GEF-8 Program Framework Document (PFD)

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General Project Information

Project Title	
Financing Agrochemical Reduction and Management Plus (FARM+)	
Country(ies) Global Nigeria Gambia Costa Rica Mexico Nepal Benin Egypt Ghana	GEF Program ID 11682
GEF Agency(ies) UNDP	GEF Agency ID 10105
Other GEF Agenc(ies): AfDB FAO UNEP UNIDO	Submission Date 9/17/2024
Type of Trust Fund MTF	
Anticipated Program Executing Entity(s): Benin Department of Environment and Climate Change and/or Ministry of Agriculture (tbc) University of Parakou/ OBEPAB/ PAN UK FAO Costa Rica Ministry of environment and energy Gambia National Environment Agency Mexico SECRETARIAT of Agriculture and rural development (SADER), NAFIN Sustainable Fund Nepal Ministry of agriculture and livestock development Nigeria Federal Ministry of Agriculture and Rural Development	Anticipated Program Executing Partner Type(s): Government CSO Government Government Government Others Government Government

Sector (Only for Programs on CC):	Project Duration (Months): 60
GEF Focal Area (s) Multi Focal Area	Program Commitment Deadline: 12/16/2025
Taxonomy Stakeholders, Gender Equality, Capacity, Knowledge and Research	
GEF Program Financing (a) 59,074,144.00	PPG Amount: (c) 1,520,000.00
Agency Fee(s): (b) 5,316,673.00	PPG Agency Fee(s): (d) 136,800.00
Total GEF Project Financing: (a+b+c+d) 66,047,617.00	Total Co-financing 556,741,692.00
Project Tags CBIT: No SGP: No	
Program: Other Program	

Program Summary

Provide a brief summary description of the program, including: (i) what is the problem and issues to be addressed? (ii) what are the program objectives, and how will the program promote transformational change? iii) how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the program should be in section B "program description". (max. 250 words, approximately 1/2 page)

The objective of the GEF FARM+ Program ("FARM+") is to unlock finance and build capacity to support governments and agricultural stakeholders in transitioning from unsustainable agricultural practices to sustainable and climate resilient agricultural practices and increase the uptake of nature-based solutions to build the resilience of farming practices to climate change, protect, regenerate and improve productive landscapes and soil health and reduce soil and water pollution from harmful agrochemicals[1].

Building upon the GEF FARM program[2], FARM+ will place an increased focus on redirecting existing public financial flows to the agricultural sector by supporting governments in assessing and redesigning harmful agricultural subsidies and incentives and taking the necessary measures to repurpose financing and incentives with the objective of encouraging and supporting the uptake of sustainable and climate resilient agriculture. Furthermore, FARM+ will collaborate with regional and national development banks as well as commercial banks and other financial institutions, to design financial products and mechanisms[3] that encourage the implementation of sustainable and climate resilient agricultural practices. Partnering with insurance providers and initiatives, FARM+ aims to incentivize the adoption of new practices in the face of climate variability, by increasing access to insurance products that improve the financial security of farmers against crop loss.

Countries participating in FARM+ are highly vulnerable to climate change and their economies depend heavily on the agricultural sector. Climate change is posing additional challenges to the agricultural sector, making countries

vulnerable without robust adaptation measures. Through strengthening extension services to a diversity of farm systems, digital innovation tools to address information gaps, supply chain improvements to reduce waste[4] generation, increased access to knowledge and climate information, and promoting multi-stakeholder collaboration to sustain all of the above, FARM+ looks to address the impacts of climate change in productive landscapes, by promoting resilient agricultural practices that are climate smart and regenerative, apply nature-based solutions and reduce reliance on harmful agrochemicals.

The FARM+ program expects to achieve significant Global Environmental Benefits (GEBs) in supporting countries to transition to sustainable and climate resilient agriculture practices. Overall, the program expects to avoid 3,816,870 metric tonnes of CO2 emissions, environmentally safely dispose of 100,394 Mt of hazardous waste containing POPs and HHPs, avoid 53gTeq of U-POPs, restore 25,603 hectares of land and ecosystems under restoration, implement improved practices in 1,759,510 hectares of land and 40,000 hectares of marine habitats, and manage 120,000 hectares of land for climate resilience. FARM+ interventions are expected to benefit almost 7.5 million people, of which more than half are women.

FARM+ interventions will be designed and implemented in alignment with countries' ambitions as set out in their National Biodiversity Strategies and Action Plans (NBSAPs), National Adaptation Plans (NAPs), national climate plans and Nationally Determined Contributions (NDCs), National Food System Pathways, countries' plans under the UNCCD including those related to Land Degradation Neutrality targets as well as consistency with respective basin management plans, while FARM+ results and lessons-learned will inform the mainstreaming of sustainable and climate resilient agriculture into NBSAPs, NAPs, climate policies and NDCs as they are being revised.

FARM+ proposes a programmatic approach to ensure that interventions supported in the agricultural sector are mutually reinforcing and beneficial, add up to more than the sum of their parts, and do not cause unintended harm in other areas. Adapting to climate variability and increasing resilience to climate impacts in the agricultural sector requires an integrated approach that combines the sensible application of safe agrochemicals, the protection and regeneration of biodiversity, soil health and production landscapes, and the protection of water resources.

Terminology/descriptions as used throughout FARM+ related documentation:

Agro-chemicals: An agrochemical is a chemical product used in agriculture. Agro-chemical refers to biocides (pesticides including insecticides, herbicides, fungicides, rodenticides, nematicides and plant growth regulators) and synthetic fertilizers. For the purpose of FARM+ the term "Agro-chemical" can also refer to antimicrobials, hormones and chemical growth agents used in agriculture.

Agriculture: Throughout FARM+ related documentation "agriculture" refers to crop production, livestock production and aquaculture. Crop production includes food and non-food (i.e. flowers, fibers, animal feed, fuel, etc.) plant-based agriculture.

Sustainable and Climate Resilient Agriculture: Throughout FARM+ related documentation "*Sustainable and Climate Resilient Agriculture*" refers to practices that strengthen the resilience of agricultural systems to adapt to climate change impacts, are environmentally responsible, economically viable, and socially equitable. This type of agriculture aims to reduce vulnerability to climate-related risks such as extreme weather events, drought, and pest or disease outbreaks, minimize negative environmental impacts, and protect and regenerate productive landscapes to maintain and/or enhance ecosystem services and biodiversity.

Sustainable and climate resilient agriculture often involves practices such as integrated pest management, pollution prevention, crop diversification, water conservation and soil health management, all vital for improving the ecosystem capacity to better manage climate impacts including prolongued dry conditions, heat stress, pests (associated with high temperatures and rainfall) and water management. Agroecological and biodiversity-based measures make up its core, while ample attention is given to its livelihood impllications, i.e., household income and farm-level profit and health impacts.

Waste: Refers to post-harvest waste, food waste, food packaging waste, agricultural plastic waste, etc.

Financial Mechanisms: Refers throughout FARM+ related documentation to loans/credit, subsidies, tax incentives, grants, investments, etc.

Agricultural stakeholders: Refers throughout FARM+ related documentation to farmers; agro-food industries; government ministries, entities and extension services; agricultural organizations and associations; educational entities (universities, farmer field schools, TVETs, etc.) financial institutions; NGOs, CBOs, etc.

Indicative Program Overview

Program Objective

Support governments and agricultural stakeholders in transitioning from unsustainable agricultural practices to sustainable and climate resilient agricultural practices in a manner that protects, regenerates and improves productive

landscapes and soil health and reduces soil and water pollution as measures for adaptation through nature-based solutions and access to adaptation support.

Program Components

Component 1: Policy, Regulations & Enforcemen

Component Type	Trust Fund
Technical Assistance	GET
GEF Program Financing ($)	Co-financing ($)
5,864,190.00	46,566,227.00

Program Outcome:

Outcome 1: A cohesive policy and regulatory enabling environment supports sustainable and climate resilient agriculture.

Component 2: Finance, Investment & Insurance

Component Type	Trust Fund
Investment	GET
GEF Program Financing ($)	Co-financing ($)
10,963,729.00	124,520,607.00

Program Outcome:

Outcome 2: Repurposed financial flows and increased access to new finance and instruments, including insurance products, stimulate a transition to sustainable and climate resilient agricultural practices.

Component 3: Technical Assistance and Introduction of Alternatives

Component Type	Trust Fund
Technical Assistance	GET
GEF Program Financing ($)	Co-financing ($)
16,332,761.00	163,766,997.00

Program Outcome:

Outcome 3: Agricultural stakeholders[1] have the knowledge, information, technical capacity and access to alternatives to practice agriculture that is climate resilient, nature positive and increases yields and income.

Component 4: Improving Food Supply Chains

Component Type	Trust Fund
Technical Assistance	GET
GEF Program Financing ($)	Co-financing ($)
10,867,835.00	148,712,261.00

Program Outcome:

Outcome 4: Better supply chain management leads to less waste, less soil and water pollution, less plastics, less GHGs and demonstrates improved product traceability.

Component 5: Global Coordination & Knowledge Dissemination

Component Type	Trust Fund
Technical Assistance	GET
GEF Program Financing ($)	Co-financing ($)
5,147,080.00	23,109,880.00

Program Outcome:

Outcome 5: Global access to knowledge and best practices is applied to scale up to sustainable and climate resilient agriculture.

Component 1: Policy, Regulations & Enforcemen

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Program Financing ($)	Co-financing ($)
400,000.00	700,000.00

Program Outcome:

Outcome 1: A cohesive policy and regulatory enabling environment supports sustainable and climate resilient agriculture.

Component 2: Finance, Investment & Insurance

Component Type	Trust Fund
Investment	LDCF
GEF Program Financing ($)	Co-financing ($)
500,000.00	1,000,000.00

Program Outcome:

Outcome 2: Repurposed financial flows and increased access to new finance and instruments, including insurance products, stimulate a transition to sustainable and climate resilient agricultural practices.

Component 3: Technical Assistance and Introduction of Alternatives

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Program Financing ($)	Co-financing ($)
1,850,000.00	4,100,000.00

Program Outcome:

Outcome 3: Agricultural stakeholders1 have the knowledge, information, technical capacity and access to alternatives to practice agriculture that is climate resilient, nature positive and increases yields and income.

Component 4: Improving Food Supply Chains

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Program Financing ($)	Co-financing ($)
1,875,666.00	4,200,000.00

Program Outcome:

Outcome 4: Better supply chain management leads to less waste, less plastics, less GHGs and demonstrates improved product traceability.

Component 5: Global Coordination & Knowledge Dissemination

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Program Financing ($)	Co-financing ($)
362,649.00	378,915.00

Program Outcome:

Outcome 5: Global access to knowledge and best practices is applied to scale up to sustainable and climate resilient agriculture.

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Program Financing ($)	Co-financing ($)
1,938,040.00	12,339,447.00

Program Outcome:

M&E

M&E

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Program Financing ($)	Co-financing ($)
145,306.00	220,000.00

Program Outcome:

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
Component 1: Policy, Regulations & Enforcemen	5,864,190.00	46,566,227.00
Component 2: Finance, Investment & Insurance	10,963,729.00	124,520,607.00
Component 3: Technical Assistance and Introduction of Alternatives	16,332,761.00	163,766,997.00
Component 4: Improving Food Supply Chains	10,867,835.00	148,712,261.00
Component 5: Global Coordination & Knowledge Dissemination	5,147,080.00	23,109,880.00
Component 1: Policy, Regulations & Enforcemen	400,000.00	700,000.00
Component 2: Finance, Investment & Insurance	500,000.00	1,000,000.00
Component 3: Technical Assistance and Introduction of Alternatives	1,850,000.00	4,100,000.00
Component 4: Improving Food Supply Chains	1,875,666.00	4,200,000.00
Component 5: Global Coordination & Knowledge Dissemination	362,649.00	378,915.00
M&E	1,938,040.00	12,339,447.00
M&E	145,306.00	220,000.00
Subtotal	**56,247,256.00**	**529,614,334.00**
Project Management Cost	2,570,207.00	26,597,412.00
Project Management Cost	256,681.00	529,946.00
Total Project Cost ($)	**59,074,144.00**	**556,741,692.00**

Please provide Justification

The PMC percentage (5%) is at the allowed limit of 5% for PFD.

PROGRAM OUTLINE

A. PROGRAM RATIONALE

Briefly describe the current situation: the global environmental problems that the program will address, the key elements and underlying drivers of environmental change to be targeted, and the urgency to transform associated systems in line with the GEF-8 Programming Directions document. Describe the overall objective of the program, and the justification for it. (Approximately 3-5 pages) see guidance here

Agriculture is the main source of income for several hundred million people around the world, with approximately 43% of the global agricultural labor force made up by women. Most farmers are connected to small-scale, or smallholder, farms[5] and they are grappling with the challenges of climate change.[6]

Agriculture is not only highly climate sensitive but is also a major contributor to the triple planetary crisis: climate change, pollution and biodiversity loss. It generates about one-third of greenhouse gas emissions globally, is responsible for over 60 percent of biodiversity loss, 70 percent of total freshwater withdrawals and causes water, soil and air pollution through its reliance on harmful agrochemicals, land clearing practices and generation of waste. The IPCC/UNEP Climate Adaptation Gap Report emphasizes that human and ecosystem vulnerability are interdependent, and current unsustainable development patterns are increasing the exposure of ecosystems and people to climate hazards.

Globally, 24% of land is degrading with more than 1.5 billion people directly depending on these degraded lands threatening their livelihoods, well-being, food, water and energy security and increasing their vulnerability. Agriculture and land use change is the dominant driver for land degradation and deforestation worldwide, caused by the unsustainable management and over-exploitation of resources, including the excessive use of harmful agrochemicals. Climate change adds to and interacts with these pressures and exacerbates the vulnerability of people and ecosystems.

At the same time, global food security challenges remain. According to the latest *State of Food Security and Nutrition in the World*, published by FAO, IFAD, UNICEF, WFP and WHO, between 713 and 757 million people may have faced hunger in 2023 – one out of 11 globally, and one out of every five in Africa. This is affecting many smallholder farmers and other households in rural areas, where extreme poverty and food insecurity remain deeply entrenched.

Smallholder farmers are also amongst the most impacted by climate change, in part due to an overdependence on agricultural yields for their own source of food and income and because they often have limited adaptive capacities because of lacking access to climate information services, knowledge and quality extension services to guide farmers on climate smart practices.

Rising global temperatures associated with anthropogenic climate change are on track toward[7] or, have already exceeded 1.5 °C from pre-industrial levels for annual average near surface temperature.[8] Societies and the natural systems on which they depend are unable to cope and adapt to the effects of climate change, some of which are irreversible.[9] The intensity and frequency of both slow and rapid onset disasters has increased, creating food and water insecurity for millions of people by reducing production from agriculture and natural resources and disrupting ecosystem services.[10] As highlighted by the IPCC, increasing weather and climate extreme events have exposed millions of people to acute food insecurity with the largest impacts observed in communities in Africa, Asia, Central and South America and Small Island States.[11]

Table 1: **Climate Change Impacts by Region**

Region	**Climate Change Context**
Latin America and the Caribbean	LAC Is seeing the strongest warming trend of about 0.2 °C per decade on record, warming faster than global averages with temperatures projected to rise by 1.5 to 2.5 °C by 2050. Prolonged droughts have affected multiple sectors including agriculture and water supply. Droughts combined with higher temperatures and lower humidity have triggered wildfires in the region. In Central and South America, changes in timing and magnitude of precipitation and extreme temperatures, including more frequent long dry spells, reduced precipitation and altered rainfall during the start and end of the rainy season, affecting agricultural production among subsistence farmers. The warming temperatures have increased the transmission of vector borne diseases.[12]
Asia	Surface temperature has increased in the past century all over Asia with large increases and extremes in West and Central Asia, resulting in an increasing trend of growing-season length across the continent and causing strong,

	more frequent and longer heatwaves in South and East Asia. There is a decreasing trend of the South Asian summer monsoon precipitation during the second half of the 20th century. Decreased precipitation and increased evapotranspiration in West and Central Asia have contributed to drought conditions and decreased surface runoff[13]. Climate projections suggest rising temperatures increase the likelihood of the threat of heatwaves across Asia, droughts in arid and semiarid areas of West, Central and South Asia, floods in monsoon regions in South, Southeast and East Asia, and glacier melting in the Hindu Kush Himalaya region. A greater warming in North Asia, including the Tibetan Plateau, Central Asia and West Asia are also projected.
Africa	Climate hazards in sub-Saharan Africa include floods, droughts, storms and landslides. Floods have caused widespread damage to infrastructure and crops and have contributed to waterborne diseases. Droughts have resulted in crop failures leading to food and water insecurity while storms have damaged infrastructure, crops and lead to loss of lives. Most African countries will face high temperature climates, with increased mean and extreme temperatures, and increased heat waves as a consequence of climate change. Increased droughts are expected over large parts of southern Africa and decreased precipitation in Northern Africa at 2°C global warming. The intensity of heavy rainfall is also expected to increase, increasing exposure to pluvial and riverine flooding across all but north and southwestern Africa.[14] In West Africa, potential lethal heat days under a 2C scenario are expected to increase to 100-250 days per year (vs 50-150 at a 1.6C scenario). This is in line with what the West African region has already begun to see in the form of longer heat days that have progressively been increasing between 1-9 days each decade. In terms of rainfall it is projected that overall precipitation rates will be reduced partly due to the late onset of the rainy season over the Western Sahel. This will particularly affect agricultural related livelihoods and their capacity to plan for climate change. These extended dry periods will be followed by concentrated heavy rainfall events, paradoxically increasing the potential for both flooding and drought and increasing the risk for soil erosion.[15]

The reality of these impacts is reflected within countries' National Determined Contributions (NDCs) and National Adaptation Plans (NAPs). The 2022 NDC synthesis report highlights freshwater resources, food production and nutritional security as the top priority areas and sectors most frequently included by countries in their NDCs and NAPs.[16]

In addition, smallholder farmers lack access to financing that could support them in the adoption and use of climate resilient agricultural practices. The annual unmet general financing needs of smallholder farmers are estimated at $170 billion, and of agri-SMEs, at $106 billion.[17] This absence of financing hinders the adoption of sustainable and climate resilient agricultural practices, such as the cultivation of high-yield and drought-tolerant seed varieties and soil and water conservation practices, which have been proven to help avoid or reduce losses in agricultural production and incomes caused by climatic hazards (FAO, 2019).

According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) small landholdings (less than 2 hectares) contribute approximately 30 per cent of global crop production, using around a quarter of agricultural land and in absolute terms maintaining richer biodiversity in comparison to large monocrop farms. However, it is these smallholder farmers which experience the most difficulties in obtaining capital at affordable rates due to a lack of collateral and perceived higher risks. Most are unconnected to global and certified value chains or public investment programmes on agricultural development, and thus do not have the incentives or inclination to adopt climate resilient, alternative pest control and pollution management measures.[18] The lack of access to farmer risk insurance to cover potential crop losses due to pests and climate impacts, is another reason why farmers continue to use harmful practices to ensure crop security.

With billions of dollars in private and public finance[19], agriculture is a sector characterized by significant investments and financial flows, but often this funding does not address the social and environmental impacts caused by climate change, biodiversity loss, deforestation, surface, groundwater and soil pollution, and soil fertility loss. Climate finance to small-scale agrifood systems was strikingly low in 2019/20, at just $5.53 billion, far below the needs of producers and supply chain actors. According to the Climate Policy Initiative, this represents just 0.8 percent of total climate finance

tracked across all sectors ($660.2 billion), and 19 percent of financing flows to agrifood systems as a whole ($28.5 billion).

Governments provide billions of dollars in the form of price supports, pricing incentives, taxation structures, tariffs and investments in extension services that encourage production practices reliant on, for example, the unsustainable use of agrochemicals or the overexploitation of water resources. The 2021 FAO, UNDP and UNEP report "*A multi-billion-dollar opportunity – repurposing agricultural support to transform food systems*" concluded that support to agricultural producers, which averages USD 540 billion a year, favors policies that are distorting and harmful to the environment and human health, and calls for policies to be repurposed towards healthier, more sustainable and equitable food systems.

A recent World Bank Report (2023)[20] "*Detox Development – Repurposing Environmentally Harmful Subsidies*" states that subsidies for agriculture are driving the degradation of natural assets and harming people, the planet, and economies, with agricultural subsidies estimated to be responsible for the loss of 2.2 million hectares of forest per year - or 14% of global deforestation.

Agricultural subsidies have been shown to drive the deterioration of water quality and increase water scarcity by incentivizing overextraction. Agricultural subsidies and incentives also encourage and boost the use of harmful agrochemicals, destroying non-pest, beneficial insects, and general biodiversity, fueling the crisis of biodiversity loss and disturbing ecosystem functions.[21] In many regions, nitrogen fertilizer is applied in such large quantities that much of it is not absorbed by crops and ends up in water runoff, collecting in water supplies. In countries like India, where nitrogen fertilizer is heavily subsidized, a mere 32 percent of nitrogen is absorbed by plants, while the excess in waterways has enormous negative health and environment impacts (World Bank, 2023)[22].

The size of the global agrochemicals market is significant and keeps growing. In 2023, it was estimated at USD 234.3 billion and expected to grow at a compound annual growth rate (CAGR) of 3.1% from 2024 to 2030. According to FAO, the global consumption of pesticides was recorded at 4.2 million tons in 2019, an increase of 11.6% compared to 2009[23]. Other estimates indicate that, over the past decade, pesticide use grew 153% in lower-income countries.[24]

The drivers for the growth in the agrochemicals market are an increasing global population, human consumption patterns (i.e., resulting in more resources and monocultures feeding livestock than people), and climate change, combined putting ever greater pressure on farmers to increase yields and reduce costs, resulting in a tendency to apply chemical fertilizers and pesticides at higher volumes and toxicity loading. In the particular context of climate change, rising temperatures and altered rain patterns are leading to decreased crop resilience, leaving them more vulnerable to pests, leading to increased pesticide application rates, which in turn magnifies the problem.[25]

The unsustainable use of chemical inputs costs billions of dollars annually and includes very high social, health and environmental risks and associated costs that are not internalized nor reflected in current financial frameworks[26]. The widespread and over-use of agrochemicals causes harm to human health and the environment and impacts on water, climate change, and biodiversity.[27] As stated by the Special Rapporteur on the right to food[28]: "*Pesticides can persist in the environment for decades and pose a global threat to the entire ecological system upon which food production depends. Excessive use and misuse of pesticides result in contamination of surrounding soil and water sources, causing loss of biodiversity, destroying beneficial insect populations that act as natural enemies of pests and reducing the nutritional value of food*".

For example, the production, distribution, and post-application effects of agrochemicals generate a large amount of greenhouse gas emissions, which are often solely attributed to chemical fertilizers. Yet, pesticide synthesis, distribution and field-level application alone generate up to 136.6 MtCO2 equivalent per year; the equivalent of more than 18 coal-fired power stations.[29]

Their health impacts are another factor that are often not internalized. Pesticides that are classified as Persistent Organic Pollutants (POPs) and/or as Highly Hazardous Pesticides (HHPs) are particularly harmful, they can bioaccumulate in the fatty tissue of living organisms, including humans, travel far distances from where they are released, and are persistent in the environment.[30,31] In humans, exposure to POPs can lead to increased cancer risk, reproductive disorders, alteration of the immune system, neurobehavioral impairment, endocrine disruption, genotoxicity and increased birth defects[32], while HHPs are acknowledged to present particularly high levels of acute or chronic hazards to health or environment according to internationally accepted classification systems.

The gender distribution of labor in pesticide application and handling varies greatly from country to country, depending on household needs, traditional decision-making patterns and labor availability. Pesticide management decisions tend to be made by household heads, whether male or female. However, in some countries, women are reported to make up 85 percent or more of all pesticide applicators on commercial farms and plantations, often working whilst pregnant or breastfeeding. There is evidence that they make less use of protective equipment and are injured by pesticides more often than men[33]. While exposure to pesticides affects both women and men, women are more vulnerable to the effects of exposure for physiological reasons. Even low doses can generate irreversible effects, depending on the pesticide encountered and the level and frequency of exposure (ILO, 2021).

The youth also play an important role in agriculture and food production systems. In developing countries, most of the rural youth are employed in the informal economy as contributing family workers, subsistence farmers, home-based micro-entrepreneurs or unskilled workers. They typically earn low wages, are employed under casual or seasonal work arrangements and face unsafe, often exploitive working conditions that compel many to migrate to urban areas. Re-engaging rural youth in agriculture and creating much needed jobs while ensuring future food security and agricultural development requires addressing the numerous constraints that youth face when trying to earn a livelihood. Among others, they include insufficient access to skills development and education; limited access to resources such as land; and low levels of involvement in decision-making processes. Rural youth are also typically excluded from those institutions that provide access to financial services – such as credit, savings and insurance – which further hinders their ability to participate in the sector[34].

Agricultural practices that boost resilience to projected climate change, extreme weather events and pest outbreaks have been proven to enable farmers to improve food security for their communities. For example, in Zimbabwe, agro-ecological approaches that help build resilience to climate change include the use of local genetic diversity (i.e. drought resistant crops), soil organic matter enhancement, multiple cropping or polyculture systems, agro-forestry systems, circular approaches to agricultural biowaste, IPM for pest control and seasonal climate forecasts.[35] The Zimbabwe GCF project works closely with research centers to innovate on ancient crop varieties and farmer field schools to help disseminate and expand adoption. Similarly in Colombia, recurrent cycles of drought followed by torrential rain, resulted in the depletion of crop cycles, and caused food insecurity in the La Mojana Region. An overreliance on “state issued” seeds aggravated food insecurity as these crops were unable to adapt to the extreme climate in the region. A UNDP supported GCF project has focused on agroecological approaches that are compatible to wetland ecosystem while valuing local agrobiodiversity.[36] These techniques have allowed communities to regain a sense of food security as was observed during the COVID 19 epidemic.[37]

Designing environmentally safe, effective and efficient food preservation systems such as refrigeration (food cold chains) as well as drying and close-to-production food processing systems, can also contribute to the sustainability and resilience of agrifood systems. Almost one third of food produced for human consumption goes to waste (526 million tons of food in 2017[38]). A sustainable food cold chain can amplify farm-level productivity through market connectivity, reduce food losses in the post-harvest stages, hence safeguarding the quantity and quality of food produced to ensure food and nutritional security, and counter the future effects of climate change on the global food supply system[39].

In addition, harnessing already existing indigenous knowledge and practices is another important element in achieving more sustainable agrifood systems. Indigenous practices look to generate and produce food through traditional practices that have shown to be more sustainable and in harmony with their environment[40]. For example, in the High

Andes, Quechua communities in the Potato Park apply indigenous practices and knowledge, which results in food security despite climate change, and sustains exceptionally high potato diversity demonstrating also the linkages between biodiversity and climate resilience. These outcomes are fundamentally due to their ancestral knowledge and holistic worldviews – but are enhanced by scientific research[41]. Indigenous food systems preserve rich biodiversity, provide nutritious food and are climate resilient and low carbon and they are already achieving zero hunger for many Indigenous Peoples. However, Indigenous Peoples are largely left out of policy discussions and face widespread marginalization and racial discrimination[42]. In addition, traditional knowledge is often discounted by rural extension services that feel that they need to teach indigenous populations how to farm the right way.

As indicated above, despite the availability of climate resilient, nature positive and chemical free alternatives, approaches and technologies, there are very few financial tools and incentives discouraging the use of harmful agricultural practices and even in the case where climate resilience is identified as a potential incentive, the perceived added costs and efforts coupled with long term gains may prevent their adoption.[43,44] Private and public funding flows for agriculture currently mainly support carbon-heavy agrifood systems, including industrial scale mono crop farming.[45] Instead, government subsidies - numbering in the trillions – and the significant levels of financing could be used to support much-needed climate action in countries across the world and scale up proven alternative sustainable and climate resilient agricultural practices that do not harm human health or the environment.

The multiple and complex challenges described above highlight the need for a multi-stakeholder, systems-based approach to ensure that the proposed solutions are fully owned by relevant stakeholders, and they may be sustained and scaled over time with the necessary foundation provided by aligned policy, finance and institutional capacities. However, this enabling context is often lacking; instead, unsustainable practices in the agricultural and food sectors are facilitated by narrowly focused, siloed approaches to policy and finance planning. Key relevant public and private stakeholders with a vested interest in agriculture and food production may not encounter adequate mechanisms for effective participation in the definition and decision making related to solutions, and as a result, the latter may not be fit for purpose.

This is where the FARM+ program aims to focus a significant part of its interventions.

Challenges and Barriers

Achieving sustainable agricultural and food systems is complex because food and commodity value chains are global and cross-cutting by nature. Farmers and communities may not be able to realize the benefits of adopting new and more sustainable production and consumption practices due to lack of access to finance, misguided policies and information that disturb the market, for example, subsidies to inorganic fertilizers and unlimited access to ground water resources. Furthermore, “technological packages” that rely on traditional agrochemicals are often promoted by extension workers who feel that there is only one way to produce. Market failures may also depend on consumer choices and the extent to which consumers can influence their food system. The disconnection between food production and consumption limits the capacity for the alignment of single actors and thus requires holistic and collective action towards positive economic, environmental and social impacts[46].

A preliminary list of challenges and barriers that prevent the achievement of more sustainable and climate resilient agricultural systems include the following:

Lack of market incentives/financial mechanisms that encourage sustainable agriculture: Developing country producers have relatively few market incentives to adopt higher social and environmental requirements. Niche and specialty markets in developing countries, in particular in LDCs and SIDS, are limited because consumers are either uninformed or unable to pay a premium for responsibly produced food[47], and if such markets exist in urban capitals, it is hard for traditional producers to reach these “specialty” markets. As global organic and green commodity supply chains are relatively small in scale it puts these supply chains at a significant cost disadvantage. Public and private

investments and partnerships need to be expanded to support these supply chains in becoming more cost competitive.

Furthermore, public funding, such as subsidies and incentives, often drive the degradation of natural assets and harms human health, the planet, and economies. These subsidies encourage and boost the use of harmful agrochemicals, destroying non-pest, beneficial insects and biodiversity, fueling the crisis of biodiversity loss and disturbing ecosystem functions.[48] When inputs such as (low cost or free) water for irrigation and/or energy for pumping are subsidized they encourage overexploitation, the growing of crops that are not climate resilient and contribute to excessive run-off and pollution of rivers and coastal zones. Subsidies - numbering in the trillions – when adequately repurposed - could instead be used to finance much-needed sustainable and climate resilient agriculture.

Also, several governments continue to provide input subsidies to farmers, in particular for synthetic fertilizers, to increase yields and meet production targets. Beyond the negative environmental externalities of chemical fertilizer application, such subsidies also put a strain on agricultural budgets, reducing government capacities of allocating public expenditure for investment in more sustainable agricultural practices. Changing such incentive structures to promote more sustainable practices is often subject to pressures from large (domestic as well as international) suppliers of agrochemical products and requires a solid understanding of the political economy and power asymmetries of input supply.

Another source of financing for the agricultural sector - commercial banks – do not actively provide access to finance to smallholder farmers and if they do, they do not often offer financial products for sustainable and climate resilient agriculture. For example, they rely on information provided by “technological packages” to predict yield and cost potential on which to base loan products. Alternative “technological packages” that favour sustainable and climate resilient agricultural practices often do not exist, hence calculations need to be done manually and, on a case,-by-case basis, making it more expensive and complicated to approve a loan for those producers that do not follow the established “technological packages”. Financial tools and instruments that disincentivize the overuse of agrochemicals[52] and the creation of financial products/loans that provide an alternative for sustainable and climate resilient production, would be critical for a transition[49].

Lack of policy coherence and inter-ministerial coordination: Making a transition to sustainable and climate resilient agriculture requires coherency in the range of national policies supporting the sustainable increase of agricultural productivity and incomes, climate change adaptation and mitigation, financial resilience, pollution prevention, biodiversity protection, land management/land use planning, nutrition and food security, rural development, social protection, and a range of other sustainable development priorities. Streamlining various policy processes to simultaneously tackle a wide set of local, national, regional and global objectives, however, is challenging. The creation of ad hoc policies, in isolation, without a systematic policy assessment is often an inefficient way of targeting and achieving sustainable and climate resilient agriculture objectives and can lead to disconnected actions on the ground and unintended consequences[50].

Given the often-limited human resources and socio-political systems in developing settings, policy makers tend to prioritize urgent, rather than long-term, issues. For instance, to increase food security, certain governments stimulate the use of groundwater for agricultural use, using different incentives schemes. This increases agricultural production but triggers serious trade-offs between current and future production possibilities. As these underground reservoirs are practically non-renewable, the rapid extraction of groundwater reduces the adaptive capacity of communities that are dependent on this resource. Another example are restrictions on imports, such as rice import restrictions that have been put in place in the Philippines. These restrictions stimulate the production of rice, even in areas where it is not well suited, rather than motivate farmers to switch to more resilient and competitive crops. The current trade policy induces higher domestic rice prices, which contributes to higher rates of undernourishment and increases the impact of extreme weather events on the prevalence of food insecurity. The inability to reduce production deficits caused by climate events further increases the price of rice[55].

Increasing policy coherence calls for a systematic assessment of policies in place, whether policies provide consistent signals to farmers and whether they have the intended effects in meeting national objectives. Feedback loops that can connect farmers' experiences on the ground with policy makers to improve policy formulation are also critical[51].

Furthermore, without coordinated institutions, it is difficult to mainstream prioritized objectives and ensure that they are translated into actions. In most countries, a lack of institutional coordination and co-operation, and a segmented institutional approach leads to trade-offs in policy development. Socio-economic plans are often discussed under the umbrella of ministries of economic or social affairs, while environmental plans are discussed at the sectoral level or under the auspices of environmental or natural resources ministries. Finance ministries influence fiscal policy and public investment allocations, while agriculture and land use policy is often handled by, or influenced by, multiple line ministries and agencies, including Ministries of Agriculture, Production, Trade, Environment, Forestry and Energy, among others. Policy discussions related to climate change have traditionally dealt with climate change mitigation and adaptation as separate issues (Harvey et al., 2014). In fact, climate change adaptation and mitigation are often addressed through different processes (Locatelli et al., 2011). In conclusion, these entities rarely ensure policy coherence, nor coordinate policy delivery, i.e. through integrated public finance programming. As a result, economic, trade and/or agricultural policy often undermines climate and biodiversity-related policies. As such, countries and policy makers should determine whether relevant institutions are working together in an effective and coordinated manner, and how intra- and inter-institutional mechanisms coherence and coordination issues could be addressed[52].

Another challenge for policymakers and practitioners has been the lack of understanding of the political economy around food and agricultural policy change. Power asymmetries and vested commercial and political interests hold back policy and investment reforms that support the transition towards more sustainable and resilient practices. To accelerate changes in food systems, policy makers need increased capacities to understand the political economy and power asymmetries, to successfully adopt and implement more sustainable policy measures and investments.

Lack of national regulations and lack of capacity to enforce regulations: Pesticide and fertilizer markets in many developing countries, including countries in Africa, are not regulated in a way which protects farmers' health and the environment. Another barrier is that rules, laws, approvals, and controls have not kept pace with the increasing demand for pesticides leading to the development of a lucrative market for cheap generic and illegal pesticides in many countries. Industry and academic sources estimate that up to 20% of the African market, and as much as 34% the West African market, are illegally produced and traded[58]. Empty packaging and canisters are also filled with counterfeit products and sold as originals – with serious risks for farmers especially in Africa, since they are less likely to have access to and use protective measures when applying pesticides[53]. Only a few countries in Africa have established a Globally Harmonized System of Classification and Labelling of Chemicals (GHS) to manage the imports of pesticides. Customs in developing countries have not received sufficient training to adequately monitor the imports and exports of pesticides and prevent illegal trade, nor is there sufficient capacity to regulate and oversee safe storage (such as in harbour facilities) and transport of these agro-chemicals to the end user.

Mismatches in policies at local and national levels with international commitments: A challenge for policy makers and practitioners on the ground has been to bridge the gap between local and national practices with global commitments. Linking the different policy settings and frameworks at different levels can be challenging. For example, countries have identified a set of voluntary targets to achieve land degradation neutrality (LDN) but commitments that are made at national and international levels may not get translated into actions on the ground, because more integration across sectors and scales, and assistance in the form of capacity building, technology transfer, infrastructure and financial support is required. There is also often a lack of policy structures, processes, tools, or social capital at the local landscape scale, although the local level is where ecosystem services are apparent and where they can be effectively managed. Without the ability to act and develop public policies that look at

synergies and environmental, economic and social trade-offs at this scale, it will be very difficult to manage a transition towards sustainable agrifood value chains.[54]

Lack of farmer awareness, technical know-how, and finance on sustainable, nature-based alternatives: Most small-holder farmers are not connected to global and certified value chains and lack knowledge of the alternatives to hazardous pesticides. Because of a range of factors, they perceive agrochemicals and antimicrobials as vital in producing high yields and good quality foods at affordable prices, so they continue to use hazardous chemicals to ensure crop security. Some farmers are unconvinced by non-chemical alternatives due to the communication imbalance of the messages shared by large agrochemical companies, or they do not have the required investments to adopt resilient agricultural practices because of their limited budget and competing financial needs. Public extension and advisory services have unfortunately been found to be underfunded in many developing countries and are thus unable to provide up-to-date, consistent and comprehensive support to farmers in pest diagnosis[55] or provide advice for alternatives for commodity production or family or domestic market food production. Many farmers depend on private extension and advisory services that are bundled with the commercialization of seed and agrochemical inputs, commerce that is oftentimes vertically integrated with produce buyers and therefore related to market access. Sustainable, nature-based and climate resilient agricultural methods, and the production and use of biofertilizers and biopesticides, however, can lead to greater income. In Honduras for example, producers were taught how to develop their own biofertilizers and pesticides. They began to sell them and observed greater incomes because of the savings from not purchasing traditional agrochemicals. Farmers worldwide need to become more aware about the dangers of pesticides, build capacity and knowledge on how to apply sustainable, nature-based and climate resilient agricultural methods, to significantly reduce chemical pest control.[56] At the same time, access to markets, extension services and finance should not be contingent on the application of harmful agrochemicals.

Lack of knowledge and capacity to adapt to climate change: While most small holder farmers have been experiencing the impacts of climate change, in many cases this has not necessarily translated into an actual knowledge of climate change and climate change projections at a local level that is relevant for their own decision making. This lack of knowledge extends to local leaders and land users who are unaware of how to address these impacts in a manner that can generate long term resiliency. More significantly there is often little awareness on how long-term unsustainable practices (such as the overuse of pesticides) decrease farmer resilience to climate impacts at an ecosystem level, by reducing the capacity of productive landscapes and degrading ecological resilience. As knowledge on climate change and best practices are continuously developed (often times at a pilot level), extension services are unaware of best practices and how to best communicate these to rural populations. Often times, extension providers rely on information provided by traditional agricultural schools that rely on siloed approaches to agricultural production.

The above listed challenges and barriers are particularly pronounced in LDCs and SIDS where access to the required capacity, technical assistance and financial resources is often the lowest while negative impacts from land degradation, climate change, biodiversity loss and pollution are significant. Furthermore, LDCs and SIDS are underserved by private sector finance, as credit ratings are often low and high political uncertainties may exist, which requires the design of tailored financial mechanisms. Aligning GEF Chemical and Waste Focal Area funding with funding from the Least Developed Countries Fund (LDCF) will therefore be pursued.

Figure 1 presents the problem tree highlighting the root causes of land degradation and associated impacts on the FARM+ program's target population's food, water and livelihood security. The problem tree shows the interrelations between the compounding impacts of climate change, unsustainable natural resource use and land management practices and the overapplication of agro-chemicals and its consequences which reduce the resilience of local communities and ecosystems that are vulnerable to climate change and extreme climate events. Increases in average annual temperature and seasonal rainfall variability region, combined with non-climate drivers, such as population growth and financial and policy incentives that drive unsustainable land management practices, result in landscape-level land degradation and decreased water availability and security. As a result, already limited natural resources are diminishing, leading to decreased food, water and livelihood security for target populations while jeopardizing their health and security.

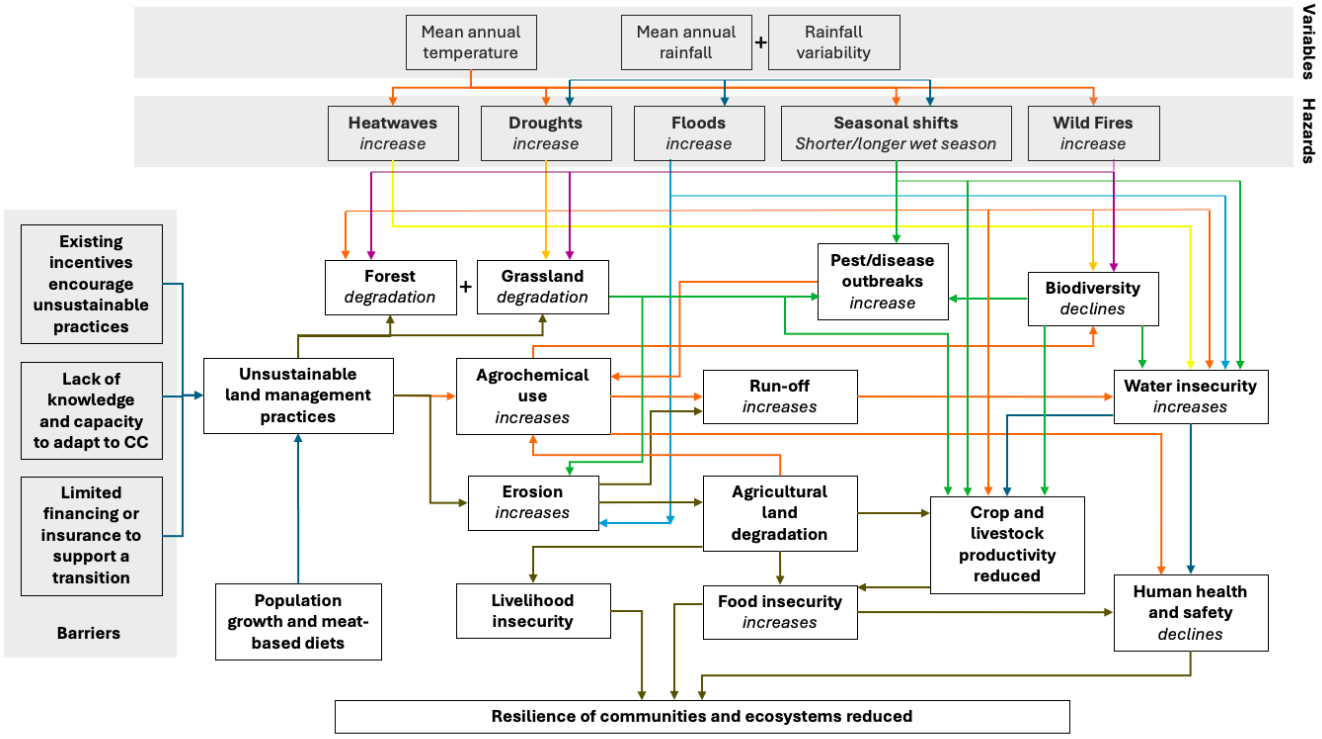


Figure 1: FARM+ Problem Tree

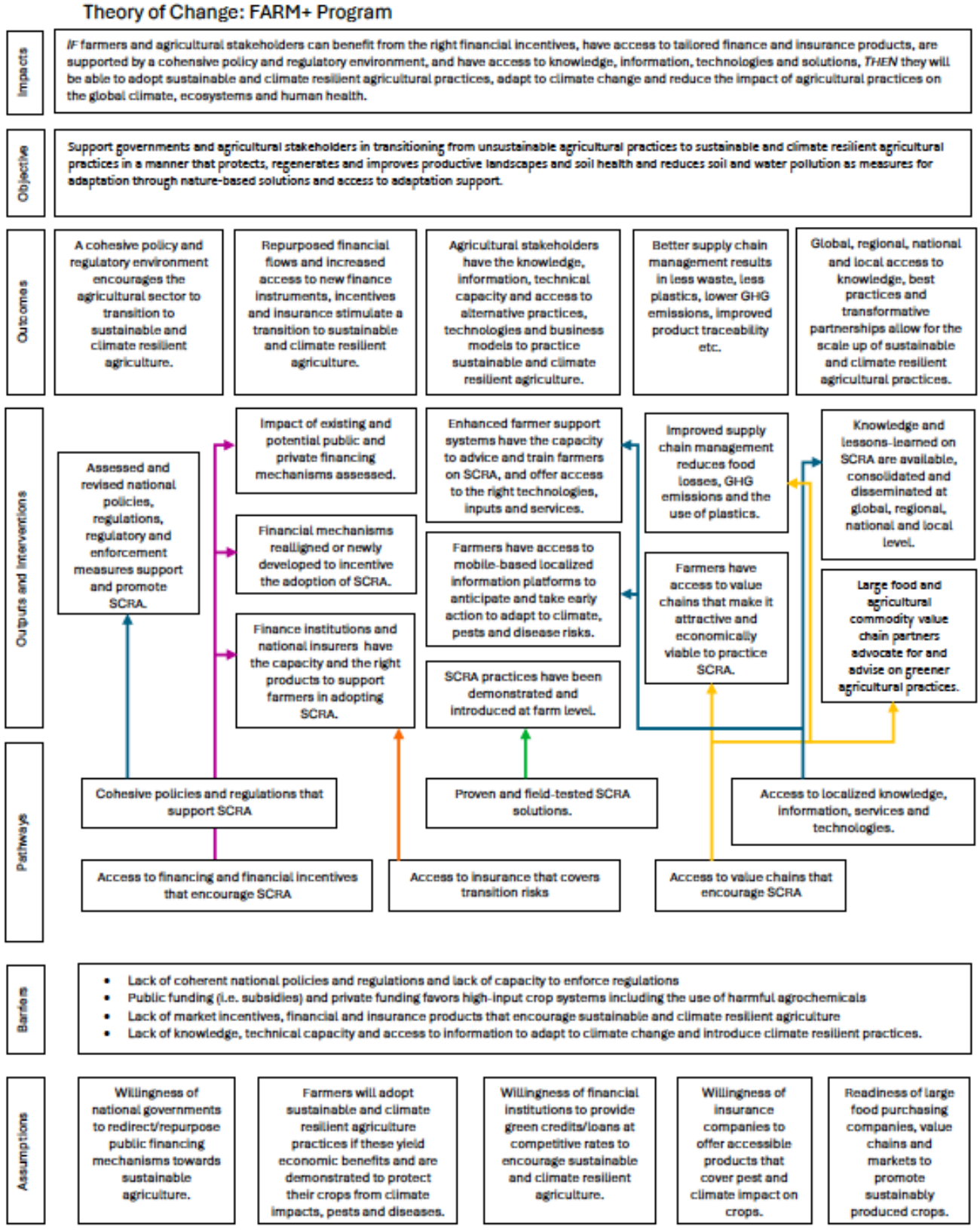


Figure 2: FARM+ Theory of Change

B. PROGRAM DESCRIPTION

This section asks for a theory of change as part of a joined-up description of the program as a whole. The program description is expected to cover the key elements of "good project design" in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PFD guidance document. (Approximately 10-15 pages) see guidance here

With the food we eat and the clothing we wear increasingly being delivered by global production systems that cross many borders, agriculture has become a highly global value chain. Wheat produced in Australia and the Ukraine, for example, is processed into flour in Indonesia and Türkiye, and then exported to make noodles in China, and bread in Africa and the Middle East[57]. Therefore, to catalyze the transition of diverse production systems to sustainable and climate resilient agricultural[58] systems, a global programmatic approach is required to harmonize approaches, policies, legislation, financing, incentives, standards and norms across a wide range of geographies, weather patterns, governments, and diverse farm systems.

Depending on the type of agricultural commodities, farm systems (ranging from small holder farmers to large-scale producers), capital availability, risk exposure, and geographic location, farming practices vary widely.[59] Since crop and agroecosystems are highly diverse with localized climate, pest, crop and disease management needs, solutions for sustainable and climate resilient agricultural systems are required to be adapted to local circumstances and type of producer and can thus vary widely between regions, countries and even at local contexts. Local implementation is particularly significant for adaptation where vulnerability, climate exposure and solutions are linked to local conditions and capacities.

There is enormous opportunity to catalyze a transformation to sustainable and climate resilient agriculture. Investments from governments, finance institutions and investors, need to be restructured to deliver equitable food and commodity value chains that cut emissions, repair damaged ecosystems, improve resilience to climate shocks, and support the implementation of commitments on pollution, human health and development, biodiversity, and social justice.[60]

To support this transformation, FARM+ proposes five programme components that aim to address the root causes that underlie the key challenges listed in the section above. Through these five components, FARM+ will seek to achieve transformative change throughout the food system by supporting more sustainable and climate resilient agricultural and processing practices (including through policy and regulatory changes as well as technical assistance) and increased access to finance and insurance. It is expected that many countries will also be supported in meeting their LDN targets through the FARM+ program.

FARM+ will be able to benefit from the lessons learned in implementing sustainable landscape productive approaches to enhance climate resilience in rural populations, best practices related to the dissemination of climate information to agricultural producers, and in better aligning interventions in the agricultural spaces to NAPs and NDCs. In Gambia, planned climate resilience activities will be framed within the agroecology conceptual framework, considering especially agricultural practices that are climate resilient and the promotion of climate smart technologies, and building a supporting framework around these. Activities will include, among others, the diversification of cropping systems to conserve and enrich soils; conducting research with the National Agricultural Research Institute (NARI) to develop varieties of the target crops that are weather- and disease-resistant, require fewer inputs, and have higher yield stability; and conducting trainings on risk-management strategies to help farmers prepare for and adapt to climate change–related events and increase farm profitability.

Below is an indicative list of the proposed FARM+ components, with each child project tailoring the activities and interventions in support of all five (5) programme outputs to their national and local contexts and priorities.

The FARM+ program aims to improve coordination and consultation across various relevant sectors. Throughout its implementation, FARM+ and its respective Child Projects will ensure continuous multi-stakeholder and multi-sector consultations and engagement processes, to support the design, implementation and monitoring of the program's five (5) components. This can be achieved through various multi-stakeholder consultation approaches that engage

government entities and decision makers, farmer-, youth- and women- representative organizations, private sector, academia, NGOs/CSOs, etc. to ensure that interventions supported by the FARM+ program reflect and consider a wide range of perspectives and stakeholder interests. This multistakeholder approach can benefit from existing coordination mechanisms (i.e., food system governance mechanisms and agri-sector working groups promoting the food system approach), or it can support the establishment of new ones. However, care needs to be taken to ensure adequate cross-sectoral engagement. In addition to agricultural stakeholders, stakeholders operating in the finance, trade, climate, environment and health sectors, at a minimum, should also be engaged.

The FARM+ program also recognizes that women assume important roles throughout agrifood value chains to ensure food security and nutrition at community and household levels. Women make up 43% of the global agricultural labor force and almost 70% of employed women in South Asia and more than 60% of employed women in Sub-Saharan Africa work in agriculture[61]. However, the roles and status of women in agriculture and rural areas vary widely by region, age, ethnicity and social class[62]. Gender equality and social inclusion will be mainstreamed in the FARM+ program through the following measures. This list is not exhaustive and will be further elaborated during the PPG phase.

- Establishing specific targets for women's participation and leadership in project activities.
- Conducting gender-disaggregated data collection and analysis to understand the differentiated impacts of climate change and agricultural practices on women and men.
- Designing interventions that address the specific needs and constraints faced by women, youth, and marginalized groups in adopting sustainable agriculture practices.
- Gender considerations are considered in assessing and ensuring access by women to value chains, information systems, technologies, equipment and supplies.
- Best practices and lessons learned in empowering women and promoting social inclusion are featured and widely disseminated.
- In the development of the Gender Action Plan, activities will be budgeted, and subsequently monitored and reported on.

Component 1: Policy, Regulations & Enforcement – coherent government policies, regulations, and enforcement measures to support sustainable and climate resilient agriculture

Output 1.1 Assessed and revised national policies and regulations promote sustainable and climate resilient agriculture

(*National Level implementation with guidance from the Global Child Project*) To inform the development of policy and regulatory revisions and actions: i) assess and evaluate how climate change impacts have increased the use of harmful agrochemicals at national level and how use may increase under future climate change scenarios; ii) Conduct a scenario analysis that assesses the impact of harmful agrochemicals in land degradation, water resource pollution and climate change risk and vulnerability at national level and in relevant agro-productive regions.

National level assessments will be supported with technical guidance provided by the Global Child Project to ensure assessment approaches are applied across Child Projects in a consistent manner and data and results can be aggregated and published to inform and create awareness among policy makers, financial institutions and investors on how harmful practices will result in diminished yields, livelihoods and profits.

Assess and analyze national policies and regulations pertaining to the agricultural sector[63] and its supply chains[64] against a set of nationally accepted criteria aligned with national development, national road maps for food systems transformation, sustainability and climate (resilience) goals including NAPs and NDCs, among others.

Identify contradicting policies and incentives that prevent sustainable and climate resilience agriculture and quantify their negative impacts (i.e. assess incentives for harmful agro-chemicals, free or subsidized water or

energy, implicitly encouraging non-climate fitting crops, leading to land degradation, run—off, water source pollution, etc.), including in the face of potential climate losses.

Subsequently, make recommendations to relevant government institutions for the removal or adjustment of contradicting policies and perverse incentives by providing options for policy reform. Support revisions of policies and regulations through the preparation of cost-benefit analyses to assess the potential impacts of policy and regulatory changes on a set of criteria related to yields, incomes, public budgets, as well as climate and environmental indicators. This will ensure that policy and regulatory changes are coherent and encourage sustainable, climate resilient and climate adaptation agricultural practices and financial mechanisms and instruments to guide the sector's transition.

Where the timing of the FARM+ program and its Child Projects aligns itself with the review and revision process of national policy and sector development strategies and action plans, support the mainstreaming of sustainable agriculture and climate resilience considerations into national policy frameworks, including but not limited to national climate action plans, development strategies or other existing cross-cutting policy initiatives to ensure alignment across the different sectors involved in the agricultural value-chain.

Promote the integration of insurance as a risk management tool within agriculture development, climate adaptation, or other related policies that promote sustainable and resilient agriculture. Interventions could entail a market and barrier analysis on the adoption of agricultural insurance for basic crops and identifying the potential for parametric insurance. Interventions could also focus on building stakeholder capacities and awareness (i.e. Ministries of Agriculture and/or Environment) in close coordination with agricultural lending mechanisms/national development banks and second-tier financial sectors, on the role insurance can play in incentivizing the adoption of climate resilient and adaptation practices and protecting investments against climatic risks, and the importance of integrating insurance aspects into cohesive agriculture related policies.

Output 1.2 Assessed and revised regulatory and enforcement measures support sustainable and climate resilient agriculture

Assess and analyze the status and impact of control and enforcement approaches and capacity in place at national level[69] against a set of nationally accepted criteria aligned with national development, sustainability and climate (resilience) goals. Make recommendations for revisions or new regulatory measures that would support nature-based solutions, climate resilient and adaption practices, reduce pollution, and restore soil health.

Design/revise priority regulatory and enforcement measures that would be deemed most impactful[70] based on the assessment conducted. i.e., regulations that aim to reduce agriculture runoff and soil and water infiltration; the strengthening or simplification of rules and registration procedures/requirements for import and/or export of agrochemical alternatives (i.e. biopesticides); and/or a standards and certification scheme for sustainable and climate resilient and climate adaption fit agricultural products.

Provide training and capacity building to government officials (incl. customs officers, extension officers, local loan officers from (agricultural) banks) on new regulatory and enforcement measures.

Strengthen national enforcement capacity on the management of agrochemicals, including the registration of agrochemicals, control of transboundary movement of POPs and HHPs, and post-registration monitoring and reporting systems on storage, distribution and application.

Component 2: Finance, Investment & Insurance - Increasing access to finance and investments for sustainable and climate resilient agricultural practices

Component 2 will focus on assessing existing and alternative finance mechanisms to inform and support (through the redesign and creation of innovative finance mechanisms and tools) the redirection of public and private financing from degenerative agricultural practices towards sustainable and climate resilient agriculture.

These innovative financing mechanisms can help mobilize greater financial resources and increase program impact by tapping into diverse sources of capital; de-risk investments by providing guarantees and sharing risks to attract private sector investments; promoting innovation by supporting the development and adoption of sustainable agriculture solutions and ensure long-term sustainability by engaging with socially responsible investors and creating dedicated funding streams.

Component 2 consists of outputs that will be supported in a closely coordinated manner by the Global Coordination and Knowledge Management Child Project ("Global Child Project") and the national/regional Child Projects.

Output 2.1 Assessment of existing and alternative finance mechanisms provide recommendations on how to redirect public and private financing from degenerative practices towards sustainable and climate resilient agriculture

In close coordination with the FARM program and building on and advancing assessments undertaken as part of its implementation, the FARM+ Global Child Coordination Project will undertake and publish a global assessment on existing finance instruments, their impact and potential for sustainable and climate resilient agriculture. This study will be informed by extensive consultations with International Finance Institutions (IFIs), national governments, national development banks, commercials banks, Micro Finance Institutions (MFIs), (private and public) investment funds, among others to provide a comprehensive overview of existing and potential finance mechanisms and lessons-learned to date. A preliminary overview of finance mechanisms that could be assessed is provided in Box 1.

In close collaboration with national government counterparts, and with guidance provided by the Global Child Coordination Project[65], national child projects will assess[71] the negative and positive impacts of existing national public financing mechanisms (including investments, grants, loans and guarantees, insurance schemes and de-risking facilities, subsidies and tax incentives) on the agricultural sector, on specific supply chains as well as on diverse farm systems. Child projects will provide support to national government counterparts to assess levels and composition of public expenditure allocated to food and agriculture and provide recommendations on potential expenditures that can be repurposed to support sustainable and climate resilient agriculture.

Furthermore, child projects will assess the potential impact of repurposing options of public expenditure towards sustainable and climate resilient practices by deploying tools such as UNDP's Targeted Scenario Analysis (TSA), as well as other tools such as the UNDP Integrated National Financing Frameworks (INFF)[66], FAO developed policy monitoring methodologies that enable stocktaking of agrifood policy support in place, the use of tools developed by IFAD/WB as part of the UN Food Systems Hub[67] and Food Systems IP to analyze the level of funds going to food systems at national level, and the use of Computable General Equilibrium (CGE) models that help simulate the effects of reallocating public budgets or subsidies to achieve more sustainable and balanced outcomes, as well as other toolkits and trainings[68].

To ensure that repurposing of public finance is adopted and implemented, child projects will provide support to national government counterparts on understanding the political economy and power asymmetries affecting decision-making. Such support will consist of deploying power mapping and political economy tools, as well as tools for multi-stakeholder collaboration such as the FAO-UNDP-UNEP Guide for Multistakeholder Collaboration to Rethink our Food Systems. This will allow government counterparts, in particular Ministries of Agriculture and Environment, to design effective repurposing strategies and ensuring that policy and investment changes are adopted and implemented.

Furthermore, child projects will assess how innovative public and private financing mechanisms, and de-risking instruments like national insurance programmes (see also Box 1), can create the right enabling environment to promote sustainable practices at scale and attract and incentive private sector investment in sustainable and resilient agriculture.

These assessments will also investigate the value of avoided losses as a result of increased resilience to climate change versus a do-nothing scenario (cost-of-inaction). As part of simulations, child projects might undertake assessments on the impact on yields per year over the period needed for farmers to transition from agrochemical heavy inputs to sustainable and climate resilient agricultural systems, to inform the development of compensation measures and incentives.

Bringing together expertise from UNDP's Sustainable Finance Hub, UNDP's BioFin initiative, and similar units in GEF IAs, the Global Child Coordination Project, in coordination with the entities which developed these methodologies and tools, will provide guidance to national child projects on the various assessment methodologies and simulation models for alternative financial mechanisms to ensure that approaches are applied in a similar manner and assessment results can be compared between the various program countries. The Global Child Coordination Project will consolidate and publish results from the global and national assessments.

Subsequently, the national child projects will prepare recommendations on how to redirect/redesign public financing mechanisms (i.e. such as national budgetary allocations, grants, loans, credit, tax incentives, insurance premium subsidies schemes, etc.) as well as private financing mechanisms to provide incentives and support a transition to sustainable and climate resilient agriculture.

Output 2.2 Financial mechanisms for sustainable and climate resilient agriculture developed, and financial institutions have increased capacity to assess risks and provide loans

National child projects will support national governments and finance institutions in designing and developing new financial mechanisms and/or competitive lending instruments or build on/revise existing instruments that already support sustainability related lending, that shift capital towards sustainable and climate resilient agriculture and incentivize the adoption of technologies and techniques that eliminate the use of harmful practices. For types of finance mechanisms that can be explored by the FARM+ program and its child projects kindly refer to Box 1.
Emphasis will be placed on ensuring the development of sufficient and competitive financial products that meet the specific needs of women, youth, and IPLCs farmers to increase their access to finance.
As part of the design of finance mechanisms, the child projects may support finance institutions (MDBs, RDBs, national development and commercial banks) and other entities in developing eligibility criteria and targets (i.e. climate resilient, low pollution, zero waste, net zero, etc.) for inclusion in the review and appraisal of their investments, loans and agricultural subsidy schemes. Such efforts can build on existing criteria and indicator frameworks such as those developed by the UNEP Finance Initiative and UNEP's Climate Finance Unit.

Furthermore, child projects may support finance institutions in:

- The design of training-of-trainers materials to build the capacity of (field level) loan officers on how to assess loans for sustainable and climate resilient agriculture.
- Ensuring their ESRA system is compatible with Multilateral Environmental Agreements (MEAs).
- Developing technological packages and building capacity on how to cost the increased risk from degenerative agriculture into the cost of the loan itself.

National child projects may also promote and support the integration of de-risking instruments, such as climate insurance, into financial institutions to help transfer the risk of climatic events to the insurance industry to increase the appetite of financial institutions to lend to farmers and agricultural organizations. Child projects may also support the design of pricing structures and strategies that may advance the adoption of de-risking instruments by both agricultural producers and financial institutions.

To support the above interventions, the Global Child Project, in close coordination with the FARM program, will support the development of general definitions, criteria, indicators and tools[69] that help define, assess and monitor the sound management of agrochemicals and waste in sustainable agriculture. In close coordination with national child projects, definitions, criteria and indicators will be tested with specific investors and funds for validation at both national, regional and global level.

Box 1. Types of finance mechanisms that can be explored by the FARM+ program.

1. Catalytic Funding Mechanisms to Drive Initial Adoption:

Seed Funding and Volume Guarantees: These mechanisms can be instrumental in de-risking initial investments in sustainable agriculture practices, especially for smallholder farmers or those in marginalized communities. Seed funding can support pilot projects demonstrating the efficacy of these practices, while volume guarantees can assure off-takers of a certain supply, encouraging farmers to transition.

Credit Guarantees: These can address the challenge of limited access to credit faced by many farmers. By guaranteeing a portion of the loan, credit guarantees can make it easier for farmers to secure financing for sustainable agriculture investments.

2. Impact Investing to Attract Private Capital:

Direct Investment and Blended Finance: These mechanisms can leverage private capital for sustainable agriculture initiatives. Direct investment can provide much-needed capital for scaling up proven solutions, while blended finance can combine public and private funds to create more attractive investment opportunities, particularly in riskier contexts.

Impact-Focused Capital Market Solutions: These innovative financial instruments, such as green bonds or sustainability-linked loans, can tap into the growing market for impact investments. These instruments can provide additional funding for sustainable agriculture projects that demonstrate positive environmental and social impacts.

3. Socially Responsible Investing for Long-term Sustainability:

Social Bonds and Mutual Funds: These instruments can channel investments from individuals and institutions seeking both financial returns and positive social and environmental impact. FARM+ can promote the issuance of social bonds linked to sustainable agriculture outcomes or encourage the development of mutual funds focused on sustainable agriculture investments.

Pension Funds: Pension funds, with their long-term investment horizons, are well-suited to support sustainable agriculture initiatives. FARM+ can engage with pension funds to promote the inclusion of sustainable agriculture investments in their portfolios.

4. New Taxation Channels to Generate Additional Resources:

Earmarked Taxes and International Solidarity Levy: These mechanisms can generate dedicated funding streams for sustainable agriculture. Earmarked taxes can be levied on specific goods or activities, with the revenues directed towards sustainable agriculture programs. An international solidarity levy, applied to certain transactions or sectors, can mobilize resources from a wider range of actors to support global sustainable agriculture efforts.

Output 2.3 National agricultural insurance providers are better equipped to offer insurance solutions to incentivize the adoption of climate resilient agricultural practices

National child projects will support governments in enhancing the enabling environment at the policy and regulation level for existing risk financing and de-risking instruments and agricultural insurance programmes for smallholder farmers and agricultural enterprises (with a focus on the needs of women, youth, and IPLCs farmers). This will build the long-term conditions for scaled up risk transfer solutions that include insurance to protect farmers' losses in yield production due to damages from pests, weather and other inter-related risks, particularly as they may be affected and worsened by climate change.

Provide technical support and build the capacities of the insurance industry to bundle insurance solutions into service delivery models, like financial institutions, that promote the use of resilient agricultural practices and reach scale.

Build the business case for offering insurance solutions that incentivize the adoption of climate resilient agricultural practices as they can reduce the risk against climate change and can help design affordable insurance solutions for smallholder farmers and their organizations and building sustainable business models for insurance companies.

Output 2.4 Farmers have access to value chains that make it attractive and economically viable to practice sustainable and climate resilient agriculture

At national level, undertake a readiness assessment to identify/determine: i) the impact of climate change on principal agricultural products; ii) existing and viable markets and demand for sustainable and climate resilient agricultural products, as well as existing barriers for entry; iii) existing producers in country including associative capacities; and iv) future opportunities and new value chains that could be developed.

> **Note**: To inform the design and scope of the national Child Projects such an assessment should in part be undertaken during the design of the Child Projects and the PPG phase, and if additional information would be required, could be expanded upon during the initial phase of the program's implementation.

Establish multi-stakeholder innovation hubs at national level, involving different value chain actors such as farmers, input suppliers, climate adaptation service providers, retailers, and consumers, to systematically evaluate strategies to up-scale usage of sustainable and climate resilient approaches and identify 'niche' opportunities for farmer entrepreneurs. Child Projects may leverage and improve the capacity of local agroclimatic tables to inform engagement and support in the identification of potential regional solutions and opportunities.

Evaluate the potential of national sustainable public procurement standards to improve market access and increase the uptake of sustainable and climate resilient agriculture. If deemed viable, support national partners in designing public procurement standards that provide the agricultural sector with the right incentives to transition to improved practices.

Engage with national and international agri-businesses to promote sustainable sourcing and supply chain practices, to increase the market for sustainable and climate resilient agricultural commodities and in turn create incentives for the agricultural sector to transition to improved agricultural practices.

Support the development of new value chains (in diversification or agroforestry scenarios) through market analysis, identification of barriers for market entry, support in creating enabling conditions, monitoring and evaluation systems, the development of certification standards, etc.

Component 3: Technical Assistance and Introduction of Alternatives – Introducing sustainable and climate resilient agricultural practices reducing reliance on harmful agrochemicals.

Output 3.1 Enhanced Farmer Support Systems (FSS), such as extension officers, agricultural associations and farmer field schools have the capacity to advise and train farmers on sustainable and climate resilient agricultural practices.

Assess national and local institutional capacity (i.e. public and private extension services, farmer field schools) to support women and men farmers in identifying and responding to climate risk/vulnerability and the adoption of non-chemical crop protection and agroecological or biodiversity-based approaches to reduce climate risk and exposure while building resilience to climate change through sustainable productive practices linked to improved ecosystem management.

Comprehensively gauge farmers' knowledge, attitudes and practices in area such as the introduction of new varieties or the recovery of traditional crops that are more resilient to projected climate stress (i.e. early maturing, drought tolerant); diversification with more resilient crops (i.e. transition from maize to sorghum and millets, beans to cowpeas and pigeon peas, etc.); crop rotation; soil health enhancement; improve soil water retention; intercropping or polyculture systems[70]; biological control and biopesticides[71]; support for agro-forestry systems; circular approaches to agricultural biowaste (mulching, zero-tillage), etc.

Identify priority capacity and training needs that could lead to enhanced (social-ecological) resilience, reduced reliance on hazardous agrochemicals[78] and are vital for the climate resilience of productive landscapes.

Mobilize national institutions, such as national universities, to enhance the capacity of farmer support systems (FSS), extension services (ES) farmer field schools (FFS) and local agroclimatic tables. Develop training and awareness raising activities[72], supported as appropriate by digital tools, such as Farmer-to-Farmer videos or social media, to provide context appropriate services and information to farmers that promote and support nature-based solutions as well as greater understanding of climate impacts and climate resilient practices, increase biodiversity and combined with alternative pest and diseases control measures, lead to reduced toxic loading and improve soil health. Explore the adoption and/or expansion of communal labor practices that can address the limited supply of farm labor.

The Global Child Coordination Project will provide consistent guidance for this output, building on existing methodologies and tools to analyze and strengthen integrated public/private farmer support systems, such as the UNDP tool *Multi-Stakeholder Collaboration for Systemic Change: A New Approach to Strengthening Farmer Support Systems*, among others.

Output 3.2 Farmers rely upon mobile based platforms that provide localized weather, climate, market, pest information and pest management measures, to climate proof their cropping systems and lower vulnerability to attacks.

Incorporate best practices and best available techniques (including crowd-sourced and remotely sensed data) into early warning systems that enhance farmer's preparedness in the face of pest and disease outbreaks and climate upheaval. In partnership with the WMO, regional and national weather authorities, build/enhance climate/weather forecast information systems while ensuring continuous engagement of anticipated end-users to test the mobile platforms and build the necessary trust that these platforms can better predict forecasts and potential pest outbreaks. Build capacity of farmers on the use and application of platforms and ensure that farmers are able to turn knowledge on forecasts and pest outbreaks into actions and enhance the resilience of their agri-food production systems accordingly (i.e. through adjusting agricultural calendar). For example, using the PICSA[73] approach used by WFP and UNDP, which combines historical climate data and forecasts with farmers' knowledge of what works in their own context, and subsequently uses participatory planning methods to help farmers make informed decisions about their agricultural practices. Or building upon decision-support portals such as FAO's FAMEWS, through which tailored pest alerts and potential monetary losses can be generated, and different

management scenarios (i.e., curative, chemical-based on preventive, non-chemical) can be visualized through on-line interactive maps.

Output 3.3 Sustainable and climate resilient agricultural practices have been collected to create confidence among financial institutions, insurers, and farmers.

In order to create confidence among financial institutions, insurers, and farmers, field test / stress test crops (at different scales), including traditional and climate resilient crops (using Farmer Field Schools and national universities) to provide the necessary evidence that nature and conservation based, climate resilient agricultural practices, improve biodiversity, soil health, and water retention, maintain yields and reduce the need for harmful agro-chemicals and agro-plastics.

In partnership with farmer support systems (FSS) and extension services (ES) support diverse farm systems (ranging from small holder farms to large scale mono-crop production entities, incl. food and non-food plant-based agriculture, animal husbandry and aquaculture) in adopting sustainable and climate resilient agricultural practices with a particular focus placed on the needs of women, youth, and IPLCs farmers. Support will enhance, when existing, the role of local agroclimatic tables as key local fora to identify local solutions for addressing climate impacts in an integrated manner.

Support field testing at farm level through training and capacity building (aligned with national/regional adaptation strategies/plans/priorities) that will focus on the demonstration and introduction of a wide variety of technologies and practices[74] (depending on local settings) that are climate resilient, regenerate biodiversity, improve soil health, improve water retention, reduce pollution of soil and water resources; eliminate the use of low-quality agricultural plastics, support sustainable gains in agricultural yields and income, and work towards sustainable land management practices in support of voluntary LDN targets. Capacity building will also focus on measures to minimize post-harvest waste and agricultural waste burning, support biomass waste reuse and greater irrigation efficiency. Interventions could benefit from the UN Food System Hub and Food System IP, as both have available databases of good practices for food system transformation, by linking technical assistance recipients and scientific institutions to these initiatives.

Engage with large scale producers and/or relevant agro-productive associations to apply and demonstrate sustainable approaches in phases, in order to showcase results and benefits, to subsequently replicate results.

Output 3.4 Farmers have access to a supporting ecosystem that ensures long-term access to new technologies, services and inputs

Access whether farmers have the required ecosystem of supporting services at their disposal in order to adopt sustainable and climate resilient agriculture long-term (i.e., services, inputs and technology provision models, etc.).

Support the development of “last-mile” provision models, building on what already exists informally and developing private sector and investment opportunities to bundle inputs/services/technologies.

Increase the availability of appropriately regulated pest prevention and management services to farmers (i.e., suppliers of alternatives; professional crop and agricultural pest and disease management services), by building capacity of manufacturers and distributors on the production, distribution and marketing of safer alternatives; and providing training on adequate crop/pest spraying techniques, technologies and systems, i.e. by using AI and/or drones to provide targeted pest control (“pest-treatment leasing”), rather than “blanket” crop dusting, and use of anti-microbials (to avoid over application), among other interventions ensuring that these strategies are informed by predicted weather and climatic conditions.

Component 4: Improving Agricultural Supply Chains - Improving agricultural value chain practices to minimize waste, soil and water pollution, plastics and GHG emissions

Output 4.1 Improved supply chain management reduces losses, soil and water pollution, GHG emissions and the use of unnecessary plastics

Promote sustainable supply chain practices, by engaging with agri-businesses and supporting a select number of supply chains in introducing better approaches to demonstrate their benefits. Interventions could aim to: reduce food losses, reduce soil and water pollution, reduce the use of unnecessary plastics[75], apply sustainable packaging, improve local agro-processing and value addition, improve cold chain management (e.g. energy efficiency measures, transition to climate friendly cooling solutions and renewable energy), transportation and storage solutions.

Output 4.2 Companies purchasing agricultural products adopt value chain approaches and innovations that lead to a reduced reliance on harmful agrochemicals and plastics of the products they purchase.

Engage with agri-businesses and closely collaborate with large companies purchasing agricultural products (building on partnerships initiated by the FARM program, UNDP's Food and Agricultural Commodity Systems – FACS[76] and partnerships between companies and other GEF Implementing Agencies)[77] to promote sustainable sourcing and supply chain practices. Support private sector partners in assessing supply chains and potential innovative approaches and opportunities to support the scale-up of sustainable and climate resilient agricultural practices for products purchased by such companies.

Demonstrate and analyze (in a few select supply chains) the use and impact of product labels that provide information about social, environmental, and pollution impacts.

Output 4.3 Small and medium size enterprises (with a focus on women and youth led SMEs) design, manufacture and market harvest/food waste derived products.

Promote the design, manufacturing and marketing of food/organic waste derived products[78] through the organization of national innovation challenges and technical assistance (i.e. provided through the UNDP Innovation Labs) to encourage and finance small and medium size enterprises (with a focus on women and youth led SMEs) to design and market harvest/food waste derived products.

Component 5: Global Coordination & Knowledge Dissemination - Global access to knowledge and best practices is applied to scale up sustainable and climate resilient agriculture.

Output 5.1 Project and program baseline assessments completed.

At the outset of the program's implementation and building upon baseline information obtained during the program's preparation phase, national child projects will establish a project baseline to ensure that FARM+ progress and impact can be measured to allow for impact assessments as part of program monitoring.

The Global Coordination Child Project will provide guidance and templates (building on FARM guidance and templates) that can be applied for this purpose by the national child projects. The Global Child will also consolidate and aggregate results from these baseline assessments and publish and disseminate results through the Knowledge Management Platform.

Output 5.2 **Knowledge and lessons-learned related to all programmatic aspects are consolidated, published and regularly communicated and disseminated through various Knowledge Management platforms to stakeholders participating in FARM(+) as well as external to the programme.**

Support the development and management of the FARM+ programme's Knowledge Management Platform (or alternatively contribute to the FARM programme's Knowledge Management Platform) to facilitate the exchange of best practices and lessons learned among FARM and FARM+ countries, promote South-South cooperation by facilitating peer-to-peer learning and knowledge exchange between countries facing similar challenges. The Global Coordination Child Project will continuously assess and service Child Project and program country knowledge and learning needs, coordinate delivery of capacity development interventions, convene and facilitate thematic learning spaces, share relevant guidance and resources, organize sensemaking events, convene South-South knowledge exchanges and generally ensure that knowledge and lessons-learned related to all programmatic aspects are captured, consolidated, easily accessible and regularly communicated and disseminated to stakeholders participating in FARM /FARM(+) as well as external to the programme, to ensure the widespread replication of best practices and showcase the impact of sustainable agriculture practices and inspire further action.

Through the global knowledge management platform, participating FARM+ program countries and program partners will be able to access technical support and gain knowledge on plant protection and pesticides management (among many other related topics). Child projects can request and contribute to the development of specific knowledge management products, such as a study on the impact of alternative agricultural practices to the use of harmful agrochemicals on the long-term sustainability of ecosystem services and productive landscapes.

With support of the Global Child Project, the Global Coordination & Knowledge Dissemination component will provide technical assistance and guidance to child projects on i) assessing and evaluating how climate change impacts have increased the use of harmful agrochemicals at national level and how use may increase under future climate change scenarios; and ii) conducting a scenario analysis that assesses the impact of harmful agrochemicals in land degradation, water resource pollution and climate change at national level. Data aggregated from the various child projects will be published and used to create awareness among policy makers policy makers and financial institutions/investors on how harmful practices will result in diminished yields, livelihoods and profits and inform the development of policy and regulatory revisions and actions.

Establish and maintain linkages and exchanges with existing platforms and multistakeholder initiatives such as the UN Food Systems Hub, FOLUR, FARM, the Food Systems, Circular Solutions to Plastics, Supply Chain, Blue and Green Islands, ISLANDS, Clean and Health Ocean Integrated Programmes, UNDP's Food and Agricultural Commodities Systems (FACS), Agro-ecology Coalition, the Global Alliance on Highly Hazardous Pesticides, CGIAR centers (i.e. IWMI, IFPRI, ILRI or the CGIAR Scaling Readiness unit), fora on new agribusiness and agriculture, among others.

Establish collaborative arrangements with national and international counterparts to publish results on the cost-effectiveness, efficacy and environmental footprint of non-chemical management alternatives and their socio-technical adoption hurdles under varying farming contexts in established scientific venues.

Link the FARM+ knowledge management platform to a dedicated space on agricultural insurance programming, supported by UNDP's Insurance and Risk Finance Facility and the Bill and Melinda Gates Foundation, to enhance partner understanding and knowledge around insurance and risk financing that can enhance the resilience of smallholder farmers to climate changes and improved pest management. This can connect directly to UNDP's soon-to-be-launched Global Platform on Smallholder Farmer Financial Resilience, that will draw in technical and financial resources, as well as best practices on financing resilience.

Output 5.3 **Large food and agricultural commodity value chain partners advocate for and advise on greener agricultural practices through private sector networks.**

In close coordination with the FARM program and building on private sector communication channels and partnerships already established by FARM, such as engagement with the World Business Council for Sustainable Development (WBSCD), the World Economic Forum (WEF), a dedicated private sector Community of Practice hosted by the Green Forum[79], and private sector participation in the FARM Programme Advisory Group (PAG), FARM+ will develop a strategic private sector engagement approach (as part of its Global Stakeholder Engagement Plan) to leverage private sector resources, such as co-financing, experience, expertise and extension services, to support and scale-up the implementation of sustainable agriculture and climate resilient projects at country level. Private sector engagement and consultations will be used to inform the design and implementation of enabling conditions and incentives for producers (Component 2 and 3) to tap into high(er) value markets.

In addition to the private sector engagement networks mentioned above, FARM+ will also be able to benefit from engagement with various food value chain partners such as the Roundtable on Sustainable Palm Oil (RSPO), the World Cocoa Foundation (WCF), and Mondelez International, with whom UNDP has existing partnerships.

The Child Projects

Table 2: Summary of the FARM+ child projects

Country	Summary of Child Project	Notes
Benin	The FARM+ program in Benin will promote the cotton sector's transition to organic and sustainable farming practices. In adopting a holistic approach to build climate resilience, Benin will establish better regulatory frameworks, policies and strategies, and strengthen the capacity of institutions, while enhancing public-private partnerships. It will also incentivize farmers through financial mechanisms aimed at improving organic cotton production and market access by establishing improved agricultural value chains to minimize waste, plastics and GHG emissions, including the issuance of insurance schemes to manage climate risks. Gender-responsive climate adaptation measures will be applied to diversify and generate additional livelihood sources, while improved supply chains for crop production, harvesting and market access will help sustain ecosystem service benefits over the long term. Additionally, the project will foster cross-learning in climate adaptation, sharing knowledge and best practices with other child projects in the FARM+ Programme to build climate resilience collectively.	LDC
Costa Rica	The FARM+ program in Costa Rica will focus its interventions on the following prioritized crops: vegetables, coffee, banana, sugar cane and rice. FARM+ Costa Rica will: (1) strengthen Costa Rica's national policies and strategies by aligning them with international commitments and addressing environmental challenges, including reducing agrochemical use, enhancing biodiversity, and mitigating impacts on land, water, and climate; (2) increase access to finance and investments for sustainable agriculture by collaborating with the Ministry of Finance and financial institutions to design new financing instruments like green bonds and climate-resilient insurance and build relevant capacity in stakeholders to demonstrate sustainable business models; (3) support the government in developing training programs for sustainable practices, including field interventions tailored to various farm systems; (4) improve agricultural value chains to minimize waste, plastics, and greenhouse gas emissions; and (5) promote knowledge exchange, through knowledge exchange platforms and farmer-to-farmer learning programs to disseminate and promote best practices in sustainable and resilient agriculture.	
Egypt	The FARM+ program in Egypt will focus on key agricultural areas, especially Upper Egypt and the Nile Delta, to support the transition from unsustainable agricultural practices—such as the misuse of hazardous pesticides and overuse of nitrogen fertilizers—to sustainable, climate-resilient practices. In line with the national Nexus of Water, Food and Energy (NEFE) program, which aims to accelerate the national climate agenda, the project will support Egypt in transitioning from unsustainable agricultural practices such as misuse of hazardous pesticides, overuse of nitrogen fertilizers leading to pollution of Nile River locations, lack of crop diversification and lack of financial incentives for climate-resilient practices towards the use of sustainable, technically and financially-viable climate-resilient agricultural practices which are built upon a strengthened multi-sector and multi-stakeholder consultative and knowledge management	

	platform. Additionally, the project will enhance Egypt's policy and regulatory framework to support sustainable and climate-resilient agriculture for targeted project interventions.	
Gambia	The FARM+ program in the Gambia will target cereal (rice, millet and maize) production landscapes in 21 districts in rural provinces, running along the River Gambia and comprising significant areas of degraded land. The regions are selected based on their vulnerability to increased climate variability. The project objective is to increase climate change resilience in rural and urban areas of the Gambia and reduce the prevalence of and reliance upon hazardous chemicals by supporting resilient, nature positive, and productive land management, contributing to sustainable livelihoods for small-scale farmers. The project aims to accelerate the transition to agroecology through interconnected components designed to enhance the existing agricultural framework. This approach will foster progressive learning and innovation at both farm and landscape levels, establish improved systems for managing chemicals, and build capacities for advanced agricultural planning and knowledge management. Special attention will be given to empowering women farmers – who represent 70% of the farming community in rural Gambia - to reduce their use of hazardous chemicals through awareness campaigns and targeted financial and technical support.	LDC
Ghana	The FARM+ program in Ghana aims to address climate change adaptation and mitigation by introducing low-risk pesticides, recycling agricultural waste, and promoting diversified cropping systems to enhance resilience and productivity. By strengthening financial support and technical assistance, the project seeks to improve farmer livelihoods and foster sustainable agriculture. It builds on existing national and global climate policies, targeting cost-effective, green alternatives to synthetic chemicals while creating jobs and reducing environmental impact. The project will involve various stakeholders, including farmers extension services, waste management companies, and financial institutions, to develop partnerships and strategies for climate-resilient agriculture, ultimately benefiting the entire agricultural value chain.	
Mexico	FARM+ Mexico will focus its interventions on the following prioritized crops: Beans, avocado, banana, coffee and sugarcane in five states. In line with the integrated approach of FARM+, Mexico will offer potential to (1) enhance policy coherence among existing strategies for climate change, biodiversity, land and water management, improving pathways for sustainable agriculture and supporting small and medium-scale producers; (2) expand access to finance and insurance in agriculture, building capacity in financial institutions and farmers, and increasing insurance options for climate-vulnerable areas; (3) support demonstration activities for sustainable practices, including pest and disease management, improving early warning systems, and ensuring effective use of climate and pest forecast; (4) enhance agricultural value chains by engaging stakeholders to reduce harmful chemicals, plastics, and food losses, and promote food valorization; and (5) promote knowledge exchange and position Mexico as a leader in sustainable agriculture in the Latin American and Caribbean region, supporting regional capacity building.	
Nepal	The FARM+ project in Nepal will target the following prioritized crops: cereals (rice, maize, wheat) and vegetables in two clusters (Madhesh and Bagmati). Nepal FARM+ will: (1) Review comprehensively existing policies will identify and address policy gaps and inconsistencies that hinder the adoption of sustainable practices, particularly those related to organic production, nutrient recycling, resource efficiency, and the integration of sustainable and resilient agricultural practices; (2) Form partnerships with financial institutions to develop innovative financing mechanisms, including insurance, for farmers transitioning to sustainable and resilient practices. These could include microfinance education options specifically designed for sustainable agriculture, and risk-sharing schemes to invest in organic inputs, composting infrastructure, and the establishment of agroforestry systems; (3) Support demonstration activities in the field to test farm-level sustainable and climate resilient agricultural practices in prioritized crops. The project will offer capacity building support and provide evidence to key stakeholders as well as increase the offer of suitable management services (alternative inputs/safer alternatives to harmful agrochemicals, professional crop and agricultural pest and disease management services) for farmers and agricultural associations; (4) Improve agricultural supply chains by facilitating linkages between organic/IPM producers and consumers through market development initiatives, certification programs, and online platforms; engaging private sector and large cooperatives in enhancing local agro-processing and value addition, reducing reduce post-harvest food losses and reducing the use of harmful agrochemicals; and (5) Promote knowledge exchange through platforms and farmer-to-farmer learning programs to disseminate and promote best practices in sustainable and resilient agriculture.	LDC
Nigeria	The FARM+ program strategy in Nigeria is centered on Sustainable Agricultural Production Zones (SAPZs), which will serve as hubs for innovative, sustainable agricultural practices, clustering production and	

	environmentally friendly processing to create a critical mass of sustainable methods. This strategy targets root causes of environmental degradation, such as agrochemical overuse and poor land management. The project will promote organic farming, integrated pest management (IPM), and sustainable water use within SAPZs to enhance soil health, reduce greenhouse gas emissions, and boost biodiversity. Infrastructure like training centers and processing facilities will support these initiatives. The project will also address the harmful effects of hazardous chemicals on biodiversity and ecosystem health, promoting the reduction of dangerous pesticide use in favor of bio-pesticides. Guidelines will be developed to identify vulnerable ecosystems and implement restoration measures for polluted areas. This integrated approach ensures alignment with Nigeria's national development goals and international commitments, positioning the project to effectively address systemic agricultural challenges and promote environmental sustainability.	

An analysis of the child project concept notes indicated that all child projects will contribute to all the 5 program components and will follow a common approach to ensure the achievement of the FARM+ program objectives.

Table 3 below provides an overview of the FARM+ program outcomes and outputs and indicates which child projects will contribute to which Outputs.

Kindly note that outputs differ slightly between child projects, based on local needs, circumstances, challenges and priorities as elaborated upon in the individual child projects (see Annex H).

Table 3: Summary of FARM+ program outcomes and outputs and an overview of which child projects contribute to which outputs

	AfDB	**FAO**	**UNDP**			**UNEP**	**UNIDO**	
FARM+ Programmatic Outputs	Nigeria	Gambia	Costa Rica	Mexico	Nepal	Benin	Egypt	Ghana
1.1 Assessed and revised national policies and regulations promote sustainable and climate resilient agriculture								
1.2 Assessed and revised regulatory and enforcement measures support sustainable and climate resilient agriculture								
2.1 Assessment of existing and alternative finance mechanisms provide recommendations on how to redirect public and private financing from degenerative practices towards sustainable and climate resilient agriculture								
2.2 Financial mechanisms for sustainable and climate resilient agriculture developed, and financial institutions have increased capacity to assess risks and provide loans								
2.3 National agricultural insurance providers are better equipped to offer insurance solutions to incentivize the adoption of climate resilient agricultural practices								
2.4 Farmers have access to value chains that make it attractive and economically viable to practice sustainable and climate resilient agriculture								
3.1 Enhanced Farmer Support Systems (FSS), such as extension officers, agricultural associations and farmer field schools have the capacity to advise and train farmers on sustainable and climate resilient agricultural practices.								
3.2 Farmers rely upon mobile based platforms that provide localized weather, climate, market, pest information and pest management measures, to climate proof their cropping systems and lower vulnerability to attacks								

3.3 Sustainable and climate resilient agricultural practices have been collected to create confidence among financial institutions, insurers, and farmers								
3.4 Farmers have access to a supporting ecosystem that ensures long-term access to new technologies, services and inputs								
4.1 Improved supply chain management reduces losses, pollution, GHG emissions and the use of unnecessary plastics.								
4.2 Companies purchasing agricultural products adopt value chain approaches and innovations that lead to a reduced reliance on harmful agrochemicals and plastics of the products they purchase.								
4.3 Small and medium size enterprises (with a focus on women and youth led SMEs) design, manufacture and market harvest/food waste derived products.								
5.1 Project and program baseline assessments completed.								
5.2 Knowledge and lessons-learned related to all programmatic aspects are consolidated, published and regularly communicated and disseminated through various Knowledge Management platforms to stakeholders participating in FARM(+) as well as external to the programme.								
5.3 Large food and agricultural commodity value chain partners advocate for and advise on greener agricultural practices through a private sector consultative group.								

Boxes shaded in green indicate which FARM+ program components/outcomes the child projects map to.

The Global Coordination and Knowledge Management Child Project

To support global coordination, knowledge management and the effective engagement of country projects in the implementation of the Global Coordination and Knowledge Management Child Project for the FARM+ program, UNDP will establish a dedicated FARM+ team that will oversee and support the implementation of the FARM+ program, maintain close coordination and collaboration with the FARM+ child project teams, the FARM program and the Green Growth Knowledge Partnership (GGKP), which is the executing entity for the FARM "*Global Coordination, Knowledge Management and Common Finance Tools*" project led by UNEP as the Lead Implementing Agency.

The FARM+ dedicated implementation team will receive guidance from UNDP's Chemicals and Waste Hub, UNDP's Food and Agricultural Commodities Systems (FACS), UNDP's Sustainable Finance Hub, UNDP's Insurance and Risk Finance Facility, and UNDP's Climate Hub. The FARM+ team will report to the Director of UNDP's Chemicals and Waste Hub.

It is anticipated that the FARM+ program and its child projects, if GEF council approved, would start implementation mid-2026. By this time FARM and its Global Child Coordination Project would have been under implementation for 3 years. This would allow for a 2-year period during which joint coordination between FARM and FARM+ can take place, and during which FARM+ and its child projects can build on and learn from all the work undertaken by FARM. After this period, it is assumed that FARM+ would take over the responsibility from FARM to lead the FARM program for its remaining duration.

Note: It is assumed that FARM and FARM+ will be known to all stakeholders as the "FARM program". Because it is considered as one program, collaboration and coordination, on monitoring, reporting and evaluation, knowledge management, communications, guidance and capacity building, among other aspects, will be ensured. Coordination between FARM and FARM+ started early on during the preparation of the FARM+ Programme Framework Document and is expected to continue throughout the program's preparation phase and implementation. FARM+ will apply the same branding and identity created under FARM and all FARM+ child projects are expected to follow the communications and branding guidelines established under FARM.

A preliminary list of activities that will be supported by the FARM+ Global Coordination and Knowledge Management Child Project ("the Global Child") has been provided below. During the program's preparation phase, this list of

activities will be further assessed and refined in collaboration with FARM, with particular attention paid to ensuring complementarity to the FARM program and avoiding overlap.

Coordinate and collaborate with the FARM Program, to ensure alignment and a common approach between the two programs on all program, communication, knowledge management, monitoring and evaluation aspects.

Collaborate with FARM+ implementing agencies (including AfDB, FAO, UNDP, UNEP and UNIDO) to facilitate and support the objectives of the agencies' FARM+ child projects.

Support the preparation and adoption (among child projects) of consistent criteria for the design, implementation and evaluation of FARM+ interventions and ensure that all FARM+ child projects align with the objectives of FARM and FARM+ (e.g. by applying the same indicators for monitoring and reporting purposes).

Ensure consistency among child projects in the development of stakeholder engagement plans, gender action plans, knowledge management products, reporting templates, communication materials, etc. benefitting from FARM approaches, templates and examples.

(*in coordination with FARM*) Provide guidance on the monitoring and reporting of FARM+ related data and progress at regional, national and global level, applying both GEF Core Indicators and FARM Common Indicators "Programmatic Indicators". FARM+ will provide specific guidance on the monitoring and calculation of GEBs targeted by FARM(+) and its child projects. Through continuous monitoring, the project will timely identify any challenges faced by the child projects and elaborate possible strategies.

In close coordination with the FARM program and building on private sector communication channels and partnerships already established by FARM, such as engagement with the World Business Council for Sustainable Development (WBSCD), the World Economic Forum (WEF), a dedicated private sector Community of Practice hosted by the Green Forum[80], and private sector participation in the FARM Programme Advisory Group (PAG), FARM+ will develop a strategic private sector engagement approach to leverage private sector resources and expertise, as part of its Global Stakeholder Engagement Plan, during the program's preparation phase. In addition to the private sector engagement networks mentioned above, FARM+ would be able to further benefit from engagement with various food value chain partners such as the Roundtable on Sustainable Palm Oil (RSPO), the World Cocoa Foundation (WCF), and Mondelez International, with whom UNDP's FACS team has established partnerships.

(*in coordination with the FARM program, and building on communication channels and partnerships established by FARM*) Maintain coordination and knowledge exchange with existing multistakeholder initiatives such as the UN Food Systems Hub, FOLUR, the Food Systems IP, the Circular Solutions to Plastics IP, the Supply Chain IP, ISLANDS, the Blue and Green Islands IP, the Clean and Health Ocean IP, the Agro-ecology Coalition, the Global Alliance on Highly Hazardous Pesticides, CGIAR centers (i.e. IWMI, IFPRI, ILRI or the CGIAR Scaling Readiness unit), fora on new agribusiness and agriculture, EAT Forum, among others.

(*in coordination with the FARM program, and building on communication channels established by FARM*) Coordinate and collaborate with the secretariats of the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD), the Convention on Biological Diversity (CBD) the Stockholm Convention on Persistent Organic Pollutants, the Basel Convention on the transboundary transport of hazardous waste, the Minamata Convention on Mercury and the Global Framework on Chemicals (GFC).

Technical assistance and knowledge exchange:

During the FARM+ program's preparation phase, and in close coordination with the FARM team and GGKP, a workplan will be drafted to ensure that interventions and activities to be supported by the FARM+ Global Child will not overlap or duplicate FARM interventions or activities and will be entirely complementary. Potential technical assistance and knowledge exchange activities to be supported by the FARM+ Global Child project could entail:

(*in coordination with FARM*) Support the design and organization of tailored global trainings (i.e. virtual training through webinars) based on interests/needs expressed by child projects, partner governments and program stakeholders (i.e. (re)design of finance instruments, design of financial products for sustainable and climate resilient agriculture, design of insurance products that support sustainable and climate resilient agriculture, etc.).
(*in coordination with FARM*) Support the development of guidance documents, guidelines, and standards covering various aspects of sustainable and climate resilient agriculture, based on needs expressed by child projects and partner governments (climate resilient practices, financing for sustainable and climate resilient agriculture, etc.).
(*in coordination with FARM*) Facilitate access to knowledge and guidance for child projects on best approaches, technologies and effective alternatives to support sustainable and climate resilient agriculture.
(*in coordination with FARM*) Support the identification and sharing of information on ICT tools for information sharing to inform and drive scaling up of alternatives and sustainable and climate resilient agriculture.

In addition to technical assistance, the Global FARM+ Child Project will promote knowledge exchange through:

Leveraging GGKP's communications and outreach program and dedicated FARM platform (https://www.greenpolicyplatform.org/initiatives/gef-farm) including in-person events, webinar series, and social media engagement. FARM+ will benefit from the FARM communication and outreach strategy, including FARM branding.
(in coordination with FARM) Build on the stakeholder engagement plan developed under FARM and in close consultation with FARM expand on it by including additional partners, especially those specializing in financial and insurance products.
(in coordination with FARM) Curate, format and generate case studies and knowledge products from obtained data for dissemination through the FARM knowledge platform.
(in coordination with FARM) Collect, aggregate and disseminate information, resources, lessons-learned, etc. developed under the different FARM+ programme components and child projects to be shared through the global FARM platform.
(in coordination with FARM) Co-host/co-organize annual FARM(+) workshops.
(in coordination with FARM) Leverage the expertise, digital solutions, memberships, services and outreach of the active FACS Community of Practice to establish working groups/Communities of Practice (CoPs) on FARM+ specific topics (not yet covered by FARM or GGKP), with a particular focus on finance for agriculture, financial incentives for sustainable agriculture and farmer insurance.

Monitoring and Evaluation

Describe the approach to program-level Monitoring and Evaluation, including ways to ensure coherence across Child Projects and to allow for adapting to changing conditions, consistent with GEF policies. In addition, please list results indicators that will track the Program Objective, beyond Core Indicators. (Max 1-2 pages).

As the FARM+ lead agency, UNDP will assume the overall coordination of the FARM+ program and assure program level monitoring and evaluation against a program-level results framework.

UNDP will work closely with UNEP, GGKP, FARM and FARM+ implementing agencies to ensure a harmonized and cohesive monitoring, reporting and evaluation approach is applied to the FARM+ program as well as its child projects. This monitoring, reporting and evaluation approach will be based on the one adopted by FARM, and only, if necessary, will be slightly expanded upon if required (i.e. to cover FARM+ program aspects that are not included in FARM).

The M&E mechanism to be put in place will ensure alignment with GEF and IA policies and requirements and adherence to agencies' environmental and social safeguards policies and gender action plans.

The program's M&E mechanism will measure and document implementation progress towards FARM+ program outcomes and objectives against verifiable indicators and use related means of verification.

Regular monitoring of FARM+ program and child project performance will be based on tracking global environmental benefits (GEBs) to be delivered by the program and its child projects, as well as an agreed set of result indicators, that will track achievement of the program objective, beyond core indicators, also referred to as the "FARM Common Indicators" (see Table 4 below). Through this approach, underperforming activities can be identified, and remedial action undertaken, while successful activities can be scaled-up and/or replicated. This approach will also support the communication and knowledge management component of the program, for example through the compilation of lessons learned from child projects and the dissemination thereof.

The program's M&E mechanism will also assist in identifying and monitoring project risks at an early stage and inform and support the implementation of mitigation interventions and appropriate response actions.

It is understood that each participating IA has its own organizational M&E requirements. Therefore, the program's M&E mechanism will promote the coherent use of result indicators and develop a program level M&E system to support reporting on and tracking of program and child project results and progress. Furthermore, this approach will include coordination in the delivery of the annual Project Information Reports (PIRs), midterm reviews (MTRs) and terminal evaluations (TEs). An integrated Program Evaluation will be undertaken by UNDP as the lead agency.

A program-level monitoring and evaluation plan will be developed during the preparatory phase of the program and will be fully coordination and aligned with the FARM monitoring and evaluation plan. While each child project will develop its own results framework and M&E plan, child project M&E approaches will be aligned to the program-level M&E plan and guidance will be provided to child projects on how this alignment can be most easily and effectively achieved.

The program's M&E mechanism will be designed to fulfill the following:

Establish a baseline at the outset of the program's and child projects' implementation to allow for rigorous impact assessment
Track program and child project progress against the baseline and towards achievement of GEBs and program-level indicators (FARM Common Indicators).
Track implementation progress of the program and child projects versus envisaged timelines.
Generate and consolidate data, knowledge, lessons-learned, etc. and facilitate knowledge exchange between or amongst project stakeholders.

To track progress towards and achievement of the Program Objective, in addition to the GEF Core and Sub Indicators (GEBs) several program-level indicators will be applied that reflect the global ambition of the program and child projects. The program-level indicators (FARM Common Indicators) will supplement the core indicators to provide a more granular and cross-cutting assessment of the program's achievements.

At the end of 2023, the FARM program-level indicators listed in the table below were proposed based on an analysis of the outputs and outcomes set out in the FARM child projects' results frameworks. At the time of the development of the FARM+ PFD, GGKP was in the process of engaging a research institute to develop methods for the assessment of FARM program outcomes. Following consultation with the FARM program's implementing agencies (including UNDP) and the GEF Secretariat, these program-level indicators are expected to be finalized in 2024 and a methodology for reporting and assessing progress towards these objectives will be developed. Beyond developing the reporting methodology, GGKP will also create a digital tool (to be embedded in the FARM website or the FARM Green Forum) to enable child projects to report their progress online. This digital tool will function as an online reporting form and will incorporate FARM program indicators. It is expected that FARM+ will make use of the same reporting tool, which might by the time FARM+ starts implementation be slightly adjusted following user and monitoring experience, and to also conform to FARM+ specific indicators.

FARM+ will adopt these program-level indicators as well as the methodology for reporting and assessing progress towards these objectives. To the extent possible, the FARM+ team will provide feedback and input to ensure that

FARM program-level indicators also cover all relevant FARM+ objectives. Depending on the FARM program-level indicators that are adopted, the FARM+ program may add a limited number of indicators that cover the integrated nature of its child projects, such as specific indicators to measure the adoption of sustainable agriculture practices, the reduction in agrochemical use, and the improvement in soil health and biodiversity. This will be confirmed during the PPG phase.

Table 4: Initial FARM program-level indicators (currently being refined and confirmed)

INDICATOR	UNIT	REMARKS
Land: Number of hectares under improved practices	Hectares	
Policy: Influencing policies to reduce the negative impact of agricultural production	Number	
Finance: Unblocking access to financial flows in the agriculture sector	?	
Knowledge: Number of finance, policy and value chain actors engaged	Number	

An annual FARM/FARM+ program assessment will be undertaken during the FARM(+) Program Steering Committee meeting which will take place once a year, at a minimum. This PSC meeting is expected to be held in tandem with the annual FARM/FARM+ global workshop or other relevant multi-stakeholder coordination and knowledge management activities.

A Midterm Review (MTR) will be conducted towards the third year of implementation for each child project while an independent Terminal Evaluation (TE) will take place at the end of each child project's implementation within at least 6 months prior to the operational completion of the project.

A Programmatic Terminal Evaluation, in accordance with GEF evaluation guidelines, will be conducted in coordination with UNDP's Independent Evaluation Office (IEO) after the completion of the Terminal Evaluations of the child projects. The TE of the program will provide an independent assessment of the program's impact and sustainability.

Coordination and cooperation with Ongoing Initiatives and Programs.

Is the GEF Agency being asked to play an execution role on this program? Yes

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max. 500 words, approximately 1 page)

UNDP will be the lead agency for the FARM+ program and will execute the global child project.

UNDP will ensure close coordination with participating agencies in the implementation of the FARM+ program and its child projects. GEF Implementation Agencies involved in the FARM+ program and the implementation of child projects include the African Development Bank Group (AfDB), the Food and Agriculture Organization (FAO), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the United Nations Industrial Development Organization (UNIDO).

UNDP is cognizant of the tasks and resources required to manage and execute the FARM+ program and the global coordination child project. Therefore, based on comparative advantages and mandates, additional executing partners may be identified during the program's preparatory phase and invited to take on roles as responsible party(ies) to support global coordination and knowledge dissemination. Initial discussions have taken place with the Green Growth Knowledge Partnership (GGKP), which is managing the knowledge platform for the FARM program, UNDP's Food and Agricultural Commodities Systems (FACS), the UNDP Sustainable Finance Hub and the UNDP Climate Hub.

Exchanges on experiences, lessons-learned, best practices, etc. between countries participating in FARM+, countries participating in FARM and countries which are not (yet) participating in FARM(+), will be facilitated and coordinated

through the FARM+ global coordination child project, in close collaboration with the FARM global coordination child project, and will benefit from a common Knowledge Exchange Platform. Related arrangements are expected to be finalized during the program's preparatory phase but FARM+ is expected to benefit from the existing FARM knowledge platform managed by GGKP/UNEP.

At the national level, the IAs that will be implementing child projects will ensure, facilitate and encourage coordination with government ministries (including Ministries of Agriculture, Environment, Finance, SMEs, Trade, Labor, and Education), regulatory agencies, professional organizations and trade associations, private sector, etc.

At the global level, the FARM+ program and its global coordination child project will ensure coordination and cooperation with ongoing initiatives and programs that present important synergies and collaborative opportunities for FARM+. As such, FARM+ will seek close global coordination and co-delivery with FARM, the Plastics IP, the Supply Chain IP, the Food Systems IP, the Clean and Healthy Oceans[81] IP, the Blue and Green Islands IP, FOLUR, SCALA[82], as well as UNDP-led initiatives including UNDP's Food and Agricultural Commodities Systems (FACS), the UNDP Biodiversity Finance Initiative (BioFin), the UNDP Sustainable Finance Hub Farmer Insurance Initiative as well as expertise from the Climate Change and Adaptation teams on CIEWS systems and resilient agriculture and mature based solutions. A selection has been listed below, and the various areas these programs and initiatives cover have been indicated.

Complementarity will also be provided through UNDP's adaptation portfolio. FARM+ will be able to benefit from lessons learned in implementing sustainable landscape productive approaches to enhance climate resilience in rural populations, best practices related to the dissemination of climate information to agricultural producers, and in better aligning interventions in the agricultural spaces to NAPs and NDCs. Initiatives such as the ongoing FAO/UNDP Scaling Local Ambition on Land Use and Agriculture Programme (SCALA) will provide an opportunity to learn and complement the work that is being developed in 12 priority countries[83] for the implementation of agricultural climate adaptation and mitigation plans.

Many of these IPs and program initiatives support agricultural commodities and food crops but lack targeted interventions aimed at reducing the use of harmful agrochemicals and plastics and the generation of wastes. Coordination and co-delivery with these initiatives will provide opportunities for synergies by addressing and accounting for additional GEBs and adaptation benefits (not yet reported under these programs). These IPs, programs, and initiatives include:

FARM Program[84]
UNEP Finance Initiative
Circular Solutions to Plastics Pollution Integrated Programme[85]
Eliminating Hazardous Chemicals from Supply Chains IP (IP - 11)[86]
Clean and Healthy Ocean Integrated Program (CHO-IP)[87]
Food Systems Integrated Programme[88]
Blue and Green Islands Integrated Programme[89]
Food Systems, Land Use and Restoration (FOLUR) Impact Program[90]
UNDP's FACS[91]
UNDP Bio Fin[92]
UNDP's Financial Resilience in Agriculture Initiative[93]
IFC Crop Insurance Initiatives
FAO/UNDP SCALA Program[94]

Figure 3: Program level organogram (to be confirmed during the PPG).

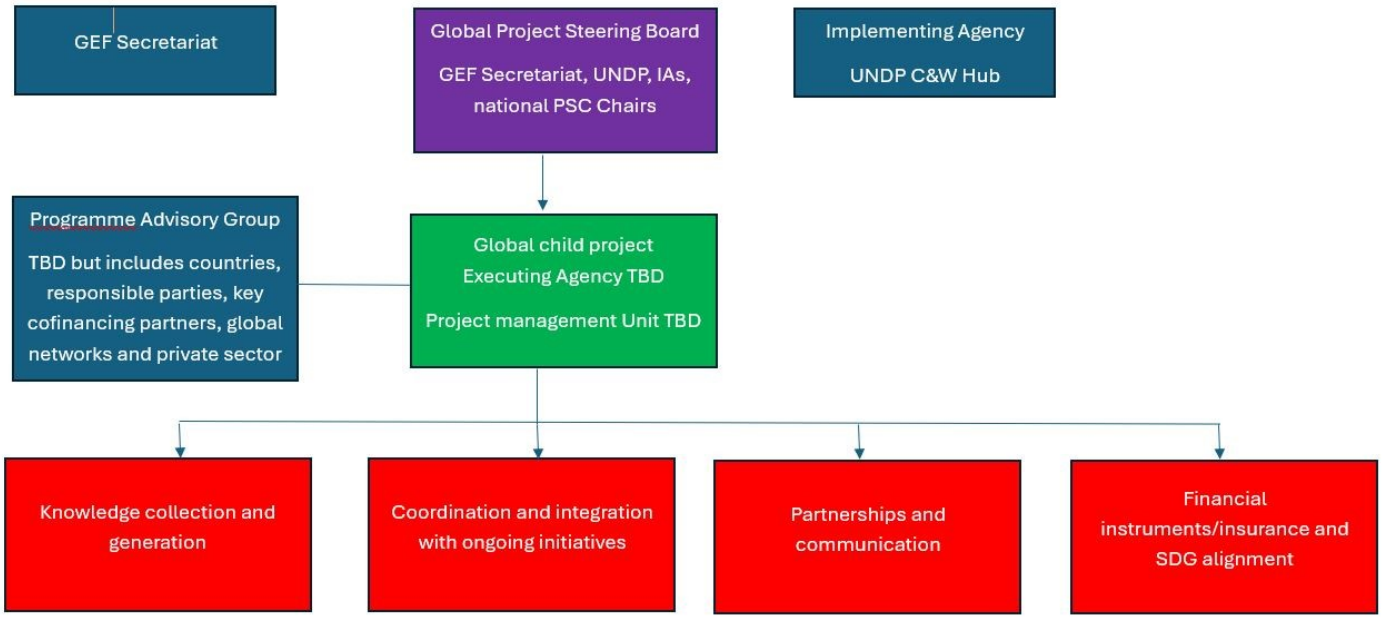


Table On Core Indicators

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
25523	0	0	0

Indicator 3.1 Area of degraded agricultural lands under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Cropland	25,523.00			

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.3 Area of natural grass and woodland under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1759190	0	0	0

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
306,170.00			

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1,453,020.00			

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Documents (Document(s) that justifies the HCVF)

Title

Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
40,000.00			

Indicator 5.1 Fisheries under third-party certification incorporating biodiversity considerations

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Type/name of the third-party certification

Indicator 5.2 Large Marine Ecosystems with reduced pollution and hypoxia

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE

Indicator 5.3 Marine OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
Guinea Current Large Marine Ecosystem					
Guinea Current Large Marine Ecosystem					
Nile River Basin					

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	2736520	0	0	0
Expected metric tons of CO_2e (indirect)	983900	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	2,736,520			
Expected metric tons of CO_2e (indirect)	983,900			
Anticipated start year of accounting	2027			
Duration of accounting	15			

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)				
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 7 Shared water ecosystems under new or improved cooperative management

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Shared water Ecosystem				
Count	0	0	0	0

Indicator 7.1 Level of Transboundary Diagonostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)

Indicator 7.2 Level of Regional Legal Agreements and Regional management institution(s) (RMI) to support its implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)

Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministeral Committees (IMC; scale 1 to 4; See Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)

Indicator 7.4 Level of engagement in IWLEARN throgh participation and delivery of key products(scale 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)

Indicator 9 Chemicals of global concern and their waste reduced

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
99,639.00	0.00	0.00	0.00

Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Aldrin	450.00			
Alpha hexachlorocyclohexane	450.00			
Chlorpyrifos	11,058.50			
DDT	373.00			
Lindane	300.50			

Indicator 9.2 Quantity of mercury reduced (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.3 Hydrochloroflurocarbons (HCFC) Reduced/Phased out (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
5			

Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
5			

Indicator 9.6 POPs/Mercury containing materials and products directly avoided

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
4,800.00			

Indicator 9.7 Highly Hazardous Pesticides eliminated

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

87,007.00			

Indicator 9.8 Avoided residual plastic waste

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
7,168.00			

Indicator 10 Persistent organic pollutants to air reduced

Grams of toxic equivalent gTEQ (Expected at PIF)	Grams of toxic equivalent gTEQ (Expected at CEO Endorsement)	Grams of toxic equivalent gTEQ (Achieved at MTR)	Grams of toxic equivalent gTEQ (Achieved at TE)
52.00			

Indicator 10.1 Number of countries with legislation and policy implemented to control emissions of POPs to air (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 10.2 Number of emission control technologies/practices implemented (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	3,662,872			
Male	3,486,639			
Total	**7,149,511**	**0**	0	**0**

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

Kindly note that GEB assumptions will be further assessed and confirmed during the Program/Project Preparation Phase. For additional details on the methodological approach and underlying logic that resulted in target level setting for Core and Sub-Indicators, kindly refer to the Child Projects that have been annexed.

Core Indicator 3: Area of land and ecosystems under restoration [25,603 hectares]

Benin (2,000 ha); Costa Rica (555 ha); The Gambia (10,000 ha); Nepal (2,968) and Nigeria (10,000). Methodologies: Costa Rica and Nepal: Project interventions will support the restoration of 2% of the agricultural area under improved practices (CI 4: 27,770 ha

and 148,400 ha for Costa Rica and Nepal respectively). Nigeria: 20 SAPZ projects will be implemented each covering 500 ha, totaling 10,000 ha.

Core Indicator 4: Area of landscapes under improved practices [1,759,510 ha]

LDCF Core Indicator 2(b) Area of land managed for climate resilience [Benin: 120,000 ha]

Benin (4.3: 65,520 ha); Costa Rica (4.1: 27,770 ha); Egypt (4.3: 448,500); The Gambia (4.1: 120,000 ha); Mexico (4.3: 839,000); Nepal (4.1: 148,400) and Nigeria (4.1: 10,000). Methodologies: Benin: The project will bring 10% of Benin's conventional cotton production under improved, organic agroecological practices. Costa Rica: Through project interventions 7% of the country's total agricultural area (396,719) will be managed under improved practices. Mexico: Through project interventions 20% of the total crop targeted by the project (4,195,000 ha) will be managed under improved practices. Nepal: Through project interventions 7% of the total agricultural area (2,218,410 ha) will be managed under improved practices. Nigeria: Area of landscapes under improved practices is the same as the total hectares targeted by the 20 SAPZ (Total 10,000 Hectares).

Core Indicator 5: Area of marine habitat under improved practices [40,000 ha]

Nigeria: The area of marine habitat under improved practices to benefit biodiversity (excluding protected areas) will be 40,000 hectares in the Guinea Current Large Marine Ecosystem (GCLME).

Core Indicator 6: Greenhouse Gas Emissions Mitigated [Direct: 3,816,870 metric ton of CO2e]

Benin (Direct: 1,765,764); Costa Rica (Direct: 596,000); Egypt (Indirect: 483,900); The Gambia (Direct: 15,356); Ghana (Indirect: 500,000); Mexico (Direct: 167,800); Nepal (Direct: 41,200) and Nigeria (Direct: 150,400). Methodologies: Benin: Carbon sequestration potential was estimated using the FAO EX-ACT tool, assuming that improved agricultural practices will be achieved for 65,520 ha through organic cotton production. Costa Rica: Carbon sequestration potential was estimated using the FAO EX-ACT1 tool, assuming a reduction in pesticide application over 5 years of project implementation plus 10 years of capitalization. The Gambia: Carbon sequestration potential was estimated based on the number of agri-plastics not openly burned as a result of project interventions, assuming ~2.7 or 2.8 tCO2e/ton of plastic burned. Ghana: A shift from conventional to climate-smart techniques is estimated to result in 500,000 tCO2e mitigated. Nigeria: Carbon sequestration potential was estimated assuming that emission reductions would be achieved by the projects by reducing diesel-based electricity consumption93 and reduced emissions associated with the production of inputs such as fertilizers, herbicides, pesticides as the project will significantly reduce the use of these harmful inputs. Mexico & Nepal: Carbon sequestration potential was estimated using a factor 0.2 tCO2e/ha94 because of the improved agricultural practices of a typical crop.

Core Indicator 7: Shared water ecosystems under new or improved cooperative management [2]

Benin: Guinea Current Large Marine Ecosystem (GCLME); Egypt: Nile River Basin.

Core Indicator 9: Chemicals of global concern and their waste reduced [100,394 MT]

Indicator 9 = Indicator 9.1 + Indicator 9.2 (=0) + Indicator 9.3 (=0) + Indicator 9.7

Benin (9.1: 124 MT; 9.7: 2,110 MT), Costa Rica (9.1: 29 MT; 9.7: 1,358 MT), Egypt (9.1: 1,000 MT; 9.7: 500 MT); The Gambia (9.1: 13 MT; 9.7: 583 MT); Ghana (9.1: 72 MT; 9.7: 1,000 MT); Mexico (9.1: 738 MT; 9.7: 1,722 MT); Nepal (9.1: 156 MT; 9.7: 81 MT); Nigeria (9.1: 10,500 MT; 9.7: 79,653 MT).

Methodologies: Benin: Over five years the project will prevent the use of an estimated 2,235 tonnes of HHPs, of which 5.5% is chlorpyrifos plus 2,500 tonnes of other pesticides and 56,000 tonnes of chemical fertilizers, as co-benefits. Costa Rica: The project will phase out the use of 7% of the HHPs currently used. Egypt: The project will reduce 1000 tons of POPs pesticides which remain in the country and achieve a 500 MT reduction in the use of HHPs through import restrictions. The Gambia: The project will remove 13 MT of POPs, as a result of a ban on Chlorpyrifos, DDT and Lindane. The project will eliminate 583 MTs of HHPs due to a ban starting year 3 and year 5 of the project, prioritizing HHPs with the highest concentration and most serious health impacts. Ghana: A PPRSD inventory carried out as part of an FAO stockpile/obsolete pesticides project in 2000 indicated that there remain 72MT of obsolete POPs pesticide stockpiles, which will be eliminated by the project. Furthermore, the Ghana FARM+ child project will help eliminate at least 10 HHPs out of an identified 22 HHPs on the EPA Pesticides Register in Ghana. Import data indicate that 3461,7 MTs of these 10 HHPs were imported in the period 2019-2021, the project aims to achieve the phase-out of at least 1000 MTs. Mexico: a 20% of reduction in the use of pesticides in crops targeted by the project will be achieved. This is equivalent to 738 MT of POPs and 1,722 MTs of HHPs. Nepal: The project will reduce by 7% the use of pesticides as compared to a BAU. This is equivalent to 156 MT of POPs and 81 MT of HHPs. Nigeria: Annual imports of pesticides are at 4506.75 MT/yr. Over the 5-year project period in a BAU scenario 225337.5 MT of pesticides would be imported. According to the Report on Pesticides and Highly Hazardous Pesticides (HHPs) in Nigeria (2021) 0.4% of all pesticides are POPs and HHPs, thus 90,135 MT of POPs pesticides and HHPs (over five years). Since the AfDB GEF interventions will eliminate the use of POPs pesticides and HHPs in Nigeria, this measure will result in the use of 90,135 MT of POPs pesticides and HHPs avoided.

Indicator 10: Persistent organic pollutants to air reduced [53 gTEQ]

Benin (92.64 g-TEQ), Costa Rica (5.7 g-TEQ), The Gambia (11.78 g-TEQ); Mexico (30 g-TEQ); Nigeria (2.095g-TEQ).

Methodologies: Benin: The project will avoid the generation of 124 tonnes of contaminated agricultural plastic containers which, if burnt not using an environmentally sound method, would generate 2.64g-TEQ of uPOPs (assuming that 50% are burned at low temperatures and without filters). The figure is calculated using the UNEP-POPs-PCDD-PCDF Toolkit calculator. Costa Rica: The 2017 NIP update3 indicates that biomass burning category (group 6) emitted 39.84 gTEQ/y. Considering a gradual improvement of 5% during the project implementation through the adoption of BAT/BEP in at least 2 of the crops, the project would prevent a total of 5.7 gTEQ of PCDD/F (1.9 gTEQ/year from 3rd year onwards). The Gambia: The introduction of alternatives in the three targeted crops (rice, millet, maize) that valorize waste and reduce open burning of agricultural waste will contribute to avoiding the generation of 11.78 g-TEQ of uPOPs. Mexico: uPOPs emissions would be of the order of 600 gTEQ/yr. The project will result in a 5% reduction of uPOPs emissions through the introduction of BAT/BEP in the sugarcane sector, resulting in 30 gTEQ/yr of PCDD/F prevented.

Core Indicator 11: People benefiting from GEF-financed investments disaggregated by sex [Total: 7,499,511; Men: 3,636,639 Women: 3,862,872]

For details kindly refer to the portal submission and the individual child projects.

META INFORMATION – LDCF

LDCF **true**	SCCF-B (Window B) on technology transfer **false**	SCCF-A (Window-A) on climate Change adaptation **false**

Is this project LDCF SCCF challenge program?

false

This Project involves at least one small island developing State(SIDS).

false

This Project involves at least one fragile and conflict affected state.

false

This Project will provide direct adaptation benefits to the private sector.

false

This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs).

false

This project will collaborate with activities begin supported by other adaptation funds. If yes, please select below

Green Climate Fund	Adaptation Fund	Pilot Program for Climate Resilience (PPCR)
false	**false**	**false**

This Project has an urban focus.

false

This project will directly engage local communities in project design and implementation

false

This project will support South-South knowledge exchange

false

This Project covers the following sector(s)[the total should be 100%]: *

Agriculture	100.00%
Nature-based management	0.00%
Climate information services	0.00%
Coastal zone management	0.00%
Water resources management	0.00%
Disaster risk management	0.00%
Other infrastructure	0.00%
Tourism	0.00%
Health	0.00%
Other (Please specify comments)	0.00%
Total	100.00%

This Project targets the following Climate change Exacerbated/introduced challenges:*

Sea level rise	Change in mean temperature	Increased climatic variability	Natural hazards
false	**true**	**true**	**false**

Land degradation	Coastal and/or Coral reef degradation	Groundwater quality/quantity
false	**false**	**false**

CORE INDICATORS – LDCF

	Total	Male	Female	% for Women
CORE INDICATOR 1 Total number of direct beneficiaries	240,000	72,000.00	168,000.00	70.00%
CORE INDICATOR 2 (a) Area of land managed for climate resilience (ha) (b) Coastal and marine area managed for climate resilience (ha)	120,000.00 0.00			
CORE INDICATOR 3	4.00			

Number of policies/plans/ frameworks/institutions for to strengthen climate adaptation				
CORE INDICATOR 4 Number of people trained or with awareness raised	4,090	2,045.00	2,045.00	50.00%
CORE INDICATOR 5 Number of private sector enterprises engaged in climate change adaptation and resilience action	0.00			

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Substantial	Agriculture is a sector particularly sensitive to socio-economic and environmental impacts caused by climate change. Climate risks that could impact the FARM+ program and its interventions include rising mean and extreme temperatures, increasing the occurrence, length and strength of heat waves; increased and prolonged droughts; changing season lengths; and decreased precipitation which can all lead to crop failure and water and food insecurity. Because of climate change the intensity of heavy rainfall and storms are also expected to increase, increasing the occurrence of pluvial and riverine flooding and landslides, causing widespread damage to infrastructure and crops and leading to loss of lives and disease outbreaks. However, agriculture is not only highly climate sensitive, but is also a major contributor to the triple planetary crisis. It generates about one-third of GHG emissions globally, is responsible for over 60 per cent of biodiversity loss, 70 percent of total freshwater withdrawals and causes water, soil and air pollution through its reliance on harmful agrochemicals, land clearing practices and generation of waste. FARM+ therefore aims to contribute to reshaping food and commodity systems by enhancing the sector's resilience in the face of climate variations and reducing the sector's impact on climate change and ecosystems. FARM+ will promote resilient agricultural practices that are climate smart and regenerative by demonstrating that agroecological and other sustainable agricultural practices can lead to improved yields and increased income opportunities. FARM+ will create the enabling conditions for the adoption of sustainable and climate resilient agricultural practices through cohesive policies, increased access to financing and incentives for climate resilient agriculture as well as coping mechanisms such as insurance solutions.
Environmental and Social	Moderate	Please cross-reference to Annex D for further information. The child projects under the FARM+ program entail a diverse set of potential social and environmental risks which could have adverse impacts in the absence of appropriate avoidance, assessment or management/mitigation measures. These include risks associated with: accountability to stakeholders and

		grievance resolution (incorporating human rights, stakeholder engagement, information disclosure); social inclusion (incorporating gender equality and empowerment, indigenous peoples, and provisions for other vulnerable or marginalized groups); impacts on sensitive habitats or species; cultural heritage; resource use efficiency and pollution; labour and working conditions; community health, safety and security; and climate change and disaster management. During project development, each child project will be expected to carry out a comprehensive screening for environmental and social safeguards risks, applying the safeguards' policy of the applicable GEF Agency. The specific set of risks and their significance may vary among the projects and will be determined during the PPG phase. In all cases, comprehensive gender-sensitive and socially inclusive stakeholder analysis and consultation will be fundamental to ensuring viability and sustainability. M&E Frameworks should include measurable indicators for monitoring social and environmental risks and impacts, and effective management of s/e risks. A Safeguards and Risk Expert will be recruited as part of the Project Management Unit (PMU) under the Global Coordination Project of the program to provide technical support to project teams, assist with reviewing SES-related documents, track SES implementation, assist with resolution of SES-related issues, extract and share lessons learnt and best practices among project implementers, and monitor consistency of approaches across the program.
Political and Governance	Moderate	All child projects are in countries where agriculture is a significantly large sector and/or contributes significantly to GDP and/or national employment. For each of these countries, agriculture has been indicated as a priority in National Development Plans, NDCs and NBSAPs. Even though there is clear political and government commitment to the agricultural sector and the FARM+ programme (as confirmed by the respective GEF OFP endorsement letters), political or governmental changes can significantly impact the agricultural sector or impact and slow down project implementation. To mitigate this risk, the FARM+ child projects will ensure, facilitate and encourage coordination with a number of strategic government ministry partners, including the Ministries of Agriculture, Environment, Water Resources and Irrigation, Finance, SMEs, Trade, Labor, and Education), and apply the same approach at local government level (in the locations of the child projects), with the objective to keep all government stakeholders engaged and committed at all times towards the objectives of the FARM+ programme, both at political as well as at technical levels. Using this approach, the FARM+ program aims to ensure that if government changes occur, technical personnel are fully versed and engaged in the program's scope and objectives, and minimal delays would occur because of political or government changes.
INNOVATION		
Institutional and Policy	Moderate	Institutional and policy risks to the FARM+ program are deemed moderate. Making a transition to sustainable and climate resilient agriculture requires

		coherency among national policies supporting the agricultural productivity and incomes, climate change adaptation and mitigation, financial resilience, pollution prevention, biodiversity protection, nutrition and food security, rural development, social protection, and a range of other sustainable development priorities. Streamlining various policy processes to simultaneously tackle a wide set of local, national, regional and global objectives, however, is challenging. The creation of ad hoc policies, in isolation, without a systematic policy assessment is often an inefficient way of targeting and achieving sustainable and climate resilient agriculture objectives and can lead to disconnected actions on the ground and unintended consequences54, for example by creating unintended harmful incentives. In most FARM+ participating countries, agricultural policies are currently incoherent with, for example, environment, finance and trade policies. Furthermore, in most FARM+ participating countries, private and public funding flows for agriculture mainly support carbon-heavy agrifood systems. This existing policy and finance environment can seriously hamper the achievement of the FARM+ goals and targets. As such the main institutional and policy risk to the FARM+ program would be unwillingness of government partners to address existing policy incoherence between environmental protection and agricultural and economic development and unwillingness to assess and realign financing and incentives for commodity production. To overcome this potential unwillingness, the FARM+ program and its child projects will support government partners in conducting national level assessments to i) inform and create awareness among policy makers, financial institutions and investors on how harmful practices ultimately result in diminished yields, livelihoods and profits and ii) identify contradicting policies and incentives that prevent sustainable and climate resilience agriculture while quantifying their negative impacts. By creating awareness among policy and decision makers and estimating the potential harm of incoherent policies and harmful incentives, FARM+ aims to gain government support for required realignments.
Technological	Moderate	Despite the availability of climate resilient, nature positive and chemical free alternatives, approaches and technologies, there are very few financial tools and incentives discouraging the use of harmful agricultural practices.96,97 The availability of sustainable and climate resilient technologies and approaches is therefore not the main risk to the FARM+ program, but the adoption, accessibility and affordability of these technologies and approaches, and awareness around their availability is. To mitigate this risk and to advance the adoption of suitable technologies and approaches, the FARM+ program will first and foremost assess and subsequently support the development of financial tools and instruments that disincentivize harmful agricultural practices and support the creation of bank products/loans that encourage sustainable alternatives. Furthermore FARM+ will support the assessment and repurposing of harmful subsidies and financial incentives to finance much-needed sustainable and climate resilient agriculture. In addition, FARM+ will provide training and capacity building (aligned with

		national/regional adaptation strategies/plans/priorities) that will focus on the demonstration and introduction of a wide variety of technologies and practices80 (depending on local settings) that are climate resilient, regenerate biodiversity, reduce pollution of soil and water resources; eliminate the use of low-quality agricultural plastics, support sustainable gains in agricultural yields and income, and work towards sustainable land management practices in support of voluntary LDN targets. Furthermore, FARM+ will support the development or improvement of mobile based platforms that can provide localized weather, climate, market, pest information and pest management measures, to climate proof cropping systems and lower vulnerability to attacks.
Financial and Business Model	Moderate	Public funding, such as subsidies and incentives, often drive the degradation of natural assets and harm human health, the planet, and economies. These subsidies encourage and boost the use of harmful agrochemicals, destroying non-pest, beneficial insects and biodiversity, fueling the crisis of biodiversity loss and disturbing ecosystem functions.98 Another source of financing for the agricultural sector - commercial banks – do not actively provide access to finance to smallholder farmers and if they do, they do not often offer loan products for sustainable and climate resilient agriculture. Finally, insurance solutions that are critical to protect investments and hence incentivize the adoption of new practices in the face of climate variability, are not accessible to most farmers. Women and indigenous groups are also often excluded from formal financial markets due to lack of ownership of assets or other types of collateral, among other reasons. Finally, insurance solutions that are critical to protect investments and hence incentivize the adoption of new practices in the face of climate variability, are not accessible to most farmers. A lack of financial incentives, access to financing and climate/pest insurance coverage for the agricultural sector to support their transition to sustainable and climate resilient practices and technologies is a critical risk to the success of the FARM+ program and the adoption of sustainable and climate resilient practices. To mitigate this risk and to support the agricultural sector in making this transition, the FARM+ program and its child projects will assess and subsequently support the development of financial tools and instruments that disincentivize harmful agricultural practices and the creation of bank products/loans that provide an alternative for sustainable and climate resilient production. Furthermore FARM+ will support the assessment and repurposing of subsidies and financial incentives to finance much-needed sustainable and climate resilient agriculture. In addition, FARM+ will promote and support the integration of de-risking instruments, such as climate insurance, into financial institutions to help transfer the risk of climatic events to the insurance industry.
EXECUTION		
Capacity	Moderate	Risks related to the necessary capacity for program and child project implementation are deemed moderate. Each of the participating GEF IAs has ample capacity to support implementation at national level as well as

		contribute to the success of the FARM+ program overall. However, the capacity of government entities, the finance and insurance sector, private sector, farmers, extension officers, education and training facilities for implementation of the various activities anticipated by the FARM+ program and its child projects can vary greatly within and among the program countries. For example, public extension and advisory services, as well as farmer field schools, have unfortunately been found to be underfunded in many developing countries and are thus often unable to provide up-to-date, consistent and comprehensive support and training to farmers in pest diagnosis and response99, climate forecasting and resilient agricultural practices, etc. Furthermore, while government, finance and insurance entities have ample experience in policy and regulatory development and the design of finance products to promote carbon heavy agriculture, they have far less experience and capacity in how to ensure cohesive policies, finance and insurance products incentivize and support sustainable and climate resilient agriculture. Therefore, to mitigate risks related to implementation capacity, the FARM+ program and its child project anticipate providing capacity as well as technical assistance as part of all the program's components (see Section B).
Fiduciary	Substantial	UNDP will be the lead agency for the FARM+ program and will execute the global child project. In addition, GEF IAs (AfDB, FAO, UNDP, UNEP, and UNIDO) will lead the implementation of child projects, in certain cases engaging partners as implementing or executing partners or responsible parties. Fiduciary risks always exist and require close and continuous monitoring. To mitigate fiduciary risks, each GEF IA assumes full responsibility for the fiduciary oversight of the child projects for which it leads implementation, and will ensure that funding, expenditures, contracts, grants, etc. are managed and administrated in line with applicable GEF IA staff-, financial- and procurement- rules, policies, regulations and procedures, and, where applicable, the regulations, rules and directives of the Implementing and executing partner, to ensure transparency and prevent fraud and corruption. GEF contributions shall be subject to GEF IA internal and external auditing procedures provided for in the financial regulations, rules, policies and procedures of each GEF IA.
Stakeholder	Substantial	The main risk of the FARM+ program and its child projects is that during the preparation and implementation of the program and child projects, not all stakeholders are fully engaged, consulted and involved in decision making around the design and implementation of the program/projects. Particular attention needs to be paid to ensure the program is designed and implemented in an inclusive and people-centered manner and that those most often marginalized, such as local communities, women, youth and indigenous peoples, are consulted, engaged and involved in the design, implementation and decision making related to the program. To mitigate this risk, governments and stakeholders in the candidate partner countries have been extensively consulted during the preparation of the Expression of Interest

		process as well as during the development of the child projects as to country- or region-specific needs, as well as needs related to indigenous practices, livelihoods and job opportunities. During the program's and child projects' preparation phase, additional engagement with stakeholders will be undertaken and stakeholder engagement plans will be designed and elaborated to support the implementation of the FARM+ program and each child project once CEO endorsed. In-depth discussions on local needs, the needs of various stakeholder groups (government, private sector, finance, local communities, indigenous peoples, women, youth, among others), and the roles and contributions of stakeholders will also be part of the elaboration of the PFD and each of the child projects. In parallel, the global coordination child project will engage and consult with global partners (see section on "Coordination and Cooperation with Ongoing Initiatives and Programs") to ensure the design of the FARM+ program reflects and addresses the needs and ambitions of the sector.
Other	Moderate	Impacts may occur due to fluctuations in credit rate, market and currency due to instabilities in the national macroeconomic context, which may affect project total budget execution. UNDP monitors expenditure on a daily basis and budget is revised at least once a year adjusted to real execution. Further UNDP HQ provides global oversight of project delivery minimizing the risk of operational risk due to currency risks.
Overall Risk Rating	Substantial	The overall risk rating was identified by applying the highest risk level of all the individual risks.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm that any country policies that might contradict with intended outcomes of the project have been identified. (approximately 2-3 pages)

The FARM+ program, through its child projects and the overarching Global Coordination Project, is fully aligned with i) the GEF-8 Programming Strategies for Chemicals & Waste, International Waters, Climate Change, LDCF; ii) country and regional priorities; and iii) multilateral environmental agreements.

As indicated in the section on Core Indicators, FARM+ aims to generate multiple GEBs and socioeconomic benefits including facilitating access to financial services and financial mechanisms/incentives to allow for equal access to finance for women and men-owned businesses to sustain and scale FARM+ project and program results. FARM+ will facilitate women's participation and decision-making opportunities, as well as gender sensitive awareness raising and communication.

GEF – 8 Chemical and Waste Focal Area:
FARM+ contributes to the sustained sound management of chemicals and wastes by supporting interventions that change the behavior, practices and technologies applied by farmers, agri-businesses, the private and public sector, including interventions that increase resource efficiency and sustainable consumption and production approaches.

FARM+ is innovative through its support to the design of financial mechanisms at the sub-national, national, and regional levels, particularly in the context of SIDS and LDCs.

FARM+ is focused on farmer and private sector engagement and seeks to create and improve the enabling environment to reduce the use of hazardous chemicals and to prevent the generation of harmful wastes in the agricultural sector and its value chains. FARM+ will support policy coherence across national institutions to support phase out and improved management of hazardous chemicals and waste. FARM+ builds on existing networks, regional, national, and sub-national institutions.

FARM+ is aligned with the Chemicals and Waste Focal Area Objective 1 (**Creation, strengthening and supporting the enabling environment and policy coherence to transform the manufacture, use and sound management of chemicals and to eliminate waste and chemical pollution)** and will support countries to develop legislation and policies that are coherent across national institutions, and/or amend policies and legislation that do not foster a shift towards sustainable and climate resilient agriculture. In support of Objective 1, FARM+ will support:

Development and implementation of financial instruments and mechanisms at national level to allow for access to finance for farmers and agri-businesses to sustain and scale FARM+ project and program results.
Green and sustainable approaches, practices, and safer alternatives to hazardous chemicals.
Green procurement to facilitate the elimination of products and materials that contain or can contribute to the emission of hazardous chemicals and a build-up of materials that contains hazardous chemicals.
Design of financial mechanisms and instruments for innovation in clean and regenerative design of products and materials, particularly those that are developed using indigenous peoples/local communities' knowledge.
Reverse logistics and supply chains to enable recovery of materials and products for reuse.
Regenerative design of products and materials, which are green and safe.
Promotion of biological alternatives to POPS pesticides and HHPs/SHPFs.

GEF-8 International Waters Focal Area Strategy and Associated Programming:
In GEF-8, the International Waters strategy assists countries in addressing a suite of stressors, if identified as priorities in regional SAPs, including land-based sources of pollution.

FARM+ supports 2 of the 3 key objectives of the GEF-8 International Waters strategy: Objective 1: Accelerate joint action to support a Sustainable Blue Economy; and Objective 3: Enhance water security in shared freshwater ecosystems.

Under Objective 1 (**Accelerate joint action to support a Sustainable Blue Economy**), FARM+ interventions will contribute to strengthening countries' sustainable healthy blue ecosystems, by using the TDAs/SAPs approach to inform the revision process of sustainable and climate resilient agriculture related legal and institutional frameworks; by addressing multiple anthropogenic pressures, including (but not limited to) nutrient pollution and upstream plastic issues; and, by stimulating private sector engagement and involvement, through relevant sectoral roundtables/coordination groups.

Under Objective 3 (**Enhance water security in shared freshwater ecosystems**), FARM+ interventions are expected to contribute to:

Supply chain approaches for increased water efficiency and reduction of ecosystems pressures.
Increased water efficiency, reuse, and reduce point and non-point sources of pollution addressing both primary and emerging pollutants, along the source-to-sea continuum.
De-risking innovation through incremental finance and piloting innovative technologies.
Nature-based solutions (NbS) to improve water quality, freshwater ecosystem health, including wetlands and curb floods, droughts, climate change impacts, river/lake shoreline deterioration and to further aquifer recharge.
Ensuring the inclusion of the ecosystem dimension into the water, energy, food nexus, to further environmental and water security.

GEF-8 Climate Change Focal Area Strategy and Associated Programming
The GEF-8 Climate Change focal area strategy aims to support developing countries to make transformational shifts towards net-zero GHG emissions and climate-resilient development pathways. To achieve the goal of net zero emissions by around mid-century, emissions from deforestation and ecosystem degradation will have to be reduced by 95%, nearly becoming a net sink, and the emissions from the agriculture sector and food systems by 25%.

Under the Climate Change Focal Area FARM+ supports predominantly Pillar I: **Promote innovation, technology development and transfer, and enabling policies for mitigation options with systemic impacts** including the following objectives:

Objective 1.2. Enable the transition to decarbonized power systems. Focussing on opportunities to enhance the climate and economic resilience of communities through improved access to clean, reliable, affordable and climate resilient energy generation and distribution systems, especially in SIDS and LDCs, by linking opportunities of energy access to areas such as energy efficiency, agriculture and cooling.

Objective 1.4. Promote Nature-based Solutions with high mitigation potential. FARM+ will generate GHG mitigation benefits in agriculture landscapes through actions as aligned as possible with the Koronivia process outcomes (improved soil carbon, improved nutrient use and manure management towards sustainable and resilient agricultural systems, and improved livestock management systems), generating co-benefits, in terms of climate adaptation and improved livelihoods for farmers and rural communities, enhanced biodiversity and reduced land degradation. Furthermore FARM+ will support enabling frameworks, capacity development and increased financing access for cost-effective and high-impact climate mitigation outcomes in the agriculture sector.

In terms of aligned with other GEF Integrated Programs (Ips), FARM+ will support the objectives of various IPs: **Circular Solutions to Plastic Pollution** (through phasing out the use of unnecessary plastics used in food systems and value chains); **Green and Blue Islands** (by curbing land-based pollution); **Food Systems** (through supporting a transition to sustainable land management and climate resilient agriculture, increasing food security for smallholders and communities, restoring agricultural productivity, and improving sustainable supply chains); **Net-Zero Nature-Positive Accelerator** (by raising the level of ambition of climate mitigation plans and NDCs in participating countries); **Clean and Healthy Oceans** (through curbing pollution from agricultural run-off).

The FARM+ program will support the implementation of the Stockholm Convention, Minamata Convention, UNFCCC, and the Global Framework on Chemicals (GFC) and is aligned with country and regional priorities as taken up in their NIPs, SAPs, national climate strategies and plans, including NDCs, LTSs and NBSAPs.

GEF-8 Land Degradation Focal Area Strategy and Associated Programming
Through innovative and integrated approaches to sustainable land management (SLM) across the range of agro-ecological and climatic zones, the GEF-8 strategy on land degradation aims to avoid, reduce, and reverse land degradation, desertification and mitigate the effects of drought.

The GEF-8 land degradation focal area strategy contributes to UNCCD goals through four objectives:

1. Avoid and reduce land degradation through SLM.
2. Reverse land degradation through landscape restoration.
3. Address desertification, land degradation, and drought issues, particularly in drylands.
4. Improve the enabling policy and institutional framework for LDN.

Agriculture and land use change is the dominant driver for land degradation and deforestation worldwide, caused by the unsustainable management or over-exploitation of resources, including the excessive use of agrochemicals compromising water resources in critical water basins. Climate change adds to and interacts with these pressures and exacerbates the vulnerability of people and ecosystems.

Under the first and second objectives, FARM+ interventions will support nature positive and resilient agricultural practices, that aim to protect and regenerate biodiversity and avoid, reduce and reverse land degradation, which are expected to contribute to the land degradation focal area's objectives. FARM+ will also support SLM practices that will help avoid and reduce land degradation through for example eliminating releases and pollution from harmful agrochemicals and practices, reducing waste generation from agriculture related supply chains, protecting biodiversity, and avoiding GHG emissions. Under the fourth objective, FARM+ countries will be supported in meeting their LDN targets with this program.

GEF-8 Least Developed Country Fund (LDCF) Strategy

The GEF-8 LDCF Strategy identifies entry points where the LDCF and SCCF can offer the most effective and timely climate change adaptation support, in recognition of their role as catalytic players in this space.

The LDCF Strategy focuses on addressing the urgent adaptation needs of vulnerable countries, particularly LDCs and SIDS, in the thematic areas of **agriculture**, **food**, health, **water**, **natural resources** and **climate risk information** among others. To catalyze action in these thematic areas, the strategy aims to focus on key strategic priorities which include: scaling up finance, technology transfer, whole-of-society approach and private sector engagement.

The above listed challenges and barriers to building sustainable and climate resilient agricultural practices are particularly pronounced in LDCs and SIDS where access to the required capacity, technical assistance and financial resources is often the lowest while negative impacts from land degradation, climate change, biodiversity loss and pollution are significant. Furthermore, LDCs and SIDS are underserved by private sector finance, as credit ratings are often low and high political uncertainties may exist, which requires the design of tailored financial mechanisms.

Through measures that have proven to be effective in reducing soil erosion, maximizing yields in the face of droughts and floods, harnessing ecosystem services and improving biodiversity for the creation of adapted livelihoods, FARM+ interventions will be fully aligned with the GEF8 LCDF Strategy and its strategic priorities of scaling up finance, technology transfer, whole-of-society approach and private sector engagement.

Child Project Selection Criteria

The below listed criteria were applied by the GEF Secretariat as part of the evaluation of submitted Expressions of Interest (EoIs) for FARM+ participation.

Party to Stockholm and Rotterdam Conventions, Paris Agreement [if requesting funding from LDCF/SCCDF], and three Rio Conventions on Biodiversity, Climate Change and Desertification [if requesting funding from biodiversity focal area].
Demonstrate contributions to Global Environmental Benefits (GEBs) and adaptation benefits under MEAs (BRS, Minamata, GFC, CBD, UNFCCC and UNCCD) and ocean, surface, and groundwater protection.
Willingness to use a multi-sector and multi-stakeholder approach to work across ministries (e.g. environment, agriculture, finance, etc.) for policy coherence to shift to sustainable and climate resilient agricultural practices.
Willingness to carry out assessments in the national financing landscape to introduce reform as appropriate to align financing flows (from government, financial institutions and commercial financing) to sustainable and climate resilient agricultural practices and develop incentives/ innovative finance instruments, including insurance for farmers.
Willingness to engage with private sector, build new partnerships, and share information and knowledge related to sustainable and climate resilient agricultural practices and promote gender equality.

Optional

Countries with identified voluntary LDN[102] targets, where the FARM+ approach could potentially contribute towards achieving LDN targets.

Extent of climate vulnerability[103] (i.e. measured in water stress (droughts/limited precipitation) and the heightened risk of chemical pollution of scarce water resources).

Additional Considerations

Agroecosystem diversity in terms of farm size, crop types etc.

The diversity of participating countries with minimum of 30% child projects are LDCs/SIDs and/or in Africa region.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment

We confirm that gender dimensions relevant to the program have been addressed as per GEF Policy and are clearly articulated in the Program Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PFD development as required per GEF policy, their relevant roles to program outcomes and plan to develop a Stakeholder Engagement Plan in the Coordination Child Project before CEO endorsement has been clearly articulated in the Program Description (Section B).

Yes

Were the following stakeholders consulted during PFD preparation phase:

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations : Yes

Private Sector : Yes

Provide a brief summary and list of names and dates of consultations

UNDP submitted a FARM+ concept note as part of an Expression of Interest procedure to the GEF Secretariat on 5 February 2024, to indicate its commitment to lead the development of the program. On 28 February 2024, UNDP was informed that it has been selected as the lead agency for the FARM+ program.

To discuss the scope, objectives, and content of the program, UNDP organized and facilitated coordination calls twice a month including all the GEF IA agencies interested to take part in the program as well as the GEF, BRS and Minamata Secretariats, which provided guidance on aligning FARM+ with the GEF Programming Directions and objectives of relevant Conventions. In addition, separate bi-monthly calls were organized with GEF Secretariat counterparts (bringing together experts from the GEF Chemicals & Waste, International Waters and Climate Change (Adaptation Team) Focal Areas). A shared Teams folder was created that allowed continuous access to all documentation (i.e. FARM+ concept note, draft PFD, timeline for PFD preparation, EoI documents, selection criteria for child project) under development and revision. The GEF Secretariat as well as GEF IAs reviewed the FARM+ concept note, the draft PFD

document, as well as other FARM+ relation documentation multiple times. Feedback received by UNDP was reviewed and reflected in the FARM+ concept note/draft PFD document.

In addition, UNDP organized regular conference calls with GEF IAs and other relevant partners to brief them on the objectives of the FARM+ program, consult them on available expertise, past/ongoing projects and existing guidance/tools. When interest was expressed, partners were brought on board to join the FARM+ program, either as a GEF IA or FARM+ partner. For example, coordination calls were organized with AfDB, FAO, GGKP (UNEP), UNEP, UNIDO, World Bank, UNDP's Climate Hub (Adaptation team), UNDP's Sustainable Finance Hub & Insurance and Risk Finance Facility, UNDP's Nature Hub & FACS team, and UNDP's Global Platform on Smallholder Farmer Financial Resilience, among others.

The Child Projects were selected through an Expression of Interest (EoI) procedure, designed in partnership with the GEF Secretariat. The review of submitted EoIs (deadline 5 July 2024), and the ultimate selection of FARM+ countries was assumed by the GEFSEC.

During the preparation of EoIs and child projects, leading GEF IAs consulted key FARM+ stakeholders at national (and sometimes regional) level, including government partners (Ministries of Agriculture, Finance, Environment, SMEs, Trade, Labor, and Education), private sector, CSOs and IPLCs. However, as there was limited time for the preparation of the EoI and Child Projects, further stakeholder engagement will be undertaken by the Child Projects as part of the PPG phase, during which each Child Project will also design a tailored stakeholder engagement plan that will be implemented during the execution of the respective Child Project. This stakeholder engagement plan will also outline a strategic approach to leverage private sector resources and expertise.

In addition, at the global level, during the months of July and August 2024, UNDP organized consultations with a limited number of IPLC, CSO and private sector representatives to introduce the FARM+ program, hear from them on their views of what the challenges are, and lay the groundwork for future cooperation and collaboration with the FARM+ program. Consultations were organized with the Global Indigenous Youth Caucus and the International Indian Treaty Council to seek their insights on how to ensure effective and meaningful participation of IPCLs into the program and explore how indigenous practices can be brought into the program. From civil society, UNDP organized a meeting with the Global Alliance on Highly Hazardous Pesticides to ensure cooperation and collaboration between the two inter-related initiatives. Finally, from the private sector, initial consultations were organized with Mondolez International, a leading global snack company, and Swiss Re, a leading provider of reinsurance, insurance, and other forms of insurance-based risk transfer. Because the time to prepare the PFD was limited, further stakeholder engagement for the global component will be undertaken during the PPG phase. As part of the Global Coordination Child Project, a global stakeholder engagement plan will be designed (including a strategic approach to leverage private sector resources and expertise) to ensure that during FARM+'s implementation, beneficiaries can benefit from the coordination and collaboration with strategic partners, including the GEF IAs, FARM and FARM+ participating countries and other interested countries, Civil Society Organizations and Indigenous Peoples and Local Communities representative organizations, the Agro-ecology Coalition, the Global Alliance on Highly Hazardous Pesticides, CGIAR centers (i.e. IWMI, IFPRI, ILRI or the CGIAR Scaling Readiness unit), fora on new agribusiness and agriculture, various food value chain partners (i.e. Roundtable on Sustainable Palm Oil - RSPO, World Cocoa Foundation - WCF, World Business Council for Sustainable Development – WBSCD, and Mondelez International), among others.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PFD preparation phase)

Private Sector

Will there be private sector engagement in the program?

Yes

And if so, has its role been described and justified in section B program description?

Yes

Environmental and Social Safeguards

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Program Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	GEF Program Financing ($)	Agency Fee($)	Total GEF Financing ($)
UNDP	GET	Mexico	Chemicals and Waste	POPs	4,500,000.00	405,000.00	4,905,000.00
UNDP	GET	Mexico	International Waters	International Waters: IW-3	3,000,000.00	270,000.00	3,270,000.00
UNEP	GET	Benin	Chemicals and Waste	POPs	4,500,000.00	405,000.00	4,905,000.00
UNEP	GET	Benin	Land Degradation	LD STAR Allocation: LD-1	889,575.00	80,062.00	969,637.00
UNEP	GET	Benin	International Waters	International Waters: IW-3	997,500.00	89,775.00	1,087,275.00

UNIDO	GET	Egypt	Chemicals and Waste	POPs	5,000,000.00	450,000.00	5,450,000.00
UNIDO	GET	Egypt	International Waters	International Waters: IW-1	1,000,000.00	90,000.00	1,090,000.00
UNDP	GET	Global	Chemicals and Waste	POPs	8,000,000.00	720,000.00	8,720,000.00
AfDB	GET	Nigeria	Chemicals and Waste	POPs	6,500,000.00	585,000.00	7,085,000.00
AfDB	GET	Nigeria	International Waters	International Waters: IW-1	1,000,000.00	90,000.00	1,090,000.00
UNDP	GET	Costa Rica	Chemicals and Waste	POPs	4,500,000.00	405,000.00	4,905,000.00
UNIDO	GET	Ghana	Chemicals and Waste	POPs	5,000,000.00	450,000.00	5,450,000.00
UNDP	GET	Nepal	Chemicals and Waste	POPs	4,500,000.00	405,000.00	4,905,000.00
FAO	GET	Gambia	Chemicals and Waste	POPs	2,500,000.00	225,000.00	2,725,000.00
FAO	GET	Gambia	Climate Change	CC STAR Allocation: CCM-1-1	1,796,767.00	161,709.00	1,958,476.00
FAO	LDCF	Gambia	Climate Change	LDCF Country allocation	5,390,302.00	485,127.00	5,875,429.00
Total GEF Resources ($)						**5,316,673.00**	**64,390,817.00**

Project Preparation Grant (PPG)

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	PPG($)	Agency Fee($)	Total PPG Funding($)
UNDP	GET	Mexico	Chemicals and Waste	POPs	96,000.00	8,640.00	104,640.00
UNDP	GET	Mexico	International Waters	International Waters: IW-3	64,000.00	5,760.00	69,760.00

UNEP	GET	Benin	Chemicals and Waste	POPs	140,910.00	12,682.00	153,592.00
UNEP	GET	Benin	Land Degradation	LD STAR Allocation: LD-1	27,855.00	2,507.00	30,362.00
UNEP	GET	Benin	International Waters	International Waters: IW-3	31,235.00	2,811.00	34,046.00
UNIDO	GET	Egypt	Chemicals and Waste	POPs	120,000.00	10,800.00	130,800.00
UNIDO	GET	Egypt	International Waters	International Waters: IW-1	30,000.00	2,700.00	32,700.00
UNDP	GET	Global	Chemicals and Waste	POPs	180,000.00	16,200.00	196,200.00
AfDB	GET	Nigeria	Chemicals and Waste	POPs	174,000.00	15,660.00	189,660.00
AfDB	GET	Nigeria	International Waters	International Waters: IW-1	26,000.00	2,340.00	28,340.00
UNDP	GET	Costa Rica	Chemicals and Waste	POPs	140,000.00	12,600.00	152,600.00
UNIDO	GET	Ghana	Chemicals and Waste	POPs	150,000.00	13,500.00	163,500.00
UNDP	GET	Nepal	Chemicals and Waste	POPs	140,000.00	12,600.00	152,600.00
FAO	GET	Gambia	Chemicals and Waste	POPs	47,619.00	4,286.00	51,905.00
FAO	GET	Gambia	Climate Change	CC STAR Allocation: CCM-1-1	38,095.00	3,429.00	41,524.00
FAO	LDCF	Gambia	Climate Change	LDCF Country allocation	114,286.00	10,285.00	124,571.00
Total PPG Amount ($)					**1,520,000.00**	**136,800.00**	**1,656,800.00**

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total($)

UNEP	GET	Benin	Land Degradation	LD STAR Allocation	999,999.00
FAO	GET	Gambia	Climate Change	CC STAR Allocation	2,000,000.00
Total GEF Resources					**2,999,999.00**

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)
CW-1	GET	4,500,000.00	43,650,000.00
IW-3	GET	3,000,000.00	29,100,000.00
CW-1	GET	4,500,000.00	22,897,807.00
LD-1	GET	889,575.00	4,526,513.00
IW-3	GET	997,500.00	5,075,680.00
CW-1	GET	5,000,000.00	34,965,854.00
IW-1-1	GET	1,000,000.00	7,034,146.00
CW-1	GET	8,000,000.00	21,000,000.00
CW-1	GET	6,500,000.00	216,688,312.00
IW-1-1	GET	1,000,000.00	33,311,688.00
CW-1	GET	4,500,000.00	39,500,000.00
CW-1	GET	5,000,000.00	40,000,000.00
CW-1	GET	4,500,000.00	38,991,692.00
CW-1	GET	2,500,000.00	5,161,520.00
CCA-1-1	LDCF	5,390,302.00	11,128,861.00
CCM-1-1	GET	1,796,767.00	3,709,619.00
Total Project Cost		**59,074,144.00**	**556,741,692.00**

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Secretariat of Agriculture and Rural Development (SADER)	In-kind	Recurrent expenditures	72,750,000.00
Recipient Country Government	Ministry of Livelihoods and Transport in charge of Sustainable Development	In-kind	Recurrent expenditures	32,500,000.00
Recipient Country Government	Ministry of Environment	In-kind	Recurrent expenditures	42,000,000.00
Recipient Country Government	Swiss Government	In-kind	Investment mobilized	21,000,000.00
GEF Agency	African Development Bank	Loans	Investment mobilized	250,000,000.00
Recipient Country Government	MAG, MINAE, INA, CNE, INDER, INS, SUGESE	In-kind	Recurrent expenditures	39,500,000.00
Recipient Country Government	Ministry of Environment, Science, Technology and Innovation	In-kind	Recurrent expenditures	40,000,000.00
Recipient Country Government	Ministry of Agriculture and Livestock Development	In-kind	Recurrent expenditures	38,991,692.00
Donor Agency	Resilience of Organizations for Transformative Smallholder Agriculture (ROOTS) - IFAD-USD80 million (2022 – 2027)	Grant	Investment mobilized	20,000,000.00
Total Co-financing				**556,741,692.00**

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	phone	Email
GEF Agency Coordinator	Nancy Bennett	9/16/2024	Xiaofang Zhou		xiaofang.zhou@undp.org

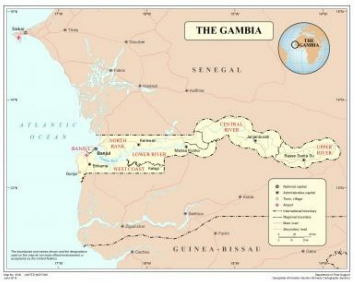
GEF Agency Coordinator	Ganna Onysko	9/16/2024	Maren Mellendorf		m.mellendorf@unido.org
GEF Agency Coordinator	Jeffrey Griffin	9/16/2024	Maude Veyret Picot		maude.veyretpicot@fao.org
GEF Agency Coordinator	Ayanleh Daher Aden	9/16/2024	Chukwuma Ikechukwu Ezedinma		c.ezedinma@afdb.org
GEF Agency Coordinator	Ersin Esen	9/16/2024	Eloise Touni		eloise.touni@un.org

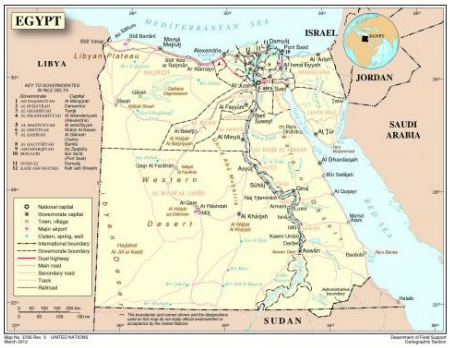
Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

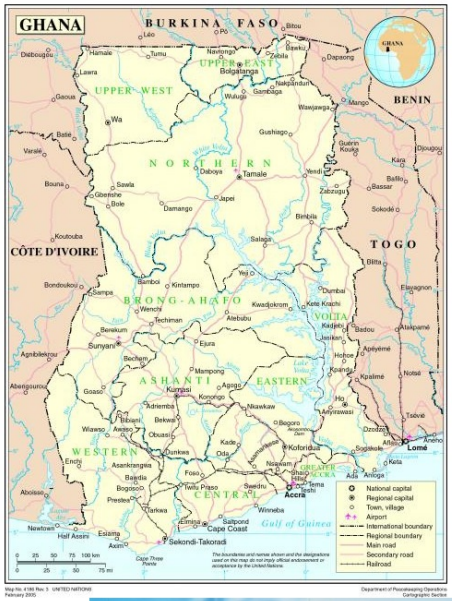
Name	Position	Ministry	Date (MM/DD/YYYY)
Ms. Enid Chaverri Tapia	Director of International Cooperation	Ministry of Environment and Energy, Costa Rica	
Eng. Ali Abo Sena	Chief Executive Officer	Egyptian Environmental Affairs Agency	
Mr. Isaac Charles Acquah Jnr.	Chief Programme Officer	Environmental Protection Agency, Ghana	
Ms. Gabriela Niño Gómez	Director of Sustainable Finance	Ministry of Finance and Public Credit, Mexico	
Dhani Ram Sharma	Joint Secretary	Ministry of Finance, Nepal	
Dr. Dawda Badgie	Executive Director	National Environment Agency, Gambia	
Mr. Mémanton Boni Yalla	Director of Planning, Administration and Finance	Ministry of Environment and Sustainable Development, Benin	
Mr. Stanley Jonah	Director	Federal Ministry of Environment, Nigeria	

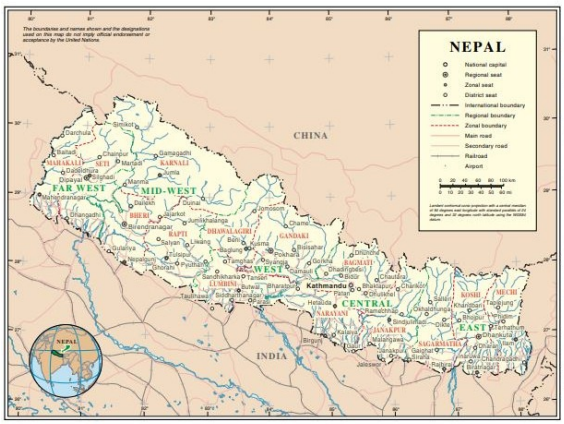
ANNEX C: PROGRAM LOCATION

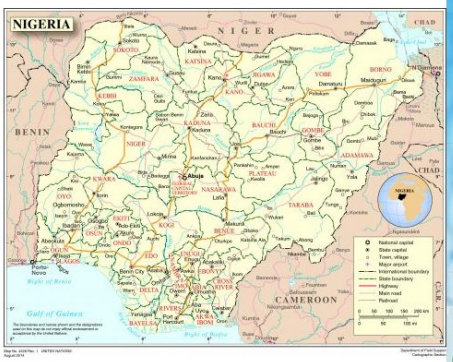
Please provide geo-referenced information and map where the project interventions will take place











ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(Program level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title
Annex D Environmental and Social Safeguards-FARM+-final

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Decertification
No Contribution 0	Significant Objective 1	No Contribution 0	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET

The taxonomy worksheet worksheet has been uploaded to the library.

ANNEX H : CHILD PROJECT INFORMATION

Title
FARM+ Child Projects Annex H
FARM+ Child Projects Annex H
FARM+ Child Projects Annex H
FARM+ Child Projects Annex H

Child Projects under the Program

Country	Project Title	GEF Agency	GEF Amount ($) PROJECT FINANCING	Agency Fees($)	Total($)
	FSPs				
Mexico	Financing Agrochemical Reduction and Management Plus (FARM+) in Mexico	UNDP	7,500,000.00	675,000.00	8,175,000.00
Benin	FARM+ Benin: Transitioning the cotton sector to sustainable and climate resilient practices	UNEP	6,387,075.00	574,837.00	6,961,912.00

Egypt	Financing Agrochemical Reduction and Management Plus (FARM+) in Egypt	UNIDO	6,000,000.00	540,000.00	6,540,000.00
Global	Financing Agrochemical Reduction and Management Plus (FARM+) Global	UNDP	8,000,000.00	720,000.00	8,720,000.00
Nigeria	Financing Agrochemical Reduction and Management Plus (FARM+) in Nigeria	AfDB	7,500,000.00	675,000.00	8,175,000.00
Gambia	FARM+ Programme national child project: Supporting Nature Positive, Resilient, and Productive Land Management in the Gambia	FAO	9,687,069.00	871,836.00	10,558,905.00
	Subtotal ($)		45,074,144.00	4,056,673.00	49,130,817.00
	MSPs				
Costa Rica	Financing Agrochemical Reduction and Management Plus (FARM+) in Costa Rica	UNDP	4,500,000.00	405,000.00	4,905,000.00
Ghana	Financing Agrochemical Reduction and Management Plus (FARM+) in Ghana	UNIDO	5,000,000.00	450,000.00	5,450,000.00
Nepal	Financing Agrochemical Reduction and Management Plus (FARM+) in Nepal	UNDP	4,500,000.00	405,000.00	4,905,000.00
	Subtotal ($)		14,000,000.00	1,260,000.00	15,260,000.00
	Grant Total ($)		59,074,144.00	5,316,673.00	64,390,817.00