



Part I: Project Information

Name of Parent Program

Financing Agrochemical Reduction and Management (FARM)

GEF ID

10903

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

FARM: Global Coordination, Knowledge Management and Common Finance Tools

Countries

Global

Agency(ies)

UNEP

Other Executing Partner(s)

Green Growth Knowledge Partnership

Executing Partner Type

Others

GEF Focal Area

Chemicals and Waste

Sector

Taxonomy

Focal Areas, Land Degradation, Land Productivity, Land Degradation Neutrality, Sustainable Land Management, Sustainable Livelihoods, Sustainable Agriculture, International Waters, Pollution, Plastics, Persistent toxic substances, Biodiversity, Mainstreaming, Agriculture and agrobiodiversity, Financial and Accounting, Conservation Finance, Chemicals and Waste, Persistent Organic Pollutants, Unintentional Persistent Organic Pollutants, New Persistent Organic Pollutants, Waste Management, Hazardous Waste Management, Emissions, Best Available Technology / Best Environmental Practices, Green Chemistry, Eco-Efficiency, Open Burning, Pesticides, Climate Change, Agriculture, Forestry, and Other Land Use, Climate Change Mitigation, Influencing models, Demonstrate innovative approaches, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Stakeholders, Type of Engagement, Information Dissemination, Participation, Consultation, Partnership, Civil Society, Academia, Non-Governmental Organization, Communications, Behavior change, Education, Awareness Raising, Public Campaigns, Private Sector, Financial intermediaries and market facilitators, Capital providers, Large corporations, SMEs, Beneficiaries, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Participation and leadership, Knowledge Generation and Exchange, Integrated Programs, Food Systems, Land Use and Restoration, Food Value Chains, Smallholder Farming, Capacity, Knowledge and Research, Knowledge Generation, Learning, Indicators to measure change, Theory of change, Adaptive management, Capacity Development, Knowledge Exchange, Innovation

Rio Markers**Climate Change Mitigation**

Significant Objective 1

Climate Change Adaptation

No Contribution 0

Biodiversity

Significant Objective 1

Land Degradation

Significant Objective 1

Submission Date

12/9/2022

Expected Implementation Start

6/1/2023

Expected Completion Date

6/30/2028

Duration

60In Months

Agency Fee(\$)

670,950.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

| Objectives/Programs | Focal Area Outcomes | Trust Fund | GEF Amount(\$) | Co-Fin Amount(\$) |
|-------------------------------|---|-------------------|-----------------------|--------------------------|
| CW-1-2 | Strengthen the sound management of agricultural chemicals and their waste, through better control, and reduction and / or elimination | GET | 7,455,000.00 | 25,162,086.00 |
| Total Project Cost(\$) | | | 7,455,000.00 | 25,162,086.00 |

B. Project description summary

Project Objective

Project Objective: To generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally

| Project Component | Financing Type | Expected Outcomes | Expected Outputs | Trust Fund | GEF Project Financing(\$) | Confirmed Co-Financing(\$) |
|---------------------------|----------------------|--|---|------------|---------------------------|----------------------------|
| 1. Policy and enforcement | Technical Assistance | <u>Outcome 1</u> Governments and inter-governmental regulatory bodies share and use FARM and FARM-related knowledge to create the enabling conditions for the reduction and sound management of pesticides and agricultural plastics. | <u>Output 1.1</u> FARM knowledge is generated and synthesized to create actionable recommendations for policy and enforcement audiences. <u>Output 1.2</u> FARM knowledge is validated and shared to build policy and enforcement capacities for the sound management of pesticides and agricultural plastics. | GET | 1,800,000.00 | 11,935,785.00 |

| Project Component | Financing Type | Expected Outcomes | Expected Outputs | Trust Fund | GEF Project Financing(\$) | Confirmed Co-Financing(\$) |
|---------------------------|----------------|--|---|------------|---------------------------|----------------------------|
| 2. Finance and Investment | Investment | <u>Outcome 2</u> Public and private finance actors share and use FARM and FARM-related knowledge to reorient financial resources to the reduction and sound management of chemical and plastic pollution in the agriculture sector. | <u>Output 2.1</u> Private finance actors have increased knowledge, capacity, and tools to align their portfolios with global, regional, and national goals to prevent and reduce chemical and plastic pollution <u>Output 2.2</u> Public finance actors have increased knowledge and capacity to align their policies and de risking strategies with global, regional, and national goals to prevent and reduce chemical and plastic pollution | GET | 2,000,000.00 | 8,339,993.00 |

| Project Component | Financing Type | Expected Outcomes | Expected Outputs | Trust Fund | GEF Project Financing(\$) | Confirmed Co-Financing(\$) |
|-----------------------------------|----------------------|---|--|------------|---------------------------|----------------------------|
| 3. Value chains and public demand | Technical Assistance | <u>Outcome 3</u> Value chain actors and the broader public access and share FARM and FARM-related knowledge to reorient demand for products and agricultural processes that reduce pesticides and agricultural plastics pollution. | <u>Output 3.1</u> FARM and FARM-related knowledge is curated and disseminated for farmers, value chains and global public access under the FARM brand. - <u>Output 3.2</u> New stakeholders engaged to build momentum and boost demand for pollution-free agricultural products. | GET | 2,800,000.00 | 4,226,308.00 |

| Project Component | Financing Type | Expected Outcomes | Expected Outputs | Trust Fund | GEF Project Financing(\$) | Confirmed Co-Financing(\$) |
|------------------------------|----------------------|--|--|------------|---------------------------|----------------------------|
| 4. Monitoring and evaluation | Technical Assistance | <u>Outcome 4</u> GEF child projects and partners implement activities using a coordinated programmatic approach, including shared visibility, | <u>Output 4.1</u> Programmatic reporting including annual reports, midterm and terminal reviews are produced with child projects to monitor and evaluate the Programme and practice adaptive management when necessary. <u>Output 4.2</u> Global child project reports are timely submitted, and adaptive management is applied when necessary. | GET | 500,000.00 | 105,000.00 |
| Sub Total (\$) | | | | | 7,100,000.00 | 24,607,086.00 |

Project Management Cost (PMC)

| | | |
|-------------------------------|---------------------|----------------------|
| GET | 355,000.00 | 555,000.00 |
| Sub Total(\$) | 355,000.00 | 555,000.00 |
| Total Project Cost(\$) | 7,455,000.00 | 25,162,086.00 |

Please provide justification

C. Sources of Co-financing for the Project by name and by type

| Sources of Co-financing | Name of Co-financier | Type of Co-financing | Investment Mobilized | Amount(\$) |
|--------------------------------|-----------------------------------|-----------------------------|-----------------------------|----------------------|
| GEF Agency | GGKP | In-kind | Recurrent expenditures | 1,000,000.00 |
| GEF Agency | UNEP ? Ecosystems Division (TEEB) | In-kind | Recurrent expenditures | 17,063,082.00 |
| GEF Agency | UNEP Finance Initiative | In-kind | Recurrent expenditures | 2,200,000.00 |
| GEF Agency | UNEP WCMC | In-kind | Recurrent expenditures | 782,936.00 |
| Other | Natural Resources Institute UK | Grant | Investment mobilized | 1,956,068.00 |
| Other | Natural Resources Institute UK | In-kind | Recurrent expenditures | 10,000.00 |
| Civil Society Organization | PAN UK | Grant | Investment mobilized | |
| Civil Society Organization | Rainforest Alliance | In-kind | Recurrent expenditures | 2,000,000.00 |
| Private Sector | BioProtection Global | In-kind | Recurrent expenditures | 150,000.00 |
| Other | Centre for Suicide Prevention | Grant | Investment mobilized | |
| Total Co-Financing(\$) | | | | 25,162,086.00 |

Describe how any "Investment Mobilized" was identified

UNEP FI has a number of current and planned projects on development and implementation of guidance, support material and tools for financial institutions including the ENCORE tool, target setting guidance for PRB signatories and work on plastic pollution prevention and reduction across sectors. UNEP WCMC co-finance will include investment and ongoing activities to support an ongoing body of work to strengthen understanding and awareness of how all economic activities depend and impact on biodiversity; learnings from this project around assessing and communicating risks and dependencies with financial institutions, and the development of the ENCORE tool, will support knowledge development to the benefit of the GEF

FARM Programme, in particular on Component 2. The Natural Resources Institute co-finance will include support from a number of research and academic initiatives (as described in the baseline section) including a major EC-funded research network on IPM. PAN UK co-finance includes project funding mobilized from various trusts and foundations which have developed and will continue to support their work on HHPs impacts and, similar to the Rainforest Alliance, mobilizing resources from value chains (buyers and retailers of agricultural produce) to support farmers' transitions to sustainable and certified production. Co-finance from the Centre for Pesticide Suicide Prevention includes philanthropic funding from various private trusts in support of the CPSP objectives to save lives and prevent deaths from pesticide poisoning.

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

| Agency | Trust Fund | Country | Focal Area | Programming of Funds | Amount(\$) | Fee(\$) | Total(\$) |
|---------------------------|------------|---------|---------------------|----------------------|--------------|------------|--------------|
| UNEP | GET | Global | Chemicals and Waste | POPs | 7,455,000 | 670,950 | 8,125,950.00 |
| Total Grant Resources(\$) | | | | | 7,455,000.00 | 670,950.00 | 8,125,950.00 |

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)
PPG Required **true**

PPG Amount (\$)
200,000

PPG Agency Fee (\$)
18,000

| Agency | Trust Fund | Country | Focal Area | Programming of Funds | Amount(\$) | Fee(\$) | Total(\$) |
|-------------------------|------------|---------|---------------------|----------------------|------------|-----------|------------|
| UNEP | GET | Global | Chemicals and Waste | POPs | 200,000 | 18,000 | 218,000.00 |
| Total Project Costs(\$) | | | | | 200,000.00 | 18,000.00 | 218,000.00 |

Core Indicators

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 | | 1,000,000 | | |
| Male | | 1,000,000 | | |
| Total | 0 | 2000000 | 0 | 0 |

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Core indicator 11 is calculated based on the assumption that "direct beneficiaries" are populations of people who benefit from the FARM programme through their own active engagement as individuals in the knowledge, communications and coordination activities of the global child project; or as members or participants of stakeholder institutions that are actively engaging in the programme. "Stakeholder institutions" include regulatory bodies under Component 1, public and private finance actors under Component 2, and the public and value chain actors under Component 3. There are thus two counts of direct beneficiaries that will be made to calculate the project's contribution to Core Indicator 11: (1) individuals and (2) members/participants of stakeholder institutions. Individuals "actively engage" in the FARM programme through participation in events, groups and online activities such as knowledge sharing. These will be tracked directly by the Executing Agency and other delivery partners who organize events and activities and reported as part of the PIR and results framework indicators that focus on beneficiaries of capacity building and communication activities. Through web analytics, the Executing Agency can also account for individual site visits, interactions, and demographic information, including gender and geographic data. It is expected that the reach of the FARM programme and number of beneficiaries will grow each year as the website becomes an established resource and the FARM brand is made visible in meetings and events. The direct beneficiaries also include members or participants of organizations or institutions that actively engage in the FARM global child research, communications and outreach activities, and eventually take steps to implement sustainable chemical and plastic management. Stakeholder institutions actively engage through such actions as (1) requests for the synthesis, generation or co-creation of FARM knowledge, (2) requests to engage in regular FARM meetings or communities of practice, (3) requests to host significant FARM events such as national or regional meetings, (4) letters or statements of intent to apply FARM knowledge in decision-making, (5) evidence

of use of FARM knowledge in decision making, and (6) other actions that suggest significant interest and follow-up, including sharing FARM materials and activities through social media, newsletters, and other means. This may include governments taking action to restrict HHPs or promote access to biocontrol; value chain actors such as retailers adding HHPs to lists of banned pesticides; or banks creating new lending instruments. We presume that 50% of the agriculture-related beneficiaries of stakeholder institutions is the population that will benefit from the institution's engagement in the FARM programme and will be calculated in the Core Indicator 11, together with the count of individuals engaging in the programme as described above. The child project will also contribute to Core Indicator 9 through replication and scale up of the results achieved by national child projects, through the networks of beneficiaries as described above. Further details on the replication for Global Environmental Benefits of plastic and pesticide reductions are described in the Project Description (section 'Global Environmental Benefits').

Part II. Project Justification

1a. Project Description

There is one substantive change to the global child project compared to the Programme Framework Document concept note, which is related to component 2, Finance and Investment. The project will coordinate and support the FARM child projects work on public sector financing, Output 2.2, which was not part of the original design. This activity was added when it became apparent that most FARM child projects were engaging with governments on public sector financing related to pesticide and plastic use.

The wording of the outcomes and outputs have been revised to reflect the increased understanding of the context resulting from the baseline research and for increased clarity. Outcome 1 focuses on building policy and regulatory capacity through knowledge generation and synthesis; Outcome 2 focuses on using public and private sector finance to support sustainable agricultural practices; and Outcome 3 focuses on changing attitudes of key value chain actors and consumers to support the transition to sustainable agricultural practices. The description of Component 3 has been changed to 'Value chains and public demand' to reflect this narrower focus.

The GEF budget split between project components has not been changed.

| Original wording | Revised wording | Justification |
|---|--|--|
| Government Policy and Enforcement | | |
| <u>Outcome 1</u> Policy, and regulatory and compliance capacities enhanced and scaled regionally to create enabling conditions for the sound management of pesticides and agricultural plastics and adoption of safer alternatives | <u>Outcome 1</u> Governments and inter-governmental regulatory bodies share and use FARM and FARM-related knowledge to create the enabling conditions for the reduction and sound management of pesticides and agricultural plastics. | The wording changes reflect the focus of the project, to make information available and encourage its use, as a global project it will have limited ability to ensure that the knowledge is used. |
| <u>Output 1.1</u> Global and regional networks support enforcement of agrochemical and agriplastic regulations in the FARM child projects | <u>Output 1.1</u> FARM knowledge is generated and synthesized to create actionable recommendations for policy and enforcement audiences. | <p>The revised wording reflects the challenge described above and a desire to generate actionable recommendations thereby inferring a demand driven approach that is responsive to the requirements of the policy makers and influencers.</p> <p>Research and academic networks an organisation will be approached by the project to get involved.</p> |

| | | |
|--|--|--|
| <u>Output 1.2</u> Global research and education academic networks support development of effective regulatory frameworks and enable compliance | <u>Output 1.2</u> FARM knowledge is validated and shared to build policy and enforcement capacities for the sound management of pesticides and agricultural plastics. | |
| Finance and Investment | | |
| <u>Outcome 2</u> Develop and deploy new resources on banking sector risk and opportunity analysis | <u>Outcome 2</u> Public and private finance actors share and use FARM and FARM-related knowledge to reorient financial resources to the reduction and sound management of chemical and plastic pollution in the agriculture sector. | Wording changed for clarification but no substantive change to content. |
| <u>Output 2.1</u> Develop and roll out methodologies or tools to assess pollution and resource efficiency risks and opportunities to enable alignment of financial portfolios with national, regional or global goals | <u>Output 2.1</u> Private finance actors have increased knowledge, capacity, and tools to align their portfolios with global, regional, and national goals to prevent and reduce chemical and plastic pollution | The baseline showed that financial institutions have very little awareness of the risks of HHPs and unsafe management of agricultural plastics. So, there is a need to sensitize management and boards of financial institutions to these risk before approaches and tools can be jointly developed using the approach used in the Principles for Responsible Banking. (PRB) |
| <u>Output 2.2</u> Piloting of Principles for Responsible Banking Resource Efficiency Target Setting Guidance with PRB member banks globally | Included in output 2.1 | |
| <u>Output 2.3</u> Deployment and scaling of finance and investment tools with FARM Child Project partners and wider financial institutions | Included in output 2.1 and 2.2 | |
| <u>Output 2.4</u> Expand financing of sustainable food and land use activities to include pollution and chemicals indicators | Included in output 2.1 and 2.2 | |
| - | <u>Output 2.2</u> Public finance actors have increased knowledge and capacity to align their policies and de risking strategies with global, regional, and national goals to prevent and reduce chemical and plastic pollution | Government financing of the agricultural sector is important in the FARM target countries and most child projects include a component on public sector financing. In response to this an output was developed in the global child project to provide technical support to be provided to the child project and coordinate between them. |
| Establish effective knowledge management | Value chains and Public Demand | Renamed to better reflect the objective of this component, which still focuses on knowledge management and dissemination. |

| | | |
|--|---|--|
| <u>Outcome 3</u> Best practices and capacity exist; and knowledge is accessible globally for management of pesticides, agriplastics and adoption of safer alternatives. | <u>Outcome 3</u> Value chain actors and the broader public access and share FARM and FARM-related knowledge to reorient demand for products and agricultural processes that reduce pesticides and agricultural plastics pollution. | The outcome was re-worded to focus the outcome on stakeholder groups who have the biggest influence on the function of the value chain and to distinguish the audience of this component from the policy makers & finance audiences of components 1 and 2. |
| <u>Output 3.1</u> Creation of Programme communication and KM strategy including visibility, branding, and templates for programmatic reporting | Included in Output 3.1 | This listed several activities that contributed to the achievement of the higher-level output now described in Output 3.1 |
| <u>Output 3.2</u> FARM knowledge is synthesized, developed, packaged and managed and communicated to a broad audience | <u>Output 3.1</u> FARM and FARM-related knowledge is curated and disseminated for global public access under the FARM brand. | Reworded to improve clarification. |
| <u>Output 3.3</u> FARM programmatic Gender action plan is finalized and executed | Gender has been mainstreamed across all three components. | Based on discussions during the design of the project it was decided to mainstream gender across all components to ensure each activity was planned and implemented with a gender perspective. Programme monitoring was designed to ensure that the gender dimension is fully integrated. |
| - | <u>Output 3.2</u> New stakeholders engaged to build momentum and boost demand for pollution-free agricultural products. - | The baseline indicated that elimination HHPs and improving the management of agricultural plastics was not a priority for most networks and institutions and that to build a movement around these issue to drive change it would be necessary to engage a wider range of stakeholders across the relevant value chains. |

1.a Project Description.

Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description); 2) the baseline scenario and any associated baseline Programme/ projects, 3) the proposed alternative scenario with a brief description of expected outcomes and components of the Programme; 4) alignment with GEF focal area and/or Impact Programme strategies; 5) incremental/ additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing; and 6) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 7) innovation, sustainability and potential for scaling up.

1.a.1 Global environmental and/or adaptation problems

The global problem that this project will address is that agricultural systems continue to rely on polluting inputs including HHPs and agricultural plastics due to broad perceptions of their efficacy, affordability and lack of alternatives.

In lower- and middle-income countries (LMICs) agriculture is a critical sector, providing livelihoods for up to 80% of the population, contributing to food security and economic growth, in some countries up to 25% of gross domestic product (GDP).[1]¹ The agriculture sector is also a major source of pollution contributing 25% of global greenhouse gas emissions (GHGs). As documented in the Financing Agricultural Reduction and Management Programme Framework Document (FARM PFD), the extensive use of pesticides and more recently agricultural plastics has significant negative impacts on the environment and public health. Pesticide use doubled between 1990 and 2018,[2]² and the amount of plastic used in agriculture is expected to increase by 50% by 2030.[3]³ There is a prevailing perception amongst farmers, technical experts, and policy makers that the intensive use of agricultural inputs is necessary and cost effective, to achieve high levels of production whilst the negative environmental and health consequences are not adequately understood. The perception is reflected in national agricultural strategic plans, which have the objectives of increasing productivity, for example Viet Nam[4]⁴ and the Kenya Agricultural Sector Transformation and Growth Plan.[5]⁵ Whilst there is an extensive body of knowledge on environmental and public health risks associated with pesticides and plastic pollution, as well as alternative approaches to agriculture, this has not been enough to bring about a large scale and systemic change in agricultural policy or the behaviour of individual farmers. This is in part because the existing information is dispersed across multiple locations and is not seen as globally relevant, but also because of systems inertia. Key levers for the widespread adoption of sustainable agricultural alternatives are under-used and particularly financial and investment flows to support the transition by farmers and producers.

The manufacture, trade use and disposal of Persistent Organic Pesticides (POPs) and Highly Hazardous Pesticides (HHPs) are regulated by the Stockholm, Rotterdam and Basil agreements and the Strategic Approach to International Chemicals (SAICM). However, these MEAs have limited coverage and are inconsistently applied. Please see the baseline for more details.

Highly Hazardous Pesticides: The dangers of highly hazardous pesticides have been recognized since the 1980s. The 2007 Food and Agriculture Organisation (FAO)/World Health Organisation (WHO) Joint Meeting on Pesticide Management (JMPM) recognised HHPs by their negative health and environmental effects using the following definition. *‘Highly Hazardous Pesticides means pesticides that are acknowledged to present particularly high levels of acute or chronic hazards to health or environment according to internationally accepted classification systems such as the World Health Organisation (WHO) or Global Harmonized System (GHS) or their listing in relevant binding international agreements or conventions. In addition, pesticides that appear to cause severe or irreversible harm to health or the environment under conditions of use in a country may be considered to be and treated as highly hazardous’.* In 2008 the JMPM recommended that highly hazardous pesticides should be defined as meeting one or more of eight criteria. The first seven criteria relate to acute and long-term toxicity to humans and the environment, as described by internationally accepted classifications. The eighth criterion relates to risks posed by pesticides as a function of both their toxicity

and their conditions of use, recognizing that less toxic pesticides can still present a high risk when not used safely. Despite the eight criteria and their associated classifications being widely available, most pesticide registration processes in LMICs focus on acute toxicity to humans and do not take into account either long-term human toxicities or environmental hazards.

POPs and HHPs have additional impacts on women, who comprise 48% percent of the agricultural workforce globally,[6]⁶ and up to 70% of the labour force in the horticulture sector. Women's exposure to pesticides tends to be higher than is recognized, especially in LMICs that have less sophisticated agricultural technologies, health surveillance and monitoring.[7]⁷ All these factors amount to significant health costs for the countries with under-resourced public health systems.

Two pesticides are currently under review for inclusion in the Stockholm Convention as Persistent Organic Pesticides (POPs): Chlorpyrifos and Methoxychlor. Chlorpyrifos is widely used as an agricultural insecticide, as well as a biocide for non-agricultural pests. Despite being restricted or banned in some of the countries in Europe and North America, the application is largely authorized among other regions of the world, with China (32,500 tonnes exported in 2019) and India (24,000 tonnes produced in 2021) being the largest producers globally.[8]⁸ Before 2007, global use of chlorpyrifos was estimated to be about 10,000 tonnes per year, whereas more recent estimates indicate a rise to 50,000 tonnes per year, according to China Crop Protection Industry Association.[9]⁹ Monitoring data suggests that chlorpyrifos has the capacity for long-range transport far beyond the point sources and application areas, as it has been found in the Arctic and Antarctica in concentrations comparable to those of POPs, travelling through the atmosphere and ocean currents.[10]¹⁰ [11]¹¹ [12]¹² Alarming levels of this substance have been found in biota across all trophic levels globally, including apex predators and in human breast milk, pointing to its bioaccumulation and ecotoxicity properties.[13]¹³ [14]¹⁴ It is known to adversely affect the nervous system and to exhibit acute and chronic toxic effects at low concentrations, as was demonstrated in studies of aquatic organisms and terrestrial animals. [15]¹⁵ [16]¹⁶

Methoxychlor has been used as a replacement for DDT against a wide range of pests including biting flies, houseflies, mosquito larvae, cockroaches and chiggers on field crops, fruit, vegetables, ornamentals as well as on livestock and pets. [17]¹⁷ [18]¹⁸ At the current time, there is no data to demonstrate its production, as the reports from countries are limited. The largest historical estimate of production was 8,000 tonnes per year (1975).[19]¹⁹ The European Union (EU) withdrew authorization

for methoxychlor use as a plant protection product in 2003. The United States, which was previously a large producer, also imposed a ban on production in 2000, however still reported an environmental release of 1.04 tonnes from on- and off-site disposal in 2018.[20]²⁰ Global environmental releases are currently not quantified, as there is no formal and internationally coherent reporting requirement for this chemical. Methoxychlor is known to be highly toxic to invertebrates and fish, including through its endocrine-disrupting effects, and has been detected in the environment and biota in the Arctic and in Antarctica, far from its production and use. [21]²¹ [22]²² [23]²³ [24]²⁴ [25]²⁵ Due to its persistence, methoxychlor is still found in drinking water, waterbodies, and sediments, in regions where regulations and phase-outs have been implemented.[26]²⁶ Methoxychlor has also been detected in human serum, adipose tissues, umbilical cord blood and human breast milk. [27]²⁷ [28]²⁸ [29]²⁹

Agricultural plastics: The contribution made by agricultural plastics to plastic pollution has only recently been identified as a global problem, consequently there is an absence of regulatory control at both international and national levels. This is particularly problematic given the rapidly increasing and unregulated use of plastics in agriculture. The FARM PFD documents the emerging body of evidence on how the accumulation of micro plastics in soil reduces seed germination and plant growth. There are gaps in existing policy and legislation at international, regional, and national levels, related to the manufacture, use, and disposal of agricultural plastics.[30]³⁰ In July 2022, Food and Agriculture Organisation (FAO's) governing body, the Committee on Agriculture, mandated the Organization to develop a new international voluntary Code of Conduct on the sustainable use of plastics in agriculture, as a first step in developing an international framework for agricultural plastics.[31]³¹

Finance: The capital market for the rural sector has grown in the last ten years but there is still a net shortfall in investment in agriculture, especially long-term financing where 98% of global requirements are unmet. Most of the existing investment is directed toward input-intensive agriculture.[32]³² At the same time more diverse financial services are available with the growth of 'fintech' and mobile phones services providers providing banking services at individual farmers' level including smallholders. The agriculture sector is considered one of the riskiest sectors for banks, and the finance gap will only increase considering the additional capital required for the transition to more sustainable practices.[33]³³ This makes it more difficult for farmers to access credit to transform their agricultural practices.

The FARM global child project is designed to build awareness and share knowledge on alternatives to the use of POPs and HHPs and reduction and better management of agricultural plastics through interventions at the global level that multiply programme beneficiaries and ultimately replicate certain

results achieved by national child projects, with a particular focus on finance interventions that can support financial flows reorienting. The global problem statement that the coordination project will therefore seek to address is that agricultural systems continue to rely on polluting inputs including HHPs and agricultural plastics due to broad perceptions of their efficacy, affordability and lack of alternatives.

Root causes and barriers that need to be addressed

A. Weak capacity and networking for strengthening policy and enforcement framework

Regulators and decision makers in LMICs are guided by national priorities, predominantly increasing agricultural productivity to meet food security and economic growth objectives and still follow the 'Green Revolution' paradigm of increasing productivity through the increased use of agricultural inputs, including pesticides and plastic. This results in systems inertia as policy makers and value chain actors continue to use agricultural systems, they are familiar with and integrate new technologies that increase productivity e.g., agricultural plastics. Where evidence exists of the dangers of HHPs, the unsafe management of agricultural plastics and the benefits of alternative agricultural systems, it is usually contextually specific, e.g., related to a specific agroecology or crop, and difficult to access. As such it has limited influence on overcoming the preconceptions of policy makers and regulators. A notable exception to this is the WHO toxicology classification which is used in most pesticide regulatory processes. The existing policy paradigm is inadequately challenged by economic information, at a macro-economic level the cost-benefit assessment of HHPs compared to less-polluting alternatives does not fully reflect the cost to society because they do not incorporate the negative externalities of pollution, including risks to human health, the environment and agricultural sustainability. Furthermore, governments have limited resources to allocate to pesticide registration and surveillance or ensure the safe use and disposal of agricultural plastics. This capacity constraint, limits ownership and buy-in by registrars and policy makers and influences their commitment and allocation of domestic resources to the implementation of global recommendations to strengthen their regulatory and compliance frameworks towards sustainable and alternative approaches.

The barriers that contribute to this root cause are twofold. Firstly, knowledge and guidance on the above topics either does not exist, as in the case of agricultural plastics, or are dispersed across varied sources, and is hard to locate. The types of information that are difficult to find are, for example, the efficacy and cost effectiveness of alternatives to HHPs ranging from less-toxic pesticides to integrated pest management (IPM), examples of policies on pesticides and agricultural plastics from other countries, identification of the most problematic HHPs or pest/crop problems, data on pesticide poisoning and other health impacts, and data on environmental impacts and benefits of adopting low or no chemical alternative pest control options. Currently there are no international recommendations or guidelines on the use and safe disposal of agricultural plastics. FAO is drafting a voluntary code of conduct on this issue which is expected to be completed in 2024.

The second barrier is limited use of existing knowledge by regulators to be able to support their day-to-day functions. The existing documentation providing guidance and information such as the FAO Pesticide Registration Toolkit, the Pesticide Code of Conduct, Organisation for Economic Cooperation and Development (OECD) Guidance to the Environmental Safety Evaluation of Microbial Biocontrol Agents,^[34] the EU and the Rotterdam Convention databases on existing regulatory frameworks, are extensive and difficult to interpret and use. Technical staff lack practical resources and interaction with either experts or their peers to assist them to interpret and use available guidance effectively e.g., case studies, standard operating procedures, comparative data etc. The existing knowledge resources need to be strengthened and combined with practical experience from frontrunner governments and inter-governmental bodies as well as financial institutions, industry associations and other value chain actors

to create easy to use resources, including actionable recommendations for national registration authorities and other stakeholders. Furthermore, there are limited forums in which these actors can interactively share knowledge, data, and experiences with peers and experts to address common challenges, develop their skills and inform policy development. Strategic Approach to International Chemicals (SAICM) and the University of Cape Town (UCT) have initiated one relevant space for interaction (see Baseline).

B. Existing finance does not support the sound management of agrochemicals and agricultural plastics.

There is a lack of understanding of the risks and economic costs of chemical-intensive production models and particularly of chemical and plastic pollution that they cause, and an absence of a clear business case for the transition to alternative agriculture practices. For individual farmers or companies, the profitability of certified sustainable production is often higher than for chemical-intensive production, and in any case, buyers and commodity value chains are increasingly demanding sustainable approaches. However, farmers who want to make the investments for the transition are not able to access finance, partly because of the lack of appropriate financial products available from banks and private sector financial institutions.

Whilst there are significant public sector finance and investment flows to the agriculture sector, these predominantly support the intensification of agriculture. As stated in the FARM PFD, Development Finance Institutions (DFIs) are taking a more proactive approach to pollution through their Environmental, Social and Governance (ESG) approaches for example by developing toolkits^[35]³⁵ and environmental performance standards.^[36]³⁶ However, most of their investments continue to be directed toward the intensification of agriculture, with limited resources being directed towards the transition to alternative agricultural practices. Most LMICs do not directly subsidize agriculture to a significant amount, however, public sector finance can have a significant influence on the agricultural sector, for example via value added tax, import duties, levies, or tax concessions. Additionally, governments can allocate funding to support services such as agricultural extension, monitoring, regulatory compliance, and research which all support and accelerate the adoption of sustainable practices. Currently government expenditure in the agriculture sector reflects the prevailing ideology of agricultural intensification to increase productivity.

There are two barriers that contribute to this root cause firstly, the environmental impacts of HHPs and unsafe disposal agricultural plastics are not a priority risk for financial institutions (FIs) and are not well understood, assessed, or included in financial decision making. The business case for placing greater emphasis on the issue of plastic and chemical pollution within the agriculture sector is poorly articulated. There is limited understanding within the finance sector of plastic and chemical pollution in agriculture and how it should affect financial and transactional decision making. There is a great deal of competition for attention at the Board and senior management level for sustainability focused initiatives, e.g., greenhouse gas emissions and climate change. As a result, the environmental impact of HHPs and agricultural plastic residues are not a priority for financial institutions at the present time. This leads to a lack of availability of data and metrics which would allow private FIs to make informed decisions, that include negative externalities, regarding investments that include HHPs and agricultural plastics.

A second barrier is that, while private finance is strongly influenced by local or international regulation and the enabling environment, public finance actors have limited understanding of the less visible impact of agriculture policies on the environment and public health. As a result, policies and de-risking strategies are not aligned with global, regional, and national goals to reduce chemical and plastic pollution. Furthermore, the inability to fully understand the economic and social consequences of agricultural policy makes it difficult to identify strategies to de-risk policy changes, such as by using

public sector support or using blended finance to share risk. Being able to assess the social and environmental costs of different agricultural policies, and better understand the associated risks will promote support for emerging sustainable farming practices and encourage market innovations. As economic systems differ significantly across countries and stage of development, there is a need to understand what is unique and what can be shared depending on countries' economic outlook, agricultural production, farming communities, land degradation etc.

C. Value Chains and Public Demand.

The general awareness about the risks of hazardous pesticides and plastic pollution, and the health and environmental benefits of alternative farming systems among farmers, policy makers, value chain actors and consumers remains low. Consequently, there is limited demand for agricultural producers or farming systems to reduce the use of pesticides and ensuring the safe management of agricultural plastics. Currently the global market for organic agricultural produce is approximately 3%^[37] and this mainly in higher income countries. In LMIC most agricultural production is for domestic consumption and consumers and producers are very price sensitive, hence currently there is little market pressure on farmers in LMICs to change their farming practices.

The barriers to action are firstly, that the risks associated with HHPs and the poor management of agricultural plastics and the advantages of alternative agricultural systems are not collated, edited and disseminated to key target audiences. Where information on the risks of HHPs and the poor management of agricultural plastics, it is contextually specific, not readily accessible and in general is not packaged for policy makers as such it has not had a significant influence on agricultural policy making or farming practices in LMICs. The audiences are diverse groups with differing priorities, objectives, and influence, and are geographically dispersed. They include the public, farmers, financiers, regulators, consumers and other agricultural value chain actors all with different priorities and information needs. Whilst there are many organizations working to reduce the use of pesticides and plastic pollution and promote sustainable agriculture, the information they produce does not have broader sector impact, and may be contradictory, as different lobby groups pursue their own agendas. Currently, there is no singular location that collates, curates and provides access to this knowledge. Consequently, individuals, value chain actors and stakeholders, find it difficult to understand the issues and solutions, change their behaviours or apply pressure to regulators to address these problems. Furthermore, farmers and governments are motivated by a desire to increase productivity and reduce the risk of crop failure, and they believe that using pesticides and agricultural plastics is the best way to achieve these objectives, which creates an inertia that must be overcome. They are, however, responsive to the market and public opinion, and raising awareness of the hazards of pesticides and unsafe disposal of agricultural plastics will change public opinion and buying behaviours. For example, The Rainforest Alliance certification scheme works with 4 million farmers to promote the adoption of sustainable and responsible agriculture by spreading the responsibility and cost of adopting sustainable agricultural practices along the value chain.

Secondly, existing information and activities are not coordinated between different actors in the agricultural value chain, which reduces the effectiveness of any change initiative. For example, whilst farmers are encouraged to adopt integrated pest management and use bio control agents, they receive limited training, agricultural suppliers are not encouraged to stock the necessary inputs or trained in how to store these inputs and policy makers are not being informed on how agricultural policy, marketing and investment can support the transition to sustainable agricultural practices. Currently, there is no knowledge platform where all relevant value chain actors can access the information they need, particularly as so many organizations are constrained to sharing knowledge produced or approved by themselves. Improving the coordination and accessibility of information and knowledge along the value chain will reduce the obstacles to change and improve the efficiency of the value chain. Individual projects have been able to successfully coordinate value chains at local level but have not been able to replicate the approach at scale. The global child project will collate the knowledge

generated by the FARM child projects and partners and over the life of the project incorporate information from other sources.

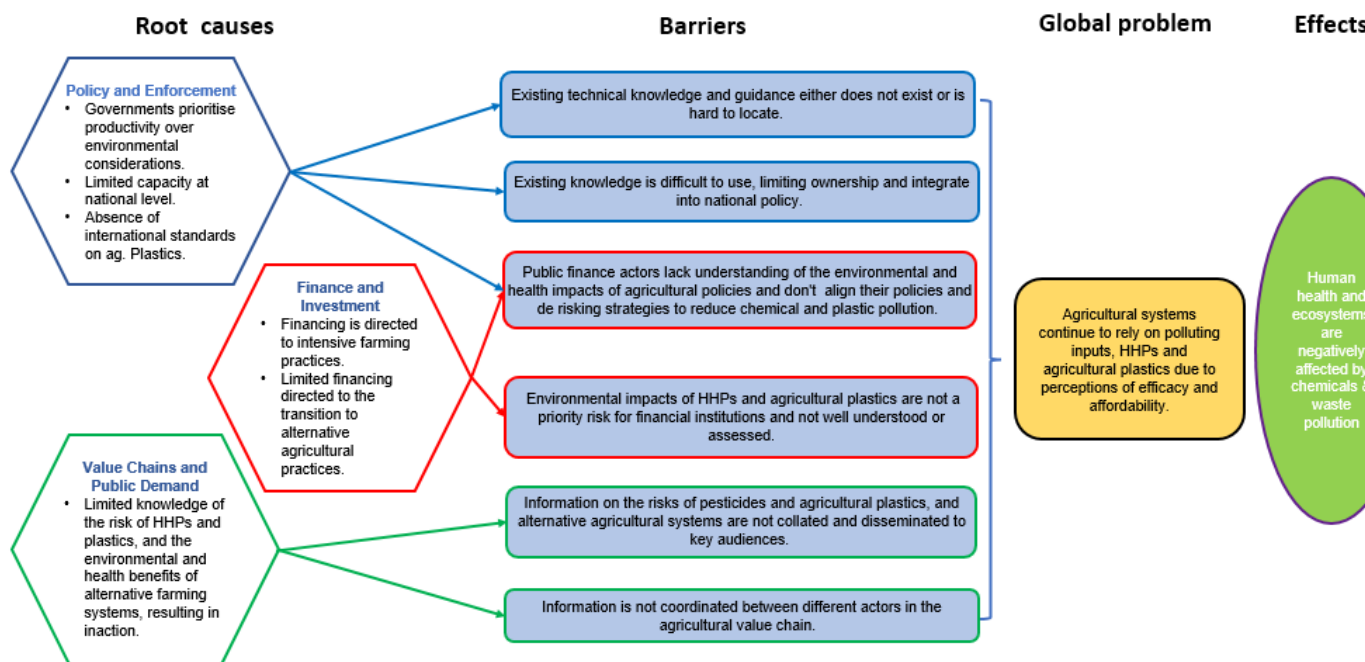


Figure 1 Problem Analysis

1.a.2 Baseline scenario and any associated baseline projects

During the project design phase baseline assessments were carried out on the global policy environment including a review of Multilateral Environmental Agreements (MEAs) and other relevant global frameworks and guidelines, the identification of organizations and networks working on the FARM related issues of detoxifying the agricultural sector by reducing or eliminating the use of the most harmful inputs, and including organizations involved in knowledge management. The finance and investment baseline included a survey of the members to the Principles of Responsible Banking on their understanding of the risks associated with pesticides and agricultural plastics and existing processes with financial institutions. The following Policy and Enforcement subsection is arranged to provide baselines on the current structure around international frameworks, descriptions of the significant international actors and a general overview of national situations.

Policy and Enforcement

International Frameworks

The Chemicals & Waste Multilateral Environmental Agreements provide several avenues for strengthening the management of POPs and HHPs.

- ? The Rotterdam Convention Prior Informed Consent database shares information on banned or severely restricted pesticides from Parties. However, the availability of this information is not widely known and consequently is currently under used, especially by lower-income countries. As indicated in the barriers section, a lack of technical and financial support, as well as human resources, makes coordinating MEAs at national level a challenge.
- ? The Stockholm Convention on Persistent Organic Pollutants limits the production and use of persistent organic pollutants (POPs) and has been ratified by 184 parties as of 2020, including all seven FARM countries. The Convention currently restricts 12 initial and 16 newly added POPs deemed harmful for human health and the ecosystem and is the only legal instrument available to achieve a structured and clearly targeted global progressive ban of HHPs. However, the Convention only focuses on a very small group of HHPs. In addition, within-country progress is often slow in implementing the Convention and the inclusion of new POPs is currently a lengthy process, with new POPs undergoing a three-stage assessment process by the Stockholm Convention's scientific review group which meets only every two years.
- ? SAICM (Strategic Approach to International Chemicals Management) is a non-binding agreement for pesticide management which has recognized HHPs as an emerging policy issue and has agreed a criterion defining HHPs published in the FAO/WHO guidelines on Highly Hazardous Pesticides (2016). The SAICM policy framework focuses on risk reduction, knowledge and information, governance, capacity building and illegal international traffic. At ICCM4 (Resolution IV/3), SAICM stakeholders adopted an HHP Strategy, for which FAO, WHO and UNEP developed a Global Action Plan on HHPs. The intention of this Action Plan is to challenge stakeholders to commit to working together to achieve significant and measurable change on phase-out of HHPs by 2030, in line with the SDG agenda.
- ? Synergies processes and mechanisms applied by countries to enhance cooperation and coordination among the chemicals and wastes MEAs. One prevalent approach (e.g., as adopted in Costa Rica) is to set up an inter-institutional body or formal coordination mechanism to bring together various governmental agencies and stakeholders. A second approach is to formally incorporate the responsibilities of the conventions in one department or unit of the same ministry or agency (e.g., North Macedonia, Korea). Here, the staff are directly working with colleagues responsible for other conventions and so have many opportunities for cooperation and sharing lessons learned. The synergies process is often enhanced by the Special Programme, with its Secretariat at UNEP, which works nationally in the institutional strengthening for chemicals and waste.
- ? The importation and use of illegal pesticides undermines efforts to eliminate POPs and HHPs. The Green Customs Initiative (GCI), a joint action between UNEP, the World Customs Organization (WCO), the UN Office on Drugs and Crime (UNODC) and the secretariats of several MEAs aims to build the capacity of customs officers in LMICs to detect and prevent the illegal trade in chemicals and waste.
- ? The Convention for Biological Diversity is negotiating a new framework of targets including Target 7 which includes text on reducing pesticide risks and use, with highly hazardous pesticides being explicitly mentioned for priority action.[38]³⁸
- ? The lengthy process of registration incentivizes distributors and manufacturers to continue to sell their established chemical pesticide products and acts as a barrier for the manufacturers of biologically-based products to register new products. **BioProtection Global** (BPG) is an international federation of biocontrol and biopesticide industry associations bringing together close to 900 companies. These associations are comprised primarily of manufacturers of products for professional use in agriculture, public health, forestry, animal health and other non-crop uses. BPG estimates that only 5 to 8% of pest control products used around the world are biocontrol or biopesticide products, with the challenges they face to increasing their market share currently being time consuming and expensive registration processes, non-existing specific regulation or non-proportionate ones, farmers lack of understanding of biocontrol and biopesticides and their perception that biocontrol products are ineffective[39]³⁹
-

International Actors

OECD has regulatory experience and expertise, particularly through Pesticide Registration Programmes, including on bio-pesticides, barriers for registration, standard for digital labels, pollinators and reporting incidents, and international trade of pesticides. **Gowan** is a global agriculture solutions business and has several projects and initiatives related to biocontrol / bio-protection in the ASEAN region, including the development of proportionate regulatory frameworks along with local and regional biocontrol companies.

A 2020 **UNEP** assessment report on SAICM Issues of Concern acknowledged that 'current instruments do not comprehensively address the sound management of HHPs at a global scale' and that 'instruments and actions are as yet inadequate to solve these issues at a global scale'; that progress on HHPs has been uneven across countries and regions and that there is a disconnect between international recognition and national action. The report suggests strengthening international support for developing and transition countries, possibly through legally binding instruments and partnerships, including building up resources and capacities to establish and enforce national pesticide legislation. The report also recommended 'increased research and development of safer alternatives, particularly non-chemical alternatives such as agroecology techniques that minimise chemical uses and methods such as integrated pest management, and making them available, accessible and visible to farmers across the globe'.

The Responsible Care Global Charter of the **International Council of Chemical Associations** promotes the ethical management of chemicals worldwide. As of 2020, CEOs from 580 global manufacturing companies, representing around 96% of the global pesticide manufacturing industry, have signed the charter. However, as a voluntary arrangement, it is not certain how much influence this will have on pesticide producers. **CropLife International** have a Responsible Use campaign for pesticide products specifically, while independent post-patent crop protection product manufacturers are also coordinating their stewardship activity as **AgroCare**. These associations and their member companies provide training for farmers on safe handling of their products and provide input into national and regional regulatory and other programmes on sustainable use of pesticides.

FAO's Strategic Framework 2022 to 2031 includes 20 Priority Programme Areas (PPA). The PPA will drive FAO's normative work to support bio-economies that balance economic value and social welfare with environmental sustainability promoted through formulation and implementation of integrated evidence-based policies and practices in micro and macro environments, using technological, organizational, and social innovations. The project will be able to access technical expertise via the strategic framework. FAO's Pesticide Management Regular Programme and FAO Legal Services Department; Joint Meeting on Pesticide Specifications (JMPS) is an expert ad hoc body with the purpose of harmonizing the requirement and the risk assessment on the pesticide residues. The FAO/WHO Panel of Experts on Pesticide Management (JMPM) advises on matters pertaining to pesticide regulation, management and use, and alerts to new developments, problems or issues that otherwise merit attention. The JMPS and the JMPM are responsible for FAO/WHO Code of Conduct and supporting Guidelines (e.g., Guidelines on Highly Hazardous Pesticides or on Development of National Pesticide Legislation), as well as for the FAO Pesticide Registration Toolkit.

National Situations

At the national level there has been considerable activity to further develop pesticide registration systems in most countries, and more recently, to define and act upon HHPs. National registration bodies largely use the WHO human health classifications Ia (extremely hazardous) and Ib (highly hazardous), to assess safety rather than the much more comprehensive FAO/WHO definition based on eight criteria, covering both acute and long-term human toxicity, as well as the international conventions and protocols and environmental toxicities. The baseline assessment for FAO's FARM child project (GEF ID 10902) indicated that national registration processes give more weight to the WHO Recommended Classification of Pesticides by Hazard on acute toxicity to humans than a listing in the Rotterdam Convention or any of the environmental criteria. This is likely because the WHO classifications have been available for longer and are more accessible and better understood by the

registration agencies. There is also a lack of standardised and agreed international categorization of pesticide by environmental hazard which makes adopting these criteria more difficult. Whilst the annex to the Rotterdam convention lists 36 pesticides and pesticide formulations, Pesticide Action Network (PAN) have developed their own list of more than 330 HHPs, taking a more comprehensive interpretation of the eight criteria in the FAO/WHO designation of HHPs. *Pesticide active ingredients and formulations that have a high incidence of severe or irreversible adverse effects on human health or the environment?* and covering pollinators, water and other environmental impacts.

Attempts to replace pesticides with alternative approaches such as Integrated Pest Management (IPM) have had limited success due to lack of sustained government support and limited confidence in alternative pest control approaches, coupled with farmers' resistance, their perception of cost-effectiveness and general lack of knowledge of alternatives.^{[40]⁴⁰, [41]⁴¹} Several organisations work with governments and other stakeholders to research and promote better management of pesticides and sustainable agricultural practices. For example, the **University of Cape Town** runs a Postgraduate Diploma on Pesticide Risk Management, and an online Pesticide Discussion Forum that links pesticide registrars and other stakeholders together to share knowledge and build capacity. The **Natural Resources Institute** (NRI) of Greenwich University implements research projects and provides capacity building on sustainable agricultural intensification, gender and diversity, sustainable trade and responsible business and climate change. NRI also has expertise in plastic waste management and the interaction of agriculture and health (see also baseline section in Component 3 below). The **Centre of Agricultural and Bioscience International** (CABI) is a non-profit intergovernmental development and information organization focusing primarily on agricultural and environmental issues in the developing world, and the creation, curation, and dissemination of scientific knowledge. CABI has developed an application designed to provide offline support in the field, by providing suggestions of non-chemical pest control alternatives for over 2700 pests and diseases.

Not all pesticides are the same, many pose acceptably low treats to human health, however HHPs and other pesticides have widespread impacts on human health, especially on agricultural workers, causing both acute and long-term health impacts. About 385 million cases worldwide of non-fatal unintentional pesticide poisonings are estimated to occur every year, with approximately 11,000 deaths.^{[42]⁴²} There is also a significant association between occupational and residential exposure to pesticides and adverse health outcomes, including cancers, neurological, immunological, and reproductive effects. Pesticide self-poisoning makes up 110,000-168,000 (14-20%) of global suicides and is particularly common in LMICs and amongst women.^{[43]⁴³ [44]⁴⁴} Rates of pesticide-related deaths after attempts at self-harm are highest in lower and middle-income countries because (a) suicide attempts through the ingestion of dangerous substances mainly involve drugs and medicines in developed nations; but, involve pesticides in LMIC; and (b) pesticides available in LMIC are more toxic than those available in developed countries because of weaker regulations around the registration and use of HHPs. The **Centre for Pesticide Suicide Prevention** (CPSP), based out of University of Edinburgh has developed extensive experience in working with countries where suicide by consumption of pesticides is an identified problem. Over 20 years, CPSP has worked with countries globally to improve data collection and interpretation on suicides and pesticide poisoning and with pesticide regulators to make informed

regulatory decisions. CPSP has formed a working group with FAO and WHO to collaborate in projects focused on managing highly hazardous pesticides across the world.

Pesticide Action Network (PAN) has developed their own list of more than 330 HHPs based on all eight criteria, crucially including a number of ecosystem and environmental impacts such as on bees and pollinators and water quality impacts. The environmental / ecosystem criteria reflect work on ecotoxicology monitoring of pesticide impacts on ecosystem services that smallholder farmers rely on including bees. They have also developed a global programme of grassroots farmer surveys to try and increase the evidence base for the use and impacts of HHPs and pesticide use, including an innovative mobile app to make data collection more efficient. The app helps to identify locations, products or practices that are linked to high incidence of acute pesticide poisoning, enabling more effective targeting of resources to tackle the problem effectively. It collects data about farmers and farmworkers, as well as conditions of use on the farm, such as use of PPE, type of spray equipment, relevant training, farm size and crops grown. It also records up to three pesticides that have caused acute impacts on the health of the respondent and detailed information about the most recent poisoning incident, for example, formulation and concentration, symptoms experienced, and days taken off work. Results from 2,779 surveys indicate 39% of respondents had experienced acute poisoning in the last year; and a third of whom had to take time off work.

POPs and HHPs have additional impacts on women, who comprise 48% percent of the agricultural workforce globally,[45]⁴⁵ and up to 70% of the labour force in the horticulture sector. Women's exposure to pesticides tends to be higher than is recognized, especially in LMICs that have less sophisticated agricultural technologies, health surveillance and monitoring.[46]⁴⁶ All these factors amount to significant health costs for the countries with under-resourced public health systems.

With the introduction of more stringent pesticide regulation, older registrations often do not comply with contemporary criteria and re-evaluation of older pesticide approvals is required. Newer pesticides tend to be more specific in their action and are less persistent and as such are less harmful than older pesticides, allowing for the replacement of older pesticides. HHPs which are banned in higher-income countries are still exported to LMICs, despite the known risks. However, in 2022 France became the first EU country to impose a ban on the export of banned pesticides, after a legal challenge by pesticides companies was defeated. While this has set a precedent by which manufacturing countries limit the availability of hazardous pesticides, for it to be effective it would require global collaboration as generic pesticides produced in countries with economies in transition now dominate the pesticide markets in LMICs.

Regarding agricultural plastics, there is an absence of international legislation for example product standards, policy guidance or framework, that could assist countries develop national policies for the sustainable management of agricultural plastics. The significance of agricultural plastics as a contributor of plastic pollution is an emerging issue, as such there is not a large body of knowledge including 'best practices' that could inform policymakers. The Basel Convention included plastic as a waste product after its amendments in 2021. Other initiatives, such as the 'Global Plastic Action Partnership' or the 'End plastic pollution: Towards an international legally binding instrument?', which lays the groundwork to negotiate a comprehensive, global treaty on plastics by 2024, provide incentives to institutionalize plastic governance. In July 2022, FAO's governing body, the Committee on

Agriculture (COAG), mandated FAO to develop a new international voluntary Code of Conduct on the sustainable use of plastics in agriculture. To be submitted to the 29th session of COAG in September 2024, the code will be like the international code of conduct for pesticide management. COAG also encouraged FAO to support the negotiations for the new treaty to prevent plastic pollution with aspects related to agriculture. The first meeting of the Intergovernmental Negotiating Committee met in December 2022, and it is apparent that there is a divergent opinion as to the scope of the treaty. As a relatively new area, building up evidence and awareness of the issues by advocacy and knowledge activities will be required together with a push for international quality standards and policies for the sustainable management of agricultural plastics. However, pertinent issues are lack of reliable data and knowledge in terms of understanding the risks, informing policies, and tracking the flow and fate of plastics.

Finance and Investment

There is a lack of measurement of financial flows directed to sustainable / regenerative agriculture and no measurement of agrochemicals and agricultural plastics. Even though the agriculture sector attracts a significant amount of investment, a limited portion of the financing to the agriculture sector is directed to sustainable agriculture. Hence there is a significant financing gap for the transition to sustainable food and land-use system, estimated at US\$300-350 bn annually by 2030 spread across themes related to regenerative agriculture, healthy diets, nature-based solutions, reducing food loss & waste and financing smallholders.[47]⁴⁷This investment could unlock US\$5.7 trillion worth of economic and social gains to society.[48]⁴⁸ Further, it is estimated that 270 million smallholders across different regions require US\$188 billion annually to cover their agricultural needs, such as agricultural inputs or investments in mechanization and US\$50 billion each year to cover non-agricultural household related expenses.[49]⁴⁹This finance gap will only increase considering the additional capital required for the transition to more sustainable practices.[50]⁵⁰ International Finance Institutions (IFIs), Multilateral Development Banks (MDBs) and Development Finance institutions (DFIs) have minimal amounts allocated to private investment mobilization for agriculture: only around 15% of US\$45 billion of MDB and DFI own financing and 5% of the US\$ 19 billion of ?direct private mobilization? annually are for agriculture.[51]⁵¹ This situation is compounded by the fact that a minimal proportion of public money is channelled towards supporting the conversion to agroecological practices and away from the use of hazardous chemical inputs.

Although agriculture accounts for around 17% of GDP (Gross Domestic Product), less than 5% of domestic financial sector assets are provided to the agricultural sector. Most smallholder farmers in LMICs do not directly benefit from these finance flows, less than 5% of smallholder farmers can access credit.[52]⁵² The barriers to smallholder farmers accessing credit are high transactions costs, lack of collateral and high risk of default. Women farmers face additional challenges to access credit due to the reasons including lack of collateral in the form of land title deeds, more limited education, and perceived gender roles. The lack of capital is a major impediment to smallholder farmers adopting less environmentally damaging farming practices.

Both private finance and public finance have a crucial role to play to fill this gap and reorient finance flows towards low chemical and plastic agriculture practices.

The private finance sector is one of the key actors in the finance sector for agriculture. Commercial banks represent the largest source of finance for investment in agriculture globally, providing

US\$701 billion annually on average between 2015 and 2017.[53]⁵³ The private finance sector has the potential to mobilize US\$ 195 bn annually accounting for 75% of the US\$260 billion gap to achieve SDGs related to food and agriculture in developing countries,[54]⁵⁴ and hence has a key role to play. Commercial banks and investors are strongly influenced by local or international regulation and, given that banking is a heavily compliance driven business activity, the promotion of stronger regulations against the use of POPs and HHPs would support the ability of finance to support a transition to more sustainable activities.

Despite the clear potential for banks to contribute, they consider the agricultural sector as one of the riskiest sectors, which leads to insufficient allocation of private capital to finance more sustainable business models and agricultural practices. Hence, incentives or risk mitigation tools which promote the use of lower pollution activity would also serve to support the transition.

Blended finance could play an essential role in de-risking agricultural lending, especially through Public Development Banks, which are crucial actors to promote low chemical and plastic agriculture, e.g., by leveraging concessional financing and applying a diverse array of tools to attract additional investment to the sector (guarantees, blending instruments, concessional financing for early-stage innovations, etc.). Although blended finance agricultural transactions most often target agricultural inputs / farm productivity, their focus on climate-resilient / sustainable agriculture is becoming increasingly important (18% of agricultural transactions)[55]⁵⁵, with agribusinesses under increased pressure to ensure sustainability within their supply chains, down to the farmer. In view of the relatively small size of blended finance transactions targeting the sector, it may require portfolio approaches and/or standardization and consolidation of existing structures, in addition to risk mitigation instruments.

On the private finance side, during the PPG, a study of the current practices of commercial banks was run, in the form of (i) a desktop analysis of publicly available information on 24 commercial banks active in agriculture or with a significant presence in agricultural markets, (ii) an on-line survey with 69 UNEP FI member commercial banks, and (iii) structured interviews with representatives of 10 commercial banks from different regions with a significant agriculture portfolio. The quite low rate of answer to the survey (14 out of 69) revealed the low level of awareness and subsequent priority of the topic of chemical and plastic pollution in the agriculture sector in commercial banks' agenda. The desktop research, on-line survey and interviews revealed the following main barriers to progress:

- ? Unclear business case within commercial banks: whilst the importance of reducing chemical use and plastics within the agricultural value chain is recognized, the business case and hence the commercial reasons for doing this are not well articulated and suffer from a significant competition for attention at board level ? with climate change/biodiversity.
- ? Lack of capacity and knowledge in respect of plastic and chemical pollution within agriculture: the importance of in-depth sector knowledge and highly specialized teams is consistently stressed. A lack of sector or issue-specific knowledge, revealed by the absence of plastic or chemical pollution considerations within sector-level guidance paper produced by banks, inhibits the ability of lenders to assess the risks of innovations and new agricultural practices. Furthermore, a lack of knowledge of regulations or emerging trends prevents banks from embedding these considerations in their transactional evaluation processes.
- ? Lack of relevant frameworks and data: while existing frameworks capture certain pollution and resource efficiency impacts and indicators, there are significant gaps around agrochemicals and agricultural plastics, showing that related financial standards and metrics are not standardized. In addition, there is a lack of dialogue on the topic between Finance and Science communities as well as a lack of initiative between the public and private sector. This results in a lack of proper environmental

impact assessment prior to investment decisions and of effective environmental management system during implementation.

- ? Uncertain risk profiles and lack of public support: commercial banks are limited by stringent regulations regarding the length of tenor that they can offer and the types of risk that they can take on. A key limiting factor typically cited by banks is the prohibitive costs involved in servicing the agricultural sector, including the cost of regulatory capital. Another limiting factor is the considerable gap in the supply of and access to smart concessional finance as well as a significant gap in the evidence base around the most effective options for providing concessional finance to agriculture. Overall, the sector faces a lack of initiatives and collaboration between public and private sectors to scale the financing and de-risking opportunities for sustainable agriculture, which remains heavily under-resourced.

UNEP FI, as a partnership between UNEP and the private finance sector, with c. 450 members including c. 300 banks representing almost 50% of global banking assets, has developed the Principles for Responsible Banking (PRB) framework, the world's foremost sustainable banking framework. Through the PRBs, banks take action to align their core strategy, decision making, lending and investment with the UN SDGs and international agreements such as the Paris Agreement. PRB signatories are committed to follow an impact pathway and to set targets in at least two of their most significant impact areas, to develop implementation plan to achieve their targets, and to report on the progress towards targets. Impact areas shown in the Impact Radar below include areas which are relevant for agrichemicals and agricultural plastics pollution, such as Waste, Soil and Waterbodies.



Figure 2: UNEP - FI The Impact Radar

UNEP FI has developed a number of guidance documents and tools to support banks in the implementation of the PRBs, such as the Biodiversity Target Setting Guidance, the Resource Efficiency and Circular Economy Target Setting Guidance, and the ENCORE tool which allows financial institutions to assess the risks and dependencies of their financial portfolios with natural capital. The ENCORE tool was developed together with the **UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)**, a global centre of excellence on biodiversity and nature's contribution to society and the economy that acts as an interface of science, policy, and practice to tackle the global crisis facing nature and support the transition to a sustainable future for

people and the planet. It is contemplated to further develop the ENCORE tool, with developments still to be defined. UNEP FI is also supporting the development of the Task Force on Nature-related Financial Disclosure (TNFD), a market-led science-based framework which enables companies and financial institutions to integrate nature into decision making. A proposal to make TNFD a mandatory framework will be discussed at the UN Biodiversity Conference (COP 15) in December 2022. TNFD pilots are currently developed and will continue to be developed in the near future. UNEP FI is also supporting the Good Food Finance Network, a multistakeholder collaborative innovation platform working to develop the critical innovations that will allow sustainable food system finance to become the mainstream standard, including through setting targets across material impact areas (including pollution). GFFN's High Ambition Group have publicly announced their first targets at COP27. UNEP FI is also working with financial institutions to support the future international legally binding plastic agreement negotiation process and to build readiness in the private finance sector on plastic pollution prevention and reduction across sectors. The **UNEP Climate Finance Unit** supports private sector financial institutions including Banks, Investors, and Insurers to understand and mitigate climate risks, seize the commercial opportunities from climate action, and ultimately take all necessary measures to fully align portfolios with the mitigation and adaptation objectives of the Paris Agreement. They also support developing countries to access climate finance (directly and through accredited entities) from the Green Climate Fund (GCF), the Global Environment Facility (GEF), and the Adaptation Fund (AF) as well as through other bilateral or multilateral public sources

All these initiatives can be linked to FARM Program.

The analysis carried out during the project development explored existing financing frameworks, with the objective to identify frameworks and methodologies which could be relevant to inform, support and scale-up the financing of low chemical and plastic agriculture practices. The analysis found that there is limited or no reference to the reduction of chemical or plastic pollution in agriculture in the most relevant financial frameworks and methodologies identified as sustainable finance frameworks.[56]⁵⁶

On the other hand, sustainable agriculture frameworks,[57]⁵⁷ for example Rainforest Alliance, Better Cotton Initiative, which do cover chemicals (although not to any great extent plastics), do not have strong finance aspects. Please refer to the Baseline Report in Appendix 12 for further details. Different frameworks have been identified in the baseline report that could be relevant for financial institutions in addressing the issue of plastic waste and plastic pollution more generally, i.e., not directly in the agriculture sector.

The **Rainforest Alliance** certification standard (see below in the baseline for C3 for more details about the organization) includes a 'Shared Responsibility' element. RA recognizes that pressure for reduction of harmful agrochemical and agricultural plastics use largely falls on farmers, despite them often having relatively little agency or resource in proportion to other value chain actors. It is therefore critical to consider whether the farmers have access to viable alternatives, the technical knowledge to use them, the incentives to adopt them and to share the costs for the transition to agroecological approaches. As such, a new element of the 2020 version of the RA Standard, as part of Shared Responsibility, includes a specific requirement for supply chain actors to share the financial burden that producers often shoulder in order to transition to more sustainable farming practices. This includes a new 'sustainability differential' – buyers are willing to pay a premium for certified products – as well as a 'sustainability investment' – allowing the producer to identify financing needs which are supported by other supply chain actors.

In view of the lack of measurement of risks and impacts of chemical and plastic pollution in the agriculture portfolio of financial institutions, an analysis of existing datasets and tools was run to identify any that may have the potential to be further developed or built on to assist financial institutions in measuring the impacts and risks related to chemical and plastic pollution in the agriculture sector. The analysis, included in Appendix 11 was run out of UNEP WCMC existing

database of 299 tools and datasets. The study concluded that there is sufficient information available on agriculture pollution on water, soils, and nutrients to understand the impact of agricultural chemicals on soils. However, there is not enough for developing a global outlook of the impact of chemicals or plastic derived from agriculture, since existing datasets and tools do not include much detail on specific pesticides' impact and the review did not identify any dataset or tool on plastic-related risks and impacts in the agriculture sector. The study also concluded the need for a decision-making tool with a user-friendly interface for financial institutions; and the need for an enhanced interoperability among the tools to share data and create new modules within existing tools. The study identified 4 datasets and tools -ENCORE, Hand-in-Hand Geospatial Platform, FAOSTAT Land Use Domain, and the Global Plastics Outlook of the Organisation for Economic Cooperation and Development (OECD). Stat - as having a high potential for further development in the Global Child Project context. Since the development of a tool meeting these needs would be resource-intensive to produce, it would be necessary to better assess the scoping and user needs, particularly considering the lack of awareness of most financial institutions on these emerging chemicals and plastics topics.

Overall, on the private finance side, the baseline analysis highlighted the need to make the business case for placing greater emphasis on the issue of plastic and chemical pollution within the agriculture sector and to improve understanding within the finance sector of the issue of plastic and chemical pollution in agriculture and how it should affect financial and transactional decision making. The baseline analysis highlighted the need to support financial institutions in improving their understanding of the risks and impacts of agrichemicals and agricultural plastics and, in this perspective to catalyse support for the future development of a tool or methodology to assess risks and impacts. The analysis also highlighted the importance of addressing the lack of capacity and knowledge on the key risks and dependencies associated with intensive farming practices, of the trajectory of regulation and policy which govern the use of HPPs/POPs and of emerging, alternative, and more sustainable practices.

Reorienting public finance is also crucial. Agricultural subsidies are mainly geared towards production intensification.[58]⁵⁸ most of the US\$600 bn in local government public financial support for agriculture and fisheries contribute to the overuse of natural resources and often benefits richer and larger farmers, while a minimal portion of public money is channelled towards supporting the conversion to agroecological practices and steering the sector away from the use of hazardous chemical inputs. The UNEP-FAO-UNDP global report on the repurposing of agriculture subsidies[59]⁵⁹ finds that 87% of current support to agricultural producers include measures that are often inefficient, inequitable, distort food prices, hurt people's health, and degrade the environment. Under a continuation of current trends, this support could reach US\$ 1.8 trillion by 2030. Therefore, there is a clear need for action at country, regional and global levels to phase out the most distortive, environmentally, and socially harmful support, such as price incentives and coupled subsidies, and redirecting it towards investments in public goods and services for agriculture, such as research and development and infrastructure, as well as decoupled fiscal subsidies.

UNEP Economic and Trade Policy Unity (ETPU) has been working on the Trade, Development and the Environment Hub (TRADE Hub) Project, a global and multi-disciplinary project bringing together +50 members of governments, trade agencies, industry, research and civil society to study the trends and impacts of trade on biodiversity, and socio-economic development. Additionally, findings from UNEP-FAO-UNDP's [global report on the repurposing of agriculture subsidies](#) can also be linked to FARM work related to agricultural subsidies for pesticides and agricultural plastics.

UNEP Economics of Nature Unit, otherwise known as TEEB, is investing a significant amount in valuing ecosystems impacts and dependencies in agricultural value chains.[60]⁶⁰ Some existing projects look specifically at the role of pesticides. **TEEBAgriFood** for example will be studying pesticide

poisoning and the associated health costs that arise in the TEEB AgriFood Thailand study which can potentially be linked to the FARM programme. UNEP's recent project on Chemical Observatories (GEF ID 9080) also produced calculators to map and quantify the extent and impacts of potential exposure to pesticides.

With regard to public finance and enabling environment, the baseline analysis concluded that it is critical to catalyse a framework for investment in sustainable agriculture practices that will include measures to incentivize private finance through adjustments to key policies, regulations, standards, and norms, and through market innovations. Financial innovation, including blended public and private financial solutions, are needed to accelerate and scale up investments in healthy food produced by chemicals and plastic pollution-free forms of farming. Hence it is important to provide guidance on how to leverage scarce public-sector funds to mobilize the much larger pool of private financial funds, ultimately providing pathway for scaling investment in food system transformation through blended finance by mobilizing Finance frameworks mapped include including UNEP FI's Principles for Responsible Banking (PRB), Principles for Responsible Investment, Principles for Sustainable Insurance and various guidance such as the PRB Guidance on Biodiversity target setting and the PRB Guidance on Resource Efficiency and Circular Economy target setting; UNEP World Conservation Monitoring Centre (WCMCs) Positive impact KPI directory for land use finance and Exploring Natural Capital Opportunities, Risks and Exposures tool (ENCORE) Climate Policy Initiative (CPI)'s Land-use Finance Tool, International Finance Corporation (IFC)'s E&S Performance Standard, British International Investment (BII) Group's ESG Toolkit with Sector Profile on Agriculture and Aquaculture commercial banks and non-bank financial institutions. The baseline analysis also confirms that policy and regulation are strong levers of change in shaping the financing of the agriculture sector. Financial-sector policies and monetary policies can improve the quantity and quality of climate-related information available to financial market players, modify the structure of incentives and impose quantity constraints by rationing or even prohibiting certain practices.

The **AgrInvest Initiative** attracts and de-risks private-sector investment in agri-food systems and value chains. The initiative facilitates public-private policy dialogue and undertakes sector analyses and value-chain studies, including for sustainable mechanization and agricultural innovation to boost decision-making that will draw sustainable private investment to agri-food systems. It eases access to finance for agrifood-system actors through solution-oriented platforms, lending technical assistance for critical backstopping.

The **Hand-in-Hand Initiative** supports the implementation of nationally led, programs to accelerate agrifood systems' transformations to eradicate poverty, end hunger and malnutrition and reduce inequalities. It uses robust partnership building approaches to accelerate market-based transformations of agrifood systems, to raise incomes, improve nutritional status and strengthen resilience to climate change.

The AgrInvest Initiative and the Hand-in-hand Initiative have been identified by FAO as potential co-finance partners in their Child Project.

The FARM child projects all aim to direct financing to support the adoption of safer adoption to HHPs, and the safe use and disposal of agricultural plastics, specifically the projects will:

- ? UNDP/Ecuador: Carry out an economic evaluation of the impact of the high use of agrochemicals and government financial support; propose new fiscal incentives to reduce the use of HHPs; strengthen financial capacity to facilitate farmers access to credit; strengthen the capacity of national extension units to support farmers to access credit to transition to sustainable agricultural practices.
- ? UNDP/Laos: Partner with financial institutions to promote responsible investment and create innovative financial products to reduce agricultural pollution and encourage alternatives to HHPs; build the capacity of extension agents, finance institutions, farmers, NGOs on alternatives to HHPs and how to access funding to support the transition to alternatives to HHPs. To demonstrate how farmers can increase income and provide warranties to financial institutions by using agroecological approaches.

- ? UNEP/FAO in Kenya and Uruguay: Will support governments to use government expenditure to incentivize the adoption of safer alternatives to HHPs and support the safe management and disposal of agricultural plastic, they will also work with the private sector financial institutions to adopt green finance models and products to support the transition to the sustainable management of pesticides and agricultural plastics.
- ? ADB/Viet Nam: will create a Green Finance Framework for the agrifood industry which will direct financing towards strengthening or establishing a pesticide container management scheme, build the capacity of food safety organizations to support pesticide residue analysis.
- ? UNIDO/ India & Philippines: Public Private Partnership models will be developed to promote the development and promotion of biocontrol agents.

Value Chains and Public Demand

The agriculture sector and hence the FARM Programme encompasses a diverse range of actors e.g., policy makers, financiers, value chains actors (input suppliers to farmers to buyers to consumers), chemical and plastic manufacturers and waste management companies. These different actors have different priorities and information needs, consequently, there are many institutions that engage in knowledge generation, knowledge management and lobbying. They vary widely in size and have different areas of interest, objectives and intended audiences. GGKP does not currently have established direct relationships with agriculture value chain actors, however their neutral knowledge management and sharing platforms can embrace this diverse range of actors such as policy makers and green growth practitioners through its [policy platform](#), financiers and investors through its [finance platform](#) and value chain actors and small and medium enterprises in the agriculture sector through its [industry platform](#). Furthermore, these online knowledge platforms are providing a neutral and inclusive online knowledge space across this diverse range of actors mentioned above and sharing a wide range of research results and knowledge from existing projects or initiatives. Virtual discussion is encouraged on the Green Forum, the online space to engage green growth communities built under GGKP's online knowledge management architecture. GGKP's comparative advantage is its ability to publish resources from different stakeholders, as the partnership has no constraints on publishing from different actors. Hence, FARM can make use of other global level online platforms (see below) from different stakeholders which are related to agriculture and could be relevant to FARM.

While the barriers highlight lack of knowledge dissemination to key audience and no coordination of information on pesticides, alternatives and finance, existing knowledge on such topics from key institutions and projects does exist for FARM to build from and package into one overarching platform under GGKP. During the PPG phase, GGKP collected the planned knowledge activities of child projects through coordinated thematic groups and facilitated exchange between child projects. Dissemination and generation of technical knowledge was identified as one of the key objectives across child projects, with Farmer Field Schools/Agroecology, extension trainings and curricula or knowledge generation on national level plan or consultations on pesticides reduction, tools or manuals on HHPs and their alternatives registration, assessment on government expenditures on harmful pesticides or incentives on alternatives being consistently planned by all child projects. This exercise also helped shaping the linkages among knowledge products, knowledge services and target audience. The table below summarises a few common elements across child projects and their target audiences.

Table 1. Summary of common knowledge products planned across FARM child projects

| Component | Knowledge products | Knowledge services | Target audiences |
|--|---|--|--|
| Component 1. Policy and Enforcement | National level plans or consultation proceedings on pesticides reduction | Workshops, consultations, communications strategy to disseminate and share the plan | National level authorities across agriculture and environment, regulators on agrochemicals and biopesticides use, local government units, value chain actors on pesticides, wastes and life cycle management |
| | Regulation, tools or manuals on HHP and alternatives registration (linking with FAO Pesticide Registration Toolkit) | Capacity building programme, workshops on sustainable agriculture focus on crop protection and management, information sharing through newsletter by the EAs, media blogs and social media posts | National and local level governments responsible for pesticide registration, legislative authorities, stakeholders for pesticides such as private sector, lobby organisations |
| Component 2. Finance and Investment | Assessment on government expenditures on harmful pesticides or incentives on alternatives | Information sharing, capacity building on financial mechanism tailored to agricultural sector, | Government authorities responsible for developing policies within agricultural sector |
| | PPP policy or models for agriplastics or biopesticides with guide or toolkit development | Information sharing with guides, diagrams, summary flyers | Government authorities, agricultural communities, agrochemical supply chain actors, academic and research institutions, financial institutions |
| Component 3. Capacity Development and Knowledge Dissemination | Farmer Field Schools/Agroecology, extension training programme and curricula | Trainings, information sharing, awareness raising campaigns on agroecology, regenerative agriculture, sound management of pesticides | Farmers and Extension Units; national authorities, retailers and farmers |

Equally, during the PPG phase, an initial analysis was conducted to identify the knowledge baseline of institutions, existing projects, initiatives and partnerships which used to or currently produce and

manage knowledge on FARM focus areas including the use of pesticides and agricultural plastic and low/no chemical and sustainable agriculture more broadly. Below are the most relevant projects, initiatives and institutions identified as the knowledge baseline. These can supply a good knowledge basis for the FARM and allow the programme not to start from scratch and generate good synergies for adopting good practices through coordinated knowledge management. .

The Strategic Approach to International Chemicals Management (SAICM): SAICM's information exchange and knowledge management functions to coordinate stakeholders on HHPs globally. The Communities of Practice (CoP) being run under SAICM's [Knowledge Management platform](#) provides a forum for coordination amongst relevant stakeholders. FAO is a lead member of the SAICM CoP on HHPs which has over 200 registered members and intends to harness this CoP for further discussions on the Global Action Plan on HHPs scheduled to be launched at the ICCM5. The SAICM Knowledge Management platform is a dedicated webpage on HHPs and features the latest publications and resources developed by stakeholders on this topic. It also serves as a space for dissemination of knowledge and information on HHPs under SAICM. SAICM is connected to a variety of actors across the agrochemical value chain, from regulators, knowledge providers to NGOs. Its ongoing community of practice and knowledge platform can provide good knowledge and community bases for the FARM knowledge management platform and the SAICM knowledge can be used for syntheses by integrating the FARM focus on agriculture value chain and financing mechanism for HHP reduction.

FAO activities on Pest and Pesticide Management: FAO has been working on this area for decades and therefore can provide a good basis for knowledge management as well as for synergized knowledge generation for Component 1. For example, the [International Code of Conduct on Pesticide Management](#) and its [Pesticide Registration Toolkit](#) can help child projects in developing their pathways for policy and enforcement of reduced use of harmful pesticides. In addition to these guidelines, FAO has also promoted IPM for sustainable crop protection which suggests lowering pesticide use without reducing crop yield or farmers' profits. According to its website^[61], about 10 million farmers have been trained on IPM procedures through FAO and regional Farmer Field Schools in more than 95 countries in Africa, Latin America and the Caribbean, Asia and Eastern Europe. FAO has an extensive network within the agricultural sector and its value chain, including farmers, academics, policy makers, and extension services and actors such as CSOs active in pesticide management.

Centre for Agriculture and Biosciences International (CABI) works on projects focused on agricultural and environmental issues in 40 countries across the world. It aims to create, curate, and disseminate scientific knowledge around topics such as crop loss due to pests and disease, invasive species and lack of access to scientific knowledge. Its wide network across a geographical spread provides considerable ability to access smallholder farmers and advisors. [Knowledge from its BioProtection Portal](#) could be relevant to FARM focus areas especially around alternatives to pesticides.

UNDP Green Commodities Programme helps address the sustainability problems of vital commodities including cocoa, coffee, and pineapple. The programme facilitates the establishment of National Commodity Platforms led and owned by governments. It also supports companies and governments operating in producer countries to pilot innovative ways of assisting farmers to adopt sustainable practices, thereby creating opportunities to navigate the agricultural financial flows away from the intensive use of hazardous chemicals. The programme works with farmers, vulnerable communities producing agricultural commodities, manufacturers, financial institutions, CSOs, governments and international organisations.

Rainforest Alliance (RA) is a global non-profit organization working at the intersection of policy, business, agricultural producers and international organizations to encourage the wide-scale adoption of sustainable and responsible agricultural practices. The organization builds an alliance to protect forests, improve the livelihoods of farmers and forest communities, promote their human rights, and help them

mitigate and adapt to the climate crisis. The RA 2020 producer certification scheme spans across 70 countries and brings together over 4 million farmers, producing various crops including coffee, cocoa, and bananas. As part of the certification standard RA's IPM and Pesticides approach has three main elements: specific requirements that certificate holders must follow; farming practices and an exceptional use policy. In addition to producer certification, RA also implements in-country projects and pilots on the institutional and practical barriers of adoption of safer agrochemicals and alternatives, with a particular focus on Regenerative Agriculture and Integrated Pest Management (IPM). RA work across both the private and public sectors, including with policymakers to create a more favorable environment that incentivizes the whole value chain to support better agricultural practices.

RA's IPM strategy has four components: creating an IPM knowledge bank to support farmers in their journey towards more regenerative agriculture and pest control; presenting tailored IPM solutions in specific sectors and locations; building capacity and understanding of IPM through the Farmer Field School model, which promotes experimentation, demonstration, and exchange of experiences among farmers; and in an advocacy role, lobbying and advocating for shared responsibility in IPM and pesticide use.[62]⁶² More broadly, RA also works closely with producers and supply chain actors to encourage more widespread adoption of Regenerative Agriculture[63]⁶³ approaches. For the Rainforest Alliance, 'regenerative agriculture' comprises a broad set of principles and practices under the umbrella of climate-smart agriculture. Taking an agroecology and integrated system management approach, regenerative agriculture aims to increase biodiversity, enhance ecosystem services, and increase agroecosystem resilience thus leading to resilient livelihoods. This way of farming is based on enhancing the inherent strengths of agroecosystems, ultimately enabling a reduction of external inputs (synthetic fertilizers and pesticides) and increasing farm net income by reducing costs. Among the systems and practices commonly promoted under regenerative agriculture, the Rainforest Alliance focuses on conservation agriculture (with an emphasis on soil health) and lower-input agriculture, including precision agriculture and agroforestry, as the systems that can best deliver the outcomes we aim to achieve. The Rainforest Alliance's approach to regenerative agriculture is solidly embedded in the four areas where it operates: the certification programme; projects at landscape level; our work with companies; and as a priority focus of our advocacy strategy - to truly promote widespread adoption of regenerative agriculture, supply chain companies and other actors must offer additional support and incentives for farmers and farm groups and monitor progress towards long-term outcomes and goals. All of these contribute to a holistic strategy to support farmers and forest communities on their journey towards more resilient farming systems.

The **Natural Resources Institute (NRI)** is a research institution of the University of Greenwich, UK, with a focus on food, agriculture, environment, and sustainable livelihoods. NRI has developed a suite of knowledge basis and capacity building materials on FARM relevant themes such as sustainable agricultural intensification and alternative pesticides under the Food and Nutrition Security Initiative (FaNSI), a development programme which addresses the challenges of food and nutrition insecurity in developing countries, especially in Africa. NRI brings both subject matter expertise to FARM but also knowledge management, communications, and training expertise in developing countries including using innovative formats such as a virtual [Youtube Quelea Control Training](#). NRI is also strongly linked into key research networks e.g., hosting the Directorate of the Agrinatura network of universities and research organizations ([European Alliance on Agricultural Knowledge for Development](#)); on the Board of [CONNECTED Community Network for Vector Borne Plant Disease](#) and [FaNSI](#) mentioned above.

ADB's Natural Capital Lab is a regional digital platform which aims to serve as a testbed to integrate nature-positive solutions in project design and implementation, leveraging additional financial resources for nature-positive recovery in the Asia-Pacific region. The Lab shares knowledge on existing approaches and tools on capturing the value of ecosystem services, policy instruments and regulatory frameworks to incentivize nature-positive investment thereby catalyzing sustainable finance

including through the private sector. Tools and approaches on this platform target governments, policy makers, public and private investors and financiers. With the FARM Viet Nam led by ADB, the Lab is about to gain knowledge relevant to FARM focus areas such as the quantification of nature's benefits from reduced use of hazardous pesticides and agricultural plastics and sustainable agricultural practices.

PAN UK and the international PAN network have a knowledge resource on [Phasing Out HHPs](#), summarizing work with farmers in adopting alternative pest control in many countries, including supporting farmers to transition to organic cotton production in Ethiopia and Benin, on coffee and pineapples in Costa Rica and Colombia, and others. These projects have created a wealth of knowledge and experience on effective alternatives to POPs and HHPs in various crop-pest systems in various formats including videos.

In addition to the knowledge baseline analysis, online platforms and websites were analysed to identify needs and gaps for the online FARM knowledge management system. With the definition of the knowledge management system (KMS) as *any kind of IT/online system that stores and retrieves knowledge in a user-friendly manner, improves collaboration and knowledge exchanges, locates knowledge sources, captures and uses knowledge, or in some other way that enhances the knowledge management process*,^[64] a total of 24 platforms were analysed (see Appendix 9 for the full list). These include but are not limited to platforms or websites of intergovernmental organizations and agencies, non-governmental organizations (NGOs), and public-private partnerships (PPP), and research institutions that are generating or collecting knowledge assets on these topics.

Out of the 24 platforms analysed, many of which house a large number of resources, only five – [OECD's](#) agricultural pesticides and biocides, Food and Land Use Coalition ([FOLU](#)), International Food Policy Research Institute ([IFPRI](#)), [FAO's](#) [resources](#) on pest and pesticide management and [SAICM](#) have a considerable number of resources on the agricultural or chemicals sectors which would be considered adjacent or relevant to FARM's area of focus. Other platforms include useful information materials on chemicals and plastic solutions, and particularly on alternatives, but may not be efficiently linked to FARM or considered as knowledge management systems given reasons below:

? Resources are not easily searchable, limited in quantity, not under the category of knowledge or not curated but stored as 'database'.

? Even though websites and/or platforms include useful information, case studies and project outputs, the scopes are rather broad such as agriculture, organic farming, sustainable and climate smart agriculture, sustainable food system or slightly out of focus of FARM such as health outcome of agrochemicals.

? There is no dedicated platform focusing on financing for sustainable agriculture or finance for agrochemical reduction. These topics are included as projects or studies in platforms with broader scope, e.g., sustainable agriculture or financing for sustainable food production.

? Regional scopes of certain platforms are limited to specific country or regions such as North America, EU countries, or have limitations on the range and sources of information they can host.

Communications

This section provides an initial analysis of the communications ecosystems relevant to FARM, examining the overall landscape as well as FARM Child Project IAs and EAs. When assessing project partners' current communications efforts, the focus was on readily available public information, supplemented by insights from the child project leads.

All FARM IAs and EAs have some level of communication around agrochemical management; and cumulatively, they have a massive reach. However, the programmes and initiatives that focus on this topic often constitute only a small piece of their work and therefore up-to-date information is limited. Though POPs and HHPs do feature significantly among the UN system. Additionally, though agricultural plastics is an [emerging field](#) with an increasing amount of coverage, there are less dedicated programmes and communications around it.

There is a significant amount of educational and information-sharing materials, but the communication efforts are more static than active. Dedicated co-organized platforms, such as the Inter-Organization Programme for the Sound Management of Chemicals ([IOMC](#)) and the Strategic Approach to International Chemicals Management ([SAICM](#)) have limited to no social media presence.

The following table summarises the current relevant programmes, activities, and public reach of the FARM partners and executing organisations, including all country-level EAs from the seven FARM countries identified during the PFD and PPG phases.

Table 2. Summary of communication approaches of FARM partners.

| | Sustainable Agriculture or Chemicals Programmes | Related Campaigns/Activities | Reach (No. of followers/subscribers - November 2022) |
|-------|--|---|--|
| UNEP | Chemicals and Pollution Action | <ul style="list-style-type: none"> - Global Partnership on Nutrient Management - HHPs - Green and Sustainable Chemistry - POPs - Special Programme | Twitter: 1.2M Facebook: 1.4M Instagram: 2M Newsletter: |
| ADB | Agriculture and Food Security Focus | <ul style="list-style-type: none"> - Operational Priority 5: Promoting Rural Development and Food Security - Asia-Pacific Rural Development and Food Security Forum 2022 - Environment Focus | Twitter: 249.7K Facebook: 326K Instagram: 16.8K Newsletter: |
| UNDP | Food & Agricultural Commodity Systems (FACS) | <ul style="list-style-type: none"> - Green Commodities Programme | Twitter: 1.8M Facebook: 1.8M Instagram: 711K Newsletter: |
| UNIDO | Agro-industry, agribusiness and food security | <ul style="list-style-type: none"> - Chemical Leasing Programme - Green Chemistry - POPs | Twitter: 108.9K Facebook: 219K Instagram: 15.5K Newsletter: |

| | | | |
|---|---|--|---|
| FAO | Pest and Pesticide Management | <ul style="list-style-type: none"> - Food Systems - Agrifood Economics - Family Farming Knowledge Platform - Agroecology - Sustainable Food and Agriculture | Twitter: 565K Facebook: 2M Instagram: 789K Newsletter: |
| GGKP | N/A | <ul style="list-style-type: none"> - Green Policy Platform (GPP) - Green Finance Platform (GFP) - Green Industry Platform (GIP) - Agriculture Sector Knowledge Assets - ISLANDS [GEF Project] | GGKP - Facebook: 15.6K Instagram: N/A Newsletter: 14.8K GPP - Twitter: 9K GFP - Twitter: 4K GIP - Twitter: 749 |
| GEF SEC | Chemicals and Waste | <ul style="list-style-type: none"> - SAICM - Small Grants Programme Chemicals Focus - Agriculture, Forestry and Other Land Uses - Persistent Organic Pollutants Issue Area | Twitter: 110.2K Facebook: 110K Instagram: 5K Newsletter: |
| Viet Nam, Ministry of Agriculture and Rural Development | N/A | 2021-2030 Strategy for Sustainable Agriculture and Rural Development | Twitter: N/A Facebook: N/A Instagram: N/A Newsletter: |
| India, Ministry of Chemicals and Fertilizers | Chemicals & Petrochemicals Department + Fertilisers Department | Ministry of Agriculture's Integrated Pest Management Division | Chemicals - Twitter: 7.6K Facebook: N/A Instagram: N/A Newsletter: Fertilizers - Twitter: 13.4K Facebook: 4.8K Instagram: 88 Newsletter: |
| Philippines, Department of Agriculture | N/A | Fertiliser and Pesticide Authority | Twitter: N/A Facebook: 329K Instagram: N/A Newsletter: |
| Lao PDR, Department of Agriculture | Agriculture Development Strategy to 2025 and Vision to the Year 2030 (Ministry of Agriculture and Forestry) | | Twitter: N/A Facebook: N/A Instagram: N/A Newsletter: N/A |

| | | | |
|---|--|--|---|
| <p>Ecuador, Ministry of Environment and Water and Ministry of Agriculture, Livestock, Aquaculture, and Fisheries</p> | <p>Chemical Management Programme (Ministry of Environment)</p> <p>National Participatory Technological Innovation and Agricultural Productivity Programme, PITPPA (Ministry of Agriculture)</p> <p>Amazonian sustainable agroproductive transformation (Ministry of Agriculture)</p> | <ul style="list-style-type: none"> - SAICM Project - Agrochemical Container Disposal - Cooperative Programme funding Organic Production - Pesticide Containers - Pesticide Container in Galapagos - Pesticide Container Azuay - Promotion of Sustainable Agricultural Practices - Family Farming Food Safety - Pesticide Container Management - Organic Inputs - Rural Financing with gender approach - FAO LAC - Transformation of Agri food systemes - BPA Certification - potato crop - BPA Certification - Tomato Crop - BPA Certification - Strengthening Rural Women Capacities - Cacao Sustainable Production - Non chemical crop production in Azuay | <p>Env - Twitter: 289.3K Facebook: 212K Instagram: N/A Newsletter: N/A</p> <p>Ag - Twitter: 177.6K Facebook: 70K Instagram: N/A Newsletter: N/A</p> |
| <p>Uruguay, Ministry of Agriculture, Livestock and Fisheries (MGAP), Ministry of Economy and Finance, and Ministry of Environment</p> | <p>Pesticides (Ministry of Environment)</p> <p>Responsible use of agrochemicals (MGAP)</p> <p>Agricultural Awareness (MGAP)</p> | <ul style="list-style-type: none"> - Intergovernmental Negotiating Committee (INC) - Plastics - Uruguay + Circular - Network of Environmental Promoters | <p>MGAP - Twitter: Facebook: Instagram: Newsletter:</p> <p>Finance - Twitter: 50K Facebook:N/A Instagram: 1.9K Newsletter:</p> <p>Environment - Twitter: 6K Facebook:3K Instagram: 8K Newsletter:</p> |

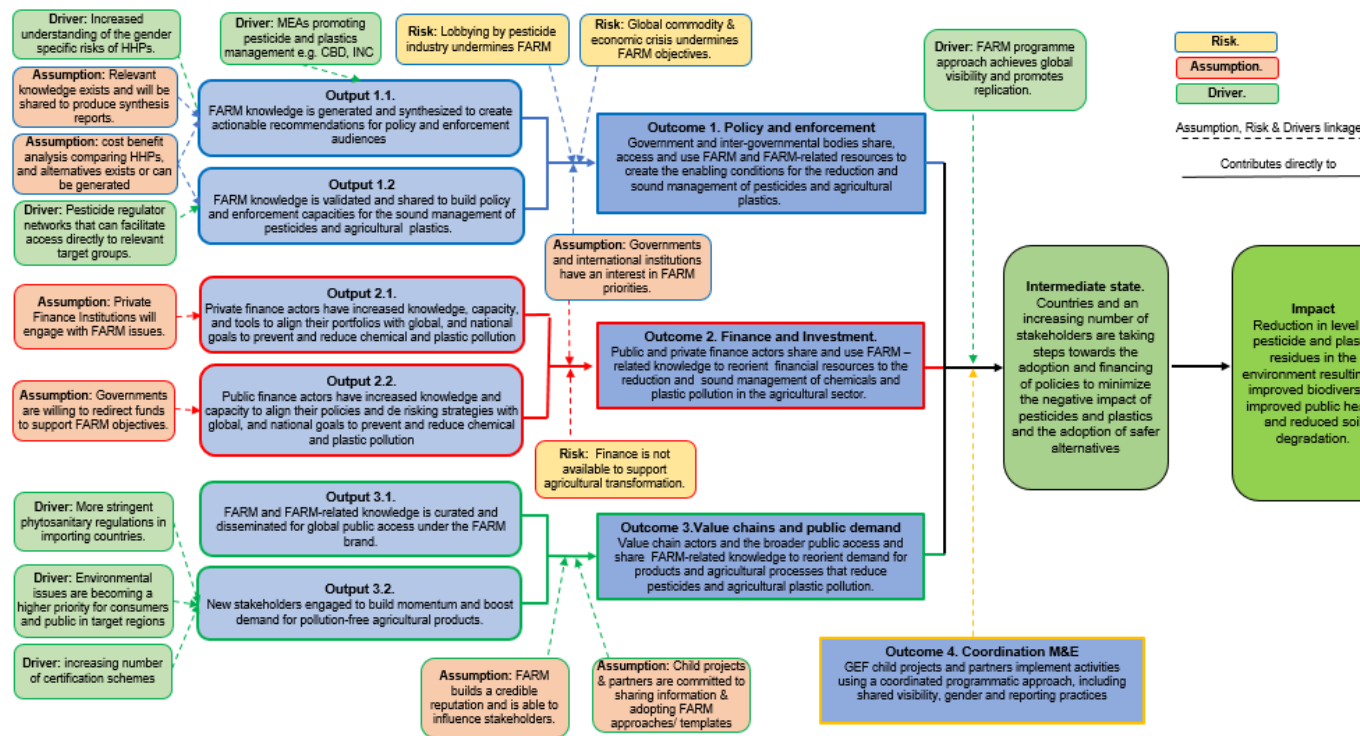
| | | | |
|--|-----------------------------|--|--|
| Kenya, Ministry of Finance, Ministry of Environment and Forestry, and Ministry of Agriculture and Livestock Development | Pest Control Products Board | <ul style="list-style-type: none"> - KCEP-CRAL (climate focused) - Agriculture Sector Development Support Programme (value chain commercialization) - Sound Chemicals Management Mainstreaming and UPOPs Reduction (not ag related) | Finance - Twitter: 30K Facebook: N/A Instagram: Newsletter: Environment - Twitter: 58.5K Facebook: 15K Instagram: N/A Newsletter: Agriculture - Twitter: 18.8K Facebook: 8.4K Instagram: N/A Newsletter: |
| UNEP FI | | <ul style="list-style-type: none"> - Pollution and Circular Economy (not specifically ag related) - Food, Forests, and Land (not specifically chemicals related) | Twitter: 27K Facebook: 11K Instagram: N/A Newsletter: |

More broadly, there is an extensive array of communications around sustainable agriculture from a large network of individuals, companies, and organisations. The field is increasingly crowded and covers a wide swath of topics, from climate-smart agriculture to soil health. Yet, the conversation only occasionally touches on FARM's areas of focus: the intersection of agrochemical and agricultural plastics management and finance. Besides outputs from a few high-profile organisations such as UNEP and FAO, there is little mainstream attention given to more sustainable agrochemical management. Moreover, the dialogue around pesticides is often driven or taken over by private sector campaigns promoting them.

While sustainable agriculture and agrochemical management are relevant and highlighted to some degree among all the FARM partner organisations, there is a wide disparity on messaging, alignment, and depth. It is a challenge to find communication activities that jointly focus on FARM's core areas: agrochemical management, finance, and agricultural plastics. There is an opportunity to create an outsized impact by bringing together key organizations to coordinate on messaging, campaigns, and tactics at a regional and global level.

There are gaps to be filled in both the content and medium of communications, and the opportunity to diversify how the information is delivered to key audiences.

Theory of Change.



Figure

1.a.3 Proposed alternative scenario

The FARM programme aims to achieve a transformation of the agriculture sector away from the extensive use of POPs and HHPs and poor management of agricultural plastics to a less chemical-intensive and more sustainable agricultural system. This will be achieved through policy reform and financial alignment, coupled with engagement and knowledge provision for value chain actors to support implementation of the changes. This, together with a public communications and knowledge management campaign, will help shift the mindsets of farmers, consumers and the general public regarding the value of sustainable agriculture.

The global child project will facilitate the generation and compilation of knowledge from the FARM programme and share that knowledge with international and national audiences to replicate results and solutions. The global child project will also coordinate activities across the FARM programme and provide a mechanism by which other FARM child projects, operating in Ecuador, Uruguay, the Philippines, India, Lao PDR, Viet Nam and Kenya, can engage with international and regional stakeholders, including institutions, expert networks, and platforms.

The project will address the global and regional knowledge capacity of policy, finance, and value chain actors to sustainably regulate, finance, and reduce pesticides in the following three Components.

Component 1 Policy and Enforcement

The expected outcome for Component 1 is for governments and inter-governmental bodies to share and use FARM and FARM-related knowledge to create the enabling conditions for the reduction and sound management of pesticides and agricultural plastics. The project will result in a doubling of the impact of the individual child projects, by securing commitments by a minimum of a further seven regulatory bodies in non-FARM countries, that will be identified in the first year of implementation. These will include relevant government ministries such as ministries of planning, environment, or agriculture, and inter-governmental regulatory bodies at regional and global levels, to take concrete actions toward FARM objectives. The commitments will replicate the Component 1 outcomes from child projects including adoption of regulations, strategies and registration systems limiting access to HHPs and increasing availability of alternatives; increased capacity to promote and enforce compliance; and creation and delivery of extended producer responsibility (EPR) schemes for agricultural plastics. These national-level outcomes will be complemented by actions taken by regional or international bodies such as the increased use of existing regulatory risk data from other regions, use of global databases or improvements in the notification and control of transboundary trade.

This outcome will be achieved through a combination of policy-oriented research (Output 1.1) and knowledge application (Output 1.2). By addressing the barriers identified above, these outputs will scale up the results and lessons learnt from the FARM child projects to regulators in non-FARM countries, regional and global regulatory bodies and networks, in order to achieve replication of global environmental benefits (GEBs). The global child project will benefit from the wider FARM network of child projects, co-financing partners and knowledge partners, as well as the visibility and momentum generated by the full programme, as drivers for achieving the expected policy and behaviour changes.

Output 1.1 FARM knowledge is generated and synthesized to create actionable recommendations for policy and enforcement audiences.

Under Output 1.1, FARM knowledge will be generated and synthesized to create actionable recommendations for policy and enforcement audiences, building on the work of the FARM child projects. A minimum of 10 knowledge products including technical materials, guidance, toolkits, case studies, best practices, briefs, and lessons learned will be produced and made available to public sector stakeholders. Based on discussions from IAs coordination meetings during PPG, the following topics

have been prioritized for further research. These may be further modified in consultation with child projects, their EAs, experts and partners during the programme implementation stage:

- ? Alternatives to harmful pesticides and agricultural plastics, including information on their productivity and profitability, as well as evidence on the efficacy of approaches such as agroecology, organic farming and IPM;
- ? HHPs evaluations, uses and impacts, including data on monitoring and surveillance, poisonings and suicides, residues and food quality and impacts on the resilience of agroecosystems;
- ? Agricultural plastics alternatives, their efficacy and cost effectiveness and solutions for avoiding soil contamination;
- ? Regulatory and compliance best practices, promoted from such sources as the EU and Rotterdam Convention databases, Chemical Information Exchange Networks, and MEA coordination and enforcement mechanisms such as the MEA Regional Enforcement Network (MEA-REN) in Asia;
- ? Cross-boundary trade issues such as EU-banned hazardous pesticides and their exports to non-EU countries and trade in generic pesticides between LMICs and economies in transition;
- ? Research on the potential of different agriculture methods, from regenerative, organic to sustainable intensification through to intensive agricultural production, to quantify pesticide, plastic and other inputs and the impacts on yields and farmer profitability, including consideration of subsidies and incentives;
- ? Economic analysis aimed at establishing evidence for policymakers to transition economies to reduced uses of pesticides and agriplastics and favor of more sustainable alternatives.

At least one of these products will be devoted to the subject of gender and social empowerment and its implications for successfully reducing and managing pesticide pollution and/or agricultural plastics. Wherever relevant, these knowledge products will be translated into Spanish and French. Other languages may also be prioritized on a case-by-case basis. The output will be delivered through the following activities:

1.1.1 Engage stakeholders, experts and regulatory practitioners in scoping and prioritizing knowledge gaps, including through communities of practice and FARM partner thematic coordination groups. The global child will coordinate the thematic group set up during the PPG phase to engage with national child projects to facilitate its policy and enforcement research and stakeholder engagement efforts. Thematic coordination groups will identify and prioritize knowledge needs on pesticide and agricultural plastic reduction and management, as well as identifying key stakeholder groups, institutional partners, and contact points for technical outreach. Technical experts and practitioners outside the FARM programme will be engaged through communities of practice, including for example the SAICM Community of Practice on HHPs and via the Green Forum, an online interactive community space. In addition to playing a key role in suggesting and reviewing knowledge to be produced under the FARM programme, the experts and practitioners are important actors in identifying new knowledge resources, projects, actors, and institutions including willing government ministries to expand our efforts to non-FARM countries.

1.1.2 Conduct programmatic knowledge reviews on pesticides and agricultural plastics policies. The FARM global child project will synthesize periodic knowledge reviews in high-interest areas of pesticide and agricultural plastic pollution. The topics will be identified through a combination of sources, including consultations with FARM national child projects and partners as well as through global knowledge management. The purpose of the knowledge reviews will be two-fold: to identify policy research priorities for deeper knowledge work and to draw attention to high-interest areas for communications and outreach online. The typical modality for delivering this work will be in-house synthetic research, analysis, drafting, review and publication. The reviews will be in different formats including, but not limited to technical materials, guidance, toolkits, case studies, best practices, briefs and lessons learned, but will be short and concise (typically 2-5 pages) in order to deliver high-level policy recommendations and research priorities with impact.

1.1.3 Publish in-depth scoping analyses to recommend areas for research under FARM Component 1 and as the basis for public technical discussions aimed at developing consensus with experts on key issues. These analyses will catalyse a broader research agenda under Output 1.2 to be undertaken by FARM and FARM partners in co-creation with

stakeholders. These scoping studies delve deeply into several priority topics, analyse them in-depth from a technical standpoint, and produce recommendations on which topics can and should be addressed through further research. For example, the global child project is exploring partnership with UNEP's Economics of Nature Unit (also known as TEEB) to provide economic evidence of the benefits of switching to agricultural practices that reduce pesticides and agricultural plastics, taking full account of their ecosystem impacts and dependencies in decision-making. This work begins with scoping analysis. The scoping analyses will be medium to long knowledge products between 10-30 pages and will give significant detailed information on priority topics, methods, data, related projects, and partners, going in much greater depth of technical knowledge than the synthetic reviews under activity 1.1.1. above. Early scoping analyses will include identification of priority HHPs, based on initial pesticides identified by child projects as well as global common pesticides and crops data, such as that produced by the PAN UK pesticide app (see baseline). Address knowledge gaps through full draft research reports on prioritized topics ready for validation. Under this activity, the FARM global child project will take forward prioritized research topics regarding pesticides management and integrated pest management, and agricultural plastics. It will contract a research institution with strong expertise to produce cutting edge reports in emerging areas of policy interest. The selected research partner will build on the relevant scoping review under activity 1.1.1 and work with the FARM global child project to design appropriate methodologies and identify rich data sources for undertaking the research. The research partner will similarly work with relevant experts, practitioners, and stakeholders globally or regionally to facilitate methodological design and gather valid data

- 1.1.4 Undertake research on the gender and social dimensions of policies aimed at reducing pesticides and agricultural plastics. As outlined in the gender analysis (Appendix 5), the use of pesticides and agricultural plastics can be shaped by gender and social dynamics whilst the impact of pollution from pesticides affects men, women, and children differently. In this activity the FARM global child project aims to improve results for the FARM programme and for women and disadvantaged groups through the design of better policies and regulations addressing their specific priorities. It will work with pesticide and agricultural plastic researchers and consultants specialized in gender and social implications to understand how these important human aspects of reducing and managing pesticide and agricultural plastic pollution may best be integrated into the substance and results of the programme.

Output 1.2 FARM knowledge is validated and shared to build policy and enforcement capacities for the sound management of pesticides and agricultural plastics

Output 1.2 complements and disseminates the research activities under output 1.1 through coordination with FARM child projects, engagement with experts and practitioners, and joint activities with policymakers. As such, it aims to engage at least 250 individuals (disaggregated by gender) in FARM technical workshops, both in person and online, to advance the substance of the programme toward implementation in non-FARM countries, thus creating a replication effect for the programme. It will do so through a minimum of 10 events which may include webinars, meetings, workshops and study tours. The dissemination will target stakeholders as outlined in the Stakeholder Engagement Strategy (Appendix 7) as those who are most engaged and influential in changing policy.

The most appropriate form of the events will be determined in consultation with relevant experts and stakeholders and agreed by the Project Steering Committee during the annual planning process. In each event, the FARM global child project will aim to create efficiencies by bundling together multiple meetings and workshops to maximize the use of stakeholders' time and project resources. The output will be delivered through the following activities:

- 1.2.1 Address knowledge gaps in co-creation with stakeholders. Under this activity, the FARM global child project will join with identified institutional and in-country stakeholders to take forward prioritized research topics regarding pesticides management, integrated pest management, and

agricultural plastics. It will contract a research institution with strong expertise to produce cutting edge reports in emerging areas of policy interest. It will work directly with relevant stakeholders to prioritize the goals, align the data and results, and sharpen the recommendations to maximize implementation value. The selected research partner will build on the relevant scoping review Output 1.1 and work with the FARM global child project to design appropriate methodologies and identify rich data sources for undertaking the research. With support from the global child project, the research partner will similarly work with relevant experts, practitioners, and stakeholders globally or regionally to facilitate methodological design and gather valid data.

1.2.2 Convene regional stakeholders for data dissemination and uptake events: This activity forms the heart of the FARM global child project's direct outreach to decision makers under Component 1 and will target decision makers, particularly government ministries and inter-governmental regulatory bodies such as EAC, MERCOSUR, Andean Community and Southern African Pesticide Regulators forum. The child project will also coordinate with related work on HHPs being delivered under the ISLANDS GEF Programme, operating in the Caribbean, Pacific Ocean and Indian Ocean regions. These institutions ultimately make, influence, or enforce the policies and regulations that enable the sound management and reduction of agrichemical pollution. In this activity, the FARM global child project will organize regional events in Africa, Asia, and/or Latin America that gather national decision-makers from FARM and non-FARM countries to provide inputs and feedback to its ongoing research, with a particular focus on data, results and recommendations suited to policy priorities in local contexts. These regional events will build capacity for policy and enforcement.

1.2.3 Organize and participate in global events to build capacity by sharing and disseminating FARM knowledge: Global events provide a high-visibility opportunity to promote FARM objectives and build its network of experts and stakeholders. Under this activity, the FARM global child project will take part in significant global events, organizing interventions and, where relevant and impactful, side events. Under this output, the focus will be on events which build capacity to advance policy and enforcement knowledge or engage policymakers and enforcers, including in the gender and social aspects of the programme. At a minimum, the FARM programme will be represented at BRS Conference of Parties and SAICM events. The global child project will also coordinate with all the other IAs, national child projects and co-finance partners to effectively participate or contribute FARM knowledge content in regional or other events, particularly including FAO events such as JMPM, or industry events such as pesticide and biocontrol events.

Component 2 Finance and Investment

The expected outcome for Component 2 under the FARM global child project is to engage public and private finance actors to share and use FARM and FARM-related knowledge to reorient financial resources to the reduction and sound management of chemical and plastic pollution in the agriculture sector. The project will engage a minimum of 30 private financial institutions such as global or regional banks and 10 public finance actors who are willing and able to act toward FARM objectives. Such public finance actors will be identified during the implementation phase and may include for instance central banks or ministries of finance in FARM countries and non-FARM countries (for instance in the non-FARM countries in which at least 7 regulatory bodies will secure commitments under Component 1) . The actions that banks may take include setting targets for pollution impact monitoring and reduction for their portfolio, under the UNEP FI impact areas of resource efficiency and circularity, or under biodiversity and ecosystems for soil or water. Subsequent actions would be to establish implementation plans for reorienting financial flows to meet the targets.

This outcome will be achieved in two complementary efforts, one targeting private financial institutions (Output 2.1) and another focused on public finance actors and coordination with national child projects (Output 2.2).

Output 2.1 Private finance actors have increased knowledge, capacity, and tools to align their portfolios with global, regional and national goals to prevent and reduce chemical and plastic pollution.

Under Output 2.1, FARM knowledge will be generated and used to build the capacities of at least 30 private finance professionals to take decisions that align their institutions' financial portfolios with global, regional and national goals to prevent and reduce chemical and plastic pollution. A minimum of two knowledge products including one guidance made available to private finance stakeholders and one methodology, tool or study related to the assessment of agrochemicals and agricultural plastics risks and impacts. The output will be delivered through the following activities:

2.1.1 Develop and support implementation of guidance on how financial institutions can support the transition to low/no chemical and plastic pollution in the agriculture sector, including gender and social inequality risks. The FARM global child project will invest in building awareness of the issues and developing a guidance document produced with the inputs of experts and of interested financial institutions for their use in supporting the transition to low/no chemical and plastic pollution in the agriculture sector. The guidance will build on previous work of UNEP Finance Initiative including best practices from the Principles of Responsible Banking and natural capital to identify concrete steps financial institutions may take to support the reduction and management of pesticides and agricultural plastics. The guidance will be developed through the support of expert consultants.

2.1.2 Develop and support implementation of a methodology, tool, or study to support financial institutions to assess risks and impacts related to chemical and plastic pollution in the agriculture sector. The baseline analysis highlighted the lack of tool or methodology to assess risks and impacts of agrochemicals and agricultural plastics in financial institutions' portfolios. In developing such a tool or methodology, an important initial step is to analyse user needs to identify specific gaps and requirements from a functionality perspective and how to respond to user needs and enhance uptake/usability of the tool. Building on the previous work of the UNEP Finance Initiative, for example the ENCORE tool, this activity will generate a methodology, tool or study for the possible future development of a methodology or tool to support financial institutions in assessing the risks and impacts of chemicals and plastic pollution in their agriculture-related portfolios. This work ultimately aims to enable financial institutions to reorient financing away from these kinds of risks and impacts to more sustainable agricultural activities. This work will consist in running a feasibility study, to be conducted with an external partner, which will:

- ? scope the tool or methodology to be developed,
- ? assess user needs and how to respond to such needs and enhance uptake/usability of the tool by users,
- ? explore the potential use or further development of existing tools.

2.1.3 Develop and implement an awareness raising and capacity building programme for financial institutions, through webinars, workshops and/or awareness raising materials made available to financial institutions. Capitalizing on its outreach to financial institutions throughout the development of the guidance and the methodology, tool or study above as relevant, the FARM global child project will embark on a capacity-building programme for private finance professionals. Through meetings, workshops, and online events, the global child project will exchange with and train these professionals on the concrete actions they can take in their institutions to support FARM objectives. Early trainees will be followed up with over the course of the programme to determine which concrete steps they have taken and where they need further support. Particular attention will be paid to gender aspects, both in ensuring good representation of women at the capacity building events themselves, but also in ensure that gender equality issues around access to finance and financial services are well reflected in the training and capacity building materials.

Output 2.2 Public finance actors have increased knowledge and capacity to align their policies and de-risking strategies with global, regional and national goals to prevent and reduce chemical and plastic pollution.

Output 2.2 complements the private finance activities under output 2.1 with a focus on public finance actors and blended finance instruments. It will be delivered in close consultation and coordination with FARM child projects and UNEP Finance Initiative to create a holistic approach to finance under the FARM programme. The output will identify and curate policies and market innovations on financing sustainable agriculture and produce one guidance document on best practices in policies, regulations, and market mechanisms and four annual reports synthesizing FARM national child projects?

experiences in implementing financial policies in FARM countries and beyond, where relevant. In addition, a Green Forum online community group will be established with at least 50 experts and stakeholders (disaggregated by gender) joining to form a virtual community of practice under the FARM programme, and a gender and social analysis of agricultural financing actors will be run. The output will be delivered through the following activities:

2.2.1 Identify and curate policies and market innovations, including blended finance mechanisms and de-risking solutions, on financing sustainable agriculture. Several innovative policies and market innovations have developed in recent years in the areas of green and sustainable finance. Under this activity, recent policies related to pesticides and agricultural plastics use will be identified, summarized, curated and uploaded to the Financial Measures Database on the Green Finance Platform. This information will be widely shared and contribute vital data to activity 2.2.2.

2.2.2 Develop a guidance document on best practice policies and market mechanisms. Building on activity 2.2.1, the FARM global child project will synthesize a guidance document on best practices for financial policymaking in the area of reducing and managing pesticides and agricultural plastics. This will draw on relevant recent policies, regulations and market mechanisms taken in FARM and non-FARM countries, including examples of blended finance mechanisms and de-risking solutions and any example of action at country, regional and global levels to phase out the most harmful support or subsidies. This will build on lessons learned on subsidies repurposing from other child projects and from the work developed for instance by UNDP under the BIOFIN^[65] programme or by FAO under the MAFAP^[66] programme. This will serve as a guide to global policymakers to create a more fertile enabling environment for agricultural value chain actors seeking to reduce pesticides and plastics use. This activity will be delivered through global public finance consultants.

2.2.3 Establish and maintain an online, interactive community of practice. The FARM global child project will develop an online interactive community space for experts and practitioners in public and private finance to come together to regularly advance the FARM and related programmes abilities to track, analyse, and improve financial policies and practices. Its aim is to seed a virtual community of practice in the financial field to collaboratively identify ways to encourage a stronger enabling environment for the reduction and management of pesticides and agricultural plastics. The community group will be established and maintained online via the Green Forum, with content management and support from the global child project. FARM national child project focal points will also be encouraged to join and make this the one-stop shop for knowledge sharing on FARM financial measures.

2.2.4 Develop annual synthesis reports on FARM experiences integrating finance in countries and publish on the Green Finance Platform. In close consultation and coordination with FARM national child projects, the global child project will collect and synthesize annual reports on FARM countries' experiences with integrating financial measures in support of FARM goals. These synthesis reports will begin in Year 2 and will be important research and information sharing tools, both in terms of identifying best practices and new policy approaches at the national level, but also in forward-planning of FARM financial interventions at the national, regional and global levels. They will assess what is working and what is not, identify emerging areas of interest to FARM child projects, drive content for the online community of practice, and produce recommendations for next steps by the global or national projects and the programme. The scope of the reports will cover all finance-related activities undertaken by FARM child projects. They will be produced by regional technical consultants under the global child project and published on the Green Finance Platform with open access to FARM and non-FARM stakeholders alike.

2.2.5 Conduct gender and social analysis of agricultural financing actors to determine entry points for women and marginalized groups for the sounder management of pests and plastics. The FARM global child project will undertake an analysis of the gender and social dimensions of reorienting finance to prevent and reduce chemical and plastic pollution. This analysis will include marginalized groups such as indigenous groups who may have a key role to play in adopting less polluting agricultural practices such as integrated pest management. The analysis will identify areas where women and other marginalized groups can make a key difference in FARM outcomes through

increased financial opportunities. This may include models designed to meet the needs of rural women and create cohorts of women for farmer field schools or agri-business opportunities. This work will be undertaken by a gender consultant specialized in the fields of finance and, ideally, agriculture.

Component 3 Value Chains and Public Demand

The expected outcome under Component 3 is for farmer networks, value chain actors and the broader public to reorient demand in favour of products and agricultural processes that reduce the harmful use of pesticides and agricultural plastics pollution from mismanaged end of life stage. While the FARM programme focuses on engaging regulatory and financial actors under Components 1 and 2, value chain actors and the broader public play an important potential role in facilitating FARM objectives by influencing supply, demand and use of harmful pesticides and agricultural plastics and providing knowledge for the design and support in the implementation of relevant policies and financial measures. The project will engage a minimum of ten value chain actors, which may include knowledge providers, farmers associations, food processing companies, chemical and plastic producers, food brands, retailers, consumer organizations, development organizations, NGOs, media outlets and gender groups, which will be asked to provide regular support to FARM-related activities.

This outcome will be achieved through a combination of open knowledge sharing (Output 3.1) and targeted value chain engagement (Output 3.2). We aim to reach over 5,000 individuals (disaggregated by gender) through online knowledge sharing, including through newsletter subscribers, web hits, downloads, and social media reports, facilitating awareness of the FARM programme to increase visibility and public demand for FARM objectives.

Output 3.1 FARM and FARM related knowledge is curated and disseminated for global public access under the FARM brand.

Under Output 3.1, knowledge created by FARM child projects will be curated and disseminated for global public access under the FARM brand. FARM-related knowledge, produced under other projects or programmes with related objectives, will also be collected and shared to build a comprehensive database of FARM and FARM-related knowledge. A minimum of 100 knowledge products including technical materials, guidance, toolkits, case studies, best practices, briefs and lessons learned will be identified and made available to the general public. In addition, at least 10 public information materials including press releases, blog articles, opinion pieces, video tutorials, webinars or podcasts will be generated to stimulate visibility and public demand for FARM-related knowledge and actions that lead to FARM objectives. The output will be delivered through the following activities:

3.1.1 Coordinate FARM child projects to facilitate knowledge exchange, ensuring uniform use of the global brand identity. A key role for the FARM global child project is to facilitate knowledge exchange among the child projects, aimed at creating an impact larger than the sum of its parts. In the PPG phase, communications and knowledge management coordination group was set up by the global child project with national child project focal points. This exchange will continue to be guided by the global child project throughout the execution of the programme. The communications coordination group will create a joint communications drumbeat to increase programme visibility and support joint knowledge management while ensuring that all child projects adhere to the programme's branding guidelines. The FARM branding and key messages are being developed by the global child project in consultation with the other child projects and GEF Secretariat and will be finalized before the official launch of the FARM programme. The communications coordination group will meet virtually, approximately once a quarter and will maintain FARM internal knowledge sharing tools and practices, including FARM shared folders. The quarterly meeting will also include a stocktake of branding compliance, knowledge sharing, and stakeholder engagement, with a brief accompanying report based on the child project's activities. The global child project will also provide training on FARM best practices for communications, branding and knowledge management.

3.1.2 Create, launch, and maintain a FARM website as a knowledge management and communications platform. The FARM global child project will facilitate knowledge management and sharing with external audiences and the broader public through the creation and maintenance of a

FARM programme website. The website will build on existing GGKP knowledge management and web interface architecture in order to provide additional reach and longevity to FARM and FARM-related knowledge products through the GGKP's three platforms on Green Policy, Green Finance and Green Industry. The platforms provide a means to keep the programme's outputs active and in use beyond the lifespan of FARM and to combine them with open and neutral access to knowledge from relevant organizations. The platform will also be a useful tool for FARM partners to harmonise approaches, e.g. the content for farmer trainings across FARM child projects, by making all FARM knowledge products available in one place and searchable by type for comparison and review. Moreover, the knowledge management system will be tied to the online community space, the Green Forum, to further facilitate the capture and sharing of technical knowledge online. The website will be the primary landing page for the FARM Programme and will provide links to FARM and FARM-related knowledge for ease of sharing through communications and social media.

3.1.3 Collect, analyse and curate FARM knowledge products online and provide training at events. The FARM global child project is responsible for creating a database of knowledge that can be used to share FARM knowledge products and advance FARM objectives. As such, the project will put in place a mechanism for regularly identifying, analysing, curating, and making publicly available relevant knowledge products produced both in and out of the FARM programme, including resources developed by the other child projects and within Components 1 and 2 of the global child project. GGKP will proactively review and provide feedback to child projects which produce knowledge to ensure it is harmonized and consistent with the overall FARM messaging and approaches. These products will be freely accessible to experts, practitioners, stakeholders and the general public globally through the FARM website as well as the GGKP Platforms and Green Forum. The project aims to produce a leading set of online resources for reducing and managing pesticides and agricultural plastics, together with complementary knowledge providers in the FARM orbit.

3.1.4 Develop communication materials and events to broadly disseminate FARM and FARM-related knowledge, which additionally raise the visibility of and align with the FARM brand. To gain traction toward FARM objectives, related knowledge and recommendations must be shared and promoted widely. The global child project will be a soundboard for the FARM programme, widely disseminating its messages developed at global, regional and national levels. To do so, it will create communication materials such as newsletters, social media posts, and blogs. These materials will both draw on expertise developed within FARM national child projects and serve as tools to facilitate outreach within FARM countries. The global child project will engage in relevant partner events and proactively seek in-person and virtual dissemination opportunities. The global child project will also explore innovative knowledge sharing methods, which may include video tutorials, illustrations, and podcasts, that promote a healthier farm future with reduced levels of harmful pollution. These activities will be complemented by the planned outreach of each child project, which will be aligned through the FARM communications strategy and the existing communication and social media channels of the child projects partners & Executing Agencies (see Baseline) to ensure consistent messaging and maximum impact. Social media will be a key knowledge sharing and stakeholder engagement tool given the wide reach of the FARM partners' established channels, the global child project will support this outreach in a number of ways, including developing and disseminating social media toolkits for significant events and publications, creating graphic templates for child projects to use, and potentially paid promotion.

3.1.5 Coordinate and build capacity on implementing the FARM gender action plan and stakeholder engagement strategies. This activity aims to ensure a holistic programmatic approach to gender and stakeholder engagement under FARM. Under the guidance of the global child project's project manager and communications and gender specialist, the execution of the stakeholder engagement strategy and gender action plan will be monitored, evaluated and updated. A gender-specific outreach campaign for project stakeholders will be implemented to ensure women are targeted and reached as part of communication activities. Training on managing outreach and gender will be delivered to FARM programme personnel at key coordination events, including training on gender awareness-raising and capacity building at each child project inception meeting. Specialized gender and agriculture consultants will be engaged as needed to provide input to the strategies and trainings as well as new communications content and outreach support. These personnel will liaise with relevant policy and finance specialists and consultants under Components 1-2 to link the strategies and trainings to

FARM technical knowledge for policy and finance, as well as to relevant value chain actors under output 3.2.

Output 3.2 New stakeholders engaged to build momentum and boost demand for pollution-free agricultural products.

Output 3.2 complements the global knowledge management and sharing activities under output 3.1 with targeted outreach to actors along agricultural value chains, potentially including farmers, pesticides and agricultural plastics producers and retailers, to boost demand for pollution-free agricultural products and encourage broader cooperation outside of FARM partners. The FARM global child project aims to establish three partnerships with relevant organizations playing a strategic role in the implementation of FARM-related objectives. The output will be delivered through the following activities:

3.2.1 Identify potential value chain actors to champion FARM. Identifying high-priority value chain actors will be a focus at the outset of the implementation phase of the FARM global child project. The global child project will scope out the landscape of relevant value chain actors in FARM regions and globally, in consultation with national child project focal points and FARM experts and practitioners. This work began during the PPG phase; consultations with potential co-finance partners and the other child projects provided more information on where to focus the global child project's energy. The project will engage relevant actors in bilateral discussions regarding the actions they can take to further FARM objectives. Through these bilateral consultations, an assessment of high-priority strategic engagements will be made, and selections will be approved at the annual Steering Committee meeting. The scoping analysis will clearly lay out the criteria used for prioritizing potential partnerships and will include a gender analysis to inform the development of models specifically to meet the needs of rural women and create cohorts of women for farmer field schools or agri-business opportunities.

3.2.2 Create and execute awareness and/or advocacy campaigns. In addition to identifying and prioritizing potential value chain champions under activity 3.2.1, the global child project will engage in a broad outreach effort to advocate for FARM objectives along the full span of relevant agricultural value chains. These campaigns will aim to increase awareness and support for FARM outcomes among all value chain actors, particularly businesses, farmers and consumers, using a range of targeted tools such as social media, blogs, and videos. They will highlight the actions that these actors may take to further FARM objectives. They will also provide feedback on how FARM components including enabling environment activities under Components 1-2 may work together more effectively to create the business case for FARM implementation.

3.2.3 Create and manage FARM Green Forum group for value chain actors. The Green Forum offers an online interactive community space where stakeholders of all stripes can come together to pursue common objectives. Under the FARM programme, the global child project will facilitate active online exchanges between multiple stakeholder groups. In this Green Forum group, all value chain actors will be invited and encouraged to participate to focus on the business case for reducing and managing pesticides and agricultural plastics. The group will focus on common challenges and priorities for implementing FARM objectives in value chains by streamlining operations and creating a level playing field through a healthy enabling environment. Within the FARM Green Forum group, communities of practice (CoPs) will be created that focus on key cross-cutting issues, which, depending on stakeholders' needs and interests, may include CoPs on circular solutions for agricultural plastics, gender equity, or alternative farming practices.

3.2.4 Organize and execute Biennial Forums in Asia and Latin America. The Biennial Forums will serve as major events for gathering all major partners and stakeholder groups in the FARM programme. These events will focus on all actors in relevant agricultural value chains, including policy, finance, and business. The first event will take place in Asia or Latin America in Year 3 and focus on the first results of child projects across the programme. The second event will take place at the end of the programme and focus on championing key successes and next steps.

Component 4 Monitoring and Evaluation

Under Component 4, the FARM global child project will engage with FARM child projects, the Programme Coordination Group (PCG), programme partners and the global child project Steering Committee to execute FARM activities using a coordinated programmatic approach. The child project will ensure compliance with harmonized approaches to FARM visibility, gender, and reporting practices across child projects. The harmonized approach will ensure progress and support adaptive management for an impact greater than the sum of the programme's several project parts.

This outcome will be achieved through a combination of programmatic (Output 4.1) and global child project (Output 4.2) monitoring and evaluation practices.

Output 4.1 Programmatic reporting including annual reports and terminal reviews are produced with child projects to monitor and evaluate the programme and practice adaptive management when necessary.

Under Output 4.1, the global child project will produce seven programmatic reports, including five annual monitoring reports, one midterm and one terminal review, based on project PIRs and common reporting on programme outcomes. The output will be delivered through the following activities:

4.1.1 Gather annual workplans and organize Annual Programme Coordination Meeting. At the beginning of each calendar year, the global child project will plan and convene the Annual Programme Coordination Meeting, which will ideally be held in the February-March timeframe. The meeting will gather the Programme Coordination Group consisting of the GEF Secretariat, FARM Implementing and Executing Agencies, as well as relevant programme co-financing and other partners and stakeholders. The meeting will focus on coordinating and agreeing a joint plan for achieving programme outcomes that year, based on the workplans of each FARM child project gathered by the global child project.

4.1.2 Gather annual PIRs and produce annual FARM reports. The global child project will be copied on the PIR submissions of each FARM project (Jul/Aug). The global child project then synthesizes these reports to produce the FARM Annual Monitoring Report. This document will report on programme-level achievements, lessons learned, and recommendations for improving joint impact in the following calendar year. Drafts of the annual report will serve as background material for an annual FARM Lessons Learned Meeting, which will normally take place in the October-November timeframe to provide inputs to FARM child projects' Steering Committee meetings and annual planning of workplans for the following year. Published drafts of the FARM Annual Monitoring Report will be made available by the end of the calendar year.

4.1.3 Produce synthesis terminal programmatic reports. At the programme conclusion, the Implementing Agency will commission independent synthetic midterm and terminal evaluation reports. These reports will draw on annual reporting as well as the results of individual midterm and terminal evaluation reports from all child projects. These reports will provide opportunities at midterm for significant programme updates to improve joint impact and at programme conclusion to synthesize major results and lessons learned, as well as next steps for the sustainability of FARM outcomes and planning of related future work by Programme Coordination Group members.

Output 4.2 Global child project reports are timely submitted, and adaptive management is applied when necessary.

Output 4.2 complements the programmatic activities under output 4.1 through monitoring and evaluation of the FARM global child project. It will produce 20 quarterly progress and financial reports, five annual PIRs, five annual Steering Committee meetings, a midterm, and a terminal evaluation. The output will be delivered through the following activities:

4.2.1 Prepare quarterly progress and financial reports. The FARM global child project will report on its progress and budget use once per quarter. This reporting will enable UNEP as the Implementing Agency to monitor progress in the global child project and to support the project in identifying potential opportunities and risks to implementation.

4.2.2 Prepare annual PIRs. Once per year, the global child project will prepare its PIR. In addition to reporting on the year's progress in producing outputs, which is also covered in quarterly progress reports, the PIR will include reporting on project outcomes including GEBs. The PIR will be a key tool for the project Steering Committee to evaluate the project's progress and adjust planning in the following year's workplan. It will also be an important input to the Annual Monitoring Report for the FARM programme overall.

4.2.3 Organize annual Project Steering Committee meetings. At the beginning of each year, back-to-back with the Programme Coordination Group, the global child project will convene the Project Steering Committee. The Project Steering Committee deliberations will be based on the mandate (see Institutional Arrangements section below).

4.2.4 Implementing Agency to contract and manage the global midterm and terminal reviews. At the project midterm and termination, UNEP as the Implementing Agency for the global child project will contract and manage the midterm and terminal reviews. These independent reviews will evaluate progress in the global child project toward its outcomes and outputs, as captured in the project results framework. The reviews will provide a formal opportunity to make major adjustments to the global child project where necessary to continue successful implementation of the project.

1.a.4 Alignment with GEF focal area and/or Impact Programme strategies.

The FARM programme, which this global project coordinates, is aligned with the GEF-7 Chemical and Waste Focal Area Programming Directions and Strategy. The programme will support the reduction and elimination of the chemicals listed in the annexes of the Stockholm Convention, and HHPs addressed by SAICM and the Rotterdam Convention. The programme specifically responds to the GEF-7 strategic vision for a programmatic approach to address harmful agrochemicals, and the principles of the GEF 7 Impact Programme on Food Systems, Land Use and Restoration (FOLUR). FARM is an integrated initiative that aims to improve governance, align investments, scale up innovation in value chains and leverage investment. It will scale up the results and achievements of the FARM programme and replicate the number of tonnes of POPs and HHPs and plastics GEBs, providing a strong contribution to the overall FARM programme results. The FARM programme explicitly addresses the following commitments in the GEF 7 Strategy:

- ? Addressing agricultural chemicals listed as persistent organic pollutants under the Stockholm Convention.
- ? Supporting investment in actions to introduce and encourage the adoption of sustainable alternatives.
- ? Targeting the reduction of Endosulfan, Lindane and highly/severely hazardous pesticides that enter the global food supply chain.
- ? Addressing end of life, waste and obsolete POPs and management and safe disposal of agricultural plastics contaminated by POPs and HHPs.

The child project has been designed to align to GEF-7 principles of cost-effectiveness; sustainability; innovation; private sector engagement; promotion of resource efficiency; building on the use of existing networks; and supports the objectives of the GEF-7 Impact Programme on Food Systems. In line with the Programming directions, the project has been designed to support the strategies of the individual FARM child projects in the reduction of POPs and other HHPs, and the introduction of locally safe, effective, and affordable alternatives. The project will receive information from activities and generate case studies and knowledge to be disseminated across the child project regions and globally, ensuring countries can learn from each other. The child project will support and facilitate the replication of successful interventions in both participating countries and non-participating countries. The global child project will establish partnerships with stakeholders ranging from FARM IAs and EAs, international organizations, regional organizations, academic and research institute, agricultural value chain (including chemical and alternative pest control manufacturers, food processors, food brands, farmers associations, retailers, small and medium sized enterprises (SMEs), consumer organizations, media outlets and gender groups), non-profit and non-governmental organizations, government entities in non-FARM countries, and financial institutions including both public and

private. The global child project will serve to coordinate efforts between country-based child projects, ensuring opportunities for learning and collaboration across project regions and globally. This is consistent with the GEF-7 Programming directions which sees increased attention placed on maximizing private sector engagement and public-private sector investments in chemicals and waste.

1.a.5 Incremental/ additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing.

Incremental costs are determined compared to the business-as-usual scenario described under the problem and baselines sections. There continues to be large scale use of HHPs, unsound management of agricultural plastics, and agricultural financing continues to support the *status quo*, i.e., the intensification of agriculture. Whilst there is recognition of the environmental damage caused by pesticides and plastics and the need to move to more sustainable agricultural practices, there is limited coordination across the wide range of interested parties.

The global child project will ensure that the FARM programme is more than the sum of the individual child projects, and will have an impact beyond the seven countries the child projects operate in. The global child project will ensure that lessons learned and knowledge are shared between these countries and others where there is extensive use of HHPs and agricultural plastics. It builds on a very substantial corps of existing knowledge, experience and successful initiatives, whose knowledge will be adapted and disseminated more widely than any of the participating cofinance partners are able to do on their own.

The global child project will build on specific initiatives under each component as described below, through its partnership with the co-financing and other partners (see Stakeholder Engagement Strategy) to scale up the solutions that are shown to work. These partnerships are anticipated to be flexible with new partners being accommodated as the programme is delivered. In particular, the global child project will benefit from partners that support each national child project, where those may have global relevance. These include FAO, ADB, civil society and academic / research communities, and private sector partners such as HIL or CropLife who are cooperating specifically with country projects but have global roles and influence as well.

Component 1. The project will synthesize regulatory knowledge and experience generated by the other child projects, operating at county level, with knowledge generated from other stakeholders in the sector. It aims to build an enabling international environment and propose actionable recommendations for government departments in the child projects and other non-FARM countries to use. As UNEP is the Implementing Agency for both the global and FAO-executed projects, there will be significant alignment with FAO and access to that agency's normative and institutional work which represents an important part of the global baseline and can ensure the sustainability of the FARM global knowledge achievements and resources. Other key partners with relevant knowledge and solutions include OECD and BCP on alternatives registration, PAN and CSPS on health impacts of HHPs, and private sector on EPR for plastics.

Component 2. The global project will use its convening power to improve coordination across the agriculture and financial sectors to build momentum for changes. The baseline indicated that whilst financial institutions are aware of environmental considerations and incorporate environmental assessments in their processes, there is a lack of awareness of the risks associated with pesticides or agricultural plastics. The project will raise awareness of these risks and adapt tools to assist banks to incorporate these risks into their decision-making regarding agricultural financing, building on similar tools developed by UNEP FI and partners for assessing climate and nature risks to their businesses like the ENCORE tool. The GGKP Green Finance Platform provides immediate access to environmental and green growth finance and economic policy makers, who will be able to connect any agricultural

chemicals or plastics tools and mechanisms directly with wider green policy issues such as those done by PAGE or UNEP's Economics of Nature Unit (or TEEB). By creating new financial support material and supporting financial institutions in explicitly connecting chemical and plastic issues into investment and financing decisions, the FARM programme will trigger financial flows into sound chemical and plastic management programmes. This will be a substantial component of the scaling and replicability of the solutions demonstrated for farmers and value chains in particular.

Component 3. The FARM programme engages with a wide range of child project stakeholders, which brings significant convening power internally as a programme. The global project will coordinate this convening power and bring together diverse stakeholders to build momentum for change that will have influence beyond the partners in FARM. GEF resources will be used to leverage change and scale up effective measures that already exist in pockets around the world. The programme will accelerate uptake of the baseline of sustainable production practices that reduce reliance upon and prevalence of harmful chemicals in the agriculture sector, by catalyzing investments made by governments, farmers, and the private sector and shifting existing investments towards more sustainable production methods that reduce harmful agrochemical use at a global scale. The programme will contribute to ongoing global, regional, and national efforts to shift to sustainable production patterns (see Programme Justification & Baseline). The global child will be delivered in close collaboration with various projects and initiatives that are already aligned with the objective of FARM, as described in the Baseline section. Thus, FARM will utilize and build up on the current body of knowledge as well as maximize the impact of financial resources available.

1.a.6 Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF);

The GEF FARM global child project will deliver Global Environmental Benefits (GEBs) through global engagement, collaborative knowledge generation and management, communications, and coordination with equal representation of both men and women. The project aims to reach 2,000,000 direct beneficiaries, 50% of which are women, thereby more than doubling the number of direct beneficiaries of the FARM programme to 3,845,315.

Through this outreach, the project will create co-benefits for the programme. It is expected to replicate programme results in non-FARM countries, thereby increasing the FARM programme's success in reducing POPs and HHPs under Core Indicator 9 as well as marine plastics under Core Indicator 5. While the global project does not aim to conduct activities directly in project countries, it will support the delivery of child projects. The replication factor in Core Indicators 5 and 9 is based on the specific outreach and scaling opportunities presented by the global child project and programme partners in FARM regions.

Table 3 summarizes the global child project's contributions to the FARM programme GEBs overall.

Table 3 Summary of global environmental benefit targets

| Core Indicator | FARM intervention/ results - please see Core Indicators for POPs breakdown by chemical |
|---|--|
| 5: Area of marine habitat under improved practices: | Replication factor leading to 100% increase in tons of plastic avoided above that achieved in other child projects (ADB, FAO, UNDP, UNIDO) |
| 9: Avoidance of chemicals of global concern. | Replication factor leading to 100% increase in non-legacy POPs and HHPs avoided in other child projects (UNDP, FAO, ADB, UNIDO) |

| | |
|---|----------------------------------|
| 11: Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment: | 2,000,000 (50% female, 50% male) |
|---|----------------------------------|

The replication of child project results under Core Indicator 9 only considers the avoided HHPs and non-legacy POPs and candidate pesticides e.g. chlorpyrifos, methoxychlor. Avoidance of legacy POPs, such as DDT, by the child projects is not counted towards replication in order to maintain a realistic expectation of achievable results from the scaling opportunities provided at the global level, as legacy POPs are only encountered in specific hotspots and usually addressed through targeted in-country interventions.

Another central feature of the FARM programme is the use of a holistic approach towards pesticides, by addressing both POPs and HHPs. Such scope provides opportunity for timely adaptation and pre-emptive management of HHPs such as Chlorpyrifos and Methoxychlor, which are expected to be listed under Stockholm Convention within the lifetime of this programme. Thereby, it is expected that FARM projects will deliver additional results in global POPs reduction, once these chemicals are listed in Annex A of the Convention.

1.a.7 Innovation, sustainability, and potential for scaling up

This programme will represent one of the first concerted efforts to reduce the use of harmful agrochemicals on a global scale using an innovative and integrated approach linking international conventions, financial institutions, national bodies, agricultural value chain actors and farmers. The programme recognizes that knowledge and policy reform will not achieve the desired results without finance being available to transform the value chain. By linking three pillars of policy, finance, and knowledge, the global project will amplify the results of the programme. Knowledge management will be used to build a better understanding of the environmental and human risks associated with HHPs and unsafe management of agricultural plastics and the viability of alternative agricultural systems. This understanding will be used to generate evidence on how to create an enabling environment and build political ownership and momentum to reform existing legislation, which will provide the framework to drive agricultural financing towards sustainable agricultural approaches and the safe disposal of agricultural plastics and away from financing the increased use of pesticides and plastics.

This evidence will be used by the child projects as well as other interested governments to assess and develop institutional, technical and human capacities needed to sustain these benefits whilst the development of green finance models will ensure ongoing financing for sustainable agriculture.

The long-term potential for scaling up of FARM initiatives is significant. It is estimated that over 2 billion people worldwide work in agriculture and the sector generates more than USD 3.4 trillion annually^[67]. In LMICs, agriculture employs more people than any other industry. The programme has been designed to integrate and promote up-scale and amplification of successful experiences, for example by building capacities at the global, regional, national, and producer levels to access and share information and results. This global child project will be instrumental in multiplying the achievements of the other child projects working in countries. This project will synthesize the lessons learnt from country-based child projects with knowledge generated from other initiatives and make it available to other governments and use it to engage with multilateral institutions. This approach will build momentum for change internationally whilst providing practical tools and expertise for governments to replicate the successful approaches generated in FARM.

The child projects of the FARM programme will develop a number of innovative approaches thanks to the diversity of implementing and executing agencies involved, from development and industrial organizations, regional development banks, and private sector; and the co-finance partners coming from academic, research, civil society and farmer and value chain sectors. This

Influencing financing and investment from financial institutions, away from the use of pesticides towards more sustainable agricultural practices including the safe management of agricultural plastics, will have significant replication effect, especially if there is an alignment between the policy environment and financial flows. Bringing together expertise and networks in finance, component 2 will also strengthen the link between policy and finance.

The programme's sustainability will be ensured through integration and embedding of results with global and national decision-making frameworks. Globally, the close collaboration with and engagement of the international conventions and initiatives and their linkage with value chain actors as well as financial institutions will provide opportunities to consult with and provide solutions for a much wider range of stakeholders than those directly involved in the programme. At national levels, programme investments will be designed to ensure that government agencies and associated funding policies are re-oriented to provide a more stable financial footing to support established solutions, rather than one-off interventions to train or build capacity directly for farmers, regulators or other beneficiaries.

[1] <https://www.worldbank.org/en/topic/agriculture/>

[2] UNEP (2021) *Environmental and health impacts of pesticides and fertilizers and ways of minimizing them. Summary for Policy Makers.*

<https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/34463/JSUNEPPE.pdf?sequence=13>

[3] https://cipa-plasticulture.com/wp-content/uploads/2018/06/Worldwide-Plasticulture_Le-Moine_CIPA.pptx

[4] https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Vietnam%20Issues%20Sustainable%20Agriculture%20and%20Rural%20Development%20Strategy%202021-2030%20Vision%20to%202050_Hanoi_Vietnam_VM2022-0010.pdf

[5] <https://kilimo.go.ke/wp-content/uploads/2022/03/ASTGS-Abridged-version.pdf>

[6] World Bank (2021) *Employment in Agriculture, female.*

<https://data.worldbank.org/indicator/SL.AGR.EMPL.FE.ZS>

[7] UNEP 2021; United Nations Environment Programme (UNEP). 2021. Environmental and health impacts of pesticides and fertilizers and ways of minimizing them. Envisioning a chemical-safe world. Summary for policymakers. Nairobi.

[8] Stockholm Convention Persistent Organic Pollutants. 2022. Draft risk profile: Chlorpyrifos. UNEP/POPS/POPRC.18/4/Add.1

[9] China Crop Protection Industry Association. 2022. Information provided through UNEP/POPS/POPRC.18/4/Add.1

[10] Hermanson, M. H., Isaksson, E., Teixeira, C., et al. 2005. Current-use and legacy pesticide history in the Austfonna Ice Cap, Svalbard, Norway. *Environmental Science & Technology*, 39(21), 8163-8169. doi:10.1021/es051100d.

[11] Zhong, G., Zhiyong, X., Minghong, C., et al. 2012. Distribution and air-sea exchange of current-use pesticides (CUPs) from east Asia to the high Arctic Ocean, *Environ. Sci. Technol.* 46: 259-267. <https://doi.org/10.1021/es202655k>

[12] Bigot, M., D.W. Hawker, R. Cropp, D.C.G. et al. 2017. Spring melt and the redistribution of organochlorine pesticides in the sea-ice environment: a comparative study between Arctic and Antarctic regions, *Environ. Sci. Technol.* 51: 8944-8952. <https://doi.org/10.1021/acs.est.7b02481>.

[13] Morris, A. D., Muir, D. C. G., Solomon, et al. 2014. Trophodynamics of current use pesticides and ecological relationships in the Bathurst region vegetation-caribou-wolf food chain of the Canadian Arctic. *Environmental Toxicology and Chemistry*, 33(9), 1956-1966. doi:10.1002/etc.2634.

- [14] Weldon, R. H., Barr, D. B., Trujillo, C., et al. 2011. A pilot study of pesticides and PCBs in the breast milk of women residing in urban and agricultural communities of California. *Journal of environmental monitoring*, 13(11), 3136-3144. doi:10.1039/c1em10469a.
- [15] Colovic, M. B., Krstic, D. Z., Lazarevic-Pasti, T. D., et al. 2013. Acetylcholinesterase inhibitors: pharmacology and toxicology. *Current neuropharmacology*, 11(3), 315-335.
- [16] Solomon, Giesy, & Keith (Eds.). 2014. *Ecological Risk Assessment for Chlorpyrifos in Terrestrial and Aquatic Systems in North America*. s.l.: Springer.
- [17] Stockholm Convention Persistent Organic Pollutants. 2021. Risk profile: Methoxychlor. UNEP/POPS/POPRC.16/9/Add.1
- [18] US EPA. 2000. Summary for methoxychlor available at: <https://www.epa.gov/sites/production/files/2016-09/documents/methoxychlor.pdf>.
- [19] G?tz C, Scheringer M, MacLeod M, et al. 2008: Dependence of Persistence and Long-Range Transport Potential on Gas-Particle Partitioning in Multimedia Models. *Environmental Science & Technology* 2008, 42, 3690-3696.
- [20] US EPA. 2020. TRI Explorer (2018 Updated Dataset (released April 2020)) [Internet database]. Retrieved from <https://enviro.epa.gov/triexplorer/>, (May 23, 2020).
- [21] US EPA. 2004. Methoxychlor Reregistration Eligibility Decision (RED). EPA 738-R-04-010. Washington, DC: US Environmental Protection Agency, Office of Pesticide Programmes; 2004. 9 pp. Available at: https://archive.epa.gov/pesticides/reregistration/web/html/methoxychlor_red.html.
- [22] OECD. 2012. Validation report of a ring test for the OECD 305 dietary exposure bioaccumulation fish test (part i) with additional report including comparative analysis of trout and carp results (part ii), ENV/JM/MONO(2012)20. OECD Environment, Health and Safety Publications, Series on Testing and Assessment, No. 175.
- [23] Gaido KW, Maness SC, McDonnell DP, et al. 2000. Interaction of methoxychlor and related compounds with estrogen receptor α and β , and androgen receptor: Structure-activity studies. *Mol Pharmacol* 58(1):852-858.
- [24] Vergara EG, Hernandez V, Munkittrick KR, et al. 2019. Presence of organochlorine pollutants in fat and scats of pinnipeds from the Antarctic Peninsula and South Shetland Islands, and their relationship to trophic position. *Science of the Total Environment* 685 (2019) 1276-1283. <https://doi.org/10.1016/j.scitotenv.2019.06.122>.
- [25] Savinov V, Muir DCG, Svetochev V, et al. 2011. Persistent organic pollutants in ringed seals from the Russian Arctic. *Science of the Total Environment* 409 (2011) 2734-2745. <https://doi.org/10.1016/j.scitotenv.2011.02.039>.
- [26] Pinto MI, Vale C, Sontag G, Noronha JP. 2016. Pathways of priority pesticides in sediments of coastal lagoons: The case study of ?bidos Lagoon, Portugal. *Marine Pollution Bulletin* 106 (2016) 335-340. <http://doi.org/10.1016/j.marpolbul.2016.03.028>.
- [27] Damgaard IN, Skakkebaek NE, Toppari J, et al. 2006. Persistent pesticides in human breast milk and Cryptorchidism. *Environmental Health Perspectives*, 114(7), 1133-1138.
- [28] Jimenez Torres M, Campoy Folgado C, Canabate Reche F, et al. 2006. Organochlorine pesticides in serum and adipose tissue of pregnant women in Southern Spain giving birth by cesarean section. *Science of the Total Environment* 372(2006) 32-38. <https://doi.org/10.1016/j.scitotenv.2006.07.009>.
- [29] Cabrera-Rodriguez R, Luzardo OP, Almeida-Gonzalez M, et al. 2020. Database of persistent organic pollutants in umbilical cord blood: Concentration of organochlorine pesticides, PCBs, BDEs and polycyclic aromatic hydrocarbons. *Data in brief* 28(2020)104918. <https://doi.org/10.1016/j.dib.2019.104918>.
- [30] FAO. 2021. Assessment of agricultural plastics and their sustainability. A call for action. Rome. Rome. <https://doi.org/10.4060/cb7856en>
- [31] C 2023/22 - Report of the 28th Session of the Committee on Agriculture (Rome, 18-22 July 2022) ([fao.org](https://www.fao.org))
- [32] Shakhovskoy et al. 2019. Pathway to Prosperity, Rural and Agricultural Finance. State of the Sector Report. https://pathways.rafllearning.org/wp-content/uploads/2019/11/2019_RAF-State-of-the-Sector.pdf
- [33]<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf>
- [34] <https://www.oecd.org/chemicalsafety/pesticides-biocides/biological-pesticides.htm>

- [35] British International investment. <https://fintoolkit.bii.co.uk/sector-profiles/agriculture-and-aquaculture/>
- [36] International Finance Corporation, Performance Standard 3, Resource Efficiency and Pollution Prevention. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards/ps3
- [37] Thompson Garry, 2000, International consumer demand for organic foods. University of Arizona.
- [38] Open-ended Working Group on the Post-2020 Global Biodiversity Framework on its fourth meeting, June 2022, [Post-2020 global biodiversity framework \(cbd.int\)](https://www.cbd.int/post2020/)
- [39] Personal communication with the CEO of BCP.
- [40] Constantine K.L., Kansime M.K., Mugambi I., Nunda W., Chacha D., Rware H., Makale F., Mulema J., Lamontagne-Godwin J., Williams F., Edgington S., and Day R. (2020). Why don't smallholder farmers in Kenya use more biopesticides? Pest Management Science, published online by John Wiley & Sons Ltd on behalf of Society of Chemical Industry.
- [41] Youri Dijkxhoorn, Johan Bremmer and Eric Kerklaan, 2013. Towards Integrated Pest Management in East Africa; A feasibility study. <https://edepot.wur.nl/294639>:
- [42] UNEP (2021) *Environmental and health impacts of pesticides and fertilizers and ways of minimizing them. Summary for Policy Makers*. <https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/34463/JSUNEPPF.pdf?sequence=13>
- [43] Lee et al (2020) The cost-effectiveness of banning highly hazardous pesticides to prevent suicides due to pesticide self-ingestion across 14 countries: an economic modelling study [https://doi.org/10.1016/S2214-109X\(20\)30493-9](https://doi.org/10.1016/S2214-109X(20)30493-9)
- [44] Mew et al (2017). The global burden of fatal self-poisoning with pesticides 2006?15: systematic review. J Affect Disord
-
-
- [47] Food and Land Use Coalition. 2019. Growing Better: Ten Critical Transitions to Transform Food and Land Use. <https://www.foodandlandusecoalition.org/wp-content/uploads/2019/09/FOLU-GrowingBetter-GlobalReport.pdf>
- [48] Ibid.
- [49] Ibid.
- [50] Shakhovskoy et al. 2019. Pathway to Prosperity, Rural and Agricultural Finance. State of the Sector Report. https://pathways.rafllearning.org/wp-content/uploads/2019/11/2019_RAF-State-of-the-Sector.pdf
- [51] <https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf>
- [52] <https://www.gatsby.org.uk/uploads/africa/reports/pdf/2019-development-finance-for-agriculture-gatsby-africa-wellspring-cepa.pdf>
- [53] https://unctad.org/system/files/official-document/diaemisc2019d4_en.pdf
- [54] https://unctad.org/system/files/official-document/diaemisc2019d4_en.pdf
- [55] <https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf>
- [57] FAOSTAT Land use Domain, FOLU's Growing Better: Ten Critical Transitions to Transform Food and Land Use, Global Alliance for the Future of Food, Sustainable Agriculture Initiative, Better Cotton Initiative, Bonsucro Standard, Fairtrade International, Forest Stewardship Council, International Sustainability and Carbon Certification (ISCC+), Rainforest Alliance, Roundtable on Sustainable Biomaterials
- [58] https://www.rsm.nl/fileadmin/Faculty-Research/Centres/EPSVC/20220621_Financing_Regenerative_Agriculture.pdf
- [59] FAO, UNDP and UNEP. 2021. A multi-billion-dollar opportunity ? Repurposing agricultural support to transform food systems. Rome, FAO. <https://doi.org/10.4060/cb6562en>
- [60] <https://teebweb.org/our-work/agrifood/country-implementation/eupi2019/thailand/>

[61] <https://www.fao.org/pest-and-pesticide-management/about/understanding-the-context/en/>

[62] <https://www.rainforest-alliance.org/wp-content/uploads/2021/07/Integrated-Pest-Management-position-paper.pdf>

[63] <https://www.rainforest-alliance.org/resource-item/raising-the-bar-regenerative-agriculture-for-more-resilient-agro-ecosystems-white-paper/>

[64] GEF Knowledge Management Approach Paper, GEF/C.48/07/Rev.01, May 11, 2015 (available at: https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.48.07.Rev_.01_KM_Approach_Paper.pdf)

[65] UNDP BIOFIN programme in Colombia, Kyrgyzstan, Nepal, Botswana, South Africa, Mexico, Guatemala, Philippines, and Sri Lanka (<https://www.biofin.org/>)

[66] FAO's MAFAP Programme provides policy reform and repurposing support to eight countries in sub-Saharan Africa (Burkina Faso, Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Rwanda and Uganda) (<https://www.fao.org/in-action/mafap/home/en/>)

[67] FAO (2018) *World Food And Agriculture ? Statistical Pocketbook*
<https://doi.org/10.4060/CA1796EN>

1b. Project Map and Coordinates

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

N/A

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

Table 4 Contribution to FARM programmatic outputs

| | FARM Programmatic Outputs | Project |
|-----------------------------|---|-----------|
| | | Outputs |
| CI - Policy and Enforcement | 1.1 National regulations apply life cycle approaches for phasing out POPs and HHPs Agrochemicals and Agri-plastics and are regionally equivalent to control international supply chains | 1.1 & 1.2 |
| | 1.2 Faster and easier registration of alternatives & procurement of emergency pest control products | |
| | 1.3 Stronger enforcement of pesticides / plastic management standards and equivalent enforcement for export and domestic consumption and export | |

| | | |
|------------------------------------|--|------|
| C2 - Finance and Investment | 2.1 Government subsidies promote the use of alternative pest control measures; and sustainably fund regulatory systems and needs | 2.2* |
| | 2.2 Responsible banking/investment criteria and safeguards exist and are applied to reorientate investment from POPs and HHPs | 2.1 |
| | 2.3 Ag. Investment Programmes reach the least connected smallholder farmers and incentivise use of alternative crop management | 2.2 |
| | 2.4 Commercial Banks provide access to finance for commercialisation and uptake of alternatives for pesticides and plastics (insurance, credit, loans etc.) including via criteria and positive targets. | 2.1 |
| | 2.5 Resources mobilised for collection and disposal of chemicals and infrastructure for agrochemicals and plastic wastes. | |

| | | |
|--|--|-----------|
| C3 - Capacity development and knowledge dissemination | 3.1 Extension and advisory services guide farmers to replace POPs and HHPs with viable, locally appropriate alternatives for agrochemicals and Agri-plastics: Agronomy education criteria include biological and alternative pest control. | |
| | 3.2 provision and uptake of professional crop spraying and plastic management services | |
| | 3.3 Global access to knowledge and best practice available and used to inform and drive scaling up of low/no chemical agriculture. | 3.1 & 3.2 |

Green = Primary output directly addressed by child project; Blue = Secondary output, covered in a less direct manner

*During the PPG stage, the importance of public sector finance in supporting the transition away from HHPs and the sound management of agricultural plastics was identified as being complimentary to the work with the private sector. The global child project will coordinate the work of the child projects regarding public sector finance and collate and disseminate relevant knowledge and best practices.

Through global child project's Component 3 joint strategy, the project will support the FARM programme in achieving an upscaled and self-sustaining impact that builds upon the successes of the individual child projects. The global child project will need to understand the interaction between the various tiers of actors within value chains, as well as the parameters and enabling conditions that guide those interactions. This will help determine what approach, along with the relevant knowledge, financing solutions and regulation, needs to be developed for the specific types of actors at the different tiers within a value chain.

The global child project will coordinate activities across the child projects to facilitate joint problem solving and share relevant experience across the programme. The global child project will regularly collate reports from the other child projects to identify best practices and identify common challenges that require a coordinated response and solution. The consolidated reports will be used to inform ongoing discussions of the steering committee and with GEF. The project will facilitate working groups, on a range of technical issue including finance, gender, and other topics of interest to the FARM Implementing and Executing Agencies.

The global child project will contribute to the overall programme by addressing topics that are relevant programme-wide by engaging relevant stakeholders, managing knowledge, and deploying communications in a coordinated and coherent way. FARM cross-programme topics identified through consultations with child projects during the PPG include but are not limited to the following and will be updated as needed during the implementation: pesticide and biopesticide registration process, HHPs, EPR schemes, cost benefit analysis and benefits of alternatives for chemicals and agricultural plastics, sustainable management of agricultural plastic waste in the supply chains, from farms to recycling facilities (including tracking agricultural plastics), political will for taxing HHPs/POPs, political will for shifting subsidies, cost-comparative of shifting practices, agricultural subsidy schemes, European double standards, pesticide residue management, and linking industry and finance.

The project will generate, curate and tailor knowledge for dissemination targeting different audiences, thereby contributing to the entire programme, and magnifying the global environmental benefits of the FARM programme, which will lead to other countries taking up and replicating the initiatives initiated across FARM.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities Yes

If none of the above, please explain why:

The stakeholder engagement of the global child project will be implemented in line with the Gender Action Plan outlined in Appendix 5. In mapping and engaging with stakeholders, the global child project will focus on inclusive processes to ensure participation of marginalized groups including women. Gender equality will be taken into consideration to ensure there is an equitable representation of both men and women from stakeholder groups. As the global child project continues to identify stakeholders in the implementation stage, it will include women-representing entities such as women farmers association where possible to mainstream gender equality in the project.

Table 5 Global stakeholder engagement plan

| Stakeholder | Engagement during PFD, PPG | Roles and contributions | Engagement plan during implementation |
|------------------|----------------------------|-------------------------|---------------------------------------|
| FARM IAs and EAs | | | |

| | | | |
|---|---|--|--|
| ADB, FAO, UNDP, UNEP, UNIDO, and EAs in FARM countries | Regularly consulted during PFD and PPG EAs in the countries are engaged through CPs | Co-finance partner, knowledge producer, outreach target, end-user (all components) | Will be members of the Programme Coordination Group. The IAs and chairs of child project steering committees will be members of the global child project Project Steering Committee. Coordinated activities in stakeholder engagement, knowledge management, and communications such as joint outreach, workshops, trainings, and publications |
| International organisations | | | |
| Basel, Rotterdam and Stockholm Convention (BRS) Secretariat | The Stockholm Convention Secretariat consulted during PFD, regularly engaging with BRS Secretariat during PPG | Knowledge producer and influencer providing overarching guidance on managing POPs and HHPs (Component 1 ? Output 1.1, 1.2) | Launch events and working sessions at BRS COP |
| OECD | OECD Pesticide Programme consulted during PPG | co-finance partner, knowledge producer and influencer (Component 1 ? Output 1.1, 1.2; Component 2 ? Output 2.1, 2.2) | Trainings on international trade on pesticides, workshops, engagement in the community of practice, linking OECD network of experts with CPs |
| UNEP | UNEP Climate Finance ? Consulted during PPG | Knowledge producer and potential co-finance partner (Component 2 ? Output 2.1, 2.2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level, especially with the Good Food Finance Network |
| | UNEP Economics of Nature (The Economics of Ecosystems and Biodiversity (TEEB) AgriFood) ? Consulted during PPG | co-finance partner, Knowledge producer (Component 1 ? Output 1.1, 1.2; Component 2 ? Output 2.1, 2.2; Component 3 ? Output 3.1) | Potential linkage to TEEB AgriFood study in Thailand on pesticide poisoning and the associated health costs |
| | UNEP Economic and Trade Policy Unity (ETPU) ? Consulted during PPG | co-finance partner, knowledge producer and influencer providing overarching guidance on agricultural subsidies (Component 1 ? Output 1.1, 1.2) | Build on data, studies and lessons learned from TRADE project, particularly regarding agricultural value chains, distorting effects of agricultural subsidies, and guidance of how to change them to support sustainable agriculture |

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|--|--|---|--|
| Strategic Approach to International Chemicals Management (SAICM) Secretariat | Consulted during PFD and PPG | Knowledge producer and influencer (Component 1 ? Output 1.1, 1.2; Component 2 ? Output 2.1, 2.2; Component 3 - Output 3.1) | Knowledge exchange, capacity building, technical cooperation and consultations at global level, participation in HHPs discussion forum hosted by SAICM Secretariat |
| FAO | Consulted during PFD and regularly engaged during PPG through CP (in addition to the specific role as EA, FAO's other teams will provide knowledge and co-finance) | Co-finance partner for CP, knowledge producer, influencer (Component 1 ? Output 1.1, 1.2; Component 2 ? Output 2.1, 2.2; Component 3 - Output 3.1, 3.2) | Collaborated approach for engaging in Africa and Latin America through EAC and MERCOSUR. Knowledge exchange, capacity building, technical cooperation and consultations at global level. Are an Executing Agency and will be members of the Programme Coordination Group and Project Steering Committee. |
| Regional organizations | | | |
| Andean Community | Consulted during PFD, to be further engaged with support from CPs | Knowledge producer, outreach target, influencer, end user (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Potential collaboration on tackling cross-border trade issues regarding pesticide, regional registration law, regional advocacy through the community, support in monitoring POPs interstate transport and use |
| East African Community (EAC) | | | |
| MERCOSUR | To be engaged with support from CPs | | |
| Southern African Pesticide Regulators? Forum (SAPReF) | Identified during PPG | Outreach target, influencer, end user (Component 1 - Output 1.2; Component 3 ? Output 3.1, 3.2) | Training and workshop targeted pesticides regulators and Rotterdam convention focal persons in non-FARM SADC countries |
| Academic and research institute | | | |
| Centre for Agriculture and Bioscience International (CABI) | Consulted during PFD | Knowledge producer, outreach target, influencer (Component 1 - Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Knowledge sharing and capacity building using established network in FARM countries. Scale up national engagement to global/regional level (CABI Kenya working with FAO). Invited to Programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |

| | | | |
|--|-------------------------------------|---|---|
| CGIAR | Consulted during PFD | Potential co-finance partner, knowledge producer (Component 1 - Output 1.1, 1.2; Component 3 ? Output 3.1) | Collaborated research, publications, and training on pesticide use and pesticide safety behaviour. |
| Natural Resources Institute | Consulted during PPG | Co-finance partner, knowledge producer (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1) | Capacity building (trainings, online courses), collaborated research, developing communication materials, knowledge management, expert advice, collaboration through projects. Invited to Programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| Centre for Pesticide Suicide Poisoning (CPSP) | Consulted during PPG | Cofinance partner, Knowledge producer, outreach target, influencer (Component 1 - Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Capacity building on data collection and interpretation related to availability to HHPs and intentional suicide. Invited to Programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| Non-profit and non-governmental organizations | | | |
| Rainforest Alliance (RA) | Identified and consulted during PPG | Potential co-finance partner, knowledge producer (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Build up on RA's IPM related work including knowledge, advocacy and capacity building activities, link RA's projects in India and Viet Nam with FARM CPs (ADB and UNIDO). Invited to Programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| Global Alliance to End Plastic Waste | Identified during PPG | Potential co-finance partner and outreach target (Component 3 ? Output 3.1, 3.2) | Potential leverage of private sector engagement, advocacy in private sector, scale-up of end plastic initiatives |

| | | | |
|--|--|---|---|
| Pesticide Action Network (PAN) UK | Consulted during PFD and discussions continued in PPG. | Potential co-finance partner and knowledge producer (Component 1 ? Output 1.1, 1.2; Component 2 ? Output 2.1, 2.2; Component 3 ? Output 3.1) | Target research and publication on pesticide use, advocate for policies to reduce the use of HHPs and promote alternatives. Invited to Programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| Government entities | | | |
| Government entities in non-FARM countries | | Non-FARM countries? government entities are the agent for taking up FARM knowledge and disseminating for scale-up of the programme. (all outputs) | CPs will reach out to neighboring countries, while some other non-FARM countries can be engaged through regional organizations. The representatives from these countries can be invited to regional workshops, trainings, peer-to-peer visits and the Programme Coordination Group. |
| Financial institutions (public) | | | |
| ADB | ADB is part of FARM Programme | Potential knowledge partner (Component 2 ? Output 2.1; 2.2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level |
| Financial institutions (private) | | | |
| Principles for Responsible Banking signatories | Engaged during the PPG, finance baseline survey. | End user (Component 2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level |
| Private sector and agricultural value chain actors | | | |
| BioProtection global | Approached during PPG | Potential co-finance partner and knowledge producer (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level Invited to Programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| GlobalGAP (organization promoting Good Agricultural Practices) | Identified during PPG. | Knowledge producer, implementing partner via their extensive network (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level |

| | | |
|---|---|---|
| Pesticide manufacturers e.g. Croplife International, Hindustan Insecticides Limited (HIL) | Engaged by child projects Croplife International ? ADB, FAO HIL - UNIDO | Stakeholders engaged by national child projects will be participating and contributing to the annual Programme Coordination Group meetings. HIL are an Executing Agency and will be closely engaged by the global child project in all coordination activities (see C3). |
|---|---|---|

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Appendix 8

FARM Global Child Project Stakeholder Engagement Strategy

Vision

The overall aim of stakeholder engagement of the Financing Agrochemical Reduction and Management (FARM) global child project is to identify and engage a wide range of relevant stakeholders to build environments for sustainable agriculture by reducing the use of agrochemicals and agri-plastics, and ultimately contribute to the long-term sustainability of the achievements even after the completion of the programme.

Objectives

The FARM global child project stakeholder engagement plan aims to

Replicate success globally: Facilitate enhanced regional and global outreach and collaboration to scale up and replicate successful initiatives beyond the countries in the child projects

Create multi-stakeholder value for FARM: Identify main stakeholders at the global and regional level and bring in their experience and skills, encouraging systematic and coherent collaboration across stakeholders to create value towards the common goal of the programme, particularly by bridging science-policy-finance communities through cross-stakeholder exchanges

Coordinate among child projects (CPs): Explore opportunities for building synergies and partnerships among CPs in different countries and regions

The approach is based on the principles of fairness and transparency in selection of stakeholders, ensuring participation, consultation, engagement and empowerment of relevant stakeholders, including marginalized groups, comprehensively for better coordination between them from planning to monitoring and assessment of project interventions; access of information and results to relevant persons; accountability of stakeholders; implementing grievances redress mechanism and ensuring sustainability of project interventions after its completion.

The partners identified in this strategy will play a critical role in targeting the programme's knowledge management as well as communication approach. The global stakeholder engagement will align with CPs' stakeholder engagement through two-way exchange and regular coordination.

Classification of Stakeholder Groups

By role

The stakeholders are categorized by their roles to guide the stakeholder engagement plan in section 4 in relation to their contribution to each component. The roles below are not mutually exclusive, as one stakeholder can take up multiple roles in more than one component.

Co-finance partner: stakeholders with a formal partnership that already work on relevant topics, have expertise, established projects, initiatives, and networks that align with FARM, which it can leverage.

Knowledge producer: stakeholders that produce knowledge (including tools and trainings, etc.) on FARM topics which FARM can utilise or FARM can collaborate with on producing knowledge. This can but doesn't need to be a formal partnership.

Intermediary: stakeholders that can be reached out to (outreach target) to influence (influencer) behaviours of the beneficiaries

Outreach target: stakeholders FARM can potentially influence with FARM knowledge

Influencer: stakeholders who can help FARM reach to end users

End user: ultimate beneficiaries of FARM knowledge, including farmers, regulators, policy makers, value chain actors, finance institutions, industries, customers and the general public.

By type

The global child project mainly engages with global level stakeholders. However, the global child project will work closely with CPs to coordinate engagement with regional level stakeholders and other third-party non-FARM country-level stakeholders as the programme expands. The main stakeholder types, relevant to the Global Child Project, are identified as follows:

FARM IAs and EAs: ADB, FAO, UNDP, UNEP, UNIDO, and EAs in the FARM countries

International organisations

Regional organisations: including regional cooperation organisations and inter-governmental registration bodies

Academic and research institute

Agricultural value chain actors: ranging from agricultural commodity producers to alternative input suppliers, wholesalers, retailers, and farmers

Non-profit and non-governmental organisations

Government entities in non-FARM countries: including Ministry of Environment, Agriculture, Finance, Trade, Communication, Customs, as well as regulatory bodies.

Financial institutions: including development banks (e.g. MDBs, DFIs, Agri development banks) and private banks

Table 1. Analysis of stakeholder groups' alignment, interest, and influence

| Stakeholder group | Stakeholder's alignment | Stakeholder's interest | Stakeholder's overall influence on the programme |
|---------------------------------|--|---|---|
| FARM IAs and EAs | Work towards common vision and goals of the FARM programme | FARM is implemented and achieves intended outcomes | High ? the core stakeholder group to lead initiatives and drive the success of the programme |
| International organisations | Promote sustainable development which encompasses sustainable management of harmful pesticide and agri-plastics while respecting human rights | Programme activities are aligned with national, regional, and global priorities of the organisation | High ? formulate positions on global issues, provide financial and technical support to implement activities |
| Regional organisations | Adopt and follow international regulations, code of conduct, and framework applicable in the region; Guide countries in the region on procedures e.g. pesticide registration | Promote development aligned with regional priorities and goals | Medium ? facilitate cooperation between FARM countries, facilitate up-scaling and replication in for non-FARM countries |
| Academic and research institute | Generate and facilitate up-take of knowledge of alternatives and sustainable agriculture | Relevant knowledge is adopted and used for a wider application | Medium ? provide context analysis, essential data, knowledge products to be adopted by the programme |

| | | | |
|---|--|--|---|
| Agricultural value chain actors | Address environmental impacts arising from their operations; Implement changes in their business with available resources and information | Make decisions while adjusting the practice of business to achieve direct or indirect benefits Align with policy that supports sustainable and inclusive business investment (regulation, tax and financing mechanisms) | High ? have potential to promote positive impact by working on environmental sustainability and investing in less harmful business practices |
| Non-profit and non-governmental organisations | Promote human rights, equity, social and environmental development | Provide support and services for in need, including but not limited to those outside the mainstream of the society | Medium ? act as guardian of the environment and put pressure on other stakeholders such as government and business but the level of influence varies |
| Government entities in non-FARM countries | Adopt and follow international regulations, code of conduct, and framework | Promote development aligned with national priorities and implement policies in the local context, while maintaining macro-level outlook on the country | High ? Critical for a scalable partnership in the country, especially line ministries with inherent power to influence policies. Can support FARM in achieving its impacts beyond FARM countries. |
| Financial institutions | Reorient financial resources towards a reduction and sound management of pesticides and plastics in the agriculture sector | Better assess and manage impacts and risks related to pesticides and agri-plastics; Align with relevant frameworks for the reduction and sound management of pesticides and agri-plastics | High ? Critical to provide financial guidance and tools to support the transition to more sustainable agriculture |

Table 2. Key stakeholders? expectations and concern analysis

| Stakeholder group | Key expectations | Key concerns | Recommendations for engagement |
|-------------------|--|--|--|
| FARM IAs and EAs | Implement and monitor activities planned for the programme; Coordinate between CPs; Achieve outcomes of each programme component | Potential duplication and overlaps; Varying pace and progress of implementation | Regular interaction through both informal (e.g. email exchange) and formal channels (e.g. regular coordination meetings) |

| | | | |
|---|--|---|--|
| International organisations | Support government in achieving national development goals; Promote sustainable development; Uphold international agreements | Competition and overlaps across international organisations can hinder effective engagement; Potential limitations in building new partnerships | Identify relevant projects or initiatives and connect using internal contacts to navigate the system (with support from FARM IAs) |
| Regional organisations | Support countries in the region in taking up good practices, sharing knowledge, and exchanging experiences | Political and social dynamics in the region; Insufficient support from the regional organisations or their priorities not aligning with FARM | Identify relevant work streams/sectors to connect (with support from CPs) |
| Academic and research institute | Provide evidence-based policy advice and key information on the issues | Inadequate translation of research into actionable policy and guidelines | Identify and connect with relevant research projects, training programmes or publications; Provide a platform for a dialogue between academia and policymakers |
| Agricultural value chain actors | Produce and distribute goods and services to meet market demand | Diverse stakeholders along the value chain with different needs, influence and agenda; Informal business is challenging to engage with due to their size and structure | Tap into agricultural value chain networks; Connect through sustainability, corporate social responsibility units; Develop tailored approaches for different types of value chain actors |
| Non-profit and non-governmental organisations | Hold government to account in protecting public goods including the environment; Provide knowledge of and linkage to communities and wider public | Have limited funding capacity to mobilise and organize partnerships; Their agenda, impact, and reach varies widely | Identify and connect with relevant projects, training programmes or advocacy activities; Access through official websites or existing contacts depending on the complexity, size, and type of the organisations |
| Government entities | Scale up a partnership at scale with strong buy-in from the government to create bigger impact | Government-level partnership is strongly affected by political cycles; Public sector has limited resources | Connect with relevant people in the line ministries, starting with existing contact (with support from CPs) or initiate engagement through a formal channel |
| Financial institutions | Consider environmental impacts of pesticides and agri-plastics in their investment decisions; Build a business case to support the transition to more sustainable agriculture | Competition for attention at the Board for sustainability focused initiatives e.g. climate change/nature/biodiversity; Lack of availability of data and metrics | Build on UNEP FI's experience from Principles of Responsible Banking and leverage their networks and tools |

Stakeholder Engagement Plan

The global child project stakeholders are prioritised based on their relevant technical expertise, voice and outreach, impact, as well as mission alignment. The list (Table 3) will be evolving and further developed in the implementation stage.

Table 3. Global stakeholder engagement plan for high-priority stakeholders

| Stakeholder | Engagement during PFD, PPG | Roles and contributions | Engagement plan during implementation |
|---|---|--|--|
| FARM IAs and EAs | | | |
| ADB, FAO, UNDP, UNEP, UNIDO, and EAs in FARM countries | Regularly consulted during PFD and PPG EAs in the countries are engaged through CPs | Co-finance partner, knowledge producer, outreach target, end-user (all components) | Will be members of the Programme Coordination Group. The IAs and chairs of child project steering committees will be members of the global child project Project Steering Committee. Coordinated activities in stakeholder engagement, knowledge management, and communications such as joint outreach, workshops, trainings, and publications |
| International organisations | | | |
| Basel, Rotterdam and Stockholm Convention (BRS) Secretariat | The Stockholm Convention Secretariat consulted during PFD, regularly engaging with BRS Secretariat during PPG | Knowledge producer and influencer providing overarching guidance on managing POPs and HHPs (Component 1 ? Output 1.1, 1.2) | Launch events and working sessions at BRS COP |
| OECD | OECD Pesticide Programme consulted during PPG | co-finance partner, knowledge producer and influencer (Component 1 ? Output 1.1, 1.2; Component 2 ? Output 2.1, 2.2) | Trainings on international trade on pesticides, workshops, engagement in the community of practice, linking OECD network of experts with CPs |
| UNEP | UNEP Climate Finance ? Consulted during PPG | Knowledge producer and potential co-finance partner (Component 2 ? Output 2.1, 2.2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level, especially with the Good Food Finance Network |

| | | | |
|--|--|---|---|
| | UNEP Economics of Ecosystems and Biodiversity (TEEB) AgriFood ? Consulted during PPG | co-finance partner, Knowledge producer (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1) | Potential linkage to TEEB AgriFood study in Thailand on pesticide poisoning and the associated health costs |
| | UNEP Economic and Trade Policy Unity (ETPU) ? Consulted during PPG | co-finance partner, knowledge producer and influencer providing overarching guidance on agricultural subsidies (Component 1 ? Output 1.1, 1.2) | Build on data, studies and lessons learned from TRADE project, particularly regarding agricultural value chains, distorting effects of agricultural subsidies, and guidance of how to change them to support sustainable agriculture |
| Strategic Approach to International Chemicals Management (SAICM) Secretariat | Consulted during PFD and PPG | Knowledge producer and influencer (Component 1 ? Output 1.1, 1.2; Component 2 ? Output 2.1, 2.2; Component 3 - Output 3.1) | Knowledge exchange, capacity building, technical cooperation and consultations at global level, participation in HHP discussion forum hosted by SAICM Secretariat |
| FAO | Consulted during PFD and regularly engaged during PPG through CP (in addition to the specific role as EA, FAO's other teams will provide knowledge and co-finance) | Co-finance partner for CP, knowledge producer, influencer (Component 1 ? Output 1.1, 1.2; Component 2 ? Output 2.1, 2.2; Component 3 - Output 3.1, 3.2) | Collaborated approach for engaging in Africa and Latin America through EAC and MERCOSUR. Knowledge exchange, capacity building, technical cooperation and consultations at global level. Are an Executing Agency and will be members of the Programme Coordination Group and Project Steering Committee |
| Regional organizations | | | |
| Andean Community | Consulted during PFD, to be further engaged with support from CPs | Knowledge producer, outreach target, influencer, end user (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Potential collaboration on tackling cross-border trade issues regarding pesticide, regional registration law, regional advocacy through the community, support in monitoring POPs interstate transport and use |
| East African Community (EAC) | | | |
| MERCOSUR | To be engaged with support from CPs | | |

| | | | |
|--|-----------------------|---|---|
| Southern African Pesticide Regulators? Forum (SAPReF) | Identified during PPG | Outreach target, influencer, end user (Component 1 - Output 1.2; Component 3 ? Output 3.1, 3.2) | Training and workshop targeted pesticides regulators and Rotterdam convention focal persons in non-FARM SADC countries |
| Academic and research institute | | | |
| Centre for Agriculture and Bioscience International (CABI) | Consulted during PFD | Knowledge producer, outreach target, influencer (Component 1 - Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Knowledge sharing and capacity building using established network in FARM countries. Scale up national engagement to global/regional level (CABI Kenya working with FAO). Invited to programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| CGIAR | Consulted during PFD | Potential co-finance partner, knowledge producer (Component 1 - Output 1.1, 1.2; Component 3 ? Output 3.1) | Collaborated research, publications, and training on pesticide use and pesticide safety behavior. |
| Natural Resources Institute | Consulted during PPG | Co-finance partner, knowledge producer (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1) | Capacity building (trainings, online courses), collaborated research, developing communication materials, knowledge management, expert advice, collaboration through projects. Invited to programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| Centre for Pesticide Suicide Poisoning (CPSP) | Consulted during PPG | Cofinance partner, Knowledge producer, outreach target, influencer (Component 1 - Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Capacity building on data collection and interpretation related to availability to HHPs and intentional suicide. Invited to programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| Non-profit and non-governmental organizations | | | |

| | | | |
|---|--|---|--|
| Rainforest Alliance (RA) | Identified and consulted during PPG | Potential co-finance partner, knowledge producer (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Build up on RA?s IPM related work including knowledge, advocacy and capacity building activities, link RA?s projects in India and Viet Nam with FARM CPs (ADB and UNIDO). Invited to programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| Global Alliance to End Plastic Waste | Identified during PPG | Potential co-finance partner and outreach target (Component 3 ? Output 3.1, 3.2) | Potential leverage of private sector engagement, advocacy in private sector, scale-up of end plastic initiatives |
| Pesticide Action Network (PAN) UK | Consulted during PFD and discussions continued in PPG. | Potential co-finance partner and knowledge producer (Component 1 ? Output 1.1, 1.2; Component 2 ? Output 2.1, 2.2; Component 3 ? Output 3.1) | Target research and publication on pesticide use, advocate for policies to reduce the use of HHPs and promote alternatives. Invited to programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| Government entities | | | |
| Government entities in non-FARM countries | | Non-FARM countries? government entities are the agent for taking up FARM knowledge and disseminating for scale-up of the program. (all outputs) | CPs will reach out to neighboring countries, while some other non-FARM countries can be engaged through regional organizations. The representatives from these countries can be invited to regional workshops, trainings, peer-to-peer visits and the programme coordination group. |
| Financial institutions (public) | | | |
| ADB | ADB is part of FARM Program | Potential knowledge partner (Component 2 ? Output 2.1; 2.2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level |
| Financial institutions (private) | | | |
| Principles for Responsible Banking signatories | Engaged during the PPG, finance baseline survey. | End user (Component 2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level |
| Private sector and agricultural value chain actors | | | |

| | | | |
|---|---|---|---|
| BioProtection global | Approached during PPG | Potential co-finance partner and knowledge producer (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level Invited to programme forum and technical working groups. FARM will provide a mechanism to disseminate their work. If co-financing partner will be a member of the project steering committee. |
| Global GAP | Identified during PPG. | Knowledge producer, implementing partner via their extensive network (Component 1 ? Output 1.1, 1.2; Component 3 ? Output 3.1, 3.2) | Knowledge exchange, capacity building, technical cooperation and consultations at global level |
| Pesticide manufacturers e.g. Croplife International, Hindustan Insecticides Limited (HIL) | Engaged by child projects Croplife International ? ADB, FAO HIL - UNIDO | | Stakeholders engaged by national child projects will be participating and contributing to the annual Programme Coordination Group meetings. HIL are an Executing Agency and will be closely engaged by the global child project in all coordination activities (see C3). |

Process of Stakeholder Engagement

Channels of stakeholder engagement

Two major consultation meetings among the IAs, EAs, and GEF Secretariat occurred during 2022. These hybrid meetings took place in Geneva from 8-9 June and in Rome from 14-16 September 2022. The June meeting gave an overall introduction to FARM and the role of the Global Child Project with a significant focus on coordination, strategy coherence and Component 2. The Rome meeting focused on child projects' progress on preparing their CEO Endorsement Requests and joint areas of concern and collaboration. Throughout the three days of sessions there were deep dives on overlapping areas of interest like plastics, pesticide alternatives, finance, and political will, as well as presentations on each child projects' PPG status, an overview of the global strategies around communications, knowledge management, and stakeholder engagement, and a consultation on FARM branding.

During the implementation stage, the Global Child Project will continue stakeholder engagement in different forms. The main modes and channels of engagement are outlined below.

Table 4. Channels of engagement in the implementation stage

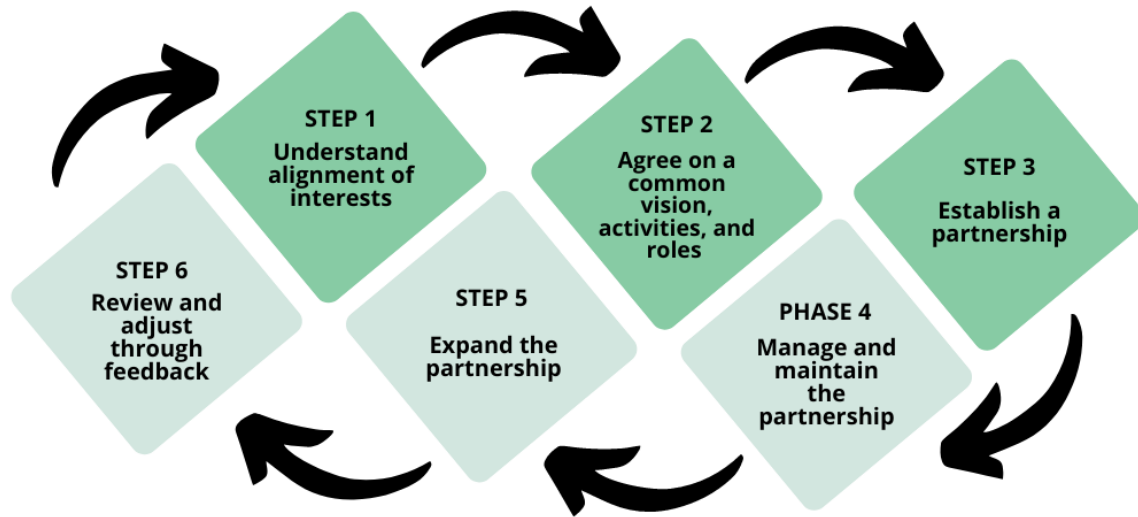
| Channel | Frequency and mode | Stakeholders | Purpose |
|---|---|---|---|
| FARM Programme Coordination Group Meeting | Annual, in-person (March/April each year) | IAs, EAs, GEF Secretariat, FARM partners and stakeholders | Review of progress and workplans of child projects, provide coordination between projects |

| | | | |
|--|--|--|---|
| FARM Project Steering Committee Meeting | Annual, in-person or virtual (back-to-back with FARM Programme Coordination Group Meeting) | IAs and the chair of each child project's steering committee | Provide a platform to evaluate and assess the progress of the project, address project risks, and make recommendations |
| FARM Partners Forum | Biennial, twice in the implementation phase (to be held in Asia and Latin America) | All major partners and stakeholder groups in the FARM program with focus on actors in the agricultural value chain | Share lessons/knowledge and results of child projects across the programme 1st meeting : focus on first results of child projects across the programme 2nd meeting : key success and next steps |
| Thematic Working Group Meeting | Regular (quarterly), online and informal | Thematic focal points from child projects | Cross-cutting areas: Knowledge Management, Communication, Stakeholder Engagement and Gender |
| FARM Lessons Learned Meeting | Annual (October/November) | FARM IAs and EAs | provide inputs to FARM child projects? Steering Committee meetings and annual planning of workplans for the following year |
| Green Forum FARM Group | Online, throughout the project | IAs, EAs, relevant stakeholders and experts | Discuss issues on pesticides and agricultural plastics |
| Engagement with FARM co-financiers, knowledge producers, agricultural value chain actors and other relevant stakeholders | Regular bilateral/group engagement throughout the project | Stakeholders identified during PFD and PPG, stakeholders newly engaged during the implementation phase at both global and regional level | Maintain relationships, collaborate on activities, build synergies and scale up impacts |

Process

The process of stakeholder engagement should aim at establishing partnerships through the alignment of interests and the agreement on common visions, activities and roles among the involved stakeholders. By doing so, the established partnerships can be managed and expanded within the process loop. Continuous feedback from stakeholders will be used to continuously review and adjust the process to strengthen the stakeholder engagement throughout the FARM programme.

Diagram 1. Process of stakeholder engagement



Mechanism to coordinate

The coordination mechanism is important for scaling up the impacts of stakeholder engagement from the different CPs but also encouraging collaboration across regional projects. Therefore, the global child project will coordinate with CPs to enable streamlined stakeholder engagement focusing on the following aspects:

Identify - in consultation with CPs - national stakeholders that could potentially have global or regional level impact

Facilitate exchange between CPs to identify overlaps and potential areas of collaboration

Link CPs? existing stakeholder relationships to FARM

The coordination and knowledge exchange between the global child project and CPs will be facilitated using online platforms such as the FARM Sharepoint, Green Forum or Slack Channels, as well as regular internal coordination meetings and Programme Coordination Group meetings. These communication channels will ensure active information exchange and provide platforms to review progress and coordinate with each other.

Monitoring Stakeholder Engagement

The global child project will be monitoring stakeholder engagement as part of Output 3.2 under Component 3. The indicators and targets in Table 4 are those proposed by the global child project and will be further coordinated with CPs. The global child project is responsible for the engagement of global and external (third party) stakeholders. National stakeholders are to be engaged by CPs with in-country presence. Regional stakeholders will be engaged through coordinated efforts by the global child project and CPs. GGKP will be responsible for the provision of an annual summary of stakeholder engagement activities based on CPs' inputs. The performance of stakeholder engagement activities will be regularly monitored and will be reported to the GEF in the annual PIR.

Table 5. Monitoring stakeholder engagement

| Proposed indicators | Target | Reporting responsibility |
|--|---|---------------------------------|
| No. of partnerships established along the agricultural value chain, potentially including farmers associations, retailers, SMEs, consumer organizations, media outlets and gender groups | 3 partnerships established at global or regional levels (30% by end-2025) | Global child project |
| No. of FARM Biennial Forums held | 2 Biennial Forums (30% by end-2025) | Global child project |
| No. of participants at FARM Biennial Forums | 200 participants (Disaggregated by gender) (30% by end-2025) | Global child project |

Grievance Redressal Procedures

According to the Safeguard Risk Identification Form, grievance issues can be raised through the UNEP Stakeholder Response Mechanism (<https://www.unep.org/resources/report/un-environments-environmental-social-and-economic-sustainability-framework>) or the GEF Conflict Resolution Commissioner (plallas@thegef.org).

In line with UNEP standard procedures, the FARM global child project will also set up and manage a grievance redress mechanism (GRM) as recommended by the UNEP ESSF (2020) that would address project affected persons' (PAP) grievances, complaints, and suggestions. The GRM will be managed and regularly monitored by the Project Steering Committee. Complaints and suggestions will first be accepted through the Executing Agency, referred to the Project Steering Committee as needed, and finally reported to the Implementing Agency. All information about the grievances and their resolution will be recorded and monitored. The global child project will also compile and exchange information between Implementing and Executing Agencies on grievances that may arise in any of the FARM child projects and are addressed by each CPs' own GRM. This data will be used to conduct in-depth analyses of complaint trends and patterns, identify potential weaknesses in the FARM programme

implementation, and consider improvements. Environmental and social grievances will be reported to the GEF in the annual PIR.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

The global child project stakeholders are prioritized based on their relevant technical expertise, voice and outreach, impact, as well as mission alignment. The list in Table 5 (below) will be evolving and further developed in the implementation stage.

Two major consultation meetings among the FARM IAs, EAs, and GEF Secretariat occurred during 2022. These hybrid meetings took place in Geneva from 8-9 June and in Rome from 14-16 September 2022. The June meeting gave an overall introduction to FARM and the role of the Global Child Project with a significant focus on coordination, strategy coherence and Component 2. The Rome meeting focused on child projects' progress on preparing their CEO Endorsement Requests and joint areas of concern and collaboration. Throughout the three days of sessions there were deep dives on overlapping areas of interest like plastics, pesticide alternatives, finance, and political will, as well as presentations on each child projects' PPG status, an overview of the global strategies around communications, knowledge management, and stakeholder engagement, and a consultation on FARM branding. The IAs and EAs will be continuously engaged through FARM programme Coordination Group meetings, FARM Project Steering Committee meetings, FARM Partners Forum, FARM Lessons Learned Meeting, and regular thematic working group meetings for coordination of communications, knowledge management, stakeholder engagement, and gender. Throughout the project, online community space on the Green Forum will provide a platform for live interaction.

The non-IA/EA stakeholders will be engaged through various channels during the implementation stage, which includes annual FARM programme Coordination Group meetings, biennial FARM Partners Forum, online community space on the Green Forum, and bilateral meetings. Stakeholders engaged by national child projects, including co-finance partners and knowledge producers, will be invited to and contributing to the FARM programme Coordination Group meetings. The Stakeholder Engagement Strategy (Appendix 8) provides more detailed information on the modality of engagement of each particular group.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier; Yes

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

In all countries to be targeted by this programme, rural women are important players in the agriculture sector. According to the ILO (International Labour Organization), 66% of women in low-income countries are employed in agriculture compared to just 2% in high income countries[1]. Although women are critically important to the sector, women generally have less prospects to advance. Rural women are often marginalized from decision making and educational opportunities. Women are often engaged in field work and/or subject to 'take-home' exposures by cleaning clothes and equipment used for pesticides, and are, as a result, disproportionately affected by harmful exposure to agrochemicals. Women are also more likely to use pesticides as a means of committing suicide than men and banning HHPs is a cost-effective way of reducing the number of suicides.[2] Furthermore, the research from Asia indicates that where bans of HHPs have been affected there is not loss of productivity.[3] Even if hazardous substances, chemicals, and wastes reach and expose populations equally, other factors determine the extent of repercussions and ramifications of these on population subgroups. These include:

- ? poverty and socioeconomic status.
- ? gender-based and customary norms.
- ? health access and equity; and
- ? overall representation in decision-making processes and management policies relating to chemicals and wastes.

Participation of women in agriculture as a percentage of registered farmers varies between countries in LMIC. Agriculture constitutes an important source of income and employment for women. Low participation rate of women is related to gender-based inequalities related to different factors including difficulties to access land, financial capital, technology, and market information. Informal land tenure, that is frequent in LMIC, translates to fewer and less valuable loans due to lack of collateral. Other factors contributing to gender inequalities are related to underrepresentation of women in producer associations and disproportionate household workload distribution that leaves women with less time to participate in agricultural activities.

Gender responsive measures to be undertaken by the project and included in the framework gender action plan include:

- ? During mobilization, (the first six months of the project) a gender-specific outreach campaign for project stakeholders to ensure women are targeted and reached as part of communication activities; and
- ? Training on gender awareness-raising and capacity building at each child project inception meeting.
- ? All the research commissioned by the project on policies related to pesticides and plastics (outputs 1.1, 1.2) and access to finance (outputs 2.1 and 2.2) will include a gender analysis and recommendations on how to reduce gender inequality.
- ? All training of project staff or stakeholders for example rolling out green finance models (activity 2.2.5) as well as advocacy and awareness building (activity 3.2.2) will include a component that will sensitize participants on the gender related issues and how the risks and opportunities inherent in the new approach.

Targeting women and opening opportunities for women to actively engage and contribute to positive change in the agriculture sector is and will be an increasingly critical dimension as the programme moves forward. As SAICM states in the publication *Gender and the Sound Management of Chemicals and Waste: 'Understanding gender roles in agricultural communities can create opportunities to unpack root causes of unsustainable behaviour in communities and has potential to support transformational change.'*[4]

The programme design encompasses targeting specifically to catalyse elevated involvement by women and to promote opportunities to empower women. This includes addressing regulatory and institutional barriers that may inhibit the ability of women to move forward, including addressing issues related to financing and access to financing to allow women to invest in sustainable agriculture that limits reliance upon harmful chemicals. Examples may include models designed specifically to meet the needs of rural women and create cohorts of women for farmer field schools or agri-business opportunities; providing entry points for actions that are often weak points for gender parity within production approaches; promoting opportunities to increase financial independence and secure higher levels of meaningful involvement in decision-making; opportunities to reduce unequal labour aspects, and, importantly, increase the health and nutrition of households through reduction in the use of harmful agrochemicals. During the PPG and throughout programme implementation, the child projects will monitor gender differences in key aspects that have been identified in research and scientific literature, including potential differences in access to finance, awareness, and knowledge of chemical risks and of alternatives, and the resulting behavioural differences. For example, studies in China have suggested that women's lower awareness of pesticide risks may influence their personal protection choices[5]. By closely monitoring such differences and effects, the programme Gender Action Plan will continuously revise and modify the implementation of all child projects, for example by rolling out gender-sensitive and differentiated awareness and access to finance initiatives, to ensure effective mainstreaming and women's full participation and benefit from FARM.

The programme will integrate, disaggregate, and closely monitor indicators that are gender specific. This will include monitoring and capturing of best practices focused upon women empowerment and feeding these practices and lessons learned in knowledge platforms to encourage replication and amplification at national, regional, and global scales. Child projects will be informed by existing comprehensive Country Gender Assessments (CGAs) developed by FAO, providing up-to-date information about rural women and the gender gap in the broader agriculture sectors. These reports are specifically intended to assist with the formulation of evidence-based interventions and policies. These approaches and others will be clearly elucidated in gender mainstreaming and empowerment strategies to be developed during the PPG, as the child projects will develop detailed and geographically specific gender analyses, which will be consolidated by the UNEP Knowledge Management child project. A programmatic Gender Action Plan will be adopted and overseen by the coordination child project, bringing together the results and reporting as well as best practices and gender resources that are produced by all child projects in their own gender action plans, in a consistent manner, and with linkages to global networks and knowledge exchange for women in agriculture.

A gender mainstreaming approach has been taken by the child project, integrating gender across the three components, however, activity 3.1.5 is designed to coordinate and build capacity across FARM to implement the gender action plan, and monitor its implementation. This approach was chosen in order to prevent 'gender issues' becoming siloed and not being integrated across all the project activities. A gender consultant will be recruited to provide support across all three components and ensure that a gender approach consistently incorporated into the design and implementation of project activities. Furthermore, a gender and communications specialist will be recruited to provide more concentrated support to component 3 activities. The gender mainstreaming approach will go beyond involving women's organisations, the project will work with individuals experts, gender officers and departments from participating organisations and ensure that gender is included in research and other knowledge generating activities.

[1] International Labour Organization (2021), Employment in Agriculture, female (% of female employment), <https://data.worldbank.org/indicator/SL.AGR.EMPL.FE.ZS?view=chart>

[2] Bonvoisin, T., Utyasheva, L., Knipe, D. *et al.* Suicide by pesticide poisoning in India: a review of pesticide regulations and their impact on suicide trends. *BMC Public Health* **20**, 251 (2020). <https://doi.org/10.1186/s12889-020-8339-z>

[3] **Bans of WHO Class I Pesticides in Bangladesh-suicide prevention without hampering agricultural output** Fazle Rabbi Chowdhury , Gourab Dewan, Vasundhara R Verma , Duleeka W Knipe, Ishrat Tahsin Isha M Abul Faiz, David J Gunnell, Michael Eddleston. Int J Epidemiology. 2018 Feb 1;47(1):175-184. doi: 10.1093/ije/dyx157

[4] SAICM (2018), Gender and the Sound Management of Chemicals and Waste, http://www.saicm.org/Portals/12/documents/meetings/IP2/IP_2_6_gender_document.pdf

[5] Wang et al (2017) Gender differences in pesticide use knowledge, risk awareness and practices in Chinese farmers (<https://doi.org/10.1016/j.scitotenv.2017.03.053>)

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

The global child project will primarily engage in maintaining relationships with global private sector stakeholders. An exception will be when an EA or IA has an existing relationship, for example FAO or ADB and CropLife International, or by UNIDO with the manufacturers in India. In those cases, the global child project will provide support to develop a common position and visibility of those engagements across the FARM programme participants.

At the global level the child project will engage with producers? associations such as BioProtection Global[1], private sector certification schemes such as Rainforest Alliance and Global GAP[2] and directly with large scale manufacturers of agricultural inputs. During programme formulation, consultations were conducted with global private sector stakeholders to outline potential collaboration during the project, these will be finalized and further expanded at the start of project implementation, through bilateral meetings and their participation in FARM working groups. Private sector stakeholders will be invited to participate in the child projects and in the Programme Coordination Group, to ensure that the FARM programme is aligned with and benefits from their existing and planned activities; and to create a shared responsibility for the transition to sustainable agricultural practice.

The finance sector is engaged in partnership with the UNEP Finance Initiative (UNEP FI), with its Principles for Responsible Banking and network of member commercial banks all over the world, while FAO, UNDP and UNIDO are engaging investment centers and banks providing loans to small scale and large-scale farmers. UNEP FI has a membership of 300 commercial banks, part of them were consulted during the project preparation phase and whose views were incorporated into the project design. The members of UNEP FI will be active participants and end users of the tools and frameworks developed under Component 2 of the global child project. The GGKP and UNEP FI are initiatives hosted by UNEP and will collaborate according to the institutional arrangements detailed below.

[1] <https://www.bioprotectionglobal.org/>

[2] https://www.globalgap.org/uk_en/

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

The following risks (Table 6) that might prevent the programme from achieving its objectives have been identified, ranked according to impact and likelihood, and linked to the different programme outputs. For each of the risks, mitigation measures have been proposed. This table will be used for the further analysis of risks and proposal of mitigation measures in each of the specific individual child project preparations.

Table 6 Risk assessment

| Risk | Impact | Likelihood | Proposed mitigation measures | Link to outputs |
|--|--------|------------|--|-----------------|
| COVID-19 risks | | | | |
| Though most countries have reopened since the COVID-19 pandemic first hit, lockdowns and restricted travel measures continue. | Medium | Low | Meetings, workshops, and consultations will be held virtually as much as possible. The project will work closely with the EAs to build strong working relationships with national and regional bodies to make remote coordination more efficient. | All |
| Climate Change Risks | | | | |
| Due to the impacts of climate change, especially on food security, political priorities may shift. | Medium | Low | The project will share knowledge on how low chemical agriculture can increase resilience to climate change and challenge the perception that increased intensification of agriculture is the logical response to climate change risk. | All |
| Extreme weather events lead to change in pest problems and drought, resulting in increased pressure to use pesticides and plastics to control the environment. | Medium | Low | The global child project will generate knowledge on climate change adaptation using low chemical and plastics approaches and disseminate it through international forums and the child projects. It will lobby for the safe use and disposal of agricultural plastics. | All |
| Operational/delivery risks | | | | |
| Political priorities are not aligned to the objectives of FARM as a result of the current economic situation and concerns over food security. | Medium | Medium | The project will engage with a wide range of international stakeholders to create an international political environment that encourages governments to address the hazards of using HHPs and the unsound management of agricultural plastics. | All |

| | | | | |
|---|--------|---------|--|----------|
| Global and regional experts are unable to engage in FARM | Medium | Low | The global child project will actively engage with regional experts and stakeholders to build collaborative and mutually beneficial relationships. | 1.1, 1.2 |
| The global child project is not able to engage with additional (non-child project) countries and persuade them to adopt FARM approaches. | Medium | Medium. | In addition to building a strong brand and communication mechanism, the project will work through FAO (an EA in FARM) SCIACM, and other established networks to identify countries that have expressed and interest in or taken steps to strengthen regulation related to pesticides and plastics and will proactively engage with them to share knowledge and build their capacity. | All |
| Staff turnover, transition of leadership in key partner organizations. | Medium | Low. | The project will build relationships with multiple individuals working in key partner organizations to establish institutional engagement rather than engagement with individuals. | All |
| Counter lobbying by pesticide industry and other interest groups undermine FARM | Medium | Medium | The project will engage directly with the pesticide industry and other interest groups to better understand and if possible, identify a common position HHPs. Additionally, FARM and will develop a strong coalition of organisations and institutions that support the objectives of FARM to develop a strong advocacy position should it not be possible to find a common position with interest groups opposed to the objectives of FARM. | All |
| Reputational risk. The project will work with a range of organizations in different networks, some of which may have an agenda that is not aligned to the objectives of FARM | Medium | Medium | The project will develop a clear FARM programme position on sensitive issues and communicate this in a clear and transparent way. | All |
| Investment programme and access to finance are not adequate. Whilst there is an overall shortfall in investment in agriculture there are still significant finance flow to the sector, currently directed towards the intensification of agriculture. | Medium | Low | The programme will work to redirect existing finance flows away from intensive agriculture towards low chemical and sustainable agriculture. | 2.1, 2.2 |

| | | | | |
|--|--------|--------|---|---------|
| Global recession drives private sector attention away from green finance initiative. | Medium | Medium | Despite the threat of a global recession, climate change and protecting the environment continue to be high on the international agenda. The project will use this profile to continuously engage with finance institutions, public and private, to increase support for green finance initiatives. | 2.1,2.2 |
| Economic systems differ across countries making it difficult to build consensus. | Medium | Low | The project will adapt its approach to different stakeholder groups with different economic systems and maintain a focus the dangers of HHPs and plastic waste and their risk to the environment, the economy and human health. | 2.2 |
| Political leaders, influencers and actors in the global supply chain remain sceptical regarding alternative farming systems. | Medium | Low | During its implementation, the programme will continuously engage with value chain actors, government officials, and financial actors to ensure understanding of the risks from status quo approaches and the viability of solutions to garner support. The EA will utilise co-financers and partners' relationships with these stakeholders. s. | 3.1,3.2 |
| Private sector may lobby against the reduction of pesticides | Medium | Medium | The project will develop knowledge products and proactively communicate with the international stakeholders and the public to continue to raise awareness of the risks of HHPs and unsound management of plastics. Additionally, the programme will engage with the private sector in dialogue throughout implementation. | All |
| Striking a balance between ensuring active and expansive private sector participation and avoiding potential conflicts of interest | Low | Low | Maintaining transparency and ensuring full public disclosure of consultation opportunities | All |
| Technical Risks | | | | |
| Inadequate data collection/reporting on the production and use of pesticides and agricultural plastics. | Medium | Medium | As part of its coordination and reporting role the project will support country programmes to improve data collection and reporting. The child project will work with the relevant ministries in their seven countries of operations. The global child project will take the lessons learnt and expertise generated by the child projects to provide information and support to other countries that actively engage in FARM either directly or via webinars, to improve their data collection and reporting. | 3.1,3.2 |

| | | | | |
|---|--------|--------|---|-------------------|
| Practical barriers and knowledge gaps mean that non-chemical alternatives continue to be perceived as less effective than hazardous chemicals | Low | Medium | The project will work with other international organizations to generate evidence of the effectiveness of alternatives to pesticides in different agricultural situations. | 1.1,1.2 |
| Social Risks | | | | |
| Continued disregard for the environmental and health impacts of hazardous pesticide and agricultural plastics use | Low | Low | The programme, via the child projects, will adopt participatory and behavioural science led approaches to ensure impactful education and awareness programmes from the start of the project. These insights will be provided to the child projects to encourage them to create more impactful training and awareness activities; and share any analysis or lessons learnt between child projects that have used these approaches. | 2.2, 3.1, and 3.2 |
| Perception of negative economic impact on small-scale producers due to regulations that support the phase out of cheaper POPs pesticides, HHPs and agricultural plastics use inhibits uptake of alternative practices | Medium | Medium | The project will provide global evidence to other FARM projects on the cost effectiveness of alternatives to HHPs and agricultural plastics. | 2.1 and 2.2 |
| Indigenous people, women, and other vulnerable groups are excluded from decision making that may affect them | Medium | Medium | The development of safeguards instruments including environmental and social risks assessment, stakeholder engagement plan, gender action plan, and IP plan, when applicable, will identify the risks and measures to protect their rights and access to resources | All |

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

The following section describes the proposed institutional arrangements for programmatic and project implementation. The concluding section elaborates planned coordination with other initiatives.

Programme level coordination and FARM structure

The FARM programme is a multi-agency initiative that builds on the experience of several GEF Implementing Agencies (IAs). As Lead Agency for the programme, UNEP will be responsible for the overall programme coordination and ensuring the integration of results from both national and regional level. Making knowledge accessible to all partners and establishing consistent knowledge transfer between regions is vital for achieving FARM's intended objectives. The following diagram outlines the proposed structure of the FARM programme including the child projects, the implementation and execution modalities, as well as the relationship to the project.

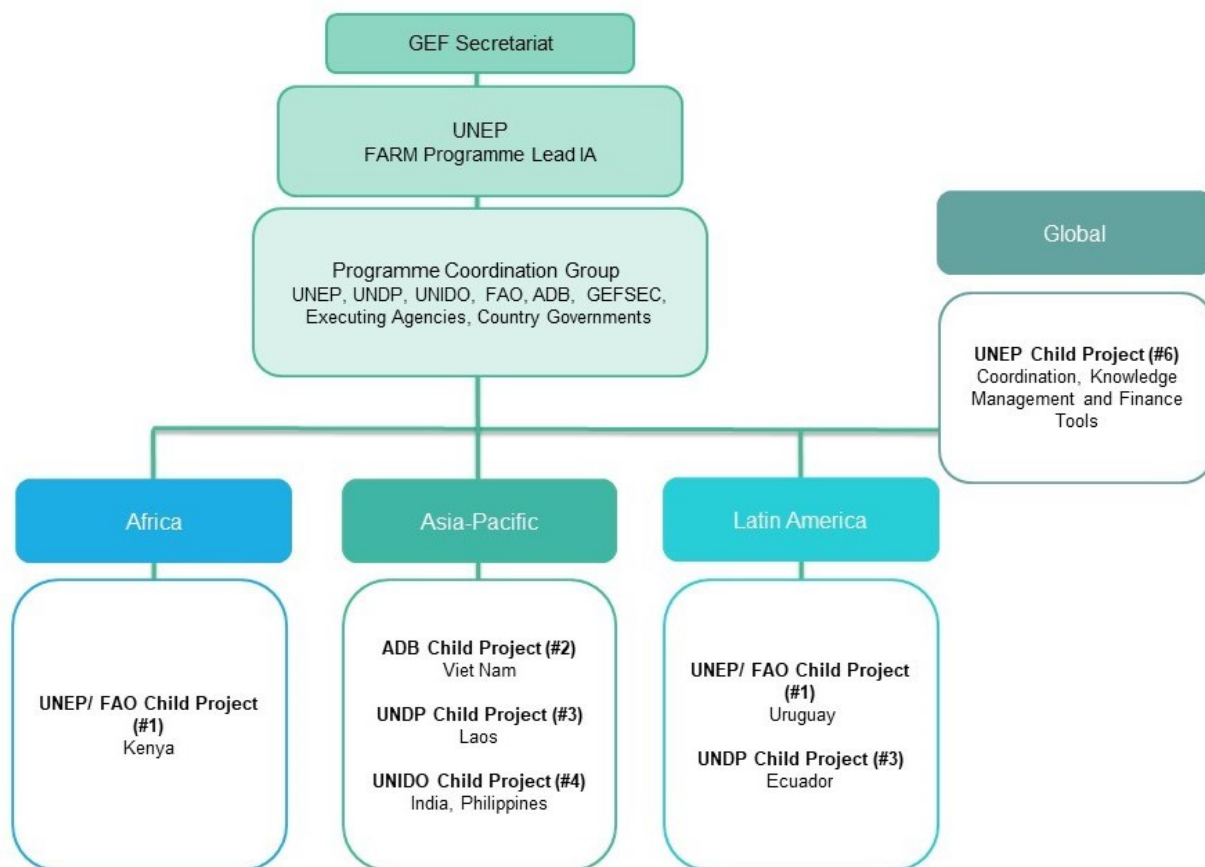


Figure 4 FARM Programme Structure

* Please note that child project (#1) by FAO appears on the diagram twice, as it is executed in two different regions.

Programme Level Coordination Framework:

GEF FARM programme will be coordinated through a Programme Coordination Group (PCG) which will consist of the GEF Secretariat, Implementing and Executing Agencies for the Child Projects, and the FARM partners and stakeholders. The PCG will meet face to face annually, taking advantage of existing events in the chemicals and wastes calendar such as Conferences of the Parties of the Basel, Minamata, Rotterdam and Stockholm Conventions and events linked to the Strategic Approach to International Chemicals Management (SAICM). This modality serves to reduce costs and provides the opportunity for further interaction with a wider network of project stakeholders from the beneficiary countries, private sector, and civil society through additional parallel events. The approach also ensures close collaboration with the Conventions and SAICM Secretariats and other knowledge management platforms.

The Programme level coordination will be supported by the global child project. The global child project is responsible for designing the Programmatic Child Project reporting format, as well as other procedures and modalities for sharing information across the regional and national focused child projects. This modality will allow regions to learn from each other's experience and foster an environment of south-south cooperation through peer-to-peer learning and information exchange. The project will also establish the visual identity of the FARM programme, together with attendant branding materials and resources, and communicate these to the IAs/EAs of each child project.

All monitoring activities will be developed in line with GEF policy. The global child project will prepare a FARM Annual Monitoring Report, consolidating inputs from child projects' Programme Implementation Reports (PIR), which reports on the programme-level activities and achievements beyond those of the

Child Projects as presented in their respective PIRs. These Annual Monitoring Reports will include progress towards programme-level outcomes, major milestones achieved through overall programme implementation, and engagement in regional or global fora as means to advance the overall goal of the programme.

Programme Lead Implementing Agency

UNEP: UNEP is the lead Implementing Agency for the programme. As lead agency UNEP is overseeing the implementation of the programme, and reports to GEF Secretariat on progress through annual PIRs. UNEP will coordinate the programme through regular meetings of a Programme Coordination Group made up of GEF Secretariat, IAs (ADB, FAO, UNDP, UNEP UNIDO), EAs, and FARM partners and stakeholders. As Lead Agency UNEP will provide all reports to the GEF Secretariat to allow for onward reporting to the GEF Council.

UNEP's comparative advantage is its mandate to coordinate the work of the UN in environment, and its experience as a successful and efficient IA specializing in regional and global activities. UNEP's expertise includes proof of concept, testing of ideas, and the best available science and knowledge to form the basis of GEF investments. UNEP also serves as the Secretariat to three of the MEAs (BRS, Minamata and SAICM), for which GEF is the/a financing mechanism. UNEP will take the lead in finalizing the programme level data flow and reporting to the GEF Secretariat.

Project Level Institutional Arrangements and Coordination

The Global Child Project on Coordination, Knowledge Management and Finance Tools will be implemented by UNEP. GGKP has been selected as the Executing Agency for Global Coordination, Knowledge Management and Common Finance Tools and will take a leadership role with regards to engaging with international stakeholders on behalf of FARM. GGKP will be focusing on Policies and Enforcement, Public Finance, and Value Chains and Public Demand for reducing and managing pesticides and plastics and will have an internal agreement with UNEP FI for the work on Private Finance (Output 2.1). The institutional arrangements for the global child project are illustrated below (figure 4).

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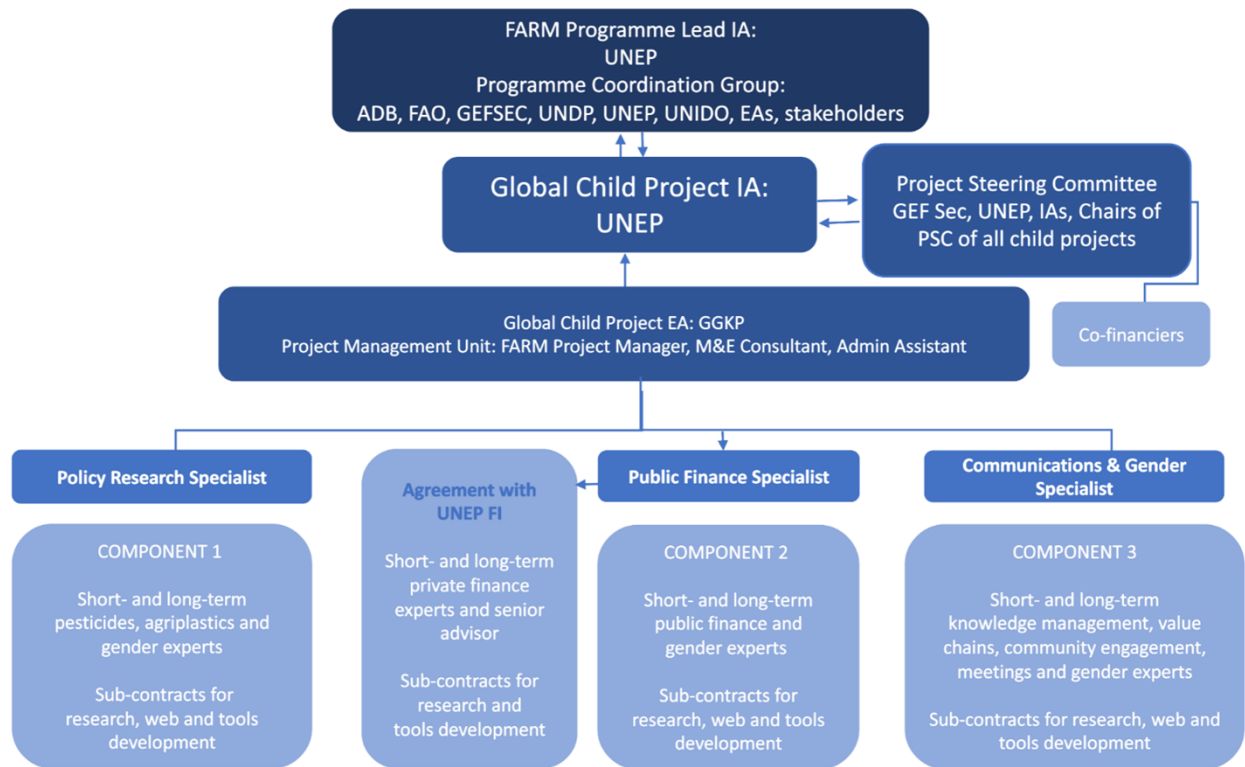


Figure 5 Structure of the Project and Key Staff.

The global child project will carry out the following functions.

- ? -Promote a standard approach to Monitoring and Evaluation, for example having a joint methodology for gathering data on GEBs and tracking achievements against the results framework.
- ? -Collate information from across the Child Projects, for GEF and the FARM Programme Coordinating Group.
- ? -Collate lesson learning and knowledge management across the child projects and communication with international external stakeholders. This will include preparing information for networks, platforms and conferences that are relevant to the work of FARM.
- ? -Coordinate thematic working groups engaging focal points in knowledge management, communications, stakeholder engagement, and gender.
- ? -Coordinate technical working groups across FARM on knowledge generation and application topics identified during the implementation stage.

The project management unit will consist of FARM Project Manager, Monitoring Consultant and Administrative Assistant. Both long-term and short-term personnel engaged in the global child project will be coordinated by the FARM Project Manager based at GGKP. The FARM Project Manager will be overseeing Policy Research Specialist, Public Finance Specialist and Communications & Gender Specialist, who will be further coordinating with short-term and long-term experts. The FARM Project Manager will monitor and report on GEBs accrued at PIR, MTR.

GGKP will have an internal agreement with UNEP FI which oversees Output 2.1. While there will be a separate budget line created for UNEP FI, all transactions will be subject to the approval of GGKP's administrative team, and the monitoring and reporting of expenditures will be centralized.

The global child project will convene a Project Steering Committee (PSC) as the project's superior governing body responsible for monitoring progress and taking corrective action as needed to ensure the project achieves the desired results. The PSC will consist of IAs and the chairs of each child project's steering committee. GGKP will act as the secretary to the PSC and provide regular project updates to the PSC. The PSC meeting will take place every year back-to-back with the PCG meeting, where feasible and appropriate, it will also be convened back-to-back with other relevant events or held via videoconference as needed and appropriate, to contain costs and minimise the projects carbon footprint.

The role of the PSC is to:

- ? Provide overall guidance and direction to the project, ensuring it remains within any specified constraints.
- ? Monitor progress and approve plans
 - o Approve the annual work plan and budget.
 - o Review the project progress, assess performance, and appraise the Annual Work Plan for the following year.
 - o Appraise the annual project implementation report, including the quality assessment rating report.
 - o Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.
 - o Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans, particularly the Stakeholder Engagement Plan, Gender Action Plan.
 - o Track and monitor co-financing for this project.
 - o Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.
- ? Oversee any corrective actions needed.?
 - o Address project issues as raised by the project manager.
 - o Provide guidance on new project risks and agree on possible mitigation and management actions to address specific risks.
 - o Advise on major and minor amendments to the project within the parameters set by UNEP-GEF.
 - o Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses.
- ? Enhance synergy between the GEF project and other on-going initiatives globally and nationally.
 - o Ensure coordination among participating organizations.?
 - o Ensure coordination between various donor and government-funded projects and programmes.
 - o Ensure coordination with various government agencies and their participation in project activities.
 - o Provide a mechanism to share lesson learning.?
- ? Ensure highest levels of transparency and take all measures to avoid any real or perceived conflicts of interest.
 - o Address project-level grievances.

Coordination with other relevant GEF financed and other activities

The project will coordinate with other agrochemical and agricultural plastics related programmes, including GEF GOLD and ISLANDS programme which are also led by UNEP, through regular exchanges between the Task Managers at the Lead Agency. It will coordinate with projects and initiatives related to reduction of hazardous agrochemicals and agricultural plastics that have been identified through knowledge management baseline for both knowledge management and sharing within and beyond FARM programme.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

This Global Project aims to coordinate the efforts of the child projects and promote knowledge generation and sharing on safer alternatives to POPs and HHPs, as well as the management of harmful agricultural plastics. The child projects within the programme are consistent with national strategies, plans, reports, and assessments, as described in the designated sections of child project documents; and are also in alignment with the objectives of the FARM programme at large.

Each participating country under the child projects is a signatory and an active participant in the Stockholm Convention. All countries have prepared NIPs as required including for the newly added POPs pesticides. As was described in the Programme Framework Document, the child projects are designed specifically to comply with and strengthen work under the Stockholm Convention. The programme and associated child projects are fully consistent with NIPs and are designed to assist government agencies in increasing capacity to improve NIPs implementation and relevant monitoring and reporting.

As Parties of the Stockholm Convention on Persistent Organic Pollutants, the involved countries endorse the requests of the Stockholm Convention described below:

- ? Parties not having regulatory and assessment schemes for pesticides and industrial chemicals to develop such schemes.
- ? To recognize the importance of developing and using environmentally sound alternative processes and chemicals,
- ? To protect human health and the environment from the harmful impacts of persistent organic pollutants.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

The overall aim of knowledge management of the FARM global child project is to foster an environment of cross fertilization of FARM knowledge between child project countries as well as with non-FARM countries at regional and global levels. Such cross-fertilization will play a key role in achieving long-term replication, upscaling and eventually adoption of FARM best practices, such as the reduced use of harmful pesticides and minimising negative impact of agricultural plastics. This approach is also to ensure an impact that is greater than the sum of the individual child projects. To do so, an online FARM knowledge management platform will be developed under the existing GGKP knowledge management system and be used to support FARM knowledge management activities. This platform will be then connected to important international conventions and ongoing mechanisms on chemicals management such as the Stockholm Convention Secretariat and SAICM, and GEF and UN Agency and MDB platforms including UNEP, FAO, UNDP and ADB's Natural Capital Lab.

With FARM child projects, the global knowledge management component will facilitate real time knowledge analysis and exchange among child projects to assist them in developing knowledge products and services in an efficient and coordinated manner so that they are produced in a consistent form. In the process of FARM knowledge management, knowledge analysis refers to activities that categorize and compare data and knowledge generated from child project to offer insights on FARM knowledge generation activities. Overall, through this, global knowledge management will also help avoid any duplication and a siloed approach, build upon lessons learned within the different child projects, especially activities planned across all child projects such as trainings for farmers and farmer field school, and consider existing best practices from outside the FARM programme.

Global knowledge management will focus on ensuring that best practices and lessons learned within each child project relevant to their country context are both prepared and maintained for wide ranging and long-term replication within the specific countries during and post the FARM programme. For this, the GGKP will collect, analyse and synthesise project data and knowledge from within and outside the FARM programme and provide child projects with a consistent methodology for producing knowledge most relevant to their national stakeholders. In turn, this will form a basis for cross fertilization of knowledge between child projects.

Beyond the FARM child projects, the global knowledge management component will bring together the key lessons learned, and best practices backed up by application experience from the child projects that are most relevant and adaptable to countries outside of the FARM programme. This is to facilitate the most effective replication in neighbouring countries in each region and scaling up the FARM knowledge in non-FARM countries at global level. To do so, the FARM knowledge management approach will combine FARM knowledge, information and data generated from each component of both global and child projects with a systematic review and compilation of existing and third-party experiences, lessons, case studies and tools. These will cover models for improved regulatory frameworks and pesticide registration, establishment of financial policies to support investment in sustainable agriculture, investigating any harmful subsidies in agriculture, innovating and implementing sustainable agriculture practices, and building capacity on both policy regulation and financing for reduced use of harmful agrochemicals and agricultural plastics.

In addition, as described in the Component 3 Joint Strategy (Appendix 10), the GGKP will formulate and develop a clear FARM business case through coordinated efforts between communications, stakeholder engagement and knowledge management. This business case will enable that FARM knowledge continues to be used and applied by actors and countries beyond the FARM programme, including diverse stakeholders in value chain of agrochemicals and agricultural plastics by considering the business reality in which those agricultural plastics and agrochemicals end-users operate in both developing policies and financing protocols. In this end, the demonstration of the FARM business case will help perpetuate the FARM knowledge and practices. GGKP's state-of-the-art knowledge management platform and system will ensure this process during and beyond the programme duration.

The knowledge management approach will be monitored and reported in a quarterly basis with a quarterly knowledge report which will track the engagement and outreach through the FARM online knowledge management system. The data and progress such as the number of authentic visitors and pageviews, percentage of bounce rate, new visitors gain per quarter and returning visitors, visitors' behaviours will be tracked. In addition to this, led by the GGKP, a quarterly thematic working group session on knowledge management will be held for child projects. As a means for monitoring and evaluation, the global project will conduct a platform user survey to receive feedback twice during the programme period and FARM targeted online surveys will be continued beyond the FARM programme period in line with GGKP's global online survey schedule.

More detailed steps, approach, actions, and deliverables of the FARM global knowledge management process are described in the FARM Global Child Project Knowledge Management Strategy (Appendix 9).

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The project M&E systems will achieve the following:

- A. Track progress towards achieving the Global Environmental Benefits.
- B. Track progress towards achieving the outputs and outcomes at the project level as described in the results framework.
- C. This information will contribute to programme management information.

The FARM Project Manager will be overseeing day-to-day operation of the global child project. GGKP as EA for the global child project will prepare and submit reports including quarterly progress and expenditure reports and annual PIRs. The global child project will also convene annual Project Steering Committee meetings which will take place back-to-back with the PCG meetings. UNEP as IA for the global child project will contract and manage the independent midterm and terminal evaluations.

In line with the GEF Evaluation requirements and UNEP's Evaluation Policy, GEF Full-Sized Projects and any project with a duration of 4 years or more will be subject to an independent Mid-Term Evaluation or management-led Mid-Term Review at mid-point. All GEF funded projects are subject to a performance

assessment when they reach operational completion. This performance assessment will be either an independent Terminal Evaluation or a management-led Terminal Review.

In case a Review is required, the UNEP Evaluation Office will provide tools, templates, and guidelines to support the Review consultant. For all Terminal Reviews, the UNEP Evaluation Office will perform a quality assessment of the Terminal Review report and validate the Review's performance ratings. This quality assessment will be attached as an Annex to the Terminal Review report, validated performance ratings will be captured in the main report.

However, if an independent Terminal Evaluation (TE) of the project is required, the Evaluation Office will be responsible for the entire evaluation process and will liaise with the Task Manager and the project implementing partners at key points during the evaluation. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP staff and implementing partners. The direct costs of the evaluation (or the management-led review) will be charged against the project evaluation budget. The TE will typically be initiated after the project's operational completion. If a follow-on phase of the project is envisaged, the timing of the evaluation will be discussed with the Evaluation Office in relation to the submission of the follow-on proposal.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalized. The evaluation report will be publicly disclosed and will be followed by a recommendation compliance process. The evaluation recommendations will be entered into a Recommendations Implementation Plan template by the Evaluation Office. Formal submission of the completed Recommendations Implementation Plan by the Project Manager is required within one month of its delivery to the project team. The Evaluation Office will monitor compliance with this plan every six months for a total period of 12 months from the finalisation of the Recommendations Implementation Plan. The compliance performance against the recommendations is then reported to senior management on a six-monthly basis and to member States in the Biennial Evaluation Synthesis Report.

The following table contains the key monitoring milestones and budget provisions for project and programme monitoring.

Table 7 M&E Workplan and budget

| Type of M&E activity | Responsible Parties | Budget from GEF | Budget co-finance | Time Frame |
|--|---------------------|--------------------------------------|-----------------------------------|---|
| Inception Meeting | GGKP | Included with PSC meetings | | Within 2 months of project start-up |
| Inception Report | GGKP | Included in FARM M Consultant budget | Included in GGKP cofinance letter | 1 month after project inception meeting |
| Measurement of project progress and performance indicators | GGKP | | | Annually |

| Type of M&E activity | Responsible Parties | Budget from GEF | Budget co-finance | Time Frame |
|---|---|--------------------------------------|-------------------|--|
| Baseline measurement of project outcome indicators, GEF Core indicators | GGKP | (340k) | | Project inception |
| Mid-point measurement of project outcome indicators, GEF Core indicators | GGKP (in line with midterm evaluation) | | | Mid Point |
| End-point measurement of project outcome indicators, GEF Core indicators | GGKP (in line with terminal evaluation) | | | End Point |
| Quarterly Progress/ Operational Reports to UNEP | GGKP | | | Within 1 month of the end of reporting period i.e. on or before 31 January and 31 July |
| Project Steering Committee (PSC) meetings and Programme Coordination Group | UNEP/GGKP | USD 50,000 | | Once a year minimum |
| Reports of PSC meetings | GGKP | Included in FARM M Consultant budget | | Annually |
| Project Implementation Report (PIR) | GGKP | | | Annually, part of reporting routine |
| Annual FARM Progress Report | UNEP/GGKP | | | |
| Mid Term Review/Evaluation | UNEP | USD 20,000 | | At mid-point of project implementation |
| Terminal Review/Evaluation (<i>whether a project requires a management-led review or an independent evaluation is determined annually by UNEP's Evaluation Office</i>) and Programmatic Terminal Evaluation | UNEP | USD 60,000 | | Typically initiated after the project's operational completion |
| Project Operational Completion Report | | M&E Consultant USD 30,000 | | Within 2 months of the project completion date |
| Co-financing report (including supporting evidence for in-kind co-finance) | | | | Within 1 month of the PIR reporting period, i.e. on or before 31 July |
| Publication of Lessons Learnt and other project documents | | USD 30,000 | | Annually, part of Semi-annual reports & Project Final Report |
| Total | | USD 500,000 | | |

Programmatic Monitoring and Evaluation.

In addition to the M&E requirements for each child project as per the usual requirements of the Implementing Agency, the FARM programme also has programmatic monitoring and evaluation requirements as set out by the GEF Policy on Monitoring (ME/PL/03). The Lead Agency (UNEP) and Global Coordination Child Project reports annually to the GEF Secretariat on programme-level results. GGKP will prepare a FARM Annual Monitoring Report documenting progress towards programme level

outcomes, major milestones achieved in the FARM programme and FARM engagement in regional or global fora. This report will be based on information provided by the child projects. The programmatic M&E system is designed to fulfil the following requirements.

- A. To promote accountability by tracking progress towards achieving
- B. The Global Environmental Benefits (Core Indicators)
- C. The sum of progress towards child project outputs and outcomes as described in the child projects? results frameworks (FARM Common Indicators)
- D. To promote learning through knowledge generation and sharing programme experience and best practices with internal and external stakeholders.

GGKP will develop programme dashboard to allow stakeholders and interested individuals to see progress against the results consolidated from all child projects. The set of FARM Common Indicators will supplement the GEF Core Indicators and provide more granular detail on the progress and learning of the child projects. These Common Indicators will be developed during the first year of implementation but be strongly based on the child projects? results frameworks. The joint planning, monitoring and evaluation cycle will use existing plans and reports produced by the child projects wherever possible to minimize additional reporting burden.

Each child project prepares and copies their annual work plan to GGKP in December / January. This will be consolidated by GGKP into the draft FARM global workplan focusing on shared, cross cutting activities such as communication, knowledge management, global, stakeholder engagement etc. GGKP, in its global coordination role will establish regular and informal contact between technical experts in the different child projects, on four cross cutting aspects - Knowledge Management, Communication, Stakeholder engagement and Gender. They will coordinate regular (quarterly) thematic working group meetings for the different cross cutting themes to maximise learning and establish an active and connected FARM Community of Practice. These will be virtual meetings, combined with interactive online functions like the GGKP Green Forum or SAICM Communities of Practice.

In addition to the periodic reporting, the FARM programme will also organize regular events for information sharing and coordination.

•**Annual FARM Coordination Meeting** of the Programme Coordination Group (Implementing and Executing Agencies of the child projects, takes place in Feb-March each year). This meeting will review progress, review workplans from the child projects, and provide coordination between projects.

•**Biennial FARM Partners Forum** provides an opportunity for a wider group of stakeholders (e.g., child projects Executing Agencies, delivery partners, relevant agricultural value chain actors) to share lessons/knowledge and results of child projects across the programme. Child projects will fund the participation of their key representatives at the Forum, while the global child project will also include budget to invite non-FARM participating countries on a regional rotation. Two Partners Forum will be held during the implementation stage.

•**Thematic Working Groups.** GGKP, in its global coordination role will establish regular and informal contact between technical experts in the different child projects, on four cross cutting aspects - Knowledge Management, Communication, Stakeholder engagement and Gender. They will coordinate regular (quarterly) thematic working group meetings for the different cross cutting themes to maximise learning and establish an active and connected FARM Community of Practice.

At implementation midterm, and as child projects conduct their separate midterm reviews (MTR), the Implementing Agencies will share the reports with the Lead Agency. GGKP will compile a summary of lessons learnt and recommendations for corrective actions to present and discuss at the Programme Coordination Group.

Following the independent Terminal Evaluation (TE) of each child project, the Lead Agency will also conduct a Programmatic Terminal evaluation in accordance with GEF evaluation guidelines. The TE of FARM programme will be carried out by the UNEP Evaluation Office. The TE of FARM will provide an

independent assessment of project performance (relevance, effectiveness, and efficiency) and determine the likelihood of impact and sustainability.

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCE/SCCF)?

Socio-economic benefits of reducing the use of HHPs, reducing plastic pollution from agriculture and increasing the adoption of sustainable agricultural practices include the following.

Improved public health outcomes. The global child project will contribute to mitigating direct and indirect health impacts caused by harmful agrochemicals (refer to Baseline section for a description of health impacts). A higher level of awareness coupled with stronger regulations will contribute to minimising the access to and use of HHPs thereby reducing the risk of pesticide poisoning, for farmers applying pesticides, neighbours affected by pesticide drift and consumers at risk of consuming contaminated food. These problems are more prevalent in low-income and middle-income countries, where there is less understanding of the risks and less use of personal protective equipment. As previously noted, women are more susceptible than men to the toxic effects of agricultural pesticides, and according to research carried out by the Centre for Prevention of Pesticide Poisoning are more likely to use pesticides to attempt to commit suicide. This will have a positive impact on the individuals and families affected, reducing sickness and distress, and will reduce the burden on under resource and over stretched public health systems.

Climate change resilience. Maintaining biodiversity has been shown to contribute to climate change resilience combatting the build-up on novel pests and diseases, which have traditionally been controlled by the additional use of pesticides and allowing existing farming practices to continue.

Maintaining long term agricultural productivity. Reducing the environmental consequences of unsustainable agricultural practices, such as reducing biodiversity and increasing the contamination of soils with pesticide and plastic residues will contribute to maintaining soil fertility and long-term agricultural productivity and the viability of rural livelihoods. Furthermore, reducing the use of HHPs will give farmers increased access to higher value organic value chains thereby increasing household revenue.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

| PIF | CEO Endorsement/Approval | MTR | TE |
|-----|-----------------------------|-----|----|
| Low | | | |

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

Safeguard Risk Identification Form (SRIF)

Section 1: Project Overview

| | |
|-------------------|---|
| Identification | GEF ID 10903 UNEP IMIS: N/A |
| Project Title | FARM: Global Coordination, Knowledge Management and Common Finance Tools (GEF ID 10903) |
| Managing Division | Economy Division |
| Type/Location | Global |
| Region | Global |
| List Countries | N/A |

| | |
|--------------------------------------|---|
| Project Description | <p>The FARM programme aims to achieve a transformation of the agriculture sector away from the extensive use of POPs and HHPs and poor management of agricultural plastics to a less chemical-intensive and sustainable agricultural system. This will be achieved through policy reform and financial alignment, coupled with engagement and knowledge provision for value chain actors to support implementation of the changes. This, together with a public communications and knowledge management campaign, will help shift the mindsets of farmers, consumers and the general public regarding the value of sustainable agriculture.</p> <p>UNEP is the project's Implementing Agency and GGKP is the Executing Agency in partnership with UNEP FI.</p> <p>The global child project will facilitate the generation and compilation of knowledge from the FARM programme and share that knowledge with international and national audiences to replicate results and solutions. The global child project will also coordinate activities across the FARM programme and provide a mechanism by which other FARM child projects can engage with international and regional stakeholders, including institutions, expert networks, and platforms.</p> <p>The project is composed of three components: Under Policy and Enforcement (component 1), the global child project will consolidate lesson learning from the other child projects and wider ecosystem to generate best practice learning and new knowledge. Under Finance and Investment (component 2), the project will raise awareness with private sector finance institutions regarding the hazards of POP's and HHP's and the unsafe management of plastic in the agriculture sector. Furthermore, the project will develop and roll-out frameworks and tools so that finance institutions can assess and minimize the risks of pesticides and plastics in agricultural investments. These two components are underpinned by Effective Knowledge Management (component 3)</p> |
| Relevant Subprogrammes | Chemicals, Waste and Air Quality |
| Estimated duration of project | 60 Months |
| Estimated cost of the project | 7,455,000 USD |

| | |
|--|---|
| Name of the UNEP project manager responsible | Eloise Touni |
| Funding Source(s) | GEF Trust Fund |
| Executing/Implementing partner(s) | GGKP and UNEP-FI. |
| SRIF submission version | Version 1 |
| Safeguard-related reports prepared so far <i>(Please attach the documents or provide the hyperlinks)</i> | ? <i>Feasibility report []</i> ? <i>Gender Action Plan [x]</i> ? Stakeholder Engagement Plan [x] ? <i>Safeguard risk assessment or impact assessment [x]</i> ? <i>ES Management Plan or Framework []</i> ? <i>Indigenous Peoples Plan []</i> ? <i>Cultural Heritage Plan []</i> ? <i>Others _____</i> |

Section 2: Safeguards Risk Summary

A. Summary of the Safeguards Risk Triggered

| Safeguard Standards Triggered by the Project | Impact of Risk[1] (1-5) | Probability of Risk (1-5) | Significance of Risk (L, M, H) <i>Please refer to the matrix below</i> |
|--|------------------------------------|----------------------------------|--|
| SS 1: Biodiversity, Ecosystems and Sustainable Natural Resource Management | 1 | 1 | L |
| SS 2: Climate Change and Disaster Risks | 1 | 1 | L |
| SS 3: Pollution Prevention and Resource Efficiency | 2 | 1 | L |

| | | | |
|---|---|---|---|
| SS 4: Community Health, Safety and Security | 2 | 1 | L |
| SS 5: Cultural Heritage | 1 | 1 | L |
| SS 6: Displacement and Involuntary Resettlement | 1 | 1 | L |
| SS 7: Indigenous Peoples | 1 | 1 | L |
| SS 8: Labor and working conditions | 2 | 1 | L |

B. ESS Risk Level² -

Refer to the UNEP ESSF (Chapter IV)
and the UNEP's ESSF Guidelines.

Low risk



Moderate risk



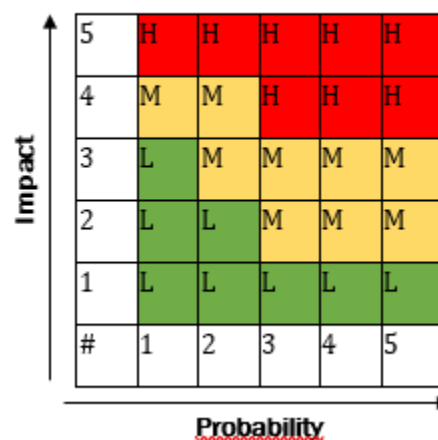
High risk



Additional information required



|



C. Development of ESS Review Note and Screening Decision

Prepared by

Name: Eloise Touni Date: November 23, 2022

Screening review by

Name: Alexandra Mutungi Date: December 01, 2022

Cleared³

Signature

D. **Safeguard Review Summary** (by the safeguard team)

This project is rated low risk. The UNEP ESSF Guiding Principles as outlined in section 3 should be upheld throughout the project lifecycle. The project has developed the Stakeholder Engagement Strategy and Gender Action Plan.

E. **Safeguard Recommendations** (by the safeguard team)

- No specific safeguard action required ☐
- Take Good Practice approach⁴ ☒
- Carry out further assessments (e.g., site visits, experts' inputs, consult affected communities, etc.) ☐
- Carry out impact assessments (by relevant experts) in the risk areas and develop management framework/plan ☐
- Consult Safeguards Advisor early during the full project development phase ☐
- Other _____

Section 3: Safeguard Risk Checklist

| Screening checklist | Y/N/ Maybe | Justification for the response (please provide answers to each question) |
|---|---------------|--|
| Guiding Principles (these questions should be considered during the project development phase) | | |
| GP1 Has the project analyzed and stated those who are interested and may be affected positively or negatively around the project activities, approaches or results? | Y | The different stakeholders have been analyzed and stated in the stakeholder engagement strategy. Stakeholder engagement will continue during the project implementation. |

| | | |
|--|---|---|
| GP2 Has the project identified and engaged vulnerable, marginalized people, including disabled people, through the informed, inclusive, transparent and equal manner on potential positive or negative implication of the proposed approach and their roles in the project implementation? | N | The global child project will not be working directly with vulnerable or marginalized groups. A gender analysis and action plans has been developed to ensure that gender aspects have been included in the project design to improve gender equity. |
| GP3 Have local communities or individuals raised human rights or gender equality concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)? | N | This project is working at the global level with financial institutions, not with communities and individual farmers who are indirectly affected by this project. |
| GP4 Does the proposed project consider gender-balanced representation in the design and implementation? | Y | A gender analysis has been conducted and a gender action plan developed for this project. |
| GP5 Did the proposed project analyze relevant gender issues and develop a gender responsive project approach? | Y | Gender issues are analyzed in the baseline section and Section 3 on Gender Equality and Women's Empowerment in the CEO Endorsement Request. |
| GP6 Does the project include a project-specific grievance redress mechanism? If yes, state the specific location of such information. | Y | Grievance issues can be raised through the UNEP Stakeholder Response Mechanism (https://www.unep.org/resources/report/un-environments-environmental-social-and-economic-sustainability-framework). FARM programme-wide Stakeholder Response Mechanism will be made available on the global knowledge management platform. |

| | | |
|---|---|--|
| GP7 Will or did the project disclose project information, including the safeguard documents? If yes, please list all the webpages where the information is (or will be) disclosed. | Y | All project information will be available on the project's knowledge management platform. |
| GP8 Were the stakeholders (including affected communities) informed of the projects and grievance redress mechanism? If yes, describe how they were informed. | Y | Stakeholders will be informed through the Knowledge management platform during the project implementation. |
| GP9 Does the project consider potential negative impacts from short-term net gain to the local communities or countries at the risk of generating long-term social or economic burden?[2] | Y | Transitioning from the widespread use of HHP's may result in short term losses of production but will result in a more robust agro ecology less susceptible to climate change risks and the adoption of less hazardous agricultural practices, as well as facilitate the prevention of accidental and intentional poisoning with HHPs through the activities of project Component 1. |
| GP10 Does the project consider potential partial economic benefits while excluding marginalized or vulnerable groups, including women in poverty? | Y | <p>Social and economic impacts of the project are only indirect as the project will deliver environmental benefits through the establishment of a knowledge management mechanism for the other child projects in the FARM programme and through the promotion of the innovative financial mechanisms tested in the child projects.</p> <p>The global reinforcement of successes and knowledge generated by child projects through a knowledge platform could contribute to improved social and economic stability of involved stakeholders</p> <p>Please consult sections 3. Gender Equality and 10. Benefits of the project document for further detail</p> |
| | | |
| Safeguard Standard 1: Biodiversity, Ecosystems and Sustainable Natural Resource Management | | |
| <i>Would the project potentially involve or lead to:</i> | | |

| | | |
|--|---|---|
| 1.1 conversion or degradation of habitats (including modified habitat, natural habitat and critical natural habitat), or losses and threats to biodiversity and/or ecosystems and ecosystem services? | N | The global project aims to reduce pesticide and agricultural plastic residue in the environment through global activities and will not intervene at any site levels. |
| 1.2 adverse impacts specifically to habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA); etc.)? | N | |
| 1.3 conversion or degradation of habitats that are identified by authoritative sources for their high conservation and biodiversity value? | N | |
| 1.4 activities that are not legally permitted or are inconsistent with any officially recognized management plans for the area? | N | |
| 1.5 risks to endangered species (e.g. reduction, encroachment on habitat)? | N | |
| 1.6 activities that may result in soil erosion, deterioration and/or land degradation? | N | |
| 1.7 reduced quality or quantity of ground water or water in rivers, ponds, lakes, other wetlands? | N | The quality of ground water or water in rivers, ponds, lakes, and other wetlands is expected to improve due to the reduced use of hazardous chemicals leading to their reduced presence in wastewater. The global child project will not intervene at site level. |

| | | |
|---|---|--|
| 1.8 reforestation, plantation development and/or forest harvesting? | N | |
| 1.9 support for agricultural production, animal/fish production and harvesting | Y | The project will support the transition to low chemical farming practices to reduce the use of POP?s and HHP?s. The global child project will not intervene at site level. |
| 1.10 introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional? | Y | <p>The program will advocate for the increased use of bio-pesticides, which may contain alien species.</p> <p>No new alien species (i.e. species not currently established in the country or region of the project) will be intentionally introduced in any of the countries this global project may interact with, before it is subjected to a risk assessment to determine the potential for invasive behavior and carried out in accordance with the national regulatory frameworks and registration processes.</p> |
| 1.11 handling or utilization of genetically modified organisms? | N | |
| 1.12 collection and utilization of genetic resources? | N | |
| | | |
| Safeguard Standard 2: Climate Change and Disaster Risks | | |
| <i>Would the project potentially involve or lead to:</i> | | |
| 2.1 improving resilience against potential climate change impact beyond the project intervention period? | Y | Reducing dependence on synthetic POP?s and HHP?s and promoting holistic methods of pest control such as Integrate Pest Management will establish a more resilient Agro-ecology which is more resilient to climate change risks. |

| | | |
|---|---|--|
| 2.2 areas that are now or are projected to be subject to natural hazards such as extreme temperatures, earthquakes, extreme precipitation and flooding, landslides, droughts, severe winds, sea level rise, storm surges, tsunami or volcanic eruptions in the next 30 years? | Y | This project is focused on global knowledge management, however the countries that the other FARM child projects will be implemented in are in the tropical zone, which is more susceptible to extreme weather events resulting from climate change. Each of the child projects is therefore conducting a scan of climate risks. |
| 2.3 outputs and outcomes sensitive or vulnerable to potential impacts of climate change (e.g. changes in precipitation, temperature, salinity, extreme events)? | N | |
| 2.4 local communities vulnerable to the impacts of climate change and disaster risks (e.g. considering level of exposure and adaptive capacity)? | Y | As the project countries are vulnerable to the impacts of climate change, so are the local communities. |
| 2.5 increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change? | N | The project is expected to decrease the emissions of greenhouse gases, due to reduce open burning of plastic and reducing the demand for new agricultural plastic films. |
| 2.6 Carbon sequestration and reduction of greenhouse emissions, resource-efficient and low carbon development, other measures for mitigating climate change | N | |
| | | |
| Safeguard Standard 3: Pollution Prevention and Resource Efficiency | | |

| | | |
|---|---|---|
| <i>Would the project potentially involve or lead to:</i> | | |
| 3.1 the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts? | N | The project specifically aims to reduce the use POP's and HHP's in agriculture and reduce plastic pollution from unsafe disposal of agricultural plastics. |
| 3.2 the generation of waste (both hazardous and non-hazardous)? | N | |
| 3.3 the manufacture, trade, release, and/or use of hazardous materials and/or chemicals? | N | |
| 3.4 the use of chemicals or materials subject to international bans or phase-outs? (e.g. DDT, PCBs and other chemicals listed in international conventions such as the the Montreal Protocol , Minamata Convention , Basel Convention , Rotterdam Convention , Stockholm Convention) | N | The project will support the participating countries on the elimination and reduction of the use of chemicals listed under the Stockholm and Rotterdam conventions. |
| 3.5 the application of pesticides or fertilizers that may have a negative effect on the environment (including non-target species) or human health? | N | |
| 3.6 significant consumption of energy, water, or other material inputs? | N | |
| | | |
| Safeguard Standard 4: Community Health, Safety and Security | | |

| | | |
|---|---|--|
| <i>Would the project potentially involve or lead to:</i> | | |
| 4.1 the design, construction, operation and/or decommissioning of structural elements such as new buildings or structures (including those accessed by the public)? | N | |
| 4.2 air pollution, noise, vibration, traffic, physical hazards, water runoff? | N | |
| 4.3 exposure to water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable or noncommunicable diseases? | N | |
| 4.4 adverse impacts on natural resources and/or ecosystem services relevant to the communities? health and safety (e.g. food, surface water purification, natural buffers from flooding)? | N | Reducing the use of POP's and HHP's will reduce the prevalence of pesticide residues in ecosystem and subsequent negative impacts. |
| 4.5 transport, storage use and/or disposal of hazardous or dangerous materials (e.g. fuel, explosives, other chemicals that may cause an emergency event)? | N | |
| 4.6 engagement of security personnel to support project activities (e.g. protection of property or personnel, patrolling of protected areas)? | N | |

| | | |
|--|---|--|
| 4.7 an influx of workers to the project area or security personnel (e.g. police, military, other)? | N | |
| | | |
| Safeguard Standard 5: Cultural Heritage | | |
| <i>Would the project potentially involve or lead to:</i> | | |
| 5.1 activities adjacent to or within a Cultural Heritage site? | N | |
| 5.2 adverse impacts to sites, structures or objects with historical, cultural, artistic, traditional or religious values or to intangible forms of cultural heritage (e.g. knowledge, innovations, practices)? | N | |
| 5.3 utilization of Cultural Heritage for commercial or other purposes (e.g. use of objects, practices, traditional knowledge, tourism)? | N | |
| 5.4 alterations to landscapes and natural features with cultural significance? | N | |
| 5.5 significant land clearing, demolitions, excavations, flooding? | N | |
| 5.6 identification and protection of cultural heritage sites or intangible forms of cultural heritage | | |
| Safeguard Standard 6: Displacement and Involuntary Resettlement | | |
| <i>Would the project potentially involve or lead to:</i> | | |

| | | |
|---|---|--|
| 6.1 full or partial physical displacement or relocation of people (whether temporary or permanent)? | N | |
| 6.2 economic displacement (e.g. loss of assets or access to assets affecting for example crops, businesses, income generation sources)? | N | |
| 6.2 involuntary restrictions on land/water use that deny a community the use of resources to which they have traditional or recognizable use rights? | N | |
| 6.3 risk of forced evictions? | N | |
| 6.4 changes in land tenure arrangements, including communal and/or customary/traditional land tenure patterns (including temporary/permanent loss of land)? | N | |
| | | |
| Safeguard Standard 7: Indigenous Peoples | | |
| <i>Would the project potentially involve or lead to:</i> | | |
| 7.1 areas where indigenous peoples are present or uncontacted or isolated indigenous peoples inhabit or where it is believed these peoples may inhabit? | N | |

| | | |
|--|---|--|
| 7.2 activities located on lands and territories claimed by indigenous peoples? | N | |
| 7.3 impacts to the human rights of indigenous peoples or to the lands, territories and resources claimed by them? | N | |
| 7.4 the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? | N | |
| 7.5 adverse effects on the development priorities, decision making mechanisms, and forms of self-government of indigenous peoples as defined by them? | N | |
| 7.6 risks to the traditional livelihoods, physical and cultural survival of indigenous peoples? | N | |
| 7.7 impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices? | N | |
| | | |
| Safeguard Standard 8: Labor and working conditions | | |
| 8.1 Will the proposed project involve hiring or contracting project staff? | Y | The executing agency will be responsible for hiring project staff. As per PCA conditions, UNEP guiding principles on selection process and labour and working conditions will have to be adopted. The EA being an intergovernmental organisation hosted by UNEP, these rules are already integrated in their operations. |

| | | |
|---|---|---|
| <i>If the answer to 8.1 is yes, would the project potentially involve or lead to:</i> | | |
| 8.2 working conditions that do not meet national labour laws or international commitments (e.g. ILO conventions)? | N | |
| 8.3 the use of forced labor and child labor? | N | |
| 8.4 occupational health and safety risks (including violence and harassment)? | N | |
| 8.5 the increase of local or regional unemployment? | N | |
| 8.6 suppliers of goods and services who may have high risk of significant safety issues related to their own workers? | N | |
| 8.7 unequal working opportunities and conditions for women and men | N | The project aims to improve the working conditions for women working in agriculture by reducing their exposure to pesticide residues. |

Supporting Documents

Upload available ESS supporting documents.

| Title | Module | Submitted |
|---|---------------------|-----------|
| 10903 - Appendix 6b - COVID questionnaire | CEO Endorsement ESS | |

| Title | Module | Submitted |
|----------------------------|---------------------|-----------|
| 10903 - Appendix 6a - SRIF | CEO Endorsement ESS | |

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

| Outcome/ Output | Outcome/Output indicators | Baseline | Targets and monitoring milestones | Means of Verification | Assumptions and Risks | UNEP PoW and MTS 2025 Expected Results. |
|---|---------------------------|----------|-----------------------------------|-----------------------|-----------------------|---|
| Component 1: Government and Policy enforcement. | | | | | | |

| Outcome/ Output | Outcome/Output indicators | Baseline | Targets and monitoring milestones | Means of Verification | Assumptions and Risks | UNEP PoW and MTS 2025 Expected Results. |
|--|---|--|---|---|---|---|
| <u>Outcome 1</u> Governments and inter-governmental regulatory bodies share and use FARM and FARM-related knowledge to create the enabling conditions for the reduction and sound management of pesticides and agricultural plastics. | No. of regulatory bodies taking concrete actions to change relevant policies and enforcement mechanisms through FARM interventions[1] . | There are national (non-FARM countries) and regional regulatory bodies taking actions on chemicals, which FARM will learn from and replicate in other non-FARM countries and in different regions. There is however lack of concrete actions on agricultural plastics. | 7 regulatory bodies* engaged through FARM interventions take concrete actions towards FARM objectives. (30% by end-2025) <i>*National regulatory bodies in non-FARM countries and different regions will be identified in the first year of implementation. These will include relevant government ministries such as ministries of planning, environment, or agriculture, and inter-governmental regulatory bodies at regional and global levels.</i> | <i>Documented evidence, case studies.</i> | 1) Governments have interest in FARM priorities. 2) The global commodities and energy crisis does not negate FARM 3) Multilateral institutions can influence governments. 5) Collaboration is possible with public sector stakeholders . | PoW Outcomes: 3A and 3B |

[illegible]

| Outcome/ Output | Outcome/Output indicators | Baseline | Targets and monitoring milestones | Means of Verification | Assumptions and Risks | UNEP PoW and MTS 2025 Expected Results. |
|--|--|--|---|---|--|---|
| <u>Outcome 2</u> Public and private finance actors share and use FARM and FARM-related knowledge to reorient financial resources to the reduction and sound management of chemical and plastic pollution in the agriculture sector. | No. of public and private finance actors take action to reorient financial resources to the reduction and sound management of chemical and plastic pollution in the agriculture sector[5]. | Few finance actors have awareness and/or strategy to reorient financial resources towards sustainable practices and most lack knowledge, capacity and tools. | 30 private financial institutions. (by mid-2027) 10 public finance actors. (by mid-2027) | <i>Documentation of the action taken.</i> | 1) Private financial institutions are motivated to align portfolios once technical guidance is available. 2) Public finance actors are able take steps to reorient financial flows. | PoW Outcomes: 3A and 3B |

| Outcome/ Output | Outcome/Output indicators | Baseline | Targets and monitoring milestones | Means of Verification | Assumptions and Risks | UNEP PoW and MTS 2025 Expected Results. |
|--|--|---|---|--|---|--|
| <u>Output 2.1</u> Private finance actors have increased knowledge, capacity, and tools to align their portfolios with global, regional, and national goals to prevent and reduce chemical and plastic pollution | No. of methodologies, tools, studies, or guidance are developed for private finance actors[6] No. of private finance professionals trained on the methodology, tools or guidance through a capacity-building Programme[7] | No methodology, tool, study, or guidance specifically supports assessment, prevention and reduction of agrichemicals and agriplastics in financial portfolios Very few private finance professionals have specific capacity on agrichemicals and agriplastics pollution. | 1 guidance developed (by end-2025) 1 methodology, tool or study developed (by mid-2027) 30 private finance professionals. (Disaggregated by gender) (by mid-2027) | <i>Guidance & methodology or tool developed and disseminated.</i> <i>Report of training sessions and participant lists.</i> | 1) Global recession directs private sector attention away from green finance initiatives. 2) Participating in trainings is an indication of interest in applying the approach. | Direct Outcomes: 3.12 and 3.14 PoW Indicators: iv, v and vi |

[illegible]

| Outcome/ Output | Outcome/Output indicators | Baseline | Targets and monitoring milestones | Means of Verification | Assumptions and Risks | UNEP PoW and MTS 2025 Expected Results. |
|---|--|--|--|--|---|---|
| <p><u>Outcome 3</u> Value chain actors and the broader public access and share FARM and FARM-related knowledge to reorient demand for products and agricultural processes that reduce pesticides and agricultural plastics pollution.</p> | <p>No. of value chain actors and knowledge providers engaged in sharing knowledge[10]</p> <p>No. of individuals accessing the FARM website, knowledge products, links and communications materials disseminated and online[11]</p> | <p>There are a wide range of value chain actors engaged in agrochemical management information exchange and sharing, though sharing knowledge publicly comes more from the IGO, NGO, and academic sectors, however financing and agricultural plastics have less knowledge and engagement from value chain actors. While the demand for organic and less environmentally and socially harmful agricultural products is on the rise in wealthy countries and communities, that demand has not translated into the domestic markets of the FARM countries nor countries with</p> | <p>10 value chains actors (30% by end-2025)</p> <p>5,000 individuals (Disaggregated by gender) (30% by end-2025)</p> | <p><i>Evidence from workshops, events etc.</i></p> <p><i>Website tracking data, engagement analytics</i></p> | <p>1) FARM knowledge is relevant to and draws interest from target audiences. 2) FARM brand is able to build a profile that is trusted and in demand. 3) FARM has adequate access to leading forums to promote its work. 4) FARM implementing and executing agencies are mutually supportive. 5) FARM partners are able to freely access and share FARM knowledge</p> | <p>PoW Outcome 3: 3A</p> |

| Outcome/ Output | Outcome/Output indicators | Baseline | Targets and monitoring milestones | Means of Verification | Assumptions and Risks | UNEP PoW and MTS 2025 Expected Results. |
|---|--|--|--|--|---|---|
| <u>Output 3.1</u> FARM and FARM-related knowledge is curated and disseminated for global public access under the FARM brand. | <p>No. of public information materials and communications produced on the basis of FARM and FARM-related knowledge products[12].</p> <p>No. of FARM and FARM-related knowledge products curated and made publicly available[13].</p> | <p>Knowledge on agrochemicals, particularly HHPs and POPs, is readily available, but the financing aspect and emerging issue of agricultural plastics management is much harder to find. There are limited to no resources, be it knowledge, websites, or campaigns, that address all three.</p> | <p>10 public information materials. (30% by end-2025)</p> <p>100 knowledge products. (30% by end-2025)</p> | <i>Material produced and disseminated.</i> | <p>1) FARM technical material can be re-packaged for non-expert audiences.</p> <p>2) Adequate knowledge exists to build a FARM knowledge library.</p> | <p>Direct Outcomes: 3.8 and 3.13</p> <p>PoW Indicators: iv and vi</p> |

| Outcome/ Output | Outcome/Output indicators | Baseline | Targets and monitoring milestones | Means of Verification | Assumptions and Risks | UNEP PoW and MTS 2025 Expected Results. |
|--|---|--|---|---|---|--|
| <u>Output 3.2</u> New stakeholders engaged to build momentum and boost demand for pollution-free agricultural products. | No. of partnerships established along the agricultural value chain, potentially including farmers associations, retailers, SMEs, consumer organizations, media outlets and gender groups[14] No. of FARM Biennial Forums held[15] No. of participants at FARM Biennial Forums[16] | Partnerships on addressing dangerous agrochemicals , as well as regional and global conferences and forums focused on toxic chemicals in general, are well-established. However, agricultural plastics lack a similar infrastructure and focus, and reorienting finance flows has not been a main concern so far, beyond public subsidies. | 3 partnerships established at global or regional levels. (30% by end-2025) 2 Biennial Forums, (30% by end-2025) 200 participants. (Disaggregated by gender) (30% by end-2025) | <i>Partnership agreements, MoU's etc.</i> <i>Minutes of forums.</i> <i>Participant lists, attendance reports.</i> | 1) Value chain actors have sufficient interest, to engage in FARM outreach. 2) FARM adopts good practices in adaptive project management . | Direct Outcomes: 3.8 and 3.11 PoW Indicators: iv and vi |
| Component 4. Monitoring and Evaluation. | | | | | | |
| <u>Outcome 4</u> GEF child projects and partners implement activities using a coordinated programmatic approach, including shared visibility, gender and reporting practices. | Percentage of compliance with harmonized approaches to FARM visibility, gender and reporting practices across child projects. | 0 percentage of compliance. | 90% compliance. (by end-2025) | <i>Review of communications and documentation produced by child projects.</i> | 1) Institutional priorities and stakeholder needs do not interfere with programmatic approaches. | |

| Outcome/ Output | Outcome/Output indicators | Baseline | Targets and monitoring milestones | Means of Verification | Assumptions and Risks | UNEP PoW and MTS 2025 Expected Results. |
|--|--|---|---|---|--|---|
| <u>Output 4.1</u> Programmatic reporting including annual reports, midterm and terminal reviews are produced with child projects to monitor and evaluate the Programme and practice adaptive management when necessary. | No. of programmatic reports published. | 0 programmatic reports. | 5 annual monitoring reports published based on PIRs from all child projects. 1 synthesis of midterm reviews 1 programmatic terminal evaluation conducted. | <i>Reports produced and submitted to GEF.</i> | 1) All child projects submit PIRs on time. 2) Implementing partners respond to queries from the PCG. | Direct Outcomes: 3.10 PoW Indicators: |
| <u>Output 4.2</u> Global child project reports are timely submitted and adaptive management is applied when necessary. | No. of quarterly progress and expenditure reports. No. of annual PIRs submitted. No. of annual Steering Committee meetings held. No. of global project reviews. | 0 quarterly progress and expenditure reports. 0 annual PIRs. 0 annual Steering Committee meetings. 0 global project reviews. | 20 quarterly reports. 5 annual PIRs. 5 annual meetings. 1 midterm review. 1 terminal evaluation. | <i>Reports produced and submitted to GEF.</i> | 1) GGKP administrative support capacity remains at a stable level. 2) Qualified and effective project evaluators. | Direct Outcomes: 3.10 PoW Indicators: |

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Response to GEF Council comments.

| Comment | Response |
|---|--|
| Norway and Denmark | |
| Limited presence and capacity of UNEP in Viet Nam and challenges to regional back-up | ADB is the implementing agency in Viet Nam and has a significant presence and experience in country. UNEP brings globally recognised expertise in environmental issues and has a lot of experience of coordinating GEF Programmes and bringing in expertise as required. |
| ADB's role as implementing agency as usually perceived as investor / donor. | Please refer to Annex B in the ADB project document for response. |
| It is essential to coordinate with other pesticide projects by FAO AusAid etc. in Viet Nam | Please refer to Annex B in the ADB project document for response. |
| Sustainability needs to be more clearly spelled out with stronger ownership of government, local authorities that goes beyond the project's life. | The project has been designed with the relevant government ministries and will be implemented jointly with the government. Operational departments within the ministries will be the primary beneficiaries of the project. |
| Private sector's role and investment mobilisation in green agricultural production to be improved. | The global child project has included a private sector engagement strategy covering the role of private finance in reorienting investments to reducing and managing pesticides and agriplastics. |

| | |
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| Implementation capacity, cross-agency cooperation gaps should be assessed and addressed properly. | The global child project will facilitate harmonised coordination across agencies through annual Programme Coordinating Group (PCG) as well as regular IA coordination meetings. This and streamlined programmatic reporting procedures will facilitate implementation for the coordinated approach. |
| STAP review on inclusion of fertilizers. | The FARM programme is addressing two product lines, pesticides and agricultural plastics which require different approaches. Adding fertilizer, another product line, to the programme would add further complexity and make it more difficult to achieve impact. |
| United Kingdom | |
| A transition to a low chemical agriculture makes sense, however unless the areas targeted are biodiversity hotspots, a transition to a ?no-chemical? agriculture does not make sense. | The concern has been noted and the programme objective clarified. The project will reduce the sale and use of Highly Hazardous Pesticides and promote the transition to low-chemical agriculture. The wording reflects this aim. |
| UNDP projects | |
| Projects to be circulated to Council 4 weeks prior to CEO Endorsement | This timeline had been noted. |

Response to STAP reviews.

STAP

| | | |
|----------|---|--|
| Outcomes | Yes ?clear metrics of GEB calculations for pesticide reduction benefits and methods are provided though it would be helpful to have some footnoting and backup of how they were calculated. | <p>At the PFD stage the detailed field surveys and other data was not available to back up the calculations. These will be gathered during PPG and provide the full calculation justification in the CEO Endorsement Request stage.</p> <p>Calculation methodology has been documented and a common approach for CI?s 4, 5,9, 10 & 11 have been agreed by the EA?s in FARM</p> |
|----------|---|--|

| | | |
|----------------------|---|---|
| Alternative scenario | <p>Theory of change document is provided in congruence with suggested STAP guidelines. A problem analysis diagram is also provided before the TOC, which is helpful. The theory of change can be further improved by including underlying assumptions leading to expected outcomes and impacts.</p> | <p>Noted. The full theory of change from the PFD was further refined by each child project in a participatory manner during PPG. Agencies and executing partners were encouraged to include assumptions.</p> <p>ToC's have been revised to include key assumptions.</p> |
|----------------------|---|---|

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|-------|---|---|
| Risks | <p>Risk management table is also included</p> <p>Climate risk screening provided. More detailed climate risk assessment is encouraged.</p> <p>Given that this is an agricultural project seeking to promote new practices that can be susceptible to climate change impacts, we encourage the proponent to conduct a more detailed climate risk assessment following STAP guidance on climate risk screening (https://stapgef.org/resources/advisory-documents/stap-guidance-climate-risk-screening and https://stapgef.org/resources/advisory-documents/stap-chairs-report-gef-agency-retreat-1-april-2020).</p> | <p>This comment had been noted. The detailed climate risk screening and assessment was part of the PPG phase, and the Agencies followed the recommended guidance to ensure a consistent approach.</p> <p>The UNEP/FAO child project underwent the mandatory FAO risk certification for Environmental and Social risks and the action was classified as low risk. FAO follows the Framework for Environmental and Social Management (2022). Programmes and projects should meet the requirements of the 9 Environmental and Social</p> |
|-------|---|---|

| | | |
|--|---|--|
| | <p>The project's title as "Agrochemical" reductions is perhaps more expansive than the core operational work presented. The term "agrochemical" encompasses fertilizers as well. However, the project is largely focused on pesticides, and there is only a passing reference to fertilizers. Perhaps the proponent may consider incorporating fertilizer management into the activities as this is a significant aspect of agroecology, which the project seeks to promote. More so, incorporating fertilizer management could deliver further GEBs related to international waters (reduced pollution and hypoxia) and land degradation (landscapes under sustainable land management in production systems).</p> <p>Fertilizer usage presents a separate set of ecological challenges which are more linked to energy delivery and eutrophication. Future projects in fertilizer usage reduction could also consider climate change mitigation benefits since the Haber process for nitrate production is one of the most carbon-intensive industrial processes. Refer to Rosa, L., Rulli, M. C., Ali, S., Chiarelli, D. D., Dell'Angelo, J., Mueller, N. D., Scheidel, A., Siciliano, G., & D'Odorico, P. (2021). Energy implications of the 21st-century agrarian transition. <i>Nature Communications</i>, 12(1), 2319. https://doi.org/10.1038/s41467-021-22581-7</p> | <p>The FARM Programme is working to reduce pollution from two different types of agricultural inputs, pesticides and agricultural plastics. Each require a different technical approach and are the mandates of different ministries. Pesticides generally fall under the mandate of the Ministry of Agriculture; Agricultural plastics are seen as a waste issue that falls under the Ministry of the Environment.</p> <p>Adding a third agricultural input, fertilizers, would add further complexity that would impede the Programme's ability to make an impact on the</p> |
|--|---|--|

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| | <p>The PIF cited an alarming fact that a significant proportion of development disbursement and climate finance earmarked for agriculture supports projects focused on conventional agriculture. However, the project activities related to this issue mainly focus on addressing the public sector (government subsidies), private sector (chemical industry Extended Producer Responsibility, commodity certification schemes), and the financial sector (investment, banking, and insurance). We think some form of activities directly focused on addressing this concern should be included in this project. This could be stakeholder meetings to address this concern, awareness-raising campaigns, knowledge creation and dissemination efforts.</p> | <p>During the PPG the global child project incorporated explicit activities on influencing public finance, including via engagement with the academic networks that produced the source report. These activities include both analysis and stakeholder engagement.</p> <p>In the global child project, the issue of financialization of food will be addressed through Component 2.2 with a focus on financial-sector policies that modify the structure of incentives and impose quantity constraints for the financing of certain practices.</p> |
|--|--|--|

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| | <p>We commend the proponent for including agricultural plastics (mulch film, hothouse film, seed trays, irrigation drip tape, etc.) in the project, as this is an aspect that is largely less studied or addressed but with significant impact on soil quality, food quality and safety(Steinmetz et al., 2016. Plastic mulching in agriculture. Trading short-term agronomic benefits for long-term soil degradation? https://doi.org/10.1016/j.scitotenv.2016.01.153; Grossman 2015:https://ensia.com/features/the-biggest-source-of-plastic-trash-youve-never-heard-of/; Browne,https://www.bbc.com/future/bspoke/follow-the-food/why-foods-plastic-problem-is-bigger-than-we-realise.html). We would like to refer the proponent to articles related to alternatives to agricultural plastics:University of Minnesota Extension, 2021. Exploring alternatives to plastic mulch.https://blog-fruit-vegetable-ipm.extension.umn.edu/2021/01/exploring-alternatives-to-plastic-mulch.html?Miles et al., 2015. Alternatives to Plastic Mulch in Vegetable Production Systems.https://www.researchgate.net/publication/296111767_Alternatives_to_Plastic_Mulch_in_Vegetable_Production_Systems</p> | <p>The additional references are noted with thanks. They were further reviewed during PPG</p> <p>Component 3 of the UNEP/FAO child will develop knowledge transfer tools on alternatives and the sustainable use and management of agricultural plastic products.</p> |
|--|--|---|

ANNEX C: Status of Utilization of Project Preparation Grant (PPG).
(Provide detailed funding amount of the PPG activities financing status in the table below:

| Project Preparation Activities Implemented. | GETF/LDCF/SCCF Amounts (\$) | | |
|---|-----------------------------|--------------------|------------------|
| | Budgeted Amount | Total Amount Spent | Amount Committed |
| Lead Consultant | 60,000 | 60,000 | 0 |
| GGKP Coordinator | 40,000 | 0 | 40,000 |
| UNEPFI Coordinator | 15,000 | 5,786 | 9,214 |

| | | | |
|---|----------------|---------------|----------------|
| Policy Consultant on Agrochemicals | 10,000 | 0 | 10,000 |
| Finance Consultant on Agrochemicals | 10,000 | 6,250 | 3,750 |
| Knowledge Management Consultant | 10,000 | 0 | 10,000 |
| Communications Consultant | 15,000 | 0 | 15,000 |
| Branding Consultant | 10,000 | 2,363 | 7,637 |
| Gender Consultant | 10,000 | 0 | 10,000 |
| Final Editing Consultant | 10,000 | 0 | 10,000 |
| Global Baseline - Financial portfolio tools | 10,000 | 0 | 10,000 |
| Total | 200,000 | 74,399 | 125,601 |

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

N/A

ANNEX E: Project Budget Table

Please attach a project budget table.

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement

with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies' capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).