

Six steps for repurposing and reforming agricultural support



The following is a non-exhaustive list of possible support targeting the growing of alternative crops. It is important for decision-makers to link the support with the recognized need and ensure that it is feasible, relevant and sustainable within the given context.

Financial support

- Facilitate access to individual or group loans to cover production costs
- Establish necessary infrastructure to ensure efficient movement from farm to market (local, national and international)

- Implement investment incentives and inducements to attract investment in non-tobacco crop production, processing and manufacturing, as well as alternative employment opportunities
- Subsidized career development and education can help farmers move to other enterprises or employment opportunities.

Input support

- Oversee the supply of inputs and intervene with subsidies or other supports to ensure access to affordable inputs including seed, fertilizer, pesticides, herbicides and agricultural equipment
- Work with communities and suppliers to establish storage facilities for inputs to reduce transportation costs
- Participate in initiatives by community extension services to explore environmentally sustainable, financially accessible and productive alternatives to agrochemical cultivation.

Output support/restrictions

- Manage minimum crop pricing standards to ensure competitive and fair pricing
- Enforce predictable and comprehensible grading schemes for crop purchasing
- Establish and manage market information systems
- Ensure fair dealings in international markets
- Participate in trade and investment forums to ensure equal application of trade and investment laws.

Technical support

- Establish research facilities to inform choices about alternative crops
- Establish training facilities and processes to support farmers in the transition to alternative crops
- Support extension workers to provide on-farm support throughout the growing season.

Support can be provided along the supply chain. Each point along the supply chain is a possible target for government intervention.

Steps

Step 3. Encourage partnerships when deemed beneficial

Partnerships can greatly benefit the production and supply of alternative crops. Farmers rely on a range of actors to support the growing, harvesting, storage and transportation of crops to market. These actors range from input suppliers to manufacturers. To ensure coherence along the supply chain, it may be beneficial to establish partnerships between farmers, their communities and these range of actors. Partnerships can ensure stability and predictability along the supply chain. For example, the need for a predictable purchaser for alternative crops led to the decision for the World Food Programme to purchase beans produced in the Kenya through the Tobacco-Free Farms project. The commercialization of food-based crops have been shown to have benefits not only on household income, but also on community dietary diversity *(99,100)*. The process of commercialization is multifaceted and requires knowledge of local conditions and business inputs. The heterogeneity of benefits of non-tobacco cash crops illustrates the importance of approach alternatives at the different levels and sectors noted in the Toolkit. The range of partnerships to consider is reflected in figure below published by the United Nations and The Partnering Initiative.

Types of partnerships

Range of partnerships for the SDGs

The UN System defines partnerships for the SDGs as: Partnerships for sustainable development are multi-stakeholder initiatives voluntarily undertaken by Governments, intergovernmental organizations, major groups and other stakeholders, which efforts are contributing to the implementation of intergovernmentally, agreed development goals and commitments. Many UN legislative documents have stated basically the same language, so many possible references, for example: https://sdgs.un.org/sites/default/files/publications/2257Partnerships%20for%20SDGs%20-%20a%20review%20web.pdf

The SDG Partnership Guidebook (96) provides useful resources to facilitate and evaluate partnerships that foster movement to address the SDGs. Some key considerations are represented in the list of Partnership Health Indicators below. It is important to ensure partnerships are rooted in a shared vision, the intended contributions and benefits are clearly articulated, and the terms are clear and fair as determined by the community. Evidence and experience of relationships between smallholder farmers and companies point to the critcial need to recognize the power that companies often have to dictate the terms of the relationship. To begin, it is important that governments and communities

establish provisions to ensure transparency and accountability to jointly developed goals. Government oversight must be integrated into the partnership process and conflicts of interest between government and private sector actors must be evaluated and protected against.

TOOL 7

Partnership health indicators

1. FUNDAMENTALS			
There is a compelling shared vision, mission and objectives fully bought-into by all partners	●	●	●
Partnership has clearly identified collaborative advantages, is able to create added value, deliver more than the sum of its parts	●	●	●
The partnership has been set up to, and is delivering, net value to all partners	●	●	●
Partners are sufficiently empowered and enabled to be able to contribute to the partnership;	●	●	●
The partnership is able to include all key stakeholders holding essential resources	●	●	●
The partnership has been set up to deliver net value to all partners	●	●	●
2. PARTNERSHIP RELATIONSHIP			
Partners are demonstrating collective leadership of the partnership	●	●	●
Partners are transparent about their assumptions, goals, needs, drivers and constraints	●	●	●
There is a high level of trust among the partners	●	●	●
Partners are empowered and there is clear equity and balance among the partners in decision-making	●	●	●
Partners are accountable to each other for delivering on their commitments	●	●	●
Challenges, problems and tensions are openly brought up and dealt with respectfully and collectively	●	●	●
Partners are jointly accountable for partnership delivery and will help out other partners to deliver	●	●	●
3. STRUCTURING AND SET-UP			
The partnering agreement clearly sets out the fundamentals of the partnership (including the vision and objectives, why each partner is involved, the intended value creation, overall approach; commitments, resources, roles and responsibilities of each partner)	●	●	●
There is a clear theory of change (or theory of transformation) for the partnership, along with a measurement framework to be able to demonstrate progress and success	●	●	●
The fiduciary/legal structure for the partnership is fit for purpose	●	●	●
The governance structure for the partnership is fit for purpose	●	●	●
The management structure for the partnership is fit for purpose	●	●	●
RESOURCES			
External (non-partner) individuals are supporting/championing the partnership	●	●	●
Personnel are available	●	●	●
Finance is available	●	●	●
Knowledge and data are available	●	●	●

RESOURCES continued			
Important networks or spheres of influence are leveraged	●	●	●
Partnership facilitation/troubleshooting/ brokering is available	●	●	●
Other necessary resources are available	●	●	●
4. MANAGEMENT			
Iterative approach to project management, focused on value creation	●	●	●
All relevant partner resources are being applied	●	●	●
Communication of all kinds is sufficiently frequent	●	●	●
Roles and responsibilities are always clear	●	●	●
Deliverables and timeframes are always clear	●	●	●
Financial management, including process for receiving/distributing funding, is effective	●	●	●
Information sharing is effective	●	●	●
The partnership vision remains compelling and relevant to the context	●	●	●
The partnership iterates and adjusts its approach based on experiences to date	●	●	●
The partnership is, or is on course, to itself becoming sustainable or delivering sustainable outcomes	●	●	●
Cultural differences between organisations are well managed and clashes avoided where possible	●	●	●
Partners remain fully committed to the partnership	●	●	●
The partnership has been institutionalized into each partner organisation (e.g. engaged key staff, built into organizational planning and budgets, etc.)	●	●	●
MEETINGS AND WORK PROCESSES			
Meetings happen with appropriate frequency	●	●	●
Setting of agendas and arrangement of meeting logistics ensures inclusivity of all partners	●	●	●
Meetings are documented appropriately and minutes circulated	●	●	●
Conflicts of interest are effectively managed	●	●	●
Partners are consistently present at meetings and represented by appropriately senior level	●	●	●
Decisions are made in a timely and efficient way	●	●	●
5. BROADER CONTEXT/ENABLING ENVIRONMENT			
Partners have reviewed and strengthened their organisational capacity to partner	●	●	●
The partnership is connected to similar partner-ships and peer learning/influencing takes place	●	●	●
The partnership receives ongoing support from platforms and other mechanisms, as required	●	●	●
The partners, and the partnership, advocate for more collaborative approaches to the SDGs	●	●	●

Tools

8.7 Tool 7. Measuring change (key indicators)

The assessment of needs and evaluation of policy and programmes that target alternatives requires monitoring. This tool provides a non-exhaustive list of indicators that can serve as a touchstone for assessment advancement towards alternative livelihoods. Importantly, in addition to household level indicators, this list points to important indicators of community, environmental, supply chain and governance indicators to begin to make linkages between the household level and community and structural levels. The governance-level indicators are important to assess how Article 17 is represented in national and subnational policy and programming and in which sectors.

Category	Subcategory	Indicator
Household	Farming practices	1. Number of farmers growing tobacco 2. Land dedicated to tobacco growing 3. Land dedicated to food crops 4. Number of farmers growing tobacco and other crops 5. Number of farmers growing strictly non-tobacco crops 6. Hours spent growing tobacco/day 7. Hours spent growing non-tobacco crops/day 8. Expenditure on inputs (tobacco farming households) 9. Expenditure on inputs (non-tobacco-farming households) 10. Expenditure on labour (tobacco farming households) 11. Expenditure on labour (non-tobacco-farming households)
	Family	12. Education level achieved by children (tobacco-farming households) 13. Education level achieved by children (non-tobacco- farming households) 14. Family assets (tobacco-farming households) 15. Family assets (non-tobacco-farming households) 16. Hours spent on household activities (women) 17. Hours spent on household activities (men) 18. Hours spent on household activities (children)
Community		19. Resource sharing arrangements (tobacco farmers) 20. Resource sharing arrangements (non-tobacco farmers) 21. Non-agricultural enterprises (mapping) (for example, clothing and household materials retailers) 22. Number of individuals in non-agricultural enterprises 23. Number of individuals in agricultural enterprises (subsistence crops) 24. Number of individuals in agricultural enterprises (cash crops) 25. Number of individuals in agricultural enterprises (subsistence and cash crops)
Environment *(101)*	Biomass extraction	26. Annual production of woody biomass 27. Annual harvest of woody biomass 28. Primary fuel for cooking 29. Primary fuel for light 30. Types of fuel purchased in the last year 31. Percentage of income allocated to fuel purchases
	Water	32. Water availability (rainfall) 33. Water use for domestic needs 34. Amount of water used for irrigation 35. Incidence of water shortages in household 36. Water quality, nutrients, pH and faecal coliform
	Land degradation	37. Tree cover trend (change in tree cover per year) 38. Extent and amount of time (in months) of land areas with bare soil 39. Extent of degraded or eroded land
	Biodiversity	40. Extent of protected area 41. Number of red-list species in a region 42. Number of red-list species in a protected area 43. Ratio of number of red-list species of main animal categories within protected area and total number of red-list species 44. Area, number of diversity of ecosystems protected

Category	Subcategory	Indicator
Supply Chain (Specific to alternative *crops*) *(102)*		45. Number of producers trained in techniques and technologies that allow production to comply with market requirements (volume of production, quality, certification, food safety, etc.) 46. Technologies/products/equipment/inputs introduced to allow production to comply with market requirements (quantity, quality, efficiency, food safety, nutrient preservation, bio-fortified seeds, etc.) 47. Constraints (in quantity, quality, efficiency, food safety, etc.) to meet market and value chain requirements addressed by the new techniques and technologies 48. Number of producers sensitized and trained in techniques for climate change adaptation 49. Number of processing plants/machinery/enterprises supported to undertake post-harvest and value-added activities (for example, climate resilient storage, nutrient preserving storage and processing, fortification, refrigerated transport, labelling, etc.) 50. Number of producers benefiting from the processing plants/machinery/enterprises undertaking value-added activities 51. Number of producers trained in processing or other post-harvest and value-added activities 52. Number of producer organizations/cooperatives/marketing groups/federations established 53. Number of producers participating in producer organizations/cooperatives/federations 54. Number of producers trained in crucial aspects for inclusion in value addition: management, negotiation, identification of partnership opportunities, market outlooks, etc. 55. Number of local service providers (farm and non-farm) strengthened and trained to provide services that allow production to meet market requirements 56. Number of producers linked to service providers that allow production to meet market requirements 57. Number of producers linked to existing or new value-chains. 58. Number of producers linked to other value chain actors (input suppliers, processors, buyers, etc.) 59. Number of producers accessing market information 60. Number of weekly messages shared through information systems with users 61. Number of commercial facilities/markets constructed. 62. Kilometres of rural roads providing access/all-weather access to markets. 63. Number of producers/value chain actors benefiting from roads that provide access/all-weather access to markets. 64. Percentage of infrastructure that is fully serviceable during key value chain stages 65. Number of jobs created
Governance		66. Article 17 is represented in the national development plan(s) 67. Article 17 is represented in the mandates of the agriculture and other relevant ministries 68. The national coordinating mechanism includes Article 17 on its agenda 69. A sub-working group is established to facilitate measures pertaining to Article 17 70. Tobacco-oriented agencies have been repurposed to promote other crops 71. Article 5.3 guidelines have been implemented across sectors

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