

## GEF 10903

### FARM: Global Coordination, Knowledge Management and Common Finance Tools

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## GEF-7 REQUEST FOR CEO ENDORSEMENT / APPROVAL.

### CHILD PROJECT - MSP ONE-STEP

Project type: Full sized child project

Type of trust fund: GEF Trust Fund

## PART I: PROJECT IDENTIFICATION

Project Title:	<b>FARM: Global Coordination, Knowledge Management and Common Finance Tools</b>		
Country(ies):	Global	GEF Project ID:	10903
Lead GEF Agency:	United Nations Environment Programme (UNEP)	GEF Agency Programme ID:	10872
Programme Executing Entity(s):	Green Growth Knowledge Partnership (GGKP)	Submission Date:	November 2022
GEF Focal Area (s):	Chemicals and Waste	Expected Implementation Start	June 2023
		Expected completion date	May 2028
Name of Parent Programme	Financing Agrochemical Reduction and Management (FARM)	Parent Programme ID:	10872

### A. FOCAL/NON-FOCAL AREA ELEMENTS

Programming Directions	Expected Outcomes	Trust Fund	Amount (in \$)	
			GEF Programme Financing	Co-financing
CW 1-2	Strengthen the sound management of agricultural chemicals and their waste, through better control, and reduction and / or elimination	GEFTF	7,455,000	32,785,705
<b>Total Programme Cost</b>			7,455,000	32,785,705

### B. PROJECT DESCRIPTION SUMMARY

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	Component Type	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	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.	GEFTF	1,800,000	13,097,885
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	GEFTF	2,000,000	8,912,929
3. Value chains and public demand	TA	<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.	GEFTF	2,800,000	9,064,891
4. Monitoring and evaluation		<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.	GEFTF	500,000	55,000



		gender, and reporting practices.	<u>Output 4.2</u> Global child project reports are timely submitted, and adaptive management is applied when necessary.			
Subtotal				(select)	7,100,000	31,240,705
Project Management Cost (PMC)				(select)	355,000	1,655,000
Total Project Cost					7,455,000	32,785,705

### C. SOURCES OF CO-FINANCING FOR THE PROGRAMME BY SOURCE, BY NAME AND BY TYPE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount (\$)
Other	GGKP	In-kind	Recurrent expenditures	1,000,000
GEF Agency	UNEP – Ecosystems Division (TEEB)	In-kind	Recurrent expenditures	17,063,082
GEF Agency	UNEP Finance Initiative	In-kind	Recurrent expenditures	2,200,000
GEF Agency	UNEP WCMC	In-kind	Recurrent expenditures	782,936
Other	Natural Resources Institute UK	Grant	Investment mobilized	1,956,068
Other	Natural Resources Institute UK	In-kind	Recurrent expenditures	10,000
Civil Society Organization	PAN UK	In-kind	Recurrent expenditures	200,000
Civil Society Organization	PAN UK	Grant	Investment Mobilized	3,450,875
CSO	Rainforest Alliance	In-kind	Recurrent expenditures	2,000,000
Private Sector	BioProtection Global	In-kind	Recurrent expenditures	150,000
Other	Centre for Suicide Prevention	In-kind	Recurrent expenditures	3,972,744
Total Co-financing				32,785,705

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, TRUST FUND, COUNTRY, FOCAL AREA AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Fund	(in \$)		
					GEF Project Financing (a)	Agency Fee (b)	Total (c)=a+b
UNEP	GEFTF	Global	Chemicals and Waste	POPS	7,455,000	670,950	8,125,950
Total GEF Resources					7,455,000	670,950	8,125,950

#### E. PROJECT PREPARATION GRANT (PPG)

E1. Is project preparation grant requested: **Yes**

##### PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee (b)	Total c = a + b
UNEP	GEFTF	Global	Chemicals and Waste	POPS	200,000	18,000	218,000
Total PPG Amount					200,000	18,000	218,000

E2. Does the Project include a "non-grant" Instrument? (If non-grant instrument is used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF Trust Fund) **No**.

#### F. PROGRAMME'S TARGET CONTRIBUTIONS TO GEF 7 CORE INDICATORS

Provide the relevant sub-indicator values for this Programme using the methodologies indicated in the Core Indicator Worksheet provided in Annex B and aggregating them in the table below. Progress in Programming against these targets for the Programme will be aggregated from child projects at the time of CEO endorsement, at midterm evaluation, and at terminal evaluation. Achieved targets will be aggregated and reported at any time during the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

Project Core Indicators		Expected at PIF
1	<b>Terrestrial protected areas</b> created or under improved management for conservation and sustainable use (Hectares)	

2	<b>Marine protected areas</b> created or under improved management for conservation and sustainable use (Hectares)	
3	Area of <b>land restored</b> (Hectares) – <i>Remediation</i>	
4	Area of <b>landscapes under improved practices</b> (excluding protected areas) (Hectares)	
5	Area of <b>marine habitat under improved practices</b> (excluding protected areas) (Hectares) Total area under improved management (Hectares)	
6	<b>Greenhouse Gas Emissions Mitigated</b> (metric tons of CO <sub>2</sub> e)	
7	<b>Number of shared water ecosystems</b> (fresh or marine) under new or improved cooperative management	
8	Globally over-exploited <b>marine fisheries</b> moved to more sustainable levels (metric tons)	
9	<b>Reduction</b> , disposal/destruction, phase out, <b>elimination</b> and avoidance of <b>chemicals of global concern</b> and their waste in the environment and in processes, materials and products (metric tons of toxic chemicals reduced)	
10	Reduction, avoidance of emissions of <b>POPs to air</b> from point and non-point sources (grams of toxic equivalent gTEQ)	
11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	2,000,000 (50% female, 50% male)

*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').

## G. PROJECT TAXONOMY

Please fill in the table below for the taxonomic information required of this programme. Use the GEF Taxonomic Worksheet provided in Annex C to help you select the most relevant keywords/topics/ themes that best describe this programme.

Level 1	Level 2	Level 3	Level 4
Influencing Models	Transform policy and regulatory environments Strengthen institutional capacity and decision-making Convene multi-stakeholder alliances Demonstrate innovative approaches Deploy innovative financial instruments		
Stakeholders	Private Sector	Capital providers Financial intermediaries and market facilitators Large corporations SMEs	
	Beneficiaries		
	Civil Society	Non-Governmental Organization Academia	
	Type of Engagement	Information Dissemination Partnership Consultation Participation	
	Communications	Awareness Raising Education Public Campaigns Behaviour Change	
Capacity, Knowledge and Research	Capacity Development		
	Knowledge Generation and Exchange		
	Learning	Theory of Change Adaptive Management Indicators to Measure Change	
	Knowledge and Learning	Knowledge Management Innovation Capacity Development Learning	
	Stakeholder Engagement Plan		
Gender Equality	Gender Mainstreaming	Beneficiaries Sex-disaggregated indicators Gender-sensitive indicators	
	Gender results areas	Participation and leadership Awareness raising Knowledge generation	

Focal Area/Theme	Integrated Programmes	Food Systems, Land Use and Restoration	Food Value Chains Smallholder Farmers
	Biodiversity	Mainstreaming	Agriculture & agrobiodiversity
		Financial and Accounting	Conservation Finance
	Land Degradation	Sustainable Land Management	Sustainable Livelihoods Sustainable Agriculture
		Food Security	
	International Waters	Pollution	Persistent toxic substances Plastics
	Chemicals and Waste	Persistent Organic Pollutants Unintentional Persistent Organic Pollutants Sound Management of chemicals and Waste Emissions New Persistent Organic Pollutants Plastics Eco-Efficiency Pesticides Open Burning Best Available Technology / Best Environmental Practices Green Chemistry	
		Waste Management	Hazardous Waste Management
	Climate Change		

## PART II: PROJECT JUSTIFICATION

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
<b>Government Policy and Enforcement</b>		
<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.	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.  Research and academic networks an organisation will be approached by the project to get involved.
<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.	
<b>Finance and Investment</b>		
<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.
<b>Establish effective knowledge management</b>	<b>Value chains and Public Demand</b>	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,	<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	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

agriplastics and adoption of safer alternatives.	processes that reduce pesticides and agricultural plastics pollution.	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).<sup>1</sup> 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,<sup>2</sup> and the amount of plastic used in

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

<sup>2</sup> 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>

agriculture is expected to increase by 50% by 2030.<sup>3</sup> 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<sup>4</sup> and the Kenya Agricultural Sector Transformation and Growth Plan.<sup>5</sup> 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 Basel 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,<sup>6</sup> 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.<sup>7</sup> 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.<sup>8</sup> 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,

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<sup>3</sup> [https://cipa-plasticulture.com/wp-content/uploads/2018/06/Worldwide-Plasticulture\\_Le-Moine\\_CIPA.pptx](https://cipa-plasticulture.com/wp-content/uploads/2018/06/Worldwide-Plasticulture_Le-Moine_CIPA.pptx)

<sup>4</sup> [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](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)

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

<sup>6</sup> World Bank (2021) *Employment in Agriculture, female*. <https://data.worldbank.org/indicator/SL.AGR.EMPL.FE.ZS>

<sup>7</sup> 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.

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



according to China Crop Protection Industry Association.<sup>9</sup> 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.<sup>10 11 12</sup> 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.<sup>13 14</sup> 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.<sup>15 16</sup>

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.<sup>17 18</sup> 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).<sup>19</sup> 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.<sup>20</sup> 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.<sup>21 22 23 24 25</sup> Due to its persistence, methoxychlor is still found in drinking water, waterbodies, and sediments, in regions where regulations and phase-outs have been implemented.<sup>26</sup> Methoxychlor has also been detected in human serum, adipose tissues, umbilical cord blood and human breast milk.<sup>27 28 29</sup>

<sup>9</sup> China Crop Protection Industry Association. 2022. Information provided through UNEP/POPS/POPRC.18/4/Add.1

<sup>10</sup> 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.

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<sup>12</sup> 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>.

<sup>13</sup> 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.

<sup>14</sup> 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.

<sup>15</sup> Colovic, M. B., Krstic, D. Z., Lazarevic-Pasti, T. D., et al. 2013. Acetylcholinesterase inhibitors: pharmacology and toxicology. *Current neuropharmacology*, 11(3), 315–335.

<sup>16</sup> Solomon, Giesy, & Keith (Eds.). 2014. *Ecological Risk Assessment for Chlorpyrifos in Terrestrial and Aquatic Systems in North America*. s.l.: Springer.

<sup>17</sup> Stockholm Convention Persistent Organic Pollutants. 2021. Risk profile: Methoxychlor. UNEP/POPS/POPRC.16/9/Add.1

<sup>18</sup> US EPA. 2000. Summary for methoxychlor available at: <https://www.epa.gov/sites/production/files/2016-09/documents/methoxychlor.pdf>.

<sup>19</sup> Götz 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.

<sup>20</sup> US EPA. 2020. TRI Explorer (2018 Updated Dataset (released April 2020)) [Internet database]. Retrieved from <https://enviro.epa.gov/triexplorer/>, (May 23, 2020).

<sup>21</sup> 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](https://archive.epa.gov/pesticides/reregistration/web/html/methoxychlor_red.html).

<sup>22</sup> 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.

<sup>23</sup> Gaido KW, Maness SC, McDonnell DP, et al. 2000. Interaction of methoxychlor and related compounds with estrogen receptor  $\alpha$  and  $\beta$ , and androgen receptor: Structure-activity studies. *Mol Pharmacol* 58(1):852–858.

<sup>24</sup> 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>.

<sup>25</sup> 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>.

<sup>26</sup> Pinto MI, Vale C, Sontag G, Noronha JP. 2016. Pathways of priority pesticides in sediments of coastal lagoons: The case study of Óbidos Lagoon, Portugal. *Marine Pollution Bulletin* 106 (2016) 335–340. <http://doi.org/10.1016/j.marpolbul.2016.03.028>.

<sup>27</sup> Damgaard IN, Skakkebaek NE, Toppari J, et al. 2006. Persistent pesticides in human breast milk and Cryptorchidism. *Environmental Health Perspectives*, 114(7), 1133–1138.

<sup>28</sup> 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>.

<sup>29</sup> Cabrera-Rodriguez R, Luzzardo 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>.

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.<sup>30</sup> 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.<sup>31</sup>

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.<sup>32</sup> 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.<sup>33</sup> 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.

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<sup>30</sup> FAO. 2021. Assessment of agricultural plastics and their sustainability. A call for action. Rome. Rome. <https://doi.org/10.4060/cb7856en>

<sup>31</sup> [C 2023/22 - Report of the 28th Session of the Committee on Agriculture \(Rome, 18-22 July 2022\) \(fao.org\)](https://www.fao.org/committee-on-agriculture/2022-report)

<sup>32</sup> Shakhovskoy et al. 2019. Pathway to Prosperity, Rural and Agricultural Finance. State of the Sector Report. [https://pathways.raflerning.org/wp-content/uploads/2019/11/2019\\_RAF-State-of-the-Sector.pdf](https://pathways.raflerning.org/wp-content/uploads/2019/11/2019_RAF-State-of-the-Sector.pdf)

<sup>33</sup> <https://cgspage.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf>

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,<sup>34</sup> 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<sup>35</sup> and environmental performance standards.<sup>36</sup> 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 subsidise 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.

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<sup>34</sup> <https://www.oecd.org/chemicalsafety/pesticides-biocides/biological-pesticides.htm>

<sup>35</sup> British International investment. <https://fintoolkit.bii.co.uk/sector-profiles/agriculture-and-aquaculture/>

<sup>36</sup> 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](https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards/ps3)

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%<sup>37</sup> 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

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<sup>37</sup> Thompson Garry, 2000, International consumer demand for organic foods. University of Arizona.

Rainforest Alliance certification scheme works with 4 million farmers the 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.

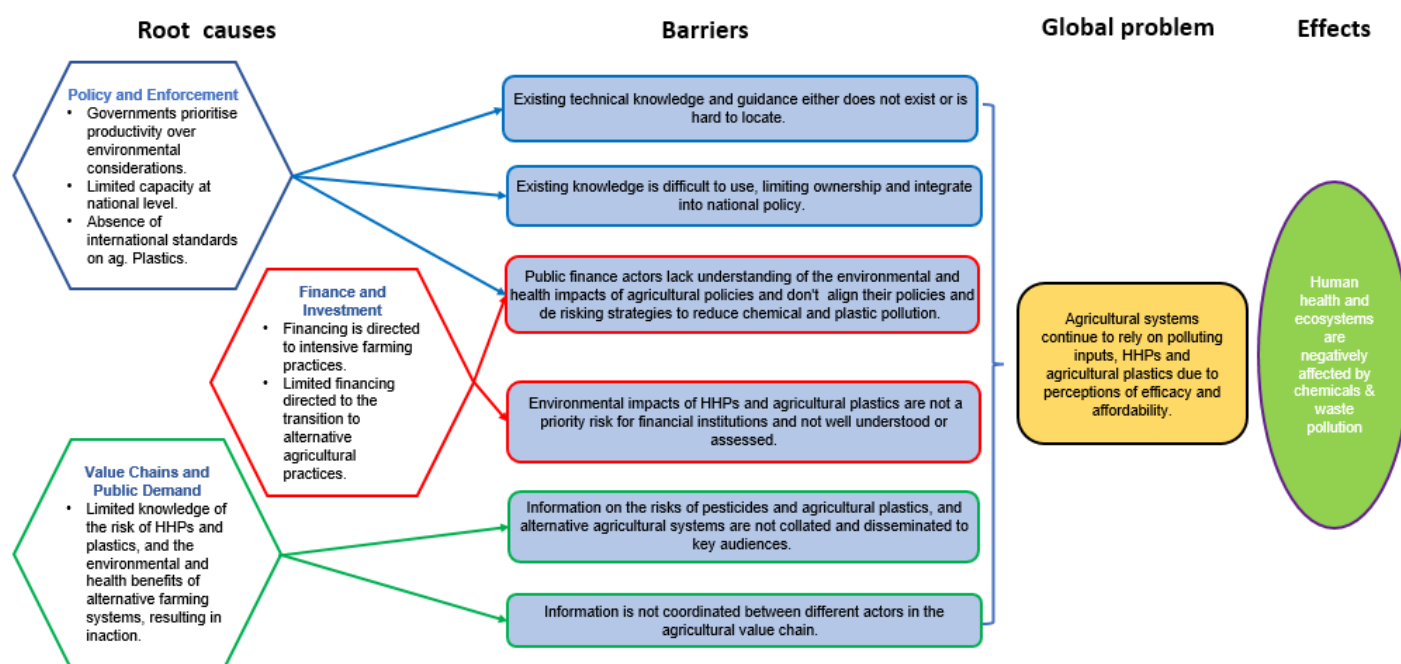


FIGURE 1 PROBLEM ANALYSIS

### 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 POP's 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.<sup>38</sup>

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<sup>38</sup> 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)



- 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<sup>39</sup>

### *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.

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<sup>39</sup> Personal communication with the CEO of BCP.

### 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.<sup>40,41</sup> 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.<sup>42</sup> 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.<sup>43,44</sup> 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

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<sup>40</sup> 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.

<sup>41</sup> Youri Dijkshoorn, Johan Bremmer and Eric Kerklaan, 2013. Towards Integrated Pest Management in East Africa; A feasibility study. <https://edepot.wur.nl/294639>:

<sup>42</sup> 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>

<sup>43</sup> 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)

<sup>44</sup> Mew et al (2017). The global burden of fatal self-poisoning with pesticides 2006–15: systematic review. J Affect Disord



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 eco-toxicology 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,<sup>45</sup> 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.<sup>46</sup> 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.<sup>47</sup> This investment could unlock US\$5.7 trillion worth of economic and social gains to society.<sup>48</sup> 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.<sup>49</sup> This finance gap will only increase considering the additional capital required for the transition to more sustainable practices.<sup>50</sup> 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.<sup>51</sup> 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.<sup>52</sup> 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.<sup>53</sup> 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,<sup>54</sup> 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

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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.raflerning.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](https://unctad.org/system/files/official-document/diaemisc2019d4_en.pdf)

54 [https://unctad.org/system/files/official-document/diaemisc2019d4\\_en.pdf](https://unctad.org/system/files/official-document/diaemisc2019d4_en.pdf)

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)<sup>55</sup>, 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

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<sup>55</sup><https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blend%20finance.pdf>

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.<sup>56</sup> On the other hand, sustainable agriculture frameworks,<sup>57</sup> 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

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<sup>57</sup> 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

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,<sup>58</sup> 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<sup>59</sup> 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.<sup>60</sup> 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.

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<sup>58</sup> [https://www.rsm.nl/fileadmin/Faculty-Research/Centres/EPSVC/20220621\\_Financing\\_Regenerative\\_Agriculture.pdf](https://www.rsm.nl/fileadmin/Faculty-Research/Centres/EPSVC/20220621_Financing_Regenerative_Agriculture.pdf)

<sup>59</sup> 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>

<sup>60</sup> <https://teebweb.org/our-work/agrifood/country-implementation/eupi2019/thailand/>

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 Aquaculturecommercial 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	Capacity building programme, workshops on sustainable	National and local level governments responsible for pesticide registration,



	(linking with FAO Pesticide Registration Toolkit)	agriculture focus on crop protection and management, information sharing through newsletter by the EAs, media blogs and social media posts	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<sup>61</sup>, 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.<sup>62</sup> More broadly, RA also works closely with producers and supply chain actors to encourage more widespread adoption of Regenerative Agriculture<sup>63</sup> 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

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

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

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

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 in 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”*,<sup>64</sup> 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

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<sup>64</sup> 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](https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.48.07.Rev_.01_KM_Approach_Paper.pdf))

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	<a href="#">Chemicals and Pollution Action</a>	<ul style="list-style-type: none"> <li>- <a href="#">Global Partnership on Nutrient Management</a></li> <li>- <a href="#">HHPs</a></li> <li>- <a href="#">Green and Sustainable Chemistry</a></li> <li>- <a href="#">POPs</a></li> <li>- <a href="#">Special Programme</a></li> </ul>	Twitter: 1.2M Facebook: 1.4M Instagram: 2M Newsletter:
ADB	<a href="#">Agriculture and Food Security Focus</a>	<ul style="list-style-type: none"> <li>- <a href="#">Operational Priority 5: Promoting Rural Development and Food Security</a></li> <li>- <a href="#">Asia-Pacific Rural Development and Food Security Forum 2022</a></li> <li>- <a href="#">Environment Focus</a></li> </ul>	Twitter: 249.7K Facebook: 326K Instagram: 16.8K Newsletter:
UNDP	<a href="#">Food &amp; Agricultural Commodity Systems (FACS)</a>	<ul style="list-style-type: none"> <li>- <a href="#">Green Commodities Programme</a></li> </ul>	Twitter: 1.8M Facebook: 1.8M Instagram: 711K

			Newsletter:
UNIDO	<a href="#">Agro-industry, agribusiness and food security</a>	<ul style="list-style-type: none"> <li>- <a href="#">Chemical Leasing Programme</a></li> <li>- <a href="#">Green Chemistry</a></li> <li>- <a href="#">POPs</a></li> </ul>	Twitter: 108.9K Facebook: 219K Instagram: 15.5K Newsletter:
FAO	<a href="#">Pest and Pesticide Management</a>	<ul style="list-style-type: none"> <li>- <a href="#">Food Systems</a></li> <li>- <a href="#">Agrifood Economics</a></li> <li>- <a href="#">Family Farming Knowledge Platform</a></li> <li>- <a href="#">Agroecology</a></li> <li>- <a href="#">Sustainable Food and Agriculture</a></li> </ul>	Twitter: 565K Facebook: 2M Instagram: 789K Newsletter:
GGKP	N/A	<ul style="list-style-type: none"> <li>- <a href="#">Green Policy Platform</a> (GPP)</li> <li>- <a href="#">Green Finance Platform</a> (GFP)</li> <li>- <a href="#">Green Industry Platform</a> (GIP)</li> <li>- <a href="#">Agriculture Sector Knowledge Assets</a></li> <li>- <a href="#">ISLANDS</a> [GEF Project]</li> </ul>	GGKP - Facebook: 15.6K Instagram: N/A Newsletter: 14.8K  GPP - Twitter: 9K  GFP - Twitter: 4K  GIP - Twitter: 749
GEF SEC	<a href="#">Chemicals and Waste</a>	<ul style="list-style-type: none"> <li>- <a href="#">SAICM</a></li> <li>- <a href="#">Small Grants Programme Chemicals Focus</a></li> <li>- <a href="#">Agriculture, Forestry and Other Land Uses</a></li> <li>- <a href="#">Persistent Organic Pollutants Issue Area</a></li> </ul>	Twitter: 110.2K Facebook: 110K Instagram: 5K Newsletter:
Viet Nam, Ministry of Agriculture and Rural Development	N/A	<a href="#">2021-2030 Strategy for Sustainable Agriculture and Rural Development</a>	Twitter: N/A Facebook: N/A Instagram: N/A Newsletter:
India, Ministry of Chemicals and Fertilizers	<a href="#">Chemicals &amp; Petrochemicals Department</a> + <a href="#">Fertilisers Department</a>	Ministry of Agriculture's <a href="#">Integrated Pest Management Division</a>	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	<a href="#">Fertiliser and Pesticide Authority</a>	Twitter: N/A Facebook: 329K Instagram: N/A Newsletter:

Lao PDR, Department of Agriculture	<a href="#">Agriculture Development Strategy to 2025 and Vision to the Year 2030</a> (Ministry of Agriculture and Forestry)		Twitter: N/A Facebook: N/A Instagram: N/A Newsletter: N/A
Ecuador, Ministry of Environment and Water and Ministry of Agriculture, Livestock, Aquaculture, and Fisheries	<a href="#">Chemical Management Programme</a> (Ministry of Environment)  <a href="#">National Participatory Technological Innovation and Agricultural Productivity Programme</a> , PITPPA (Ministry of Agriculture)  <a href="#">Amazonian sustainable agroproductive transformation</a> (Ministry of Agriculture)	<ul style="list-style-type: none"> <li>- <a href="#">SAICM Project</a></li> <li>- <a href="#">Agrochemical Container Disposal</a></li> <li>- <a href="#">Cooperative Programme funding Organic Production</a></li> <li>- <a href="#">Pesticide Containers</a></li> <li>- <a href="#">Pesticide Container in Galapagos</a></li> <li>- <a href="#">Pesticide Container Azuay</a></li> <li>- <a href="#">Promotion of Sustainable Agricultural Practices</a></li> <li>- <a href="#">Family Farming Food Safety</a></li> <li>- <a href="#">Pesticide Container Management</a></li> <li>- <a href="#">Organic Inputs</a></li> <li>- <a href="#">Rural Financing with gender approach</a></li> <li>- <a href="#">FAO LAC - Transformation of Agri food systmes</a></li> <li>- <a href="#">BPA Certification - potato crop</a></li> <li>- <a href="#">BPA Certification - Tomato Crop</a></li> <li>- <a href="#">BPA Certification</a></li> <li>- <a href="#">Strengthening Rural Women Capacities</a></li> <li>- <a href="#">Cacao Sustainable Production</a></li> <li>- <a href="#">Non chemical crop production in Azuay</a></li> </ul>	<p>Env -</p> <p>Twitter: 289.3K Facebook: 212K Instagram: N/A Newsletter: N/A</p> <p>Ag -</p> <p>Twitter: 177.6K Facebook: 70K Instagram: N/A Newsletter: N/A</p>
Uruguay, Ministry of Agriculture, Livestock and Fisheries (MGAP), Ministry of Economy and Finance, and Ministry of Environment	<a href="#">Pesticides</a> (Ministry of Environment)  <a href="#">Responsible use of agrochemicals</a> (MGAP)  <a href="#">Agricultural Awareness</a> (MGAP)	<ul style="list-style-type: none"> <li>- <a href="#">Intergovernmental Negotiating Committee (INC) - Plastics</a></li> <li>- <a href="#">Uruguay + Circular</a></li> <li>- <a href="#">Network of Environmental Promoters</a></li> </ul>	<p>MGAP -</p> <p>Twitter: Facebook: Instagram: Newsletter:</p> <p>Finance -</p> <p>Twitter: 50K Facebook: N/A Instagram: 1.9K Newsletter:</p> <p>Environment -</p> <p>Twitter: 6K Facebook: 3K Instagram: 8K Newsletter:</p>
Kenya, Ministry of Finance, Ministry of Environment and Forestry, and Ministry of Agriculture	<a href="#">Pest Control Products Board</a>	<ul style="list-style-type: none"> <li>- <a href="#">KCEP-CRAL</a> (climate focused)</li> <li>- <a href="#">Agriculture Sector Development Support Programme</a> (value chain commercialization)</li> <li>- <a href="#">Sound Chemicals Management Mainstreaming and UPOPs Reduction</a> (not ag related)</li> </ul>	<p>Finance -</p> <p>Twitter: 30K Facebook: N/A Instagram: Newsletter:</p> <p>Environment -</p> <p>Twitter: 58.5K</p>

and Livestock Development			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"> <li>- <a href="#">Pollution and Circular Economy</a> (not specifically ag related)</li> <li>- <a href="#">Food, Forests, and Land</a> (not specifically chemicals related)</li> </ul>	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.

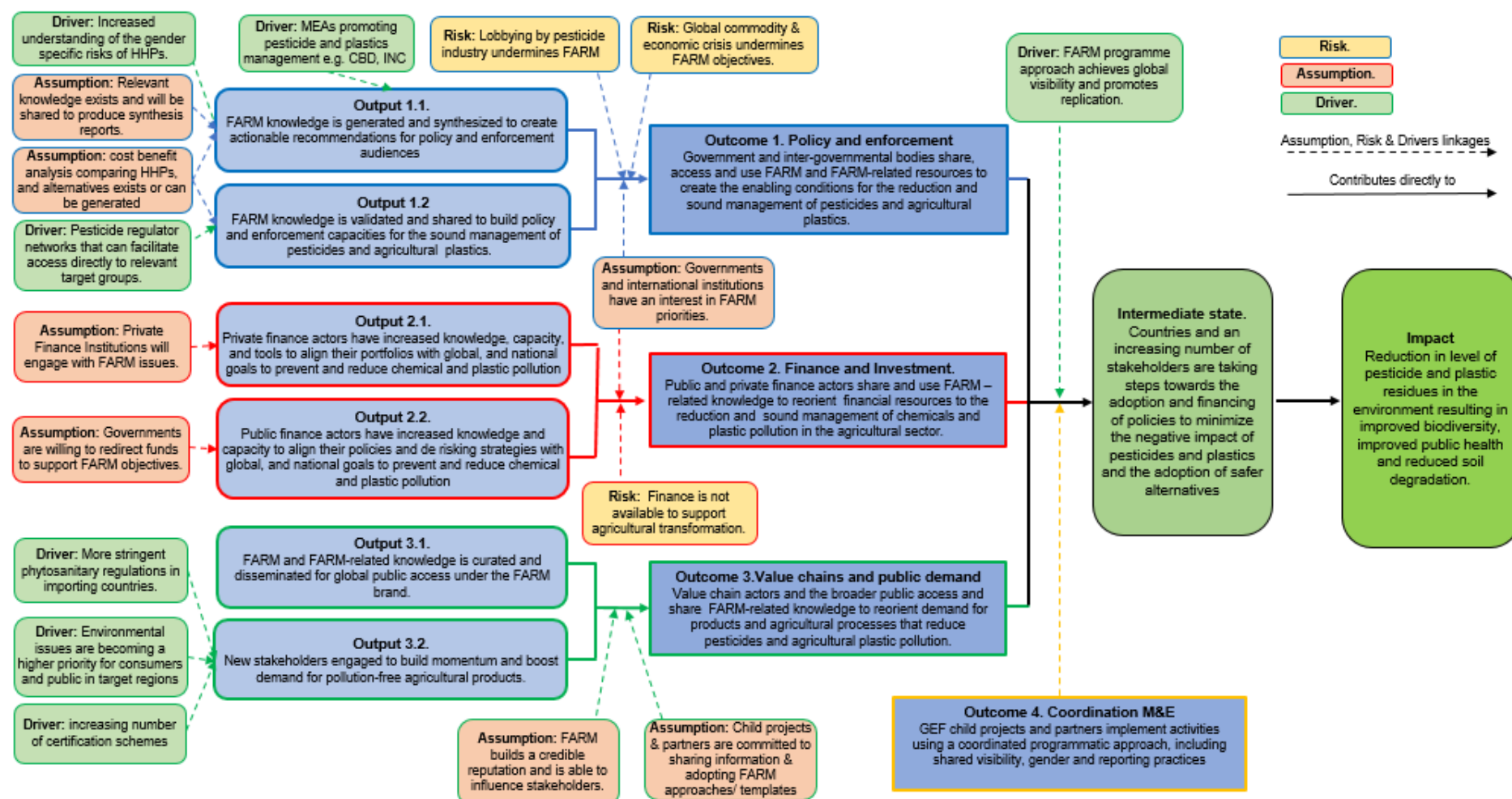


FIGURE 3 3 THEORY OF CHANGE



### 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 Equator, 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 agrichemicals 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<sup>65</sup> programme or by FAO under the MAFAP<sup>66</sup> 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.

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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/>)

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<sup>67</sup>. 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.

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

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.

## 1b. Project Map and Geo Coordinates.

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

N/A



## 1c. Child Project Contribution to Overall Programme

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

**TABLE 4 CONTRIBUTION TO FARM PROGRAMMATIC OUTPUTS**

	FARM Programmatic Outputs	Project
		Outputs
C1 - 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	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 programme identification phase:

**Indigenous Peoples and Local Communities;**

**X Civil Society Organizations;**

**X Private Sector Entities;**

☐ **If None of the Above, please explain why.**

*In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the Programme preparation, and their respective roles and means of 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.

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
<b>FARM IAs and EAs</b>			
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
<b>International organisations</b>			
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
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.
<b>Regional organizations</b>			
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	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

Regulators' Forum (SAPReF)			
<b>Academic and research institute</b>			
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.
<b>Non-profit and non-governmental organizations</b>			
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.
<b>Government entities</b>			
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.
<b>Financial institutions (public)</b>			
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
<b>Financial institutions (private)</b>			
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
<b>Private sector and agricultural value chain actors</b>			
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 <ul style="list-style-type: none"> <li>• Croplife International – ADB, FAO</li> <li>• HIL - UNIDO</li> </ul>		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).

### 3. Gender Equality and Women's Empowerment.

**Are gender dimensions relevant to the success of the programme? (yes /no) If yes, please provide indicative information on these dimensions and how these will be addressed in the programme. If no, please explain why. In addition, please also indicate whether the programme will include gender-sensitive indicators in its results framework? yes /no / tbd**

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<sup>68</sup>. 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.<sup>69</sup> Furthermore, the research from Asia indicates that where bans of HHPs have been affected there is not loss of productivity.<sup>70</sup> 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*

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<sup>68</sup> International Labour Organization (2021), Employment in Agriculture, female (% of female employment),

<https://data.worldbank.org/indicator/SL.AGR.EMPL.FE.ZS?view=chart>

<sup>69</sup> 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>

<sup>70</sup> 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



*communities can create opportunities to unpack root causes of unsustainable behaviour in communities and has potential to support transformational change.”<sup>71</sup>*

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<sup>72</sup>. 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.

## 4. Private Sector Engagement

**Will there be private sector engagement in the Programme? yes. Please briefly explain the rationale behind your answer**

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<sup>71</sup> 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](http://www.saicm.org/Portals/12/documents/meetings/IP2/IP_2_6_gender_document.pdf)

<sup>72</sup> 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>)

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<sup>73</sup>, private sector certification schemes such as Rainforest Alliance and Global GAP<sup>74</sup> 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.

## 5. Risks.

**Indicate risks, including climate change risks, potential social and environmental future risks that might prevent the programme objectives from being achieved from programme implementation and if possible, propose measures that address these risks to be further developed during the programme design (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**

<b>Risk</b>	<b>Impact</b>	<b>Likeli-hood</b>	<b>Proposed mitigation measures</b>	<b>Link to outputs</b>
<b>COVID-19 risks</b>				
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
<b>Climate Change Risks</b>				
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	Medium	Low	The global child project will generate knowledge on climate change adaptation using low chemical and plastics approaches and disseminate it through	All

<sup>73</sup> <https://www.bioprotectionglobal.org/>

<sup>74</sup> [https://www.globalgap.org/uk\\_en/](https://www.globalgap.org/uk_en/)

pressure to use pesticides and plastics to control the environment.			international forums and the child projects. It will lobby for the safe use and disposal of agricultural plastics.	
<b>Operational/delivery risks</b>				
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	2.2

			and their risk to the environment, the economy and human health.	
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.	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
<b>Technical Risks</b>				
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
<b>Social Risks</b>				
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	All

			applicable, will identify the risks and measures to protect their rights and access to resources	
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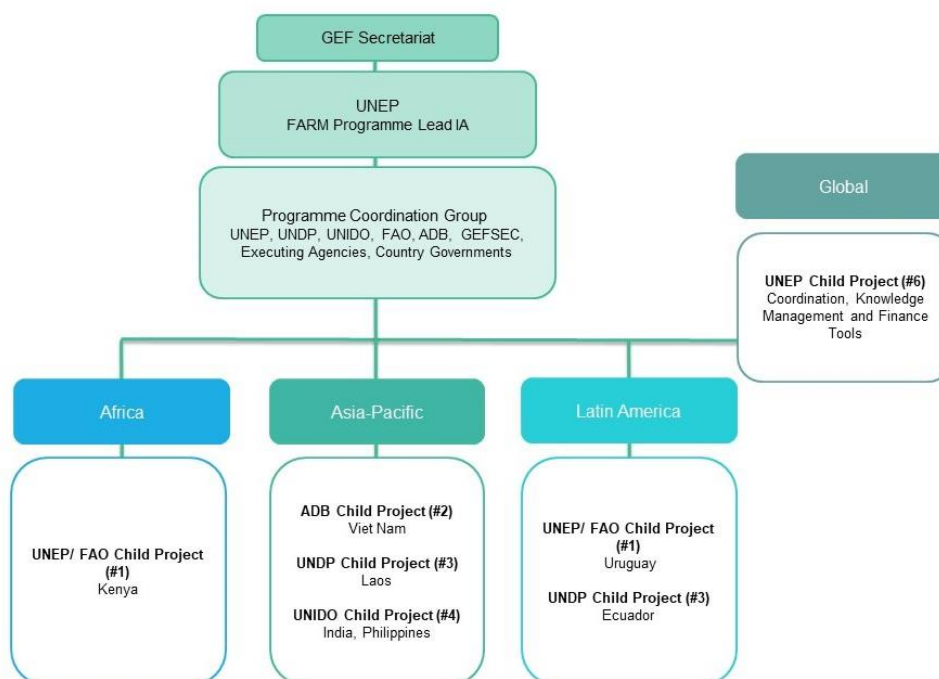
## 6. Institutional Arrangements and Coordination.

**Outline the institutional structure of the programme including defining the role of the lead agency in monitoring and evaluation coordination at the programme level. Describe possible coordination with other relevant GEF-financed programmes/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 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.

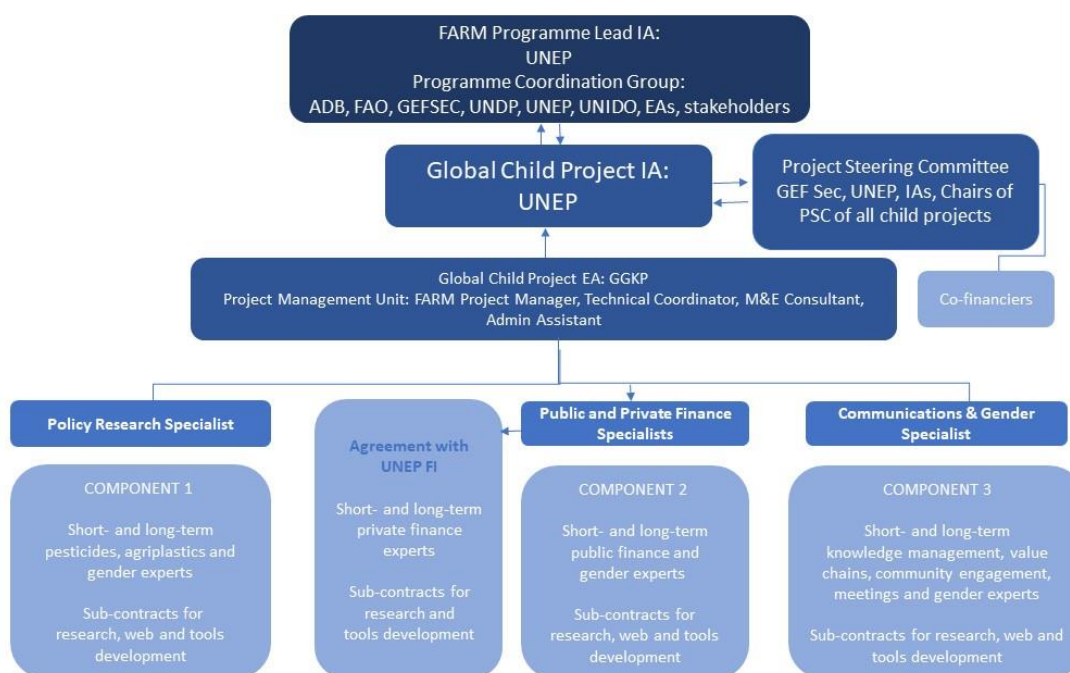
#### **Programme Lead Implementing Agency**

**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).



**FIGURE 5 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 separate budget lines created for experts managed by 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
  - Approve the annual work plan and budget.
  - Review the project progress, assess performance, and appraise the Annual Work Plan for the following year.
  - Appraise the annual project implementation report, including the quality assessment rating report.
  - Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.
  - Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans, particularly the Stakeholder Engagement Plan, Gender Action Plan.
  - Track and monitor co-financing for this project.
  - 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.
  - Address project issues as raised by the project manager.
  - Provide guidance on new project risks and agree on possible mitigation and management actions to address specific risks.
  - Advise on major and minor amendments to the project within the parameters set by UNEP-GEF.
  - 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.
  - Ensure coordination among participating organizations.
  - Ensure coordination between various donor and government-funded projects and programmes.
  - Ensure coordination with various government agencies and their participation in project activities.
  - 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.
  - 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.**

**Is the programme consistent with the national strategies and plans or reports and assessments under relevant conventions? (yes /no ). If yes, which ones and how:**

- National Bio Strategy Action Plan (NBSAP)
- CBD National Report
- Cartagena Protocol National Report
- Nagoya Protocol National Report
- UNFCCC National Communications (NC)
- UNFCCC Biennial Update Report (BUR)
- UNFCCC National Determined Contribution
- UNFCCC Technology Needs Assessment

- UNCCD Reporting
- ASGM National Action Plan (ASGM NAP)
- Minamata Initial Assessment (MIA)
- Stockholm National Implementation Plan (NIP)
- Stockholm National Implementation Plan Update
- National Adaptation Programme of Action Update
- Others

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.

**Outline the “Knowledge Management Approach” for the programme and how it will contribute to the programme’s overall impact, including plans to learn from relevant programmes/projects, initiatives and evaluations.**

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 & 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 (340k)	Included in GGKP cofinance letter	1 month after project inception meeting
Measurement of project progress and performance indicators	GGKP			Annually
Baseline measurement of project outcome indicators, GEF Core indicators	GGKP			Project inception

Type of M&E activity	Responsible Parties	Budget from GEF	Budget co-finance	Time Frame
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		Included in FARM M Consultant budget		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
<b>Total</b>		<b>USD 500,000</b>		

### 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 (LDCF/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.

## PART III: ANNEXES

### Annex A: Project Results Framework

Outcome/ Output	Outcome/Output indicators	Baseline	Targets and monitoring milestones	Means of Verification	Assumptions and Risks	UNEP PoW and MTS 2025 Expected Results.
<b>Component 1: Government and Policy enforcement.</b>						
<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 <sup>1</sup> .	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)  *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>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. 4) Collaboration is possible with public sector stakeholders. 5) End beneficiaries of regulatory impact are estimated to amount to 800,000 (GEF Core Indicator 11)	PoW Outcomes: 3A and 3B
<u>Output 1.1</u> FARM knowledge is generated and synthesized to create actionable	No. of FARM knowledge products produced and made available to public sector stakeholders <sup>2</sup> .	There are knowledge products produced by	10 new knowledge products, (30% by end-2025)	<i>Knowledge products produced and disseminated.</i>	1) knowledge resources exist to produce synthesis reports. 2) There is active support from FARM stakeholders	Direct Outcomes: 3.5

<sup>1</sup> Impact Indicator 4.1: No. of new policies, strategies, laws, regulations, guidance, criteria prepare

<sup>2</sup> Impact Indicator 9.1: No. of existing technical reports/publications reviewed/analysed



Outcome/ Output	Outcome/Output indicators	Baseline	Targets and monitoring milestones	Means of Verification	Assumptions and Risks	UNEP PoW and MTS 2025 Expected Results.
recommendations for policy and enforcement audiences.		stakeholders such as NRI, CABI, UCT and CPSP that FARM can build up on.			3) UNEP publications policy does not impede publication.	PoW Indicators: iv and vi
<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.	No. of participants engaging in FARM technical workshops and events (in person and online) <sup>3</sup>  No. of workshops and events to present and discuss knowledge products from Output 1.1 <sup>4</sup>	There are workshops and events through platforms such as UCT Pesticide Discussion Forum which FARM can tap into and build up from.	250 individuals, including policymakers, legislators, and regulators, actively engaging (Disaggregated by gender) (30% by end-2025)  10 events (30% by end-2025)	<i>Workshop reports and participant lists.</i>	1) Public sector stakeholders dedicate adequate resources to FARM 2) Global and regional expert networks participate in FARM.	Direct Outcomes: 3.1 and 3.5  PoW Indicators: iii, iv and vi
<b>Component 2. Finance and Investment:</b>						
<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	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 <sup>5</sup> .	Few finance actors have awareness and/or strategy to reorient financial resources towards sustainable practices and	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

<sup>3</sup> Impact Indicator 10.3 No. of policy makers or enforcement officers sensitised/trained

<sup>4</sup> Impact Indicator 11.2: No. of national organizations/ coordination mechanisms supported/communities organized

<sup>5</sup> Impact Indicator 12.3: No. of sustainable financing mechanisms established for cost recovery of sound management of chemicals and waste (e.g. cost of inaction and/or EPR schemes)

Outcome/ Output	Outcome/Output indicators	Baseline	Targets and monitoring milestones	Means of Verification	Assumptions and Risks	UNEP PoW and MTS 2025 Expected Results.
of chemical and plastic pollution in the agriculture sector.		most lack knowledge, capacity and tools.			3) The clients and end beneficiaries of financial institutions are estimated to amount to 200,000 (GEF Core Indicator 11)	
<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 <sup>6</sup>  No. of private finance professionals trained on the methodology, tools or guidance through a capacity-building Programme <sup>7</sup>	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 &amp; 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

<sup>6</sup> Impact Indicator 3.2: No. of technical tools/toolkits and best practices (BAT/BEP) developed

<sup>7</sup> Impact Indicator 12.2 No of investors sensitised / opportunities identified

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 2.2</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	<p>No. of FARM best practice guidance and reports developed on finance measures that address sustainable agriculture financing and innovative financial mechanisms and incentive strategies to prevent and reduce chemical and plastic pollution in the agriculture sector<sup>8</sup></p> <p>No. of public and private finance experts and stakeholders participating in the Green Forum community of practice to stimulate finance across the FARM Programme by sharing knowledge and lessons learned from the experiences of countries<sup>9</sup></p>	<p>0 FARM best practice guidance and reports.</p> <p>0 public and private finance experts. There are examples of communities of practice on HHPs, but they do not target a finance audience.</p>	<p>1 guidance published, compiling best practices. (by end-2025)</p> <p>4 reports produced on FARM countries' experiences, (30% by end-2025)</p> <p>50 experts and stakeholders. (Disaggregated by gender) (30% by end-2025)</p>	<p><i>Guidance published.</i></p> <p><i>Reports completed and disseminated.</i></p> <p><i>Minutes of meetings, attendance reports</i></p>	<p>1) Economic systems differ across countries which might be an obstacle in building consensus.</p> <p>2) Scarce public-sector funds reduce capacity of public finance actors to engage.</p> <p>3) Lack of methods and data on chemicals and agricultural plastics limit actionable insights</p>	<p>Direct Outcomes: 3.12 and 3.14</p> <p>PoW Indicators: iv and vi</p>
<b>Component 3. Value chains and public demand.</b>						
<u>Outcome 3</u> Value chain actors and the broader	No. of value chain actors and knowledge providers	There are a wide range of value	10 value chains actors (30% by end-2025)	<i>Evidence from workshops, events etc.</i>	1) FARM knowledge is relevant to and draws	PoW Outcomes: 3A

<sup>8</sup> Impact Indicator 3.2: No. of technical tools/toolkits and best practices (BAT/BEP) developed

<sup>9</sup> Impact Indicator 12.2 No of investors sensitised / opportunities identified

Outcome/ Output	Outcome/Output indicators	Baseline	Targets and monitoring milestones	Means of Verification	Assumptions and Risks	UNEP PoW and MTS 2025 Expected Results.
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>engaged in sharing knowledge<sup>10</sup></p> <p>No. of individuals accessing the FARM website, knowledge products, links and communications materials disseminated and online<sup>11</sup></p>	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	5,000 individuals (Disaggregated by gender) (30% by end-2025)	<i>Website tracking data, engagement analytics</i>	<p>interest from target audiences.</p> <p>2) FARM brand is able to build a profile that is trusted and in demand.</p> <p>3) FARM has adequate access to leading forums to promote its work.</p> <p>4) FARM implementing and executing agencies are mutually supportive.</p> <p>5) FARM partners are able to freely access and share FARM knowledge</p> <p>6) End beneficiaries of reoriented demand and adoption of non-polluting agricultural practices are estimated to amount to 1,000,000 individuals (GEF Core Indicator 11)</p>	

<sup>10</sup> Outcome Indicator 9: No. of beneficiaries using published research and database resources

<sup>11</sup> Outcome Indicator 8: No. of beneficiaries changing practices as a result of improved awareness

Outcome/ Output	Outcome/Output indicators	Baseline	Targets and monitoring milestones	Means of Verification	Assumptions and Risks	UNEP PoW and MTS 2025 Expected Results.
		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 similar profiles, despite the abundant data on the danger of highly hazardous agrochemicals.				
<u>Output 3.1</u> FARM and FARM-related knowledge is curated and disseminated for global public access under the FARM brand.	No. of public information materials and communications produced on the basis of FARM and FARM-related knowledge products <sup>12</sup> .  No. of FARM and FARM-related knowledge products curated and made publicly available <sup>13</sup> .	Knowledge on agrochemicals, particularly HHPs and POPs, is readily available, but the financing aspect and emerging issue of agricultural plastics management is	10 public information materials. (30% by end-2025)  100 knowledge products. (30% by end-2025)	<i>Material produced and disseminated.</i>	1) FARM technical material can be re-packaged for non-expert audiences. 2) Adequate knowledge exists to build a FARM knowledge library.	Direct Outcomes: 3.8 and 3.13  PoW Indicators: iv and vi

<sup>12</sup> Impact Indicator 8.3: No. of social media and media products published on platforms and websites

<sup>13</sup> Impact Indicator 9.1: No. of existing technical reports/publications reviewed/analysed

Outcome/ Output	Outcome/Output indicators	Baseline	Targets and monitoring milestones	Means of Verification	Assumptions and Risks	UNEP PoW and MTS 2025 Expected Results.
		much harder to find. There are limited to no resources, be it knowledge, websites, or campaigns, that address all three.				
<u>Output 3.2</u> New stakeholders engaged to build momentum and boost demand for pollution-free agricultural products.	<p>No. of partnerships established along the agricultural value chain, potentially including farmers associations, retailers, SMEs, consumer organizations, media outlets and gender groups<sup>14</sup></p> <p>No. of FARM Biennial Forums held<sup>15</sup></p> <p>No. of participants at FARM Biennial Forums<sup>16</sup></p>	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	<p>3 partnerships established at global or regional levels. (30% by end-2025)</p> <p>2 Biennial Forums, (30% by end-2025)</p> <p>200 participants. (Disaggregated by gender) (30% by end-2025)</p>	<p><i>Partnership agreements, MoU's etc.</i></p> <p><i>Minutes of forums.</i></p> <p><i>Participant lists, attendance reports.</i></p>	<p>1) Value chain actors have sufficient interest, to engage in FARM outreach.</p> <p>2) FARM adopts good practices in adaptive project management.</p>	<p>Direct Outcomes: 3.8 and 3.11</p> <p>PoW Indicators: iv and vi</p>

<sup>14</sup> Impact Indicator 11.1: No. of trade/ business/ partnership agreements/platforms established

<sup>15</sup> Impact Indicator 11.2: No. of national organizations/coordination mechanisms supported/communities organized

<sup>16</sup> Impact Indicator 10.1: No. of end-users/beneficiaries trained

Outcome/ Output	Outcome/Output indicators	Baseline	Targets and monitoring milestones	Means of Verification	Assumptions and Risks	UNEP PoW and MTS 2025 Expected Results.
		not been a main concern so far, beyond public subsidies.				
<b>Component 4. Monitoring and Evaluation.</b>						
<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.	
<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.	0 quarterly progress and expenditure reports. 0 annual PIRs.	20 quarterly reports.  5 annual PIRs.  5 annual meetings.	<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:

Outcome/ Output	Outcome/Output indicators	Baseline	Targets and monitoring milestones	Means of Verification	Assumptions and Risks	UNEP PoW and MTS 2025 Expected Results.
	No. of annual Steering Committee meetings held.  No. of global project reviews.	0 annual Steering Committee meetings.  0 global project reviews.	1 midterm review. 1 terminal evaluation.			

Note : the project will aim for gender parity in participation in project activities however recognising the structural barriers to achieving this and that participants will be selected by their organisations the project will aim for a minimum of 30% female participation in activities.



Annex B: Response to Project Reviews if applicable  
Response to GEF Council comments.

Comment	Response
<b>Norway and Denmark</b>	
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.
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.
<b>United Kingdom</b>	
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.
<b>UNDP projects</b>	

Projects to be circulated to Council 4 weeks prior to CEO Endorsement	This timeline had been noted.
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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.	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.  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
Alternative scenario	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.	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.  ToC's have been revised to include key assumptions.
Risks	Risk management table is also included  Climate risk screening provided. More detailed climate risk assessment is encouraged.  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 ( <a href="https://stapgef.org/resources/advisory-documents/stap-guidance-climate-risk-screening">https://stapgef.org/resources/advisory-documents/stap-guidance-climate-risk-screening</a> and ).	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.  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 Standards (ESS) of which ESS 3 is on Climate Change and Disaster Risk Reduction.  For UNDP Projects, a comprehensive and thorough risk analysis was carried out during the PPG phase,

		<p>considering all the risk categories following the “UNDP Enterprise Risk Management (ERM) Policy”. These categories include Climate Risk screening.</p> <p>The UNIDO Child Project has considered climate risks in its risk analysis. It developed the mandatory Environmental and Social Management Plan (ESMP) where associated climate risks are also taken into consideration. The ESMP will be submitted as part of the CEO Endorsement package.</p> <p>Please refer to Annex B in the ADB project document for the corresponding response.</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., &amp;</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 Programmes ability to make an impact on the existing target products, pesticides and plastics.</p> <p>FARM would propose addressing the environmental impact of fertilizer use in a separate but related project.</p>

	<p>D’Odorico, P. (2021). Energy implications of the 21st-century agrarian transition. <i>Nature Communications</i>, 12(1), 2319. <a href="https://doi.org/10.1038/s41467-021-22581-7">https://doi.org/10.1038/s41467-021-22581-7</a></p>	
	<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>
	<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? <a href="https://doi.org/10.1016/j.scitotenv.2016.01.153">https://doi.org/10.1016/j.scitotenv.2016.01.153</a>; Grossman 2015: <a href="https://ensia.com/features/the-biggest-source-of-plastic-trash-youve-never-heard-of/">https://ensia.com/features/the-biggest-source-of-plastic-trash-youve-never-heard-of/</a>; Browne, <a href="https://www.bbc.com/future/health/2015/05/150527_plastic_problem_is_bigger_than_we_realise.html">https://www.bbc.com/future/health/2015/05/150527_plastic_problem_is_bigger_than_we_realise.html</a>). We would like to refer the</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>

	<p>proponent to articles related to alternatives to agricultural plastics:•University of Minnesota Extension, 2021. Exploring alternatives to plastic mulch.<a href="https://blog-fruit-vegetable-ipm.extension.umn.edu/2021/01/exploring-alternatives-to-plastic-mulch.html">https://blog-fruit-vegetable-ipm.extension.umn.edu/2021/01/exploring-alternatives-to-plastic-mulch.html</a>•Miles et al., 2015. Alternatives to Plastic Mulch in Vegetable Production Systems.<a href="https://www.researchgate.net/publication/296111767_Alternatives_to_Plastic_Mulch_in_Vegetable_Production_Systems">https://www.researchgate.net/publication/296111767_Alternatives_to_Plastic_Mulch_in_Vegetable_Production_Systems</a></p>	
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## Annex C: Status of Utilisation of Project Preparation Grant (PPG)

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
Finance and Investment Consultant	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
<b>Total</b>	<b>200,000</b>	<b>74,399</b>	<b>125,601</b>

Annex D: Calendar of Expected Reflows (if non-grant instrument is used)  
N/A

## Annex E: Project Maps and Coordinates

N/A



## Annex F: GEF 7 Core Indicators Worksheet

Use this Worksheet to compute those indicator values as required in Part I, item E to the extent applicable to your proposed programme. Progress in Programming against these targets for the programme will be aggregated and reported at any time during the replenishment period.

There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

Core Indicator 11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment				
		Number			
		Expected		Achieved	
		PIF stage	Endorsement	MTR	TE
UNEP Global	Female	1,000,000			
	Male	1,000,000			

## Annex G: Project Taxonomy Worksheet

Use this Worksheet to list down the taxonomic information required under Part I, item F by ticking the most relevant keywords/ topics/themes that best describe this programme.

Level 1	Level 2	Level 3	Level 4
<input checked="" type="checkbox"/> Influencing models			
	<input checked="" type="checkbox"/> Transform policy and regulatory environments		
	<input checked="" type="checkbox"/> Strengthen institutional capacity and decision-making		
	<input checked="" type="checkbox"/> Convene multi-stakeholder alliances		
	<input checked="" type="checkbox"/> Demonstrate innovative approaches		
	<input checked="" type="checkbox"/> Deploy innovative financial instruments		
<input checked="" type="checkbox"/> Stakeholders			
	<input type="checkbox"/> Indigenous Peoples		
	<input checked="" type="checkbox"/> Private Sector		
		<input checked="" type="checkbox"/> Capital providers	
		<input checked="" type="checkbox"/> Financial intermediaries and market facilitators	
		<input checked="" type="checkbox"/> Large corporations	
		<input checked="" type="checkbox"/> SMEs	
		<input type="checkbox"/> Individuals/Entrepreneurs	
		<input type="checkbox"/> Non-Grant Pilot	
		<input type="checkbox"/> Project Reflow	
	<input checked="" type="checkbox"/> Beneficiaries		
	<input type="checkbox"/> Local Communities		
	<input checked="" type="checkbox"/> Civil Society		
		<input type="checkbox"/> Community Based Organization	
		<input checked="" type="checkbox"/> Non-Governmental Organization	
		<input checked="" type="checkbox"/> Academia	
		<input type="checkbox"/> Trade Unions and Workers Unions	
	<input checked="" type="checkbox"/> Type of Engagement		
		<input checked="" type="checkbox"/> Information Dissemination	
		<input checked="" type="checkbox"/> Partnership	
		<input checked="" type="checkbox"/> Consultation	
		<input checked="" type="checkbox"/> Participation	
	<input checked="" type="checkbox"/> Communications		
		<input checked="" type="checkbox"/> Awareness Raising	
		<input checked="" type="checkbox"/> Education	
		<input checked="" type="checkbox"/> Public Campaigns	
		<input checked="" type="checkbox"/> Behavior Change	
<input checked="" type="checkbox"/> Capacity, Knowledge and Research			
	<input type="checkbox"/> Enabling Activities		
	<input checked="" type="checkbox"/> Capacity Development		
	<input checked="" type="checkbox"/> Knowledge Generation and Exchange		
	<input type="checkbox"/> Targeted Research		
	<input checked="" type="checkbox"/> Learning		
		<input checked="" type="checkbox"/> Theory of Change	

		<input checked="" type="checkbox"/> Adaptive Management	
		<input checked="" type="checkbox"/> Indicators to Measure Change	
	<input type="checkbox"/> Innovation		
	<input checked="" type="checkbox"/> Knowledge and Learning		
		<input checked="" type="checkbox"/> Knowledge Management	
		<input checked="" type="checkbox"/> Innovation	
		<input checked="" type="checkbox"/> Capacity Development	
		<input checked="" type="checkbox"/> Learning	
	<input checked="" type="checkbox"/> Stakeholder Engagement Plan		
<input checked="" type="checkbox"/> Gender Equality			
	<input checked="" type="checkbox"/> Gender Mainstreaming		
		<input checked="" type="checkbox"/> Beneficiaries	
		<input type="checkbox"/> Women groups	
		<input checked="" type="checkbox"/> Sex-disaggregated indicators	
		<input checked="" type="checkbox"/> Gender-sensitive indicators	
	<input checked="" type="checkbox"/> Gender results areas		
		<input type="checkbox"/> Access and control over natural resources	
		<input checked="" type="checkbox"/> Participation and leadership	
		<input type="checkbox"/> Access to benefits and services	
		<input type="checkbox"/> Capacity development	
		<input checked="" type="checkbox"/> Awareness raising	
		<input checked="" type="checkbox"/> Knowledge generation	
<input checked="" type="checkbox"/> Focal Areas/Theme			
	<input type="checkbox"/> Integrated Programmes		
		<input checked="" type="checkbox"/> Food Systems, Land Use and Restoration	
			<input type="checkbox"/> Sustainable Food Systems
			<input type="checkbox"/> Landscape Restoration
			<input type="checkbox"/> Sustainable Commodity Production
			<input type="checkbox"/> Comprehensive Land Use Planning
			<input type="checkbox"/> Integrated Landscapes
			<input checked="" type="checkbox"/> Food Value Chains
			<input type="checkbox"/> Deforestation-free Sourcing
			<input checked="" type="checkbox"/> Smallholder Farmers
	<input checked="" type="checkbox"/> Biodiversity		
		<input checked="" type="checkbox"/> Mainstreaming	
			<input type="checkbox"/> Extractive Industries (oil, gas, mining)
			<input type="checkbox"/> Forestry (Including HCVF and REDD+)
			<input type="checkbox"/> Tourism
			<input checked="" type="checkbox"/> Agriculture & agrobiodiversity
			<input type="checkbox"/> Fisheries
			<input type="checkbox"/> Infrastructure
			<input type="checkbox"/> Certification (National Standards)
			<input type="checkbox"/> Certification (International Standards)
		<input checked="" type="checkbox"/> Financial and Accounting	
			<input type="checkbox"/> Payment for Ecosystem Services
			<input type="checkbox"/> Natural Capital Assessment and Accounting
			<input type="checkbox"/> Conservation Trust Funds
			<input checked="" type="checkbox"/> Conservation Finance
	<input checked="" type="checkbox"/> Land Degradation		
		<input checked="" type="checkbox"/> Sustainable Land Management	

			<input type="checkbox"/> Restoration and Rehabilitation of Degraded Lands
			<input type="checkbox"/> Ecosystem Approach
			<input type="checkbox"/> Integrated and Cross-sectoral approach
			<input type="checkbox"/> Community-Based NRM
			<input checked="" type="checkbox"/> Sustainable Livelihoods
			<input type="checkbox"/> Income Generating Activities
			<input checked="" type="checkbox"/> Sustainable Agriculture
			<input type="checkbox"/> Sustainable Pasture Management
			<input type="checkbox"/> Sustainable Forest/Woodland Management
			<input type="checkbox"/> Improved Soil and Water Management Techniques
			<input type="checkbox"/> Sustainable Fire Management
			<input type="checkbox"/> Drought Mitigation/Early Warning
		<input type="checkbox"/> Land Degradation Neutrality	
			<input type="checkbox"/> Land Productivity
			<input type="checkbox"/> Land Cover and Land cover change
			<input type="checkbox"/> Carbon stocks above or below ground
		<input checked="" type="checkbox"/> Food Security	
	<input checked="" type="checkbox"/> International Waters		
		<input type="checkbox"/> Ship	
		<input type="checkbox"/> Coastal	
		<input type="checkbox"/> Freshwater	
			<input type="checkbox"/> Aquifer
			<input type="checkbox"/> River Basin
			<input type="checkbox"/> Lake Basin
		<input type="checkbox"/> Learning	
		<input type="checkbox"/> Fisheries	
		<input type="checkbox"/> Persistent toxic substances	
		<input type="checkbox"/> SIDS : Small Island Dev States	
		<input type="checkbox"/> Targeted Research	
		<input checked="" type="checkbox"/> Pollution	
			<input checked="" type="checkbox"/> Persistent toxic substances
			<input checked="" type="checkbox"/> Plastics
			<input type="checkbox"/> Nutrient pollution from all sectors except wastewater
			<input type="checkbox"/> Nutrient pollution from Wastewater
	<input checked="" type="checkbox"/> Chemicals and Waste		
		<input type="checkbox"/> Mercury	
		<input type="checkbox"/> Artisanal and Scale Gold Mining	
		<input type="checkbox"/> Coal Fired Power Plants	
		<input type="checkbox"/> Coal Fired Industrial Boilers	
		<input type="checkbox"/> Cement	
		<input type="checkbox"/> Non-Ferrous Metals Production	
		<input type="checkbox"/> Ozone	
		<input checked="" type="checkbox"/> Persistent Organic Pollutants	
		<input checked="" type="checkbox"/> Unintentional Persistent Organic Pollutants	
		<input checked="" type="checkbox"/> Sound Management of chemicals and Waste	
		<input checked="" type="checkbox"/> Waste Management	
			<input checked="" type="checkbox"/> Hazardous Waste Management
			<input type="checkbox"/> Industrial Waste
			<input type="checkbox"/> e-Waste
		<input checked="" type="checkbox"/> Emissions	
		<input type="checkbox"/> Disposal	

		<input checked="" type="checkbox"/> New Persistent Organic Pollutants	
		<input type="checkbox"/> Polychlorinated Biphenyls	
		<input checked="" type="checkbox"/> Plastics	
		<input checked="" type="checkbox"/> Eco-Efficiency	
		<input checked="" type="checkbox"/> Pesticides	
		<input type="checkbox"/> DDT - Vector Management	
		<input type="checkbox"/> DDT - Other	
		<input type="checkbox"/> Industrial Emissions	
		<input checked="" type="checkbox"/> Open Burning	
		<input checked="" type="checkbox"/> Best Available Technology / Best Environmental Practices	
		<input checked="" type="checkbox"/> Green Chemistry	
	<input checked="" type="checkbox"/> Climate Change		
		<input type="checkbox"/> Climate Change Adaptation	
			<input type="checkbox"/> Climate Finance
			<input type="checkbox"/> Least Developed Countries
			<input type="checkbox"/> Small Island Developing States
			<input type="checkbox"/> Disaster Risk Management
			<input type="checkbox"/> Sea-level rise
			<input type="checkbox"/> Climate Resilience
			<input type="checkbox"/> Climate information
			<input type="checkbox"/> Ecosystem-based Adaptation
			<input type="checkbox"/> Adaptation Tech Transfer
			<input type="checkbox"/> National Adaptation Programme of Action
			<input type="checkbox"/> National Adaptation Plan
			<input type="checkbox"/> Mainstreaming Adaptation
			<input type="checkbox"/> Private Sector
			<input type="checkbox"/> Innovation
			<input type="checkbox"/> Complementarity
			<input type="checkbox"/> Community-based Adaptation
			<input type="checkbox"/> Livelihoods
		<input checked="" type="checkbox"/> Climate Change Mitigation	
			<input type="checkbox"/> Agriculture, Forestry, and other Land Use
			<input type="checkbox"/> Energy Efficiency
			<input type="checkbox"/> Sustainable Urban Systems and Transport
			<input type="checkbox"/> Technology Transfer
			<input type="checkbox"/> Renewable Energy
			<input type="checkbox"/> Financing
			<input type="checkbox"/> Enabling Activities

## PART IV: APPENDICES

Appendix 1: Theory of Change and Problem Tree  
Appendix 2: Budget Co-Financing Budget and Workplan  
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Appendix 13: Acronyms and Abbreviations

## Appendix 1: Problem Tree and Theory of Change

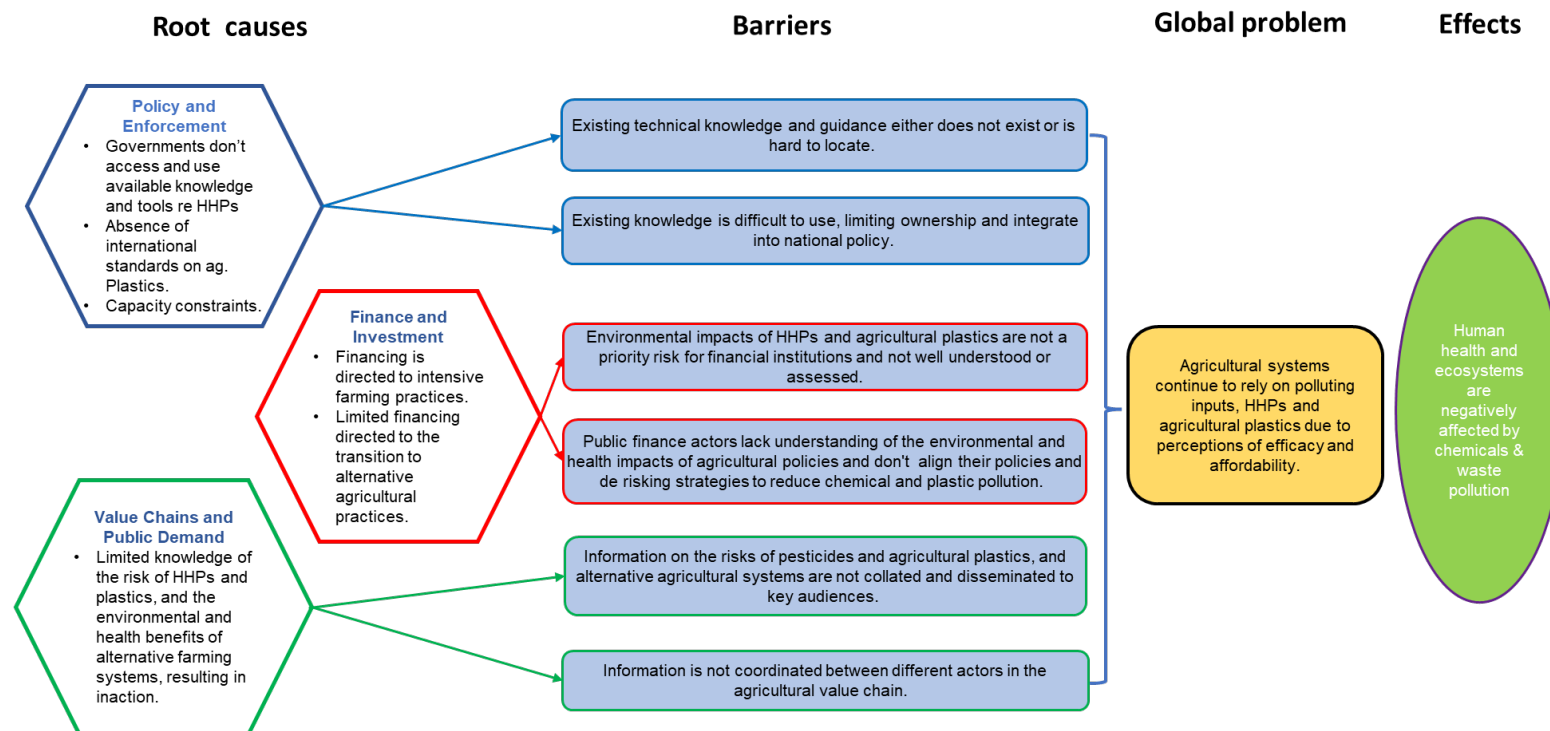


Figure 1: Problem Tree

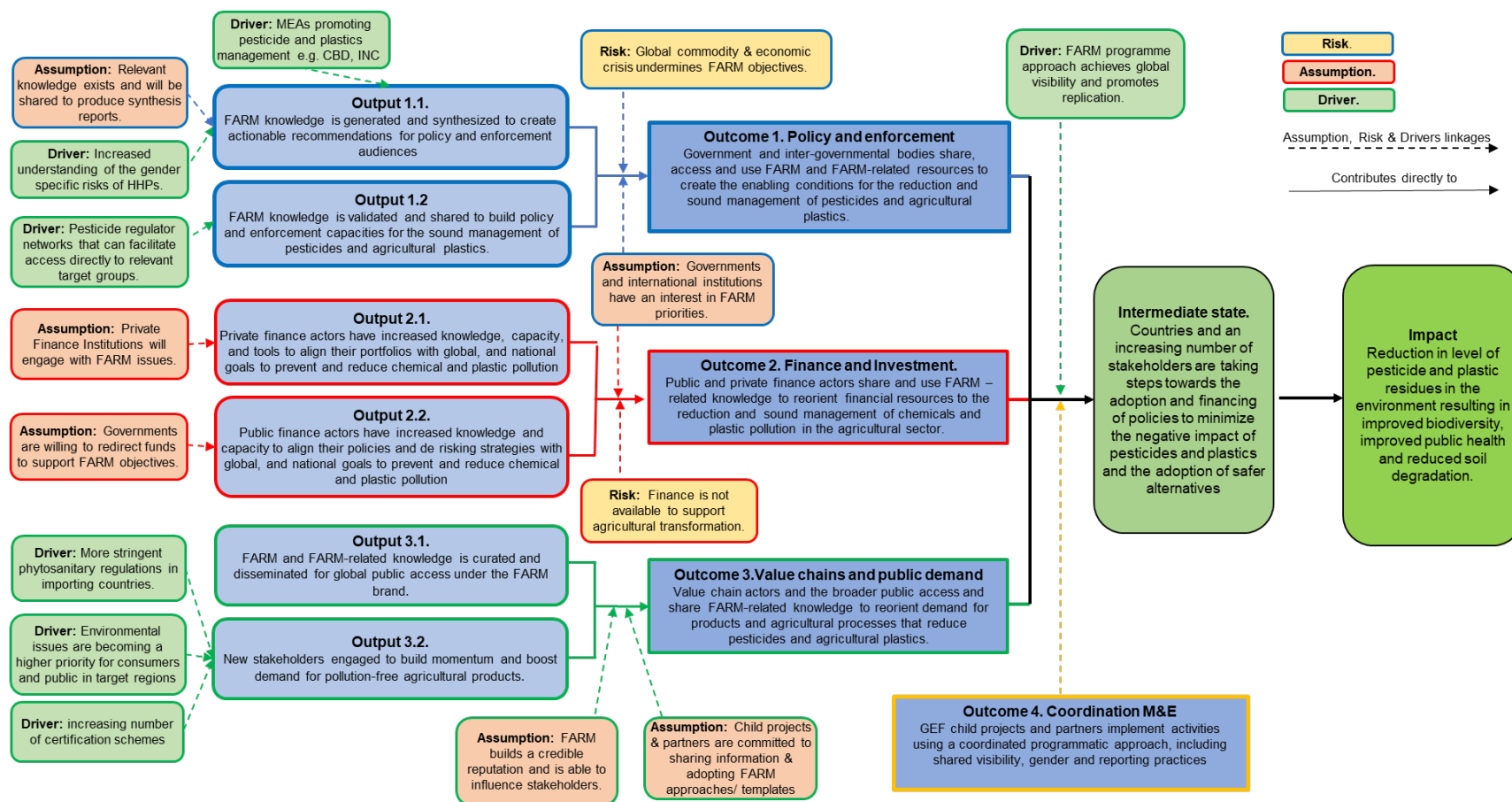


Figure 2: Theory of Change



Appendix 2: Budget Co-Financing Budget and Workplan

Project Title 10903 FARM  
Executing Agen GGKP

			ALLOCATION PER COMPONENT											
			Component 1	Policy research	Government engagement	Component 2	Private finance	Public finance	Component 3	Public engagement	Value chain engagement	M&E		PMC
UNEP BUDGET LINE/OBJECT OF EXPENDITURE			US\$	Output 1.1	Output 1.2	US\$	Output 2.1	Output 2.2	US\$	Output 3.1	Output 3.2	US\$	US\$	US\$
10	PROJECT PERSONNEL COMPONENT (Project Management 5% of overall total)													
	1200	Consultants												
	1201	FARM project manager											220,000	220,000
	1202	FARM monitoring specialist				-			-			340,000		340,000
	1203	Policy research specialist	330,000	165,000	165,000									330,000
	1204	Community engagement specialist	120,000	60,000	60,000	50,000		50,000	100,000		100,000			270,000
	1205	Pesticides and agriplastics consultants	200,000	100,000	100,000									200,000
	1206	Gender consultants	30,000	15,000	15,000	30,000		30,000	30,000	15,000	15,000			90,000
	1207	Private sector finance specialist				540,000	540,000							540,000
	1208	Private finance consultants				285,000	285,000							285,000
	1209	Public sector finance specialist				390,000		390,000						390,000
	1210	Public finance consultants				120,000		120,000						120,000
	1211	Communications and gender specialist							360,000	260,000	100,000			360,000
	1212	Knowledge management specialist							270,000	190,000	80,000			270,000
	1213	Social media and graphic design consultants							375,000	375,000				375,000
	1214	Private sector partnership specialist							350,000		350,000			350,000
	1215	Value chain consultants							195,000		195,000			195,000
	1216	FARM technical coordinator	120,000	60,000	60,000	60,000		60,000	120,000	60,000	60,000			300,000
	1299	Sub-Total	800,000	400,000	400,000	1,475,000	825,000	650,000	1,800,000	900,000	900,000	340,000	220,000	4,635,000
	1300	Administrative Support												
	1301	Administrative & procurement assistant											100,000	100,000
	1600	Travel on official business (above staff)												-
	1601	Travel												-
	1699	Sub-Total											100,000	100,000
	1999	Component Total	800,000	400,000	400,000	1,475,000	825,000	650,000	1,800,000	900,000	900,000	340,000	320,000	4,735,000
20	SUB CONTRACT COMPONENT													
	2100	Sub contracts (UN Organizations)												
	2101	Research and guidance development												-
	2102	Web and tool development												-
	2199	Sub-Total												-
	2200	Sub contracts (SSFA, PCAs, non UN) (*not relevant)												
	2201	Research and guidance development	800,000	500,000	300,000	200,000		200,000	200,000		200,000			1,200,000
	2202	Web and tool development	100,000		100,000	200,000	150,000	50,000	550,000	350,000	200,000			850,000
	2299	Sub-Total	900,000	500,000	400,000	400,000	150,000	250,000	750,000	350,000	400,000			2,050,000
	2999	Component Total	900,000	500,000	400,000	400,000	150,000	250,000	750,000	350,000	400,000			2,050,000
30	TRAINING COMPONENT													
	3300	Meetings/conferences												
	3301	Public events / Programmatic trainings	50,000		50,000	75,000	25,000	50,000	50,000	50,000				175,000
	3302	Regional stakeholder events	50,000		50,000	50,000		50,000	50,000		50,000			150,000
	3303	Project SC, PCG, inception meetings										50,000	35,000	85,000
	3304	Biennial Forums							50,000		50,000			50,000
	3399	Sub-Total	100,000		100,000	125,000	25,000	100,000	150,000	50,000	100,000	50,000	35,000	460,000
	3999	Component Total	100,000		100,000	125,000	25,000	100,000	150,000	50,000	100,000	50,000	35,000	460,000
40	EQUIPMENT and PREMISES COMPONENT													
	4100	Expendable equipment (under 1,500 \$)												
	4101	Operational equipment & supplies												-
	4199	Sub-Total												-
	4200	Non expendable equipment												
	4201	Computers and other IT (EA)												-
	4299	Sub-Total												-
	4999	Component Total												-
50	MISCELLANEOUS COMPONENT													
	5200	Reporting costs (publications, maps, NL)												
	5201	Venue and interpretation services							70,000	70,000				70,000
	5202	Banners, printing, misc.							30,000	30,000				30,000
	5299	Sub-Total							100,000	100,000				100,000
	5500	Monitoring and evaluation												
	5501	Programmatic reporting										30,000		30,000
	5502	Mid term Review (withheld by IA)										20,000		20,000
	5503	Child Project and Programmatic Evaluations (withhel										60,000		60,000
	5599	Sub-total										110,000		110,000
	5999	Component Total							100,000	100,000		110,000		210,000
	TOTAL		1,800,000	900,000	900,000	2,000,000	1,000,000	1,000,000	2,800,000	1,400,000	1,400,000	500,000	355,000	7,455,000

Sources of Co-financing	Name of Co-financier	Type of Co-	Investment Mobilized	Amount (\$)	C1	C2	C3	PMC	M&E	(check)
Other	GGKP	In-kind	Recurrent expenditures	1,000,000	50,000	50,000	50,000	850,000		1,000,000
GEF Agency	UNEP – Ecosystems Division	In-kind	Recurrent expenditures	17,063,082	10,237,849	5,118,925	1,706,308		0	17,063,082
GEF Agency	UNEP Finance Initiative	In-kind	Recurrent expenditures	2,200,000		2,200,000				2,200,000
GEF Agency	UNEP WCMC	In-kind	Recurrent expenditures	782,936		782,936				782,936
Other	Natural Resources Institute	Grant	Investment Mobilized	1,956,068	615,000	721,068	70,000	500,000	50,000	1,956,068
Other	UK	In-kind	Recurrent expenditures	10,000				5,000	5,000	10,000
Civil Society Organization	PAN UK	In-kind	Recurrent expenditures	200,000			200,000			200,000
		Grant	Investment Mobilized	3450875	447,938		2,702,937	300,000		3,450,875
CSO	Rainforest Alliance	In-kind	Recurrent expenditures	2,000,000			2,000,000			2,000,000
Private Sector	BioProtection Global	In-kind	Recurrent expenditures	150,000	50,000	40,000	60,000			150,000
Other	Centre for Suicide Preventio	In-kind	Recurrent expenditures	3,972,744	1,697,098		2,275,646			3,972,744
Total Co-financing				32,785,705	13,097,885	8,912,929	9,064,891	1,655,000	55,000	32,785,705
Planned at PFD					5,000,000	7,750,000	5,250,000	1,000,000	500,000	19,500,000

**Workplan**

Comp/Output	Activity	Y1 (July 2023)				Y2 (July 2024)				Y3 (July 2025)				Y4 (July 2026)				Y5 (July 2027)			
		Y1 Q1	Y1 Q2	Y1 Q3	Y1 Q4	Y2 Q1	Y2 Q2	Y2 Q3	Y2 Q4	Y3 Q1	Y3 Q2	Y3 Q3	Y3 Q4	Y4 Q1	Y4 Q2	Y4 Q3	Y4 Q4	Y5 Q1	Y5 Q2	Y5 Q3	Y5 Q4
<b>Component 1</b>	<b>Policy and Enforcement</b>																				
Output 1.1	<i>FARM knowledge is generated and synthesized to create actionable recommendations for policy and enforcement audiences.</i>																				
1.1.1	Engage experts and practitioners including communities of practice		x	x	x					x	x	x						x	x	x	
1.1.2	Conduct programmatic knowledge reviews			x	x	x						x	x	x						x	x
1.1.3	Publish in-depth scoping analyses					x	x	x						x	x	x					
1.1.4	Undertake research on the gender and social dimensions of policies			x	x	x						x	x	x				x	x	x	
Output 1.2	<i>FARM knowledge is validated and shared to build policy and enforcement capacities for the sound management of pesticides and agricultural plastics</i>																				
1.2.1	Address knowledge gaps in co-creation with stakeholders							x	x	x						x	x	x			
1.2.2	Convene regional stakeholders for validation				x	x			x	x			x	x			x	x			x
1.2.3	Organize and participate in global events		x		x		x		x		x		x		x		x		x		x
<b>Component 2</b>	<b>Finance and Investment</b>																				
Output 2.1	<i>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.</i>																				
2.1.1	Develop a guidance for financial institutions	x	x	x	x	x	x	x	x												
2.1.2	Develop a methodology, tool or study to assess risks					x	x	x	x	x	x	x	x								
2.1.3	Develop and implement an awareness raising and capacity building program									x	x	x	x	x	x	x	x	x	x	x	x
Output 2.2	<i>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.</i>																				
2.2.1	Identify and curate policies and market innovations	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2.2.2	Develop a guidance document on best practices							x	x	x	x	x	x	x	x						
2.2.3	Create and maintain an online, interactive community of practice	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2.2.4	Develop annual synthesis reports on integrating finance in countries								x				x				x				x
2.2.5	Conduct gender analysis of key private and public opportunities for women			x	x							x	x							x	x
<b>Component 3</b>	<b>Knowledge &amp; Capacity / Value Chains and public demand.</b>																				
Output 3.1	<i>FARM and FARM related knowledge is curated and disseminated for global public access under the FARM brand.</i>																				
3.1.1	Coordinate FARM child projects for knowledge exchange and branding	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3.1.2	Create, launch and maintain a FARM website				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3.1.3	Collect, analyse and curate FARM knowledge products	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3.1.4	Develop communication materials to disseminate FARM knowledge	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3.1.5	Coordinate and build capacity on FARM gender and stakeholder engagement			x		x		x		x		x		x		x		x		x	
Output 3.2	<i>New stakeholders engaged to build momentum and boost demand for pollution free agricultural products.</i>																				
3.2.1	Identify potential value chain actors to champion FARM	x	x	x	x	x	x	x	x												
3.2.2	Create and execute awareness and/or advocacy campaigns						x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3.2.3	Create and manage Green Forum FARM group	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3.2.4	Organize and execute Biennial Forums in Asia and Latin America							x	x	x	x					x	x	x	x		
<b>Component 4</b>	<b>Monitoring and Evaluation</b>																				
Output 4.1	<i>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.</i>																				
4.1.1	Gather annual workplans and organize Annual Programme Coordination Meeting			x	x			x	x			x	x			x	x				
4.1.2	Gather annual PIRs and produce annual FARM reports					x	x			x	x			x	x			x	x		
4.1.3	Produce synthesis midterm and terminal programmatic reports									x	x	x	x					x	x	x	x
Output 4.2	<i>Global child project reports are timely submitted and adaptive management is applied when necessary.</i>																				
4.2.1	Prepare quarterly progress and financial reports	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4.2.2	Prepare annual PIRs				x				x				x				x				x
4.2.3	Organize annual Project Steering Committee meetings	x				x				x				x				x			x
4.2.4	Contract and manage the global midterm and terminal reviews (IA task - budget 20k MT, )									x	x	x	x					x	x	x	x

### **Appendix 3: Co-financing Letters**



Medellin, Colombia, November 28<sup>th</sup> 2022

Ms Victoria Luque  
Director, GEF Coordination Office  
United Nations Environment Programme  
P.O. Box 30552-00100  
Tel: 254-20-7624165  
Email: [unepgef@unep.org](mailto:unepgef@unep.org)

**Subject: Co-financing letter of the UNEP/GEF project entitled “*Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools*” (GEF ID 10903)**

Dear Sir,

BioProtection Global (BPG) is pleased to confirm its co-financing contribution for the above referenced Global Environment Facility-funded programme which is led by UNEP. The FARM Global Program and BPG share common pursuits and objectives and together could contribute to build a better framework for investment in the agriculture sector which incentivises and enhances the development of scientifically proven, nature based, renewable, lower carbon and safe biocontrol inputs and technologies for sustainable pest and disease management. The FARM Program brings together many UN Agencies, academic, civil society and private sector partners to accelerate the transition to sustainable and net positive agriculture. The global coordination child project will be delivered by the Green Growth Knowledge Partnership (GGKP) and aims to generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally.

BPG is an international federation of biocontrol, bioprotection and biopesticides industry associations. These associations are comprised primarily of manufacturers of biocontrol and biopesticide products for professional use in agriculture, public health, forestry, animal health and other non-crop uses. Currently, BPG counts with ten member associations, which in turn bring together close to 900 companies with supply, research, manufacturing, and/or commercial activities in more than 100 countries around the globe. BPG was created to serve as a platform for the biocontrol industry to express and share its views to further shape one common positioning and ensure consistency in policy, to promote proportionate and harmonized regulatory frameworks and other key messages towards institutional actors and other stakeholders.

We regard this GEF project as very important to accelerate the uptake of sustainable alternatives, including actions by regulators, farmers, value chains and the public. It will enhance the development and adoption of biocontrol products registered and used globally, contributing to developing countries and regions to meet the objectives of the Stockholm Convention on POPs and the Strategic Approach for International Chemicals Management (SAICM).



Therefore, BioProtection Global through the in-kind contribution of its member associations has mobilized an investment and ongoing activities that align with the FARM program such as targeting the promotion of public policies that enhance the advancement of the biocontrol industry and the adoption of biocontrol technologies, the development of specific and proportionate regulatory frameworks for biocontrol / bioprotection products regulations, as well as advocacy and outreach activities through different events, specialized congresses and publications regarding the role of biocontrol in helping transform food systems to be more sustainable.

The origin of the co-financing amount is from BPG's member associations and includes the time allocated to related activities (i.e. association staff salaries, travel expenses, consultancy fees, materials, amongst others) in three main areas: public policies and advocacy, regulatory strengthening and knowledge management. Co-financing is in the form of an in-kind contribution, meaning a non-monetary contribution of services.

Thereby, we confirm through this letter our support to the above-mentioned project in the form of USD\$150,000 (one hundred and fifty thousand dollars) in in-kind co-financing for the five years of the project.

The breakdown of co-financing over the project components is the following:

Components	Amount of co-finance (US\$)
	<b>In Kind</b>
Component 1: Public policies and advocacy to enhance adoption of biocontrol solutions: salaries, consultancy fees, travel expenses, other expenses	50,000
Component 2: Regulatory strengthening / proportionate regulations: salaries, consultancy fees, travel expenses, other expenses	40,000
Component 3: Knowledge management, value chain training and outreach: salaries, consultancy fees, travel expenses, other expenses	60,000
<b>Total</b>	<b>150,000</b>

We look forward to a fruitful collaboration and coordination with the FARM Program.

Sincerely,

A handwritten signature in black ink, appearing to read "Nicolas Cock Duque", written over a horizontal line.

Nicolas Cock Duque  
President



THE UNIVERSITY  
of EDINBURGH



Centre for  
PESTICIDE SUICIDE  
PREVENTION

**Centre for Pesticide Suicide Prevention**

The University of Edinburgh  
Queens Medical Research Institute  
47 Little Paris Crescent  
Edinburgh  
EH16 4TJ

CPSP@ed.ac.uk  
[www.centresp.org](http://www.centresp.org)

9 December 2022

Ms Victoria Luque,  
Director, GEF Coordination Office  
United Nations Environment Programme  
P.O. Box 30552-00100  
Tel: 254-20-7624165  
Email: [unepgef@unep.org](mailto:unepgef@unep.org)

**Subject: Co-financing letter of the UNEP/GEF project entitled “*Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools*” (GEF ID 10903)**

Dear Sir,

The *Centre for Pesticides Suicide Prevention (CPSP)* at the University of Edinburgh is pleased to confirm its anticipated co-finance for the above referenced Global Environment Facility-funded programme which is led by UNEP. The FARM Global Program aims to “*catalyze a framework for investment in the agriculture sector to detoxify the sector by eliminating the use of the most harmful inputs to food production systems*”. The FARM Program brings together many UN Agencies, academic, civil society and private sector partners to accelerate the transition to sustainable and pollution free agriculture. The global coordination child project will be delivered by the Green Growth Knowledge Partnership (GGKP) and aims to generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally.

We regard this GEF project as very important to achieve the phase out of POPs and Highly Hazardous Pesticides and accelerate the uptake of sustainable alternatives, including actions by regulators, farmers, value chains and the public. It will reduce the amount of HHPs and pesticides registered and used globally, thus enabling developing countries and regions to meet the objectives of the Stockholm Convention on POPs and the Strategic Approach for International Chemicals Management (SAICM).

Therefore CPSP has mobilized an investment and ongoing activities primarily focused on the saving of lives by reducing suicides caused by consumption of HHPs. CPSP experience has shown that removal from use of HHPs that cause death also creates additional benefits through reduced negative impacts on health, environmental resources and biodiversity. The current operating budget of CPSP is

\$7,195,857.65 for the 3 year period June 2021 – June 2024 with the probability of additional funds beyond 2024. The budget supports a central project management and research unit based in Edinburgh. CPSP also supports operations in Asia, Africa the Caribbean and Latin America with regional coordinators and budgets to support meetings of pesticide regulators for training and strategic planning. Country based projects currently operate in 8 countries where research units investigate numbers of pesticide related deaths and the chemicals responsible, and work with regulators to consider removal of the responsible HHPs and their replacement with benign or safer alternatives. The activities of CPSP directly contribute to FARM components:

- Component 1: Regulatory strengthening by advising and supporting regulators to make informed decisions about HHPs on the basis of suicide and health impacts data collected in-country; and
- Component 3: Knowledge management for scaling up by supporting the establishment of robust data collection and reporting systems on suicides and poisoning and by facilitating exchange of experience and knowledge on alternative pest management strategies to replace HHPs.

Thereby, we confirm through this letter our support to the above-mentioned project in the form of 3,792,744 USD in in-kind co-financing for the first 18 months of the project with an anticipated additional 7.5 million USD for the following three years, to be confirmed.

The breakdown of co-financing over the project components is the following:

Components	Amount of co-finance (US\$)	
	In Kind	Investment or related activities
<u>Component 1: Regulatory strengthening</u> advising and supporting regulators to make informed decisions about HHPs on the basis of suicide and health impacts data collected in-country -	1,697,098 in first 18 months 3,000,000 in subsequent 3 years (tbc)	
<u>Component 2: Investment and finance</u>		
<u>Component 3: Knowledge management for scaling up</u> - Knowledge management for scaling up by supporting the establishment of robust data collection and reporting systems on suicides and poisoning - facilitating exchange of experience and knowledge on alternative pest management strategies to replace HHPs -	2,275,646 in first 18 months 4,500,000 in subsequent 3 years (tbc)	
<u>Component 4: Monitoring and Evaluation</u> - Staff time to attend project steering committee		
<u>Project Management</u> -		
<b>Total</b>	<b>3,972,744 in first 18 months</b>	



	7,500,000 in subsequent 3 years (tbc)	
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We look forward to a fruitful collaboration and coordination with the FARM Program

A handwritten signature in black ink, appearing to read 'Mark Davis', with a stylized, flowing script.

Mark Davis  
Director for Agriculture and Regulatory Outreach  
Centre for Pesticide Suicide Prevention  
University of Edinburgh

Ms Victoria Luque,  
Director, GEF Coordination Office  
United Nations Environment Programme  
P.O. Box 30552-00100  
Tel: 254-20-7624165  
Email: [unepgef@unep.org](mailto:unepgef@unep.org)

**Subject: Co-financing letter of the UNEP/GEF project entitled “*Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools*” (GEF ID 10903)**

Dear Sir/Madam,

The *Natural Resources Institute, University of Greenwich (NRI, UoG)* is pleased to confirm its anticipated co-finance for the above referenced Global Environment Facility-funded programme which is led by UNEP. The FARM Global Program aims to “*catalyze a framework for investment in the agriculture sector to detoxify the sector by eliminating the use of the most harmful inputs to food production systems*”. The FARM Program brings together many UN Agencies, academic, civil society and private sector partners to accelerate the transition to sustainable and pollution free agriculture. The global coordination child project will be delivered by the Green Growth Knowledge Partnership (GGKP) and aims to generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally.

We regard this GEF project as very important to achieve the phase out of POPs and Highly Hazardous Pesticides and accelerate the uptake of sustainable alternatives, including actions by regulators, farmers, value chains and the public. It will reduce the amount of HHPs and pesticides registered and used globally, thus enabling developing countries and regions to meet the objectives of the Stockholm Convention on POPs and the Strategic Approach for International Chemicals Management (SAICM).

Therefore, NRI has mobilized an investment through our ongoing activities and projects currently underway in support of the UN Sustainable Development Goals. Our mission to generate, apply and share knowledge and develop skills for a sustainable world, aligns perfectly with the FARM Programme and is underpinned by our interdisciplinary approach to address interrelated challenges affecting the global community.

Together with our international partners, we tackle issues including poverty, food and nutrition security, sustainable agriculture, climate change, gender and social equality, responsible production and consumption, sustainable management of natural resources and the environment.

Thereby, we confirm through this letter our support to the above-mentioned project in the form of 1,966,068 USD in contracted related activities co-financing for the five years of the project.

The breakdown of co-financing over the project components is the following:

Components	Amount of co-finance (US\$)	
	In Kind	Investment or related activities
<u>Component 1: Regulatory strengthening</u>		
- <i>Croplife Obsolete Stocks Management</i>		115,000
- <i>Africa Cassava Whitefly Project Aim 1</i>		500,000
<u>Component 2: Investment and finance</u>		140,000
- <i>Promoting Resilience and Food Security through Risk-Contingent Credit (RCC) in Africa.</i>		
- <i>Economic and Empowerment Impacts of Millet Processing and Value Addition Enterprises by Women SHGs in Tribal Areas of Odisha (Implementation).</i>		581,068
<u>Component 3: Knowledge management for scaling up</u>		70,000
- <i>EACDS Lot B Assignment: Building the evidence base on trade agreements and environmental outcomes.</i>		
<u>Component 4: Monitoring and Evaluation</u>		
- <i>Staff time to attend project steering committee.</i>	5,000	
- <i>Support to the Implementation of the Long-Term EU-AU Research and Innovation Partnership for Food and Nutrition Security and Sustainable Agriculture (FNSSA).</i>		50,000
<u>Project Management</u>	5,000	
- <i>Value Chain Analysis for Development (VCA4D).</i>		500,000
<b>Total</b>	<b>10,000</b>	<b>1,956,068</b>

We look forward to a fruitful collaboration and coordination with the FARM Program

Yours sincerely



Ben Bennett  
Interim Director, Natural Resources Institute  
Professor of International Trade and Marketing Economics

Brighthelm Centre  
North Road  
Brighton  
BN1 1YD  
Tel +44 1273 964230  
keith@pan-uk.org  
www.pan-uk.org



working to eliminate the dangers of toxic pesticides

Ms Victoria Luque,  
Director, GEF Coordination Office  
United Nations Environment Programme  
P.O. Box 30552-00100  
Tel: 254-20-7624165  
Email: [unepgef@unep.org](mailto:unepgef@unep.org)

**Subject: Co-financing letter of the UNEP/GEF project entitled “*Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools*” (GEF ID 10903)**

Dear Ms Luque,

The *Pesticide Action Network UK (PAN UK)* is pleased to confirm its anticipated co-finance for the above referenced Global Environment Facility-funded programme which is led by UNEP. The FARM Global Program aims to “*catalyze a framework for investment in the agriculture sector to detoxify the sector by eliminating the use of the most harmful inputs to food production systems*”. The FARM Program brings together many UN Agencies, academic, civil society and private sector partners to accelerate the transition to sustainable and pollution free agriculture. The global coordination child project will be delivered by the Green Growth Knowledge Partnership (GGKP) and aims to generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally.

We regard this GEF project as very important to achieve the phase out of POPs and Highly Hazardous Pesticides and accelerate the uptake of sustainable alternatives, including actions by regulators, farmers, value chains and the public. It will reduce the amount of HHPs and pesticides registered and used globally, thus enabling developing countries and regions to meet the objectives of the Stockholm Convention on POPs and the Strategic Approach for International Chemicals Management (SAICM).

We see this GEF project as highly relevant in our own attempts to improve pesticide management in Africa and beyond. Therefore, *PAN UK* has mobilized an investment and ongoing activities to address the problems caused by HHPs.

We currently have an active programme of work to identify and promote non-chemical methods of pest control in Africa including developing training programmes and materials on Integrated Pest Management (IPM) targeted at smallholder farming systems. We also conduct on-farm research to identify, develop and improve alternatives to HHPs – a key activity identified in this project.

Another aspect of our work which is particularly relevant is our programme to collect data on the use and impacts of HHPs. We have developed a mobile phone-based App to collect data on pesticide use patterns and health impacts which provides useful information to policy-makers to better target interventions – including identifying those HHPs disproportionately responsible for problems.

This work is complemented by an active programme of work to identify alternatives to specific HHPs. We have developed and tested a range of approaches to identify, evaluate and refine various option to replace specific HHPs in different farming systems and contexts including endosulfan, paraquat, carbosulfan and others.

We are also happy to offer a number of other tools which have been developed by PAN UK to support farmer training and data collection. These include our *IPM ladder* which allows the assessment of farmer progress on IPM adoption, our *community level ecosystem service assessment* tool and our *Ecotox training manual* which provides guidance on how to conduct various ecological monitoring programmes to assess the impact of pesticides.

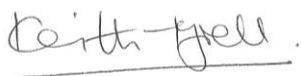
Our farmer support and research programmes are funded through a mix of philanthropic investment and International Overseas Development Assistance.

Thereby, we confirm through this letter our support to the above-mentioned project in the form of \$3,650,875 USD in related activities and in-kind co-financing for the five years of the project.

The breakdown of co-financing over the project components is the following:

Components	Amount of co-finance (US\$)	
	In Kind	Investment or related activities
<u>Component 1: Regulatory strengthening</u> <ul style="list-style-type: none"> <li>- <i>Use of PAN UK health monitoring APP to collect data on pesticide impacts and to identify HHPs responsible for most serious impacts</i></li> <li>- <i>Provide examples/guidance on the development of post-registration monitoring systems</i></li> <li>- <i>Provide examples/guidance on the development of regional HHP strategies</i></li> </ul>		\$398,350
<u>Component 2: Investment and finance</u> <ul style="list-style-type: none"> <li>-</li> </ul>		
<u>Component 3: Knowledge management for scaling up</u> <ul style="list-style-type: none"> <li>- <i>Identification of alternatives to specific HHPs</i></li> <li>- <i>Direct support and training to smallholder farmers to reduce reliance on HHPs</i></li> <li>- <i>Sharing of PAN UK training materials and research to support farmers to adopt more sustainable farming practices</i></li> <li>- <i>Access to PAN UK tools including IPM ladder, Ecotox training manual and community-scale ecosystem service assessment</i></li> </ul>	\$100,000 \$100,000	\$341,181 \$2,611,756
<u>Component 4: Monitoring and Evaluation</u> <ul style="list-style-type: none"> <li>- <i>Staff time to attend project steering committee</i></li> </ul>		
<u>Project Management</u> <ul style="list-style-type: none"> <li>-</li> </ul>		
<b>Total</b>	<b>\$200,000</b>	<b>\$3,450,875</b>

We look forward to a fruitful collaboration and coordination with the FARM Program



Dr Keith Tyrell  
Director



Rainforest Alliance  
Unit 2.7, The Green House  
244-254 Cambridge Heath Road, London, E2 9DA

6<sup>th</sup> March 2023

Ms Victoria Luque,  
Director, GEF Coordination Office  
United Nations Environment Programme  
P.O. Box 30552-00100  
Tel: 254-20-7624165  
Email: [unepgef@unep.org](mailto:unepgef@unep.org)

**Subject: Co-financing letter of the UNEP/GEF project entitled “*Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools*” (GEF ID 10903)**

Dear Ms Luque,

The Rainforest Alliance is pleased to confirm its anticipated co-finance for the above referenced Global Environment Facility-funded programme which is led by UNEP. The FARM Global Program aims to “*catalyze a framework for investment in the agriculture sector to detoxify the sector by eliminating the use of the most harmful inputs to food production systems*”. The FARM Program brings together many UN Agencies, academic, civil society and private sector partners to accelerate the transition to sustainable and pollution free agriculture. The global coordination child project will be delivered by the Green Growth Knowledge Partnership (GGKP) and aims to generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally.

We regard this GEF project as very important to achieve the phase out of POPs and Highly Hazardous Pesticides and accelerate the uptake of sustainable alternatives, including actions by regulators, farmers, value chains and the public. It will reduce the amount of HHPs and pesticides registered and used globally, thus enabling developing countries and regions to meet the objectives of the Stockholm Convention on POPs and the Strategic Approach for International Chemicals Management (SAICM).

Of significant relevance to this GEF project, the Rainforest Alliance has mobilized investment to support an ongoing programme of work focussed on Regenerative Agriculture and Integrated Pest Management (IPM). The goal of the Rainforest Alliance’s IPM strategy is to guide farms in developing robust plans to control pests naturally (with pesticides used as a last resort) and to improve ecosystem resilience, through four main components:

- 1. IPM knowledge bank:** creating the necessary information and knowledge pool to make informed decisions regarding IPM and pesticide use in order to support farmers in their journey towards more regenerative agriculture and pest control.

2. **Tailored IPM solutions:** using the knowledge bank to create tailored IPM solutions in specific sectors and locations.
3. **Training and capacity building:** applying the Farmer Field School model<sup>14</sup> to promote experimentation, demonstration, and exchange of experiences among farmers, which will be key for IPM adoption.
4. **Advocacy:** lobbying and advocating for shared responsibility in IPM and pesticide use.

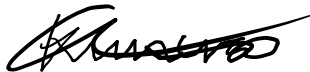
Co-finance for this GEF project is made up of two components (i) salaries and related costs for staff who are dedicated to implementing this work on IPM, and (ii) the costs of a highly relevant project that is currently being implemented by the Rainforest Alliance in Vietnam, entitled “*IPM, Adoption and Pesticide Use on Coffee, Tea and Pepper Farms in Vietnam*”. The outcomes and learning from both of these components will contribute towards the GEF FARM project, specifically under Component 3 *Knowledge Management for Scaling Up*.

Thereby, we confirm through this letter our support to the above-mentioned project in the form of 2,000,000 USD in in-kind co-financing for the five years of the project.

We look forward to a fruitful collaboration and coordination with the FARM Program

Yours sincerely,

Kunera Moore



Director, Themes  
Rainforest Alliance

Email: [kmoore@ra.org](mailto:kmoore@ra.org)

To:	Victoria Luque, Director, GEF Coordination Office, United Nations Environment Programme P.O. Box 30552-00100 Tel: 254-20-7624165 Email: <a href="mailto:unepgef@unep.org">unepgef@unep.org</a>	Date:	23 December 2022
From:	Eric Usher	Reference:	UNEP/Economy Division/RMB/FI/GEF/112822
Subject:	<b>Co-financing letter of the UNEP/GEF project entitled "Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools" (GEF ID 10903)</b>		

This memo confirms UNEP Finance Initiative's (FI) anticipated co-finance and support for the UNEP/GEF project entitled "Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools" (GEF ID 10903).

The FARM Global Program aims to "catalyze a framework for investment in the agriculture sector to detoxify the sector by eliminating the use of the most harmful inputs to food production systems". The FARM Program brings together many UN Agencies, academic, civil society, and private sector partners to accelerate the transition to sustainable and pollution free agriculture. The global coordination child project will be delivered by the Green Growth Knowledge Partnership (GGKP) and aims to generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally.

We regard this GEF project as very important to achieve the phase out of Persistent Organic Pollutants (POPs) and Highly Hazardous Pesticides (HHPs) and accelerate the uptake of sustainable alternatives, including actions by regulators, farmers, value chains and the public. It will contribute to reduce the amount of HHPs and pesticides registered and used globally, thus helping developing countries and regions to meet the objectives of the Stockholm Convention on POPs and the Strategic Approach for International Chemicals Management (SAICM).

UNEP FI mobilises ongoing activities across UNEP FI teams to support its members, especially the Principles for Responsible Banking signatories, in incorporating sustainability in their strategies, better assessing the impact of their portfolios, setting targets to improve their positive impact and reduce their negative impact, and putting in place implementation plans to achieve their targets. UNEP FI's work includes supporting its members in implementing the Principles for Responsible Banking and developing and deploying various capacity building programs (Banking, Regional and Training Teams), as well as incorporating gender considerations in its members work on sustainability (Social Team). UNEP FI also develops resources on the topic of resource efficiency and circular economy, through various initiatives including guidance on resource efficiency and circular economy target setting, led by the Pollution and Circular Economy Team. All this work is expected to facilitate the knowledge development and outreach to the private finance community in support of the GEF FARM Programme. UNEP FI's work also includes a project to mobilise the finance sector on plastic pollution, with the objective to contribute to the future international plastic agreement negotiation process and to build readiness in the finance sector in view of the future plastic agreement. This USD 540,000 project is expected to be funded by Minderoo Foundation in 2023 and 2024. Its learnings and outcomes are expected to support the development of knowledge which will be relevant for the GEF FARM Programme. UNEP FI's work also includes various initiatives led by the Nature Team to develop knowledge and capacity of its members on natural capital,



and further developments of the ENCORE tool which enables financial institutions to assess the risks and dependencies related to natural capital in financial portfolios. The ENCORE tool is very relevant to the GEF FARM Programme through the multiple negative impacts of plastics and chemical pollution on natural capital. We see strong links between the GEF FARM Programme and some of the further developments of the ENCORE tool, which will include new data and metrics and develop a sectoral focus on agribusiness, for an amount of USD 885,100 that will be funded by the State Secretariat for Economic Affairs of Switzerland (SECO).

The work described above currently developed and to be developed by UNEP FI, especially in the Banking Team, Social Team, Nature Team and Pollution and Circular Economy Team, as well as the support from the Administrative, Regional and Communications Teams, is expected to support the GEF FARM Programme, in particular on Component 2.

Thereby, we confirm through this letter UNEP FI's support to the GEF FARM Programme, especially in its Component 2, for an amount estimated at USD 2,200,000 over five years (2023-2027), corresponding to personnel time, administrative support and outputs arising from the projects described above on plastic pollution and on further developments of the ENCORE tool.

This breakdown of co-financing over the project components is the following:

Components	Amount of co-finance (US\$)	
	In Kind	Cash, investment or other grant
<u>Component 1: Government policy and enforcement</u>		
<u>Component 2: Finance and investment</u>	2,200,000	
<u>Component 3: Knowledge management</u>		
<u>Component 4: Monitoring and Evaluation</u>		
<u>Project Management</u>		
<b>Total</b>	2,200,000	

We look forward to a fruitful collaboration and coordination with the GEF FARM Programme.

Ms Victoria Luque,  
Director, GEF Coordination Office  
United Nations Environment Programme  
P.O. Box 30552-00100  
Tel: 254-20-7624165  
Email: [unepgef@unep.org](mailto:unepgef@unep.org)

**Subject: Co-financing letter of the UNEP/GEF project entitled “Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools” (GEF ID 10903)**

Dear Ms. Luque,

The Economics of Nature Unit, Ecosystems Division, UNEP is pleased to confirm its anticipated contributions for the above referenced Global Environment Facility-funded programme which is led by UNEP. The FARM Global Program aims to “*catalyze a framework for investment in the agriculture sector to detoxify the sector by eliminating the use of the most harmful inputs to food production systems*”. The FARM Program brings together many UN Agencies, academic, civil society and private sector partners to accelerate the transition to sustainable and pollution free agriculture. The global coordination child project will be delivered by the Green Growth Knowledge Partnership (GGKP) and aims to generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally.

We regard this GEF project as very important to achieve the phase out of POPs and Highly Hazardous Pesticides and accelerate the uptake of sustainable alternatives, including actions by regulators, farmers, value chains and the public. It will reduce the amount of HHPs and pesticides registered and used globally, thus enabling developing countries and regions to meet the objectives of the Stockholm Convention on POPs and the Strategic Approach for International Chemicals Management (SAICM).

The Economics of Nature Unit has a current 8.5 million EUR grant awarded by the EU on the application of economics to value externalities and impacts across the agri-food value chain. This project links with the proposed GEF project as the policy scenarios in several of the countries in scope include reductions in pesticide applications via a switch to organic production and the corresponding economic impacts on human and ecosystem health.

Thereby, we confirm through this letter our support to the above-mentioned project in the form of outputs arising from the project with 8.5 million EUR in funding. This funding is due to end in December 2023 but the Economics of Nature Unit anticipates further funding of around 2 million EUR per year for the next five years to work on the economics of food systems transformations. Should this grant move forward, we foresee a total of 16.5 million EUR (USD 17,063,082, according to the UN exchange rate on 1 December 2022) in funding for the Economics of Nature Unit that broadly supports the goals of the FARM programme.

Broadly, this funding would support the FARM programme across all three major components, roughly in the following proportions:

- Component 1 on Policy and Enforcement: 60%

- Component 2 on Finance and Investment: 30%
- Component 3 on Value Chains and Public Demand: 10%

We look forward to a fruitful collaboration and coordination with the FARM Programme.

Dr Salman Hussain



Head a.i. The Economics of Nature Unit  
Ecosystems Division  
UNEP

Ms Victoria Luque,  
Director, GEF Coordination Office  
United Nations Environment Programme  
P.O. Box 30552-00100

Tel: 254-20-7624165

Email: [unepgef@unep.org](mailto:unepgef@unep.org)

8th December, 2022

**Subject: Co-financing letter of the UNEP/GEF project entitled "*Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools*" (GEF ID 10903)**

Dear Sir,

WCMC is pleased to confirm its anticipated indicative co-finance for the above referenced Global Environment Facility-funded programme which is led by UNEP. The FARM Global Program aims to "*catalyze a framework for investment in the agriculture sector to detoxify the sector by eliminating the use of the most harmful inputs to food production systems*". The FARM Program brings together several UN Agencies, academic, civil society and private sector partners to accelerate the transition to sustainable and pollution free agriculture. The global coordination child project will be delivered by the Green Growth Knowledge Partnership (GGKP) and aims to generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally.

We regard this GEF project as very important to achieve the phase out of POPs and Highly Hazardous Pesticides and accelerate the uptake of sustainable alternatives, including actions by regulators, farmers, value chains and the public. It will reduce the amount of HHPs and pesticides registered and used globally, thus enabling developing countries and regions to meet the objectives of the Stockholm Convention on POPs and the Strategic Approach for International Chemicals Management (SAICM).

WCMC has mobilized an 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. We see direct links here to the GEF FARM Program through the multiple negative impacts of plastics and chemical pollution on biodiversity. As a Centre of Excellence in biodiversity we are keen to further explore these connections, and ensure that banks also understand these damaging links. This co-financing is provided through the UKRI-funded SUSTAIN project and amounts to 782,936 USD over three years and is contingent upon continuing funding from UKRI. The project aims to provide business, financial institutions, and

regulatory bodies with the knowledge and resources to better understand, assess, and monitor the dependencies and impacts of activities across different sectors of the economy on nature, and develop methods to reduce nature-related risks. This will drive better corporate and financial decision-making regarding biodiversity and ecosystem services. 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 Program, in particular on Component 2.

Thereby, we confirm through this letter our support to the above-mentioned program in the form of 782,936 USD in in-kind co-financing for the five years of the project.

The breakdown of co-financing over the project components is the following:

Components	Amount of co-finance (US\$)	
	In Kind	Investment or related activities
Component 1: Regulatory strengthening		
Component 2: Investment and finance	782,936	
Component 3: Knowledge management for scaling up		
Component 4: Monitoring and Evaluation		
Project Management		
<b>Total</b>	<b>782,936</b>	

We look forward to a fruitful collaboration and coordination with the GEF FARM Program



Jonathan Hughes,

CEO, WCMC

24 March 2023

Ms. Victoria Luque,  
Director, GEF Coordination Office  
United Nations Environment Programme  
P.O. Box 30552-00100  
Tel: 254-20-7624165  
Email: unepgef@unep.org

**Subject: Co-financing letter of the UNEP/GEF project entitled “Financing Agrochemical Reduction and Management: Global Coordination, Knowledge Management and Common Finance Tools” (GEF ID 10903)**

Dear Ms. Luque,

The Green Growth Knowledge Partnership (GGKP) is pleased to confirm its anticipated co-finance for the above referenced Global Environment Facility-funded programme which is led by UNEP. The FARM global child project aims to “*catalyze a framework for investment in the agriculture sector to detoxify the sector by eliminating the use of the most harmful inputs to food production systems*”. The FARM Programme brings together many UN Agencies, academic, civil society and private sector partners to accelerate the transition to sustainable and pollution free agriculture. The global coordination child project will be delivered by the GGKP and aims to generate, coordinate, communicate, and manage knowledge to amplify the results of FARM child projects as a single Programme regionally and globally.

We regard this GEF project as very important to achieve the phase out of POPs and Highly Hazardous Pesticides and accelerate the uptake of sustainable alternatives, including actions by regulators, farmers, value chains and the public. It will reduce the amount of HHPs and pesticides registered and used globally, thus enabling developing countries and regions to meet the objectives of the Stockholm Convention on POPs and the Strategic Approach for International Chemicals Management (SAICM).

The GGKP has mobilized a total of USD 1,000,000 to support the FARM Programme through its global network of experts and organisations dedicated to providing the policy, business, and finance communities with cutting edge knowledge, guidance, data, and tools through the [Green Policy Platform](#), the [Green Industry Platform](#), [Green Finance Platform](#), and the [Green Forum](#).

Thereby, we confirm through this letter our support to the above-mentioned project in the form of an in-kind contribution of USD 1,000,000 as co-financing for the five years of the project.

Broadly, this funding would support the FARM Programme across four components, roughly in the following proportions:

- Component 1 on Policy and Enforcement: 5%
- Component 2 on Finance and Investment: 5%
- Component 3 on Value Chains and Public Demand: 5%
- PMC: 85%

We look forward to a fruitful collaboration and coordination with the FARM Programme.

Yours sincerely,

Asad Naqvi  
Head of Secretariat, Green Growth Knowledge Partnership

#### Appendix 4 - TORs for key personnel

<i><b>Position Titles</b></i>	<i><b>\$ Person Week/ Est Person Week</b></i>	<i><b>Tasks to Be Performed / Deliverables</b></i>	<i><b>Related workplan activity</b></i>
<b>FARM project manager</b>	2000 / 110	<ul style="list-style-type: none"> <li>• Manage overall implementation of FARM activities and ensure timely and efficient delivery according to the project document and work plan</li> <li>• Monitor the budget according to the budget plan and co-finance plan</li> <li>• Coordinate with GEF Secretariat, Implementing Agencies, as well as relevant GEF programmes</li> <li>• Development, monitoring and delivery of annual procurement plans</li> </ul>	PMC
<b>FARM technical coordinator</b>	2000 / 150	<ul style="list-style-type: none"> <li>• Oversee the execution of FARM strategies (including Component 3 Joint Strategy, Stakeholder Engagement Strategy, Knowledge Management Strategy, Communication Strategy, Gender Action Plan, and Policy and Enforcement Engagement Strategy, and other strategies to be developed)</li> <li>• Ensure coordination of activities under different components</li> <li>• Organise and provide secretariat function for FARM Programme Coordination Group meetings and FARM Project Steering Committee meetings</li> <li>• Organise and execute FARM Partners Forums in Asia and Latin America</li> <li>• Develop detailed ToRs of consultants to deliver specific deliverables according to the work plan</li> <li>• Organise and lead technical consultations with stakeholders</li> </ul>	Output 1.1, 1.2, 2.2, 3.1, 3.2
<b>FARM monitoring specialist</b>	2000 / 170	<ul style="list-style-type: none"> <li>• Lead the preparation, review and submission of Executing Agency progress reports including quarterly and annual progress reports to IA</li> <li>• Design the Programmatic Child Project reporting format</li> <li>• Produce child project Inception Report and other reports as per M&amp;E budget</li> <li>• Track progress of FARM against GEF Core Indicators</li> <li>• Produce the FARM Annual Progress Report</li> <li>• Produce quarterly FARM Programme Progress report including developing standard progress report template, getting inputs from child projects and compiling results</li> <li>• Provide technical advice to child projects on reporting to the global child project</li> <li>• Prepare annual PIR and contribute to mid-term and terminal reviews</li> </ul>	Component 4



<b>Policy research specialist</b>	2000 / 165	<ul style="list-style-type: none"> <li>• Lead the implementation of FARM Policy and Enforcement Engagement Strategy</li> <li>• Monitor and update global initiatives, networks and mechanisms that support the development and enforcement of sustainable agriculture</li> <li>• Provide technical inputs by leading research, consultations, analysis and writing for Component 1 to understand enabling conditions for the sound management of agrochemicals and agri-plastics</li> <li>• Identify policy research priorities in areas of agrochemicals and agri-plastics</li> <li>• Lead consultations with relevant stakeholders</li> <li>• Lead policy-oriented research and knowledge application under Component 1</li> <li>• Oversee the development of knowledge products including technical materials, guidance, toolkits, case studies, best practices, briefs and lessons learned</li> <li>• Align policy and enforcement aspects across different components of the FARM</li> </ul>	Component 1
<b>Community engagement specialist</b>	2000 / 135	<ul style="list-style-type: none"> <li>• Identify areas of interest and themes to engage stakeholders for discussions on the Green Forum FARM community space</li> <li>• Facilitate discussions and exchange on the FARM Green Forum community space, including sharing and highlighting new publications, case studies, key findings and recommendations related to agrochemicals and agri-plastics</li> <li>• Engage in discussions at the SAICM Community of Practice on HHPs and make linkages to discussions at the FARM Green Forum</li> <li>• Build an engaging and active Green Forum community space for FARM</li> <li>• Assist with stakeholder engagement</li> <li>• Provide guidance and training to stakeholders on how to use Green Forum space</li> </ul>	Output 1.1, 1.2, 2.2, 3.2
<b>Pesticides and agriplastics consultants</b>	2000 / 100	<ul style="list-style-type: none"> <li>• Monitor and update global initiatives, networks and mechanisms that support the reduction of the use of agrochemicals and agri-plastics</li> <li>• Provide technical inputs by leading research, consultations, analysis and writing relevant to the sound management of agrochemicals and agri-plastics</li> <li>• Lead consultations with relevant stakeholders</li> <li>• Lead technical coordination with FARM implementing agencies on topics related to pesticides and agri-plastics</li> </ul>	Output 1.1, 1.2,
<b>Gender consultants</b>	2000 / 45	<ul style="list-style-type: none"> <li>• Lead the implementation of FARM Gender Action Plan</li> <li>• Monitor project activities related to gender</li> <li>• Review knowledge products, reports, communication materials to ensure they are gender-responsive</li> </ul>	Output 1.1, 1.2, 2.2, 3.1, 3.2

		<ul style="list-style-type: none"> <li>• Contribute to discussions on the Green Forum on gender in agriculture by sharing blog posts</li> <li>• Provide technical advice to child project gender focal points</li> <li>• Lead thematic coordination meetings focused on gender</li> </ul>	
<b>Private sector finance specialist</b>	2000 / 270	<p>Role covering both coordination and most of the substantive delivery.</p> <ul style="list-style-type: none"> <li>• Define Terms of Reference and select private finance consultants</li> <li>• Contract external provider for the development of the methodology, tool or study for the assessment of risks and impacts related to chemical and plastic pollution in the agriculture sector</li> <li>• Coordinate and supervise the work to be developed by private finance consultants under FARM Program</li> <li>• Facilitate outreach and coordination with experts involved in the development of the Guidance, methodology, tool or study to assess risks and impacts and Capacity Building Program</li> <li>• Coordinate with other relevant UNEP and UNEP FI teams to be involved to support the development of the activities under Output 2.1</li> <li>• Provide input as needed for the development of activities under Output 2.2, in coordination with consultants under Output 2.2</li> <li>• Convene a group of financial institutions to support the development of the Guidance</li> <li>• Convene a group of experts, including chemical pollution experts, plastic pollution experts and experts from the agriculture sector, to provide input and review the Guidance to be developed</li> <li>• Develop a work plan to develop the Guidance with the support of a group of interested financial institutions and a group of experts, including the organisation of consultations, working sessions or exchange sessions.</li> <li>• Prepare and hold consultations, working sessions or exchange sessions to inform the development of the Guidance</li> <li>• Lead the development of the Guidance, including as needed input provided by financial institutions and experts</li> <li>• Liaise as needed with Finance Institution Liaison Consultants and with UNEP FI and UNEP staff and consultants working on sustainable practices in the agriculture sector and/or on chemical and plastic pollution, and incorporate their input in the development of the Guidance</li> <li>• Draft the Guidance, submit it to financial institutions, experts and peer review and finalise it</li> </ul>	Output 2.1

		<ul style="list-style-type: none"> <li>• Lead the deployment of the Guidance to financial institutions, liaising as needed with the Financial Communication specialist, and provide support to its implementation by financial institutions</li> <li>• Support as needed for the development of the methodology, tool or study to assess risks and impacts related to chemical and plastic pollution in the agriculture sector, in coordination with the external provider to be contracted to develop it</li> <li>• Support as needed for the development of the Capacity Building Program, building on the Guidance and on the findings from the development of the methodology, tool or study on risk and impact assessment, in coordination with the Financial Capacity Building Consultant</li> <li>• Lead the delivery of the Capacity Building Program to financial institutions, in coordination with the Financial Institution Consultants</li> <li>• Organise webinars, workshops and events as needed to deliver the Capacity Building Program, in coordination with the Communications consultant and with the Finance Institution Liaison Consultants</li> <li>• Coordinate and support the periodic reporting to GEF related to FARM Program</li> </ul>	
<b>Private finance consultants</b>	2000 / 142.5	<ul style="list-style-type: none"> <li>• Coordinate the work developed under FARM Program with the activities developed by UNEP FI Banking Team to support UNEP FI Members to implement the Principles for Responsible Banking Principles</li> <li>• Coordinate the work developed under FARM Program with the activities developed by UNEP FI Nature Team, especially on the agriculture sector and food systems</li> <li>• Organize consultations, working sessions and exchange sessions with financial institutions in the context of the development of the Guidance</li> <li>• Identify, compile and draft case studies to be included in the Guidance and/or in the Capacity Building Program</li> <li>• Provide support for the coordination between financial institutions and the external provider contracted to develop a methodology, tool or study to assess risks and impacts related to chemical and plastic pollution in the agriculture sector, especially on the analysis of user needs and, as the case may be, in the development and implementation of pilots (esp. prepare and organise consultations, working sessions and exchange sessions).</li> <li>• Consult financial institutions to analyse capacity-building needs and expectations on the reduction and sound management of chemicals and plastic pollution in the agriculture sector</li> <li>• Manage the engagement with financial institutions and regulators in terms of cooperation and coordination with international finance networks to support their capacity building</li> <li>• Develop capacity building tools and materials</li> </ul>	Output 2.1

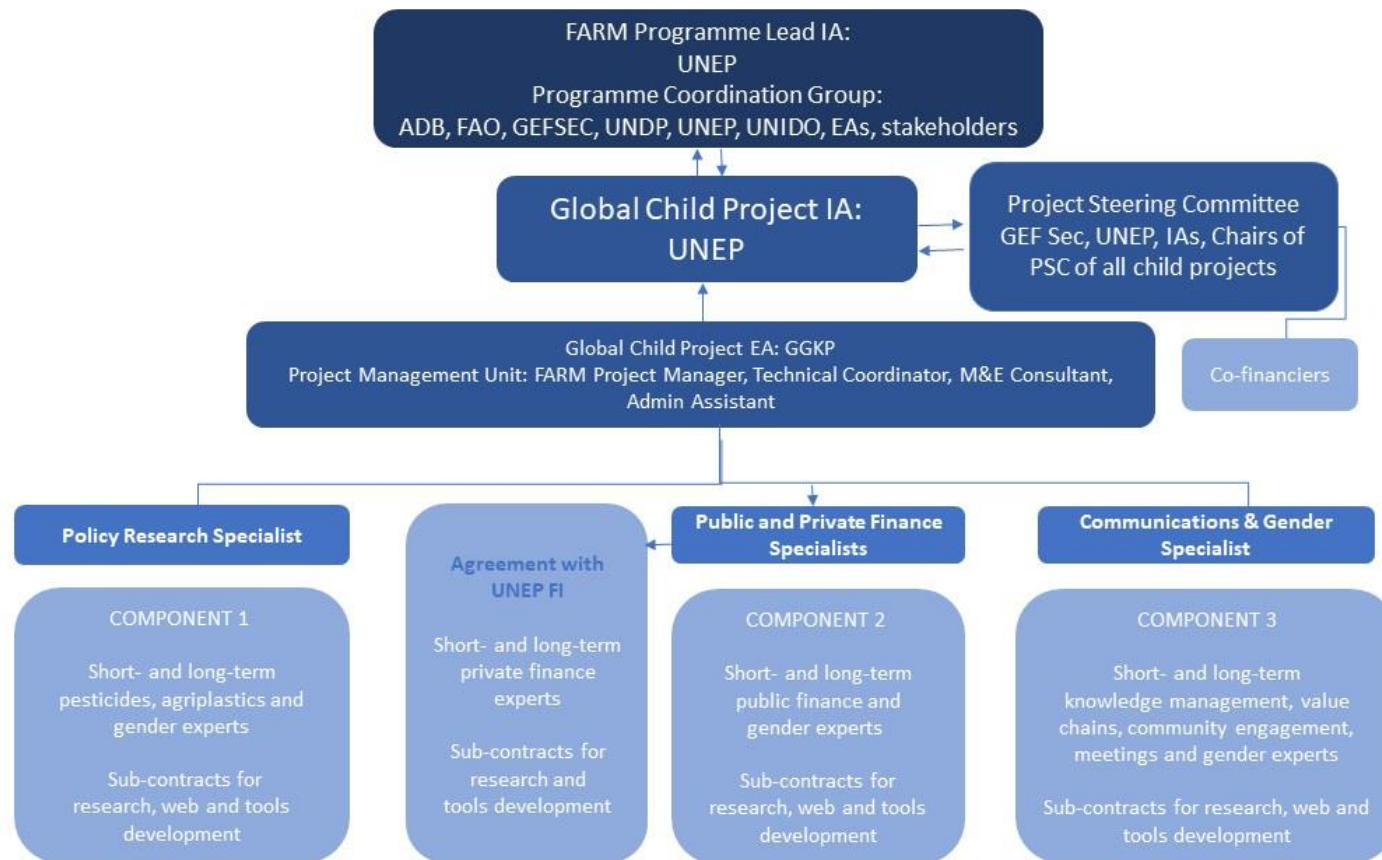
		<ul style="list-style-type: none"> <li>• Coordinate outreach to financial institutions to deploy the capacity building program</li> <li>• Delivery of capacity building events and trainings via UNEP FI capacity building platforms</li> <li>• Coordinate feedback from financial institutions on capacity building and post-training monitoring</li> <li>• Support the outreach work of FARM by replicating capacity building activities in both FARM and non-FARM countries</li> <li>• Develop and deliver communication and outreach efforts targeting private financial institutions, community of practice, and experts in finance, exploring new channels for target audience engagement, including through social media channels, identifying innovative content on FARM component 2.</li> <li>• Assist in the identification, design and implementation of new knowledge sharing processes focused on finance and investment for FARM</li> <li>• Coordinate with the C3 Knowledge Management &amp; Communications specialists to integrate C2 content into the online, digital and social media communication and outreach channels of the FARM, and accessing analytics on communication and outreach efforts specific to C2.</li> <li>• Provide support in deploying and updating FARM knowledge material on UNEP FI webpages, e.g. Banking webpage, Nature webpage, Pollution and Circular Economy webpage</li> <li>• Assist the client relationship management of the FARM Component 2, including through proactive engagement with FARM's current and potential knowledge partners and the broader private finance network, as well as management of various lists of partners, contacts and events, in close coordination with finance institution liaison consultants</li> <li>• Produce graphic assets, branding and layout of publications, knowledge products, communication materials, and online resources targeted to finance audience, in coordination with C3 graphic design consultants</li> </ul>	
<b>Public sector finance specialist</b>	2000 / 195	<ul style="list-style-type: none"> <li>• Lead the development of FARM guidance compiling best practices on policies, regulations and market mechanisms in public finance</li> <li>• Lead the development of reports on finance measures that address sustainable agriculture financing, innovative financial mechanisms and incentive strategies to prevent and reduce chemical and plastic pollution in the agriculture sector</li> <li>• Engage with experts and stakeholders in public finance through FARM community of practice</li> <li>• Identify knowledge needs in public finance that will support de-risking of public finance to reduce the use of agrochemicals and agri-plastics</li> </ul>	Output 2.2

		<ul style="list-style-type: none"> <li>• Support the management of knowledge products, datasets and financial measures related to public finance aligned with FARM</li> <li>• Lead the identification of opportunities for outreach and collaboration with public finance institutions</li> </ul>	
<b>Public finance consultants</b>	2000 / 60	<ul style="list-style-type: none"> <li>• Support the development of FARM guidance compiling best practices on policies, regulations and market mechanisms in public finance globally</li> <li>• Support the development of reports on finance measures that address sustainable agriculture financing, innovative financial mechanisms and incentive strategies to prevent and reduce chemical and plastic pollution in the agriculture sector</li> <li>• Engage with experts and stakeholders globally in public finance through FARM community of practice</li> <li>• Identify knowledge needs in public finance that will support de-risking of public finance to reduce the use of agrochemicals and agri-plastics</li> <li>• Manage knowledge products, datasets and financial measures related to public finance aligned with FARM</li> <li>• Identify opportunities for outreach and collaboration with public finance institutions globally</li> </ul>	Output 2.2
<b>Communications and gender specialist</b>	2000 / 180	<ul style="list-style-type: none"> <li>• Lead the implementation of FARM communication strategy</li> <li>• Prepare and curate content for communication materials for FARM including news articles, newsletters, social media posts, blogs, event banners etc</li> <li>• Support the organization of webinars, including developing communication package and news article</li> <li>• Sets out plans for awareness building and advocacy campaigns targeted value chain actors including businesses, farmers, and consumers</li> <li>• Monitor both offline and online communication channels for FARM to ensure alignment with the mission</li> <li>• Facilitate information exchange in the FARM community, engaging with participants suggesting themes to discuss, and raising awareness</li> <li>• Develop FARM internal communication guideline and train communication focal points, including monitoring consistent use of branding by all child projects</li> <li>• Monitor communication space for contents related to agrochemicals and agri-plastics</li> <li>• Lead coordination of communication focal points from implementing agencies</li> <li>• Liaise with gender, financing, and other specialist consultants and ensure gender and finance is mainstreamed in the FARM communication products</li> </ul>	Output 3.1, 3.2

<b>Knowledge management specialist</b>	2000 / 135	<ul style="list-style-type: none"> <li>• Lead the implementation of FARM knowledge management strategy</li> <li>• Monitor knowledge products from FARM child projects, other related GEF projects, and other key projects in agrochemicals and agri-plastics to identify resources that can add value to FARM knowledge repository</li> <li>• Set up and monitor FARM webpage for storing knowledge</li> <li>• Analyse and curate knowledge products from both FARM child projects and other stakeholders relevant to FARM topics</li> <li>• Analyse knowledge needs from FARM child projects and develop a proposal for knowledge products</li> <li>• Develop FARM internal knowledge management guide and train focal points</li> <li>• Lead coordination of knowledge management focal points from implementing agencies</li> <li>• Provide guidance to global experts and practitioners to collaboratively develop and improve FARM knowledge products and tools</li> <li>• Support the organization of webinars and trainings, including disseminating relevant knowledge products</li> </ul>	Output 3.1, 3.2
<b>Social media and graphic design consultants</b>	2000 / 187.5	<p>Social media consultants</p> <ul style="list-style-type: none"> <li>• Develop and deliver communication and outreach efforts focused on social media targeting FARM child projects and other stakeholders including the general audience of FARM</li> <li>• Manage social media communication and outreach channels of FARM by developing and publishing new contents</li> <li>• Explore different social media engagement strategy for different target audience</li> <li>• Monitor and analyse social media performance on FARM's communication and outreach efforts</li> <li>• Advise on the identification, design and implementation of new social media outreach approach</li> <li>• Ensure high quality and visibility of social media contents</li> <li>• Coordinate with and support other social media/communications focal points to ensure consistency in FARM messaging and increase visibility</li> </ul> <p>Graphic design consultants</p> <ul style="list-style-type: none"> <li>• Ensure FARM programme is professionally branded and consistently presented</li> <li>• Produce branding and layout of FARM publications, communication materials, online resources, and FARM webpage</li> <li>• Develop and refine FARM graphic assets</li> </ul>	Output 3.1

		<ul style="list-style-type: none"> <li>• Ensure high quality photographs are taken and used for FARM publication, social media, events, presentation, and reports</li> <li>• Establish a repository of photos and videos with captions</li> <li>• Produce videos to document activities, events and key achievements of FARM programme</li> <li>• Conduct a training for focal points in child projects on graphic design, photography and videography to enhance visibility of the programme</li> </ul>	
<b>Private sector partnership specialist</b>	2000 / 175	<ul style="list-style-type: none"> <li>• Analyse private sector environment where FARM is operating and identify private sector partners in agrochemicals and agri-plastics</li> <li>• Scope high-priority and strategic engagement opportunities with diverse private sector stakeholders at both global and regional level</li> <li>• Consult FARM child projects to prioritise and coordinate private sector engagement</li> <li>• Analyse focus areas of child projects and explore partnership in relevant sectors</li> <li>• Identify appropriate channels to engage with private sector partners and implement the partnership</li> <li>• Lead on the development and establishment of private sector partnerships in agrochemicals and agri-plastics in line with UNEP Strategy for Private Sector Engagement</li> <li>• Establish partnerships with relevant organisations whose mission is aligned with FARM</li> <li>• Conceptualise, plan and organise events and dialogues with private sector partners</li> </ul>	Output 3.2
<b>Value chain consultants</b>	2000 / 97.5	<ul style="list-style-type: none"> <li>• Conduct research on value chain actors engaged in agrochemicals and agri-plastics and map out high-priority stakeholders to engage in FARM both globally and regionally (value chain actors may include knowledge providers, farmers associations, food processing companies, chemical and plastic producers, food brands, retailers, consumer organizations, development organisations, NGOs, government agencies, media outlets and gender groups)</li> <li>• Consult FARM child projects to prioritise strategic engagements with value chain actors</li> <li>• Identify gaps and opportunities from value chain perspective to reduce the environmental impacts of agrochemicals and agri-plastics</li> <li>• Encourage participation of value chain actors in the discussions in the FARM Green Forum focusing on how to build a business case while reducing the use of agrochemicals and agri-plastics</li> </ul>	Output 3.2

## Organogram





# ***Financing Agrochemical Reduction and Management (FARM) Global Child Project Gender Analysis and Gender Equality Action Plan (GAP)***

*October 2022*

*Analysis and Action Plan researched and developed by [Margaux Granat](#)*

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## 1 Introduction

Women and children have long been recognized as among the most vulnerable groups to the hazardous effects of chemicals due to entrenched sociocultural norms perpetuating inequality and marginalization.<sup>1, 2</sup> Women, men, and children, however, are affected through different exposure routes, and impacted differently by chemicals and waste management, particularly in the agriculture sector. Women and men have different agricultural value chain roles affecting their exposure, and impacts from chemicals. This can also determine decision-making power regarding use and access, as well as opportunities for education, financing, and behavioral change in prevention and management for a safer environment for individuals, households and communities. In the last several decades, the principle of gender equality has increasingly been identified as a key, cross-cutting priority and prerequisite for meeting global goals on the environmental and sustainable development agendas to address the identified gender-differentiated issues and impacts, including in relation to interlinked social and economic goals of human rights, inclusion, and justice.

There is a rich tapestry of international frameworks and conventions that address issues related to chemicals, hazardous waste, agriculture, gender equality, climate change, and the financing mechanisms developed for the implementation of the frameworks. These reiterate the importance of mainstreaming gender considerations within policies, financing, projects and programming related to chemicals and agriculture, including the reduction and sound management of FARM-focused pesticides and agri-plastics. Sustainable Development Goal (SDG) 5, to achieve gender equality and empower all women and girls, is recognized as the linchpin for mainstreaming gender-responsive approaches toward gender equality across and throughout these frameworks. The Global Environment Facility (GEF) reiterates this commitment to gender equality and the promotion of women's empowerment through development and implementation of responsive and inclusive policies and strategies, such as the Policy on Gender Mainstreaming and its Gender Equality Action Plan (GAP) guiding the application of a gender-responsive approach throughout GEF-financed programmes and projects.

Through the gender analysis and FARM GAP, the project aims to align and prioritize the GEF and international community commitments to mainstream gender equality as critical and necessary for the effective and equitable management of pesticides and agri-plastics through a gender-responsive approach.

A gender-responsive approach enables the full and effective engagement of diverse women, men, youth, and gender-diverse groups in the project facilitating capacity building and learning of all people, incentivizing their behavioral shift and agency to implement change in all circumstances toward gender-just sustainable solutions to reduce and eliminate toxic agricultural pesticides and waste products and practices. The FARM project recognizes this as integral to successful implementation and for the sound management of chemicals and waste, while ensuring the health, lives, livelihoods, autonomy, and rights of women, men, children, and all people around the world, and specifically the countries of the FARM child projects.

## 2 Gender Analysis Summary

Women and men experience different access to, control of, and power in society with regard to their rights, responsibilities, decision-making, resources, and services from the individual and household level, to communities, nation-states, and internationally. The sociocultural norms that exclude women and perpetuate gender inequalities broadly are mirrored in the agriculture sector, with differentiated issues and impacts experienced by women and men in agricultural pesticides and agri-plastics use, needs, management, and impacts. Contributing to these differentiated issues and impacts can be determined in the sector by prescribed roles in agricultural value chains, where women make up a significant portion of the farming labor force for example 70% of the horticultural sector are women pickers and packers. However, when employed, women tend to be segregated into lower-paid occupations, and are more likely to be less secure in their employment, either working in part-time, low-wage, or seasonal employment. Overlaid with socioeconomic dynamics, women farmers consistently find themselves un-, or under-

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<sup>1</sup> Hemmati, M. & Bach, A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>2</sup> UNCED. (1992). Agenda 21. <https://sustainabledevelopment.un.org/outcomedocuments/agenda21>

represented in the formal agriculture labor force, perpetuating their undervalued role and position in the sector, and exacerbating wide-reaching socioeconomic disparities.

Smallholder farmers, and in particular women smallholder farmers, often lack access to resources and information needed to support their productivity and growth in the sector, and in society. Resources, such as financing, equipment, and access to education are key to success in the agricultural sector, especially when considering alternative practices to reduce pesticides and agri-plastics. Women who face a lack of access to resources and services (both technical and financial) may experience limited economic empowerment opportunities, decision-making power, health and livelihood security, and/or social protections. Understanding gender dynamics of farmers and agricultural value chains, however, is critical as different sociocultural aspects can place men at higher risk of exposure, such as in the example of personal protective equipment compliance in application of herbicides because of varying risk perceptions among women and men which need to be identified and accurately addressed.

Furthermore, women are more vulnerable than men to health risks and violence in agriculture value chains and markets. For example, women are more susceptible to toxic chemicals and plastic waste exposure in many cases because of biophysical characteristics as well as social structures indicative of exposure routes. This varies, however, between countries, communities, and agricultural crops and practices. Women, and, in particular, pregnant and breastfeeding women, face an intensified risk for bioaccumulation and negative health consequences compared to men when exposed to certain chemicals, including some pesticides and agri-plastics such as persistent organic pollutants (POPs) and highly hazardous pesticides (HHPs). Women farmers, and men farmers, face different forms of violence, with evidence increasing of gender-based violence (GBV) perpetrated against women, as well as women and men environmental defenders, advocating and protecting against agricultural expansion and degradation of ecosystems via toxic chemicals and waste. For women and victims of sexual and GBV, in rural farming communities, and in large agriculture corporations, there is often little recourse for GBV, which is widespread in various forms in FARM countries. Evidence is also emerging on the use of pesticides for suicide (or attempts), with suicide rates increasing particularly among women in the last decade, noting almost a third of suicides globally are from pesticide self-poisoning.

When transitioning to agricultural practices that minimize the use of potentially harmful (both in terms of human and environmental health) pesticides and plastic use, financing is necessary to support more sustainable practices. While FARM aims to establish a sustainable financial and knowledge-focused basis for transitioning to no/low chemical production, it is important to consider legal and sociocultural restrictions to accessing finance and knowledge on accessing financial services/resources at local levels to enable sound implementation of the proposed policy and market mechanisms shifts at higher levels. Women's disproportionate rights and actual land and asset ownership, as well as literacy and bank account rates, hinder women's opportunities to gain credit, insurance, social protections, and other financial and economic services. As such, ensuring that women are meaningfully included as stakeholders and beneficiaries requires specific engagement, technical support, and allocation for women's ability to access financial resources and services. Public and private institutions are increasingly cognizant of gender inequalities in financial processes and outcomes, with considerations existing for public gender-responsive budgeting, and private institutional assessment and integration of gender particularly as part of their environmental, social, and governance risk assessments and abatement toward more sustainable and equitable outcomes.

To realise the sustainable developmental potential and environmental goals of agrochemical reduction and management, addressing these socioeconomic inequalities is critical via a comprehensive gender-responsive approach across the FARM project. Mainstreaming gender through integrated implementation across the global child project interventions (and in coordination, support and engagement with the other child projects) ensures optimal outcomes, which enhance equity and transformation of the programmatic sector, as well as the lives and livelihoods of all project beneficiaries and the global community. Integrating gender-responsiveness is crucial as foundational to, and for the long-term sustainability and effectiveness of the FARM project and the population it serves.

### 3 FARM Gender Analysis

#### 1. Gender and agriculture

Gender roles and inequality are important factors for understanding progress and challenges across the agricultural sector. Gender inequality is hindering progress toward sustainable agricultural development, including impeding progress toward SDG2 to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture by 2030.<sup>3</sup>

##### 3.1.1 *Labor, inequitable practices and violence*

Globally, and in the countries for the FARM project, women constitute a large portion of the agricultural workforce, about 43% by some estimates with evidence pointing to an increase in women's proportion of labor in the sector across value chains as men seek alternative, more lucrative livelihoods, and communities face out-migration of men farmers.<sup>4</sup> The horticulture sector boasts approximately 70% women workers (although the pandemic has reduced this considerably to about 50%), felt heavily in Kenya (and presumably Ecuador). Women work across the value chain in various agricultural sectors, working in fields, plantations, greenhouses, or packing houses. But women farmers are more likely than men to perform unpaid, underpaid, or temporary work in the agricultural sector, or also in the informal labor market without secure contracted employment, and the heap of benefits and security protection this provides.<sup>5</sup> <sup>6</sup>Additionally, depending on the safety and security of their work environment, they may be at risk of sexual and gender-based violence (GBV) and harassment.

GBV and harassment is a serious and systemic form of labor abuse in the agribusiness sector, often overlapping with other forms of labor abuse, and rooted in gender inequality and power imbalances, whereby women are disproportionately at risk. Vulnerability for women being exploited and becoming victim to GBV is heightened by women's employment in casual, low-security, or low-paid employment, compounded by cultural norms that tolerate such violence, and no systems exist for reporting or holding accountable perpetrators. Data at the global level on incidences of GBV in agribusinesses is scarce, but different geographic contexts have emerging self-reported data with increased recognition and awareness of the pervasiveness of the violence.<sup>7</sup> In Ecuador, nearly 55% of women reported experiencing forms of GBV in the export flower industry.<sup>8</sup> In Kenya, among 40 women cut-flower industry workers, 90% perceived sexual violence and harassment as the biggest challenges they face.<sup>9</sup> This data and the findings from an International Labor Organization (ILO) report synthesize findings on the factors that contribute to the incidence of GBV in agribusiness, along with recommended actions to end entrenched sexual violence and harassment.

##### 3.1.2 *Land, resources, inputs, productivity, livelihood and well-being*

While in the FARM countries women make up the majority of the labor force, they often have less access than men to resources such as land titling and tenure, tools and technology, and training and education, often limited by barriers to financing and credit. Other key components of gender inequality in agriculture are land tenure rights and decision-making power. When women are not able to own or manage land, they are not able to meaningfully contribute to a transition toward more sustainable agricultural practices, and they—and their families—are denied the economic empowerment and advancement that could be gained through land ownership and management. By one account, the UN Food and Agriculture Organization (FAO) indicated that if women had land rights, seeds, technical training and access to markets, food

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<sup>3</sup> IFPRI. (2019). [Achieving sustainable agriculture depends on gender equality](#).

<sup>4</sup> Hemmati, M. & Bach, A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>5</sup> IISD. (2017). [How to improve gender equality in agriculture: Investment in agriculture policy brief #5](#).

<sup>6</sup> Hivos. (2020). [Impact of COVID-19 on Women Workers in the Horticulture Sector in East and Southern Africa](#).

<sup>7</sup> Henry, C. and Adams, J. (2018). [Spotlight on sexual violence and harassment in commercial agriculture: Lower and middle income countries](#). Working Paper. No. 31. Rome: ILO.

<sup>8</sup> Mena, N. and Proaño, S. (2005). Acoso sexual laboral en la floricultura: Estudio de caso Sierra Norte de Ecuador, International Labor Rights Fund.

<sup>9</sup> Jacobs, S., Brahic, B., Olaiya, M.M. (2015). "[Sexual harassment in an East African agribusiness supply chain](#)", in The Economic and Labor Relations Review Vol. 26, No. 3, pp. 393-410.

productivity could rise by more than 20%.<sup>10</sup> While data is still limited on women's land tenure and property rights, there is a growing body of empirical research demonstrating strengthening women's land and property rights have a ripple effect beyond an increase in the return on women's labor, but also the ability to benefit from family assets and increase their voice and agency. Ultimately, this is found to have a profound effect on women's position in the household, and family income, food security, land stewardship and children's welfare.<sup>11 12</sup>

### 3.1.3 Knowledge, participation and decision making

Disallowing or discouraging women from owning and managing land leads to communities missing the opportunity for women to use their knowledge and experience to advance sustainable agricultural practices, such as pesticide use-reduction, for compounding environmental and human health benefits and agriculture adaptive to climate change.<sup>13</sup> In striving toward more sustainable agricultural practices, women agricultural workers may experience gaps in both knowledge and technology to implement new practices, such as with pesticides or for adapting to climate change.<sup>14</sup> Climate-smart agriculture (CSA) considers the needs, priorities, and capacities of women and men when planning agricultural strategies, ensuring that gender equality is essential for both a sustainable future and more resilient food systems.<sup>15</sup> Rural development and the empowerment of rural women are tied together. When planning agricultural programming interventions aiming to advance sustainability, climate resilience, and healthy communities and environments, CGIAR recommends including trainings on gender perspectives as well as promoting a gender-responsive approach across the project.<sup>16</sup>

## 2. Pesticides and agri-plastics

Pesticides and agri-plastics are recognized as highly toxic and persistent chemicals but with differentiated considerations with regard to gender to be cognizant of, respond to, and keep building data and information on key issues. The key issues pertaining to gender, agriculture, and chemicals, as related to FARM, include physical human health impacts; gender roles and responsibilities; and decision-making power and access to resources.

### 3.1.4 Biophysical and environmental aspects on human health

In terms of human health, risk and impact of chemical exposure can differ due to physical and physiological differences of the sexes. Women may be at a higher risk of bioaccumulation of some chemicals due to higher levels of fatty tissue, which may cause additional concerns for pregnant and breastfeeding women, as well as infants.<sup>17</sup> Women and men may be at risk of endocrine disruption or sex-specific cancers due to chemical exposure. Additionally, not all studies of health impacts of chemicals consider the potential differences women and men may face, leading to a lack of knowledge and data on risks, especially for women (as men tend to be the "baseline" for many medical studies). Agrichemicals may also contribute to air and water pollution, as well as residues on agricultural products, which may lead to differing environmental health risks for women and men based on their roles and responsibilities, and thus exposure.<sup>18</sup>

### 3.1.5 Gender dynamics, roles, and responsibilities

Gender roles and responsibilities, both within households and within the agricultural sector, vary based on specific regional and cultural norms and practices. However, in a broad sense, it is valuable to note that

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<sup>10</sup> FAO. (2011). [The State of Food and Agriculture report](#).

<sup>11</sup> Meinzen-Dick, Ruth Suseela; Quisumbing, Agnes R.; Doss, Cheryl R.; and Theis, Sophie. 2017. [Women's land rights as a pathway to poverty reduction: A framework and review of available evidence](#). IFPRI Discussion Paper 1663. Washington, D.C

<sup>12</sup> Landesa. (2015). [Women's Land Rights](#) (infographic).

<sup>13</sup> Anderson, C. Aguilar, L., and Gilligan, M. (2015) Promoting resilience, rights, and resources: Gender-responsive adaptation across sectors. In Aguilar, L., Granat, M., and Owren, C. (2015). [Roots for the future: The landscape and way forward on gender and climate change](#). IUCN & GGCA.

<sup>14</sup> IFPRI. (2019). [Achieving sustainable agriculture depends on gender equality](#).

<sup>15</sup> CGIAR. (2021). [A roadmap for gender equality in agriculture in Central America](#).

<sup>16</sup> CGIAR. (2021). [A roadmap for gender equality in agriculture in Central America](#).

<sup>17</sup> Hemmati, M. & Bach, A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>18</sup> Hemmati, M. & Bach, A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

different roles and responsibilities may contribute to different levels of exposure to pesticides and agri-plastics. “For example, women comprise, on average, 43 percent of the agricultural labor force in developing countries. Yet, they are more affected by indirect exposure, e.g., through harvesting and handling chemically treated crops or contaminated clothes (from washing), while men are often more directly exposed, e.g., when mixing chemicals.”<sup>19</sup> Another example from the global cut-flower industry, with Colombia, Kenya, Ecuador, and Ethiopia now accounting for the largest share of global production, has high participation rates of women, upwards of 70%. “Because flowers are not subject to the much stricter regulations applicable to food crops, pesticides are more extensively used in this sector, increasing the environmental and human health risks”, particularly of the women workers.<sup>20</sup> Interestingly, in various agricultural value chains, men may have higher risks of exposure from pesticide use and application in some cases because women are more likely to carefully follow protective measures, often recognizing and shifting behaviors based on information of risks to their own health, and transference to family members.<sup>21</sup> <sup>22</sup> Discussing and communicating the harmful and detrimental effects of pesticides should therefore not only focus on different physical attributes of women, men, and children, but also account for indirect ways of exposure and gender-specific norms and rules.

### *3.1.6 Access to resources (land, information and education, and inputs) and decision making*

Decision-making power contributes to women's and men's exposure to agrichemicals and agri-plastics, though it also depends on the roles they play in the agriculture sector, and information they have access to. For example, agricultural employees—often women—that do not have decision-making power but are working on lands owned and managed by others may be responsible for spraying pesticides without having full information on what chemicals they are using, the risks of exposure, and what the proper safety precautions should be.<sup>23</sup> Studies highlight differences in exposure are therefore closely linked to the general level of education and specialized knowledge about pesticides to ensure their safe handling and usage. This is especially a problem in developing countries, and/or rural areas where education for women and literacy rates may be lower than for boys and men. Lack of knowledge on the pesticides and risk of use expands beyond industrial-level agriculture, where public attention and research is less focused, but has implications in smaller-scale and residential use of insecticides and herbicides where use and applications is less strictly regulated, let alone controlled, and there is less capacity for mitigation at the individual household level.<sup>24</sup>

### *Pesticides in suicide*

Additionally, outside agriculture/crop use specifically, limited knowledge of pesticide toxicity and implications (among other social factors) is indicated in the evidence on self-inflicted injuries with pesticides, and suicides. This may be affecting the decision-making of women to use pesticides, especially highly toxic chemicals. This should not overshadow women's greater vulnerability to suicidal behavior, however, due to gender-related vulnerability to psychopathology and to psychosocial stressors that drive suicidal, and self-inflicting violent behaviors. Based on evidence from Asia, social life and marital circumstances increase women's vulnerability to suicide, often driven by different forms of gender-based violence, such as arranged and early marriage, young motherhood/unwanted pregnancies, low social status, domestic violence, and economic dependence. Social, cultural, and religious constraints may discourage women from employment, careers, and financial and social independence, and encourage them to remain within unhappy marriages dependent on family for living arrangements.<sup>25</sup>

Women's lower socioeconomic status, tenure, income, etc. often equates to their more limited access to agricultural inputs and resources, such as financing for, and directly pesticides use. While this can minimize their exposure risk, it can also limit their productive capacity, therefore if subsistence agriculture impacting

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<sup>19</sup> Hemmati, M. & Bach. A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>20</sup> Hemmati, M. & Bach. A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>21</sup> Hemmati, M. & Bach. A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>22</sup> Andrade-Rivas, F., and Rother, HA. (2015). [Chemical exposure reduction: Factors impacting on South African herbicide sprayers' personal protective equipment compliance and high risk work practices](#). Elsevier.

<sup>23</sup> Hemmati, M. & Bach. A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>24</sup> Hemmati, M. & Bach. A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>25</sup> Vijayakumar, L. (2015). [Suicide in women](#). Indian Journal of Psychiatry. India.



their nutrition and food security, as well potentially as their livelihood and economic remuneration. However, on the other side of this equation, resource-poor farmers—including women and Indigenous communities—who typically do not have access to pesticide resources may hold traditional knowledge and experience utilizing traditional and sustainable agricultural practices, with an ecosystem-level approach.<sup>26</sup> For example, Indigenous communities in Africa often have knowledge of and make use of plants with pesticidal properties; these botanical products could be further explored as more sustainable alternatives to chemical pesticides.<sup>27</sup> When these communities are not included in or dismissed from decision-making spheres, the opportunity to learn from this experience is missed.

Alternative, sustainable agricultural practices such as those embraced within agroecology<sup>28</sup> can present opportunities to reduce inequalities within a community by shifting responsibilities and how benefits are shared. When women are included, education and training opportunities for sustainable practices can promote the economic empowerment of women and men in the agricultural sector, as well as promoting environmental resilience and sustainability.

For example, a case study<sup>29</sup> in Shanxi, China, in the rural community of Puhan, a project focused on reducing chemical inputs and shifting to agroecological practices. The community-based structure of production cooperatives supported and facilitated these goals. Cooperatives organized training sessions, focused on technical knowledge and policy awareness, and prioritized intergenerational knowledge transfer to support youth farmers. Women-focused initiatives also helped build ownership opportunities for women, aligning with the overall goals of centering community-building and rural livelihoods over only focusing on profits and production (especially the production of monoculture cash crops that were not sustaining the local community).

### 3.1.7 Data and knowledge gaps on agri-plastics

The agriculture sector utilizes a large amount of plastic for a variety of reasons: mulching, irrigation systems, greenhouse films, coatings on pesticides, nets, etc.<sup>30, 31</sup> This includes 12.5 million tonnes of plastic across agricultural value chains, with an additional 37.3 million tonnes used for food packaging.<sup>32</sup> While plastic may help production goals across agricultural sectors (such as crop production, livestock, fisheries, aquaculture, and forestry), these plastics may degrade or be disposed of in a way that contributes to environmental contamination and health risks.<sup>33</sup> Challenges include improper disposal, soil degradation,<sup>34</sup> feasibility of biodegradable and photodegradable plastics, and threats to both marine and terrestrial ecosystems.<sup>35</sup> Not many gender analyses have been conducted considering the roles that women and men hold in terms of utilizing agri-plastics, as well as differences they may experience when it comes to the adverse effects of agri-plastics, but may follow a similar outline of key issues on health, gender dynamics and norms, and decision making as with pesticides in relation to the FARM project.

A literature review and report *Plastics, Gender and the Environment*, produced by WECF in 2017, notes that likely men and women both “contribute to microplastic pollution, unintended and/or by mismanagement of plastic waste” when it comes to plastics used in the agricultural sector.<sup>36</sup> This report also notes that there is a lack of gender-disaggregated data on either microplastics being released into the environment or on the health impacts of such microplastics, but that consumer behaviors offer an entry point for further studying how women's and men's choices may contribute to the use of agri-plastics and microplastics from

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<sup>26</sup> Hemmati, M. & Bach, A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>27</sup> CIFOR. (2014). [In fight against African pests, researchers point to natural-born killers](#). Forest News.

<sup>28</sup> IPES-Food. (n.d.). [Agroecology](#).

<sup>29</sup> IPES-Food. (2018). [Breaking away from industrial food and farming systems: Seven case studies of agroecological transition](#).

<sup>30</sup> Maina, J. (2022). [Agricultural plastics emerging as a major threat to sustainability](#). Cornell University: Alliance for Science.

<sup>31</sup> Environmental Investigation Agency. (n.d.). [Field of plastics: The growing problem with agri-plastics](#).

<sup>32</sup> UN News. (2021). [Plastics in soil threaten food security, health, and environment: FAO](#).

<sup>33</sup> Maina, J. (2022). [Agricultural plastics emerging as a major threat to sustainability](#). Cornell University: Alliance for Science.

<sup>34</sup> UNEP. (2022). [Plastics in agriculture – an environmental challenge](#).

<sup>35</sup> Environmental Investigation Agency. (n.d.). [Field of plastics: The growing problem with agri-plastics](#).

<sup>36</sup> WECF. (2017). [Plastics, gender and the environment](#).



other sectors, such as consumer products.<sup>37</sup> Research has shown microplastics to be present in human feces and placentas, even being transmitted to fetuses.<sup>38</sup> However, not much is yet known on the specific health risks of microplastics on all people, nor specifically on agri-plastics and different exposure routes.

This topic is extremely important to consider with respect to the local context of each FARM project. While a broad overview of key issues can be helpful to provide entry points for consideration, the only way to ensure that each FARM child project is meeting the needs of its stakeholders and beneficiaries is to first understand exactly what those needs are, what challenges they may face in meeting them, and the potential unintended consequences of their activities. Understanding these gender differences can “help to identify root causes of unsustainable practices within communities.”<sup>39</sup> The FARM child project should analyze the specific experiences of women and men in the stakeholder and beneficiary communities, including through data and information collection and analysis, verification and validation of recommendations.

### **3. Gender and agricultural finance and investment**

In terms of financing and investment in agriculture, there are inequalities in the ways in which women and men have (or have not) benefitted from foreign investment in agriculture, as well as national policy and programming linked with national (and local) budgetary cycles.<sup>40</sup> Improvements can be made in both the private sector and the public sector to ensure that gender inequality is not exacerbated by inequitable financing systems, policies and markets from international investment to local households. “For example, financing mechanisms that ignore legal or customary practices that hinder women’s land tenure rights will perpetuate a system of only supporting men landowners. Equitable finance and investment opportunities should seek to close gaps for women in accessing credit, extension services, and other resources which can promote women’s capacity building with regard to reduced and safer pesticide and agri-plastics use via their inputs and potentially production capacity. “Gender-smart investing” is increasingly considered as integral to financial investment planning for better business, across the suite of sectors. Agricultural investing is no exception, and a multitude of tools are available to support gender-lens investing (via gender analysis) and socially inclusive planning, risk assessment, and integration.

#### *3.1.8 Women’s market investments*

Aside from evidence advocating for organizational structures to integrate gender diversity for higher returns on investment, more-relevant to the FARM project in its sphere of influence is evidence on tapping into women’s financial markets. Women are often their household’s ‘money managers’ and women customers are also creditworthy (tending to have lower nonperforming loans), save at a higher rate than men and have a higher net promoter score and rate of product cross-selling. Women-owned enterprises account for 30-37% of all SMEs in emerging markets and yet still face a \$320 billion credit access gap worldwide, an untapped opportunity for investment and support.<sup>41</sup>

Women entrepreneurs in agricultural value chains and women’s organisations often encounter formal and informal constraints that limit their access to financing and capital. This correlates with the fact that women-headed households use fewer chemical fertilizers, insecticides and machines than households headed by men.<sup>42</sup> Although differences exist between and within countries, and both men and women encounter challenges in accessing financing and inputs, this disproportionately and significantly limits women’s opportunities to increase yields and productivity. This affects the entire value chain as women work across it, from the livelihoods of smallholders and viability of farmer cooperatives, to the operational continuity of companies involved in aggregation, processing, and export of agricultural commodities. This, in

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<sup>37</sup> WECF. (2017). [Plastics, gender and the environment](#).

<sup>38</sup> UN News. (2021). [Plastics in soil threaten food security, health, and environment: FAO](#).

<sup>39</sup> Hemmati, M. & Bach, A. 2017. [Gender and Chemicals: Questions, Issues, and Possible Entry Points](#). Berlin: MSP Institute.

<sup>40</sup> IISD. (2017). [How to improve gender equality in agriculture: Investment in agriculture policy brief #5](#).

<sup>41</sup> IMF. (2018). [Women in Finance: A case for closing the gender gap](#).

<sup>42</sup> Peterman, Amber; Behrman, Julia; and Quisumbing, Agnes (2010): A Review of Empirical Evidence on Gender Differences in Nonland Agricultural Inputs, Technology, and Services in Developing Countries. IFPRI Discussion Paper 00975. International Food Policy Research Institute, Washington, DC.

combination with time-consuming household duties, constrains especially women smallholder farmers in rural areas.<sup>43</sup>

### 3.1.9 *Financing technical inputs and access to resources*

Because of women's prominent role in the labor-intensive segments of production, processing and retail though, the FAO estimates that reducing gender inequalities in access to productive resources and services could produce an increase in yields on women's farms of between 20-30%, as well as diversifying agribusinesses' supplier base. This could reduce the number of undernourished people in the world by 100-150 million, or 12-17%.<sup>44</sup> Women, women's organisations need to be informed of and have access to financing for agricultural work, with consideration and knowledge-sharing of pesticide use and waste management too.<sup>45</sup> Purchasing from women farmers or gender-equitable cooperatives enhances social impacts on women farmers involved in these groups. Value chains that have reduced use of pesticides and agri-plastics can be marketed and affiliated with positive corporate investment results, attracting investors for further investment, and creating pathways for export in high-value markets.<sup>46</sup>

### 3.1.10 *Financial inclusion in establishing investments*

Increasing financial inclusion broadly for women can have a substantial impact, as reported by The Gender Toolkit platform of the British International Investment (BII). The toolkit documents that 73% of women in sub-Saharan Africa and 36% in South Asia do not have access to an account at a financial institution, compared to 62% and 27% of men respectively.<sup>47</sup> The gender gap is driven by a combination of demand and supply side factors. Demand-side barriers include sociocultural norms (e.g., mobility constraints) restricting women's access and usage. Supply-side barriers include high collateral requirements, traditional Know Your Customer (KYC) requirements, and limited innovation to develop relevant products and services for women. For example, low-cost structured savings solutions support women to save effectively and manage their daily and often competing needs.<sup>48</sup> Opportunities and entry points for increasing investment in women and for more equitable practices in the agriculture sector's use of pesticides and agri-plastics can be identified through gender analysis, investment/company [screening questionnaires](#), and [due diligence](#) to gather data and analyze the barriers and opportunities in specific contexts ([including in agriculture](#)), as well as meet environmental, social, governance due diligence. Investments that support women's and men's inclusion, education and training can expand knowledge, empower individuals, and provide a sense of ownership in the field, ultimately for women advancing their decision-making power and leadership as entrepreneurs as well, with a host of ripple effects as discussed in other section of this analysis.<sup>49</sup>

### *Illiteracy, digital documentation, and banking*

India and Pakistan have implemented national digital identity programs to address the lack of documentation often instigated by low levels of literacy among poorest women and men, which additionally maintains barriers for women to access bank accounts and social protections. A conservative estimate of 45% of women do not have a formal ID globally, as compared with 30 percent of men. The digital ID systems eliminate the illiteracy barrier by using biometric data for documentation and can potentially improve women's financial inclusion by providing a gateway to opening and using bank accounts and digital banking

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<sup>43</sup> Food and Agriculture Organization of the United Nations (2011): [Women in Agriculture. Closing the gender gap for development](#). Rome, 2011.

<sup>44</sup> British International Investment. (2022). [Gender Sector Brief: Food and Agriculture- How to Apply a Gender Lens to the Evaluation of Food and Agriculture Investments](#).

<sup>45</sup> Peterman, Amber; Behrman, Julia; and Quisumbing, Agnes (2010): A Review of Empirical Evidence on Gender Differences in Nonland Agricultural Inputs, Technology, and Services in Developing Countries. IFPRI Discussion Paper 00975. International Food Policy Research Institute, Washington, DC.

<sup>46</sup> British International Investment. (2022). [Gender Sector Brief: Food and Agriculture- How to Apply a Gender Lens to the Evaluation of Food and Agriculture Investments](#).

<sup>47</sup> IMF. (2018). [Women in Finance: A case for closing the gender gap](#).

<sup>48</sup> British International Investment. (2022). [Gender Sector Brief: Financial Institutions- How to Apply a Gender Lens to the Evaluation of Financial Institutions Investments](#).

<sup>49</sup> IFC. (2011). [Strengthening Access to Finance for Women-Owned SMEs in Developing Countries](#). Global Partnership for Financial Inclusion.

for savings and loans, linking to government subsidies and grants, and developing a digital record to build a credit base that improves access to credit.<sup>50</sup>

#### *3.1.11 Employee safety, retention, and reduction*

In addition to improving financial inclusion and supplier productivity, another business case for investing in utilizing a gender lens in food and agriculture is in employee safety, retention, and reduction in retraining costs in agribusiness. This has inherent implications for pesticides and agri-plastics reduction and removal from small-scale to large agriculture and pesticide investments. Recognizing agriculture is becoming increasingly a sector led by women as men migrate off-farms, farther away and for longer periods seeking alternative employment, engaging women as farmers and suppliers is important but increasingly retaining women in professional roles allows agribusinesses to respond to shifting demographics and capitalise on the diversity dividend in their management and employee teams. Gender-smart interventions in investments that provide women with equal access to opportunities and resources, and enable them to do their job better, can in turn translate into a more productive, loyal and satisfied workforce. Creating a supportive environment for women workers in value chains can positively impact their attendance and retention, resulting in significant cost savings (from minimizing training, support and human resource costs).

#### *[Addressing GBV in agribusiness investments](#)*<sup>51</sup>

Recent attention and evidence on GBV has revealed the pervasive nature across sectors and in varying forms of GBV, and the role of companies across value chains in confronting the crisis. Key elements are outlined in the analysis discussing GBV and harassment in agribusiness (above), but relevant to financing, the private sector has at its disposal [tools](#), guidance and approaches particularly in agricultural investments to prevent, mitigate, and support survivors of violence.<sup>52</sup> All of these components, mainstreaming a gender-responsive approach in agriculture and agribusiness investments, can also have benefits for a positive corporate reputation, with expanded market access as noted above, and should be a baseline of implementation for collaborating with corporations to not perpetuate nor exacerbate GBV in FARM-relevant partner investments.

#### *3.1.12 Public sector gender-responsive budgeting and inclusive policy*

The public sector financing needs to work in tandem with foreign and private sector investments in agriculture to ensure that policies are in place for equitable distribution and benefits of investments, such as through developing national financial inclusion strategies, and gender-responsive budgeting—increasingly researched with available tools for specific phases of the budget process and allocation for ministries, departments, and agencies (MDAs). Financial regulators are increasingly focused on reducing gender gaps through inclusion strategies to complement national policies and interventions. Increasing gender investing from public sector can include setting specific financial inclusion targets, including for SMEs and women; facilitating partnerships with non-traditional actors, like mobile network operators (MNOs), to overcome structural and demand-side barriers to financial inclusion; and designing enabling regulations that facilitate innovation (e.g., Payment Banks). This presents a huge opportunity to facilitate new models, including fintech, to develop new/hybrid products to expand cost-effectively and secure reach to new customers.

### **4. Gender and knowledge management**

The gender analysis sections above demonstrate key issues across gender and agriculture, pesticides, and financing indicative of women's barriers to, and challenges of progress for all on, gender equality. As a cross-cutting element, gender is woven across the sectors and themes relevant to FARM, and thus is and needs to be translated into all project components. Integration of a gender-responsive approach and mainstreaming of gender issues and impacts that are recognized, researched, analyzed and discussed in the FARM project (from above and in greater detail), is only as good as the engagement, documentation of

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<sup>50</sup> Financial Alliance for Women. (2020) [Data Driving Action for Women Dialogue Series: THE POWER OF GENDER DATA: GENDER-INCLUSIVE DIGITAL FINANCIAL SERVICES](#).

<sup>51</sup> EBRD & IFC. (2020). [Addressing Gender-Based Violence and Harassment \(GBVH\) in in the Agribusiness Sector](#). BII Gender Toolkit.

<sup>52</sup> EBRD & IFC. (2020). [Addressing Gender-Based Violence and Harassment \(GBVH\) in in the Agribusiness Sector](#). BII Gender Toolkit.

the learning, and sharing of that knowledge to relevant stakeholders, and beyond, especially for the global child project to meet its goals.

### *3.1.13 Stakeholder engagement*

Equitable stakeholder engagement is essential in knowledge management, but also across all components of the project. Given continued marginalization of the most at-risk and vulnerable individuals and populations in policy, planning and decision-making, with specific interest and development of mechanisms for inclusive processes can advance equitable and continuous, two-way stakeholder engagement. Of marginalized groups, women are often most under-represented and not participating due to entrenched norms limiting (or even forbidding) their participation and engagement. Their participation is often overlooked, or women are not able to participate because of exclusionary practices, or inconsiderate planning that does not take into account women's roles, responsibilities, and particularly care work and time burden presented with the additional informal labor. This makes it difficult for women to participate, even if invited, without additional supportive mechanisms such as child care, compensation for time, travel, and sharing of information to not have the stakeholder engagement be extractive and one-way. If women and marginalized groups are able to participate, women are often under valued, and are not given opportunities, or credibility to their participation, knowledge, or opportunities. This should focus on inclusive processes with women, women's rights and gender equality organizations in civil society, including human rights and equality advocates and activists. The mapping and engagement also needs to consider intersectional identities of women (e.g., differently abled groups, or advocacy organizations of women and men; poorer representatives or ethnic minorities in agriculture communities; etc.).

Additionally, engaging the gender machinery (the government ministry, department, or agency responsible for advancing progress on gender equality and women's empowerment) is critical in countries during stakeholder engagement processes with the government (and any cross-sectoral collaborations/partnerships). This ensures the most up to date information on policy, processes, mechanisms and data is made available for the project and stakeholders on gender, and creates and can facilitate a whole of government approach to mainstreaming gender equality.

### *3.1.14 Communications, internet and technology*

Beyond the direct engagement with stakeholders (in developing, validating, and sharing any knowledge) how materials or project processes are communicated need to take on a gender lens to diminish the risk of gender-blind communications that continue to exacerbate inequities. As pointed out in multiple sections of the above analysis, women have less access to resources, which includes access to information and information sharing, and communications technology. In low and middle income countries, women are on average 10% less likely than men to own a phone.<sup>53</sup> UN Women report<sup>54</sup> that women and girls use the internet 12.5% less than men and boys, with some 46% of boys accessing the internet on their phones, compared to only 27% of girls. Girls also access digital technology at a later age than boys, and that their use of this technology is more often curtailed by their parents. In addition, young women and girls are disproportionately exposed to online and ICT-facilitated violence and harassment, which can negatively impact their physical, mental and emotional well-being, and influence how they access and use digital tools for the rest of their lives. The divide in usage can also often be attributed to affordability, but women and girls face a range of social barriers to using and ownership of phones, and other devices for accessing communications.<sup>55</sup>

For consideration also is the location of communities and stakeholder groups (urban vs rural) and how that influences internet and digital connectivity additionally. But, enhancing access to information for women across the FARM project will have positive outcomes from training and financing opportunities, to understanding risks, and implementing new/adapted practices of pesticide and agri-plastics use.

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<sup>53</sup> Girl Effect. (2020). [Real girls, real lives, connected.](#)

<sup>54</sup> UN Women & ITU. (2021). [Digitally empowered generation equality: Women, girls and ICT in the context of COVID-19 in selected Western Balkans and Eastern Partnership countries.](#)

<sup>55</sup> Girl Effect. (2020). [Real girls, real lives, connected.](#)

### *Illiteracy, language, and images*

More systemic barriers to accessing information include women and girl's disproportionate lower rates of education, and thus higher levels of illiteracy globally. This is particularly significant in developing country, rural communities, including poor agriculture-focused communities and families. Additionally on language, whereby women and girls may be literate in their national or local language, there may be fewer resources for girls and women to learn and be competent in commonly used UN languages. Therefore, communication only accessible in UN languages, or only in English are exclusionary and the project requires specific effort to be made to ensure all relevant stakeholders can participate effectively and learn information during stakeholder engagement and in all FARM processes in languages they are comfortable in, with printed materials and communications available in at least the child project national and community-focused languages. However, where stakeholders may be illiterate, such as with rural women farmers, efforts to communicate in non-written forms should be considered, such as use of infographics, videos, radio addresses, to share information and build knowledge and behavioral shift for the most marginalized.

Ensuring all communications are gender-sensitive also means recognizing the context and appropriateness of, for example, images—having gender balance, and not exploiting communities or individuals in the representation of the project. This is especially important to not represent women only as victims and vulnerable, but as agents of change. This also necessitates including diverse authors (women and men, youth, ethnic minorities, etc.) to develop knowledge products and educational materials, for diversity of perspectives and approaches, as well as having women and men reviewers of products. And to ensure gender is mainstreamed not only in process, but for comprehensive integration in knowledge management and communications, gender analysis, gender-disaggregated data and qualitative information should be included in research and development of all materials, knowledge products, and for targeted outreach.

#### *3.1.15 Monitoring and evaluation*

Recognizing a dearth of data and information specifically focused on the FARM project regarding gender in multiple aspects, monitoring and evaluation of the project in planning is a critical process to further advance information and knowledge-sharing on issues. Whenever possible, data should be collected and disaggregated by socioeconomic factors such as gender identity/expression, indigeneity, race, and age, as is safe and appropriate for stakeholders. Social information is often most informative when (and usually collected as) qualitative data, attempts should be made to collect both quantitative and qualitative input and data at all points in the project, from activity level, to aggregated data collection by the global child project. This includes documentation and data collection on beneficiaries, to exceed numbers of women and men (and non-binary/other gender peoples), but investigates further the impact of the benefits on women and men and all people, with regard to socio-economic status and foundational progress on advancing gender equality outcomes.

Increasingly, participatory data collection and engagement with women is tapped as an inclusive process that provides greater information and insight on root causes, drivers, and more comprehensive outcome and impact of overall project implementation, as well as being an economic and leadership opportunity for local women. This is significant as evidence demonstrates, based on some sociocultural norms and taboos, that women may speak only with women, or share more information on issues and outcomes cutting across the project activities and goals.

#### 4 FARM Gender Equality Action Plan (GAP)

This Gender Equality Action Plan establishes the trajectory for the FARM project to harmonize and provide a holistic—and comprehensive—approach for mainstreaming a gender-responsive approach across and in support of all the child projects, but primarily focused in the Global Coordination, Knowledge Management and Common Finance Tools child project to efficiently and effectively coordinate, implement, and track gender-mainstreaming planning, inputs, and outcomes. The GAP aims to achieve this by mainstreaming gender-responsive and human rights-based approaches in addressing and closing, not exacerbating, persistent gender inequalities toward gender-transformative and socially equitable efforts and outcomes to reduce and eliminate the use of persistent organic pollutants (POPs), Highly Hazardous Pesticides (HHPs), and agri-plastics in agriculture which requires a whole-of project approach.

Implementation of this GAP and approach will: *Empower women, men, and all people in their diversity to have access to and control over resources, services, and decision-making to equitably engage in and benefit from (socially, environmentally, and economically) the reduction of agricultural pesticides and agri-plastics with sustainable and equitable financing.*

Based on the project gender analysis, and recognized globally, consistent systemic issues and infrastructure are driving persistent gender inequalities relevant to the FARM project, and which—if not recognized and addressed—will have negative ramifications for the overall successful achievement of the project objectives.

This requires gender-responsive action on foundational cross-cutting elements for gender equality and women's empowerment to be woven—or mainstreamed—as part and parcel of all FARM project components, outcomes, and outputs. These elements of a gender-responsive approach are simplified and prioritized to address priority issues identified in the FARM project analysis and determined needs to ensure gender is comprehensively mainstreamed toward the achievement of the project-identified goal, but also wider global environmental benefits. The analysis can be distilled to priority cross-cutting elements to be woven throughout the FARM global child project components to mainstream a gender responsive approach, which include

- Collecting gender data and knowledge
- Capacity building and knowledge sharing on gender mainstreaming and gender (in)equality
- Ensuring women's participation and agency
- Institutionalization of gender mainstreaming in project operations

These cross-cutting elements for mainstreaming gender equality encompass the different types of gender-specific activities needed to facilitate mainstreaming throughout FARM. In order to support the FARM child projects to manage and track gender activities, the GAP aligns with the global UNEP Knowledge Management child project log frame, with gender mainstreamed into each of the four project components of:

1. Policy and enforcement,
2. Finance and investment,
3. Knowledge management, and
4. Monitoring and evaluation.

While gender has been mainstreamed throughout the global child project (as evident by the log frame with activities that 1. integrate gender considerations into broader global child project activities, as well as 2. stand-alone gender-responsive activities), the logframe activities are streamlined and thus require further elaboration and specificity, which is included in this GAP. The project logframe can and should be referenced in reviewing and implementing this GAP, to note the significance of the two distinct types of activities. However, for tracking and monitoring the gender-responsiveness of the FARM project, the activities and outcomes from activities in this GAP are suggested to be reported on.



Gender activities are included in all four components of the GAP to mainstream these cross-cutting elements to ensure that gender equality and women's empowerment are prioritized and institutionalized in the project by all implementers and stakeholders, for effective and sustainable implementation of FARM.

### Structure of the GAP

The GAP is overlaid on the FARM global child project log frame for compatibility and useability in implementation. This section details what each part of the GAP includes and why.

- Each of the four FARM global child project components are included, with the accompanying outcome and outputs for each.
- Following the FARM outcome, the GAP includes **gender-responsive approach outcomes** indicating the alternative scenario outcomes for the project when a gender-responsive approach—comprehensively—is applied during the entirety of the FARM project, and specific to the FARM global CP outcomes and outputs identified in the log frame. These outcomes are broadly inclusive and flexible in their achievement via the implementation of the GAP activities.
- The GAP **gender activities** are the means by which the gender-responsive approach outcomes can be achieved. These are purposefully flexible in their implementation to recognize the context and agreed activities of the wider global child project and toward complementarity, while synergizing, and mainstreaming gender across the entirety of the FARM project (e.g., all child projects). The gender activities align with and elaborate upon those indicated in the global child project log frame with the corresponding activity number from the FARM global child project log frame indicated after each gender activity.
- The **gender indicators** are designed for tracking GAP implementation in two ways. First, as accompaniment for supporting monitoring and reporting that is gender inclusive of the overall FARM global child project activities and log frame, and secondly to assist with broader monitoring and reporting toward outcome and impact of the implementation of mainstreaming a gender-responsive approach throughout the projects' entirety. (This is also included as a specific activity at mid-term to ensure the approach and reporting of the impact is documented and adaptive planning and implementation in the second half of the project can be initiated as needed.)
- Last in each component, are **indicative outputs**. These are included to demonstrate what could be considered evidence of the activities being implemented. These are examples, not meant to be prescriptive, of how this activity successfully conducted would be portrayed and by no means requires achieving all of the indicative outputs. They are suggestions of outputs that would be recognized, and needed, for implementation. The indicative outputs also feed into, directly and indirectly, toward the tracking of the GAP indicators. The GAP indicators, however, in an effort to align with the global child project log frame, in multiple places demonstrate what the integration of gender mainstreaming into the log frame indicators would produce. For example:
  - FARM GCP log frame Output 1.2 indicator:
    - “No. of workshops and events to present and discuss knowledge products from Output 1.1”
  - GAP indicator (Italics below added to emphasize the difference between indicators)
    - “No. of workshops and events *presenting and discussing gender-focused knowledge products from Output 1.1*”

## 5 FARM Gender Equality Action Plan (GAP) Log Frame

Component 1. Policy and enforcement			
<b>FARM Outcome 1:</b> 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.			
<b>Gender-responsive approach outcomes</b> <ul style="list-style-type: none"> <li>FARM strengthens a holistic evidence base through the collection and generation of new and contextualized data from child projects on gender and socioeconomic issues of key project activities/sectors in the identification of knowledge gaps and the development of FARM knowledge and knowledge-transfer.</li> <li>Diverse and inclusive data collection, input, and validation of findings are guaranteed through consistently exercising participatory stakeholder engagement processes including engagement of national or regional gender machinery, NGOs, and civil society organizations with women's representation and leadership, including women's rights, gender equality, and social equity organizations/groups, and individual advocates and activists.</li> <li>Cross-sectoral engagement is strengthened regarding pesticides and agricultural plastics, with broader acknowledgment and behavioral shift toward reduction and sound management of pesticides and agricultural plastics.</li> <li>Knowledge products and knowledge-sharing events consider and integrate gender dimensions and issues comprehensively in process and product development, including recommendations for policy and enforcement audiences, via consultation thru to validation.</li> <li>Government and intergovernmental regulatory bodies have increased recognition and capacity on intersectional and cross-cutting issues on gender and socioeconomic issues and impacts with pesticides and agricultural plastics.</li> </ul>			
FARM Output	Gender activities	Gender Indicators	Indicative Outputs
Output 1.1  FARM knowledge is generated and synthesized to create actionable recommendations for policy and enforcement audiences.	Conduct gender research and analysis in the collection and generation of evidence, and include in development of FARM knowledge (1.1.2, 1.1.3, 1.1.4), including support to research consultants developing gender analysis framework	No. of KPs that include gender section, along with gender woven throughout KP;  No. of gender-specific KPs researched and developed as FARM knowledge products  No. of W/M/NB (and % of total) leading research and drafting of key KPs for FARM distribution (e.g., consultants or staff)	<ul style="list-style-type: none"> <li>Gender analysis framework guidance document for programmatic research (e.g., for policy review, scoping analysis knowledge gaps, and research processes)</li> <li>Consultative session with research teams for specific scope of work with outlined gender analysis framework and inquiries</li> <li>Gender section with relevant gender-disaggregated data and information on gender dynamics and inequalities in all reports and publications, with the findings also included throughout the publication and recommendations where relevant</li> <li>Gender-responsive guideline for knowledge product process and development</li> <li>Review/validation mechanism for research and knowledge products established which includes</li> </ul>



	Train staff (and consultants) on mainstreaming a gender-responsive approach across all project components and activities (1.1.5)	No. of staff (and consultants) trained, demonstrating competency on gender mainstreaming process in projects (W/M/NB) (target 100% of staff)	<p>participation from national gender machinery, civil society</p> <ul style="list-style-type: none"> <li>• Gender mainstreaming training materials (including: pre-session existing knowledge survey, slide deck, facilitation notes, participatory activities, key resources and reading materials, post-session learning survey)</li> <li>• Capacity building and knowledge-sharing training sessions held for/with all child project staff</li> </ul>
<p>Output 1.2</p> <p>FARM knowledge is validated and shared to build policy and enforcement capacities for the sound management of pesticides and agricultural plastics.</p>	<p>Coordinate with child projects' on relevant stakeholders to be mapped for consistent engagement (including knowledge validation and sharing), ensuring women's rights and gender-related organizations are included and provided adequate engagement pathways. (1.2.3)</p> <p>Build capacity on gender and the sound management of pesticides and agricultural plastics with public sector partners (1.2.5)</p>	<p>No. of FARM technical workshops and events the national gender machinery are invited to and participate in</p> <p>No. of women's rights and gender-related organizations identified as key FARM stakeholders; participating in consultations, workshops, and validation meetings (individual participants W/M/NB disaggregated)</p> <p>No. of participants (W/M/NB) engaged in capacity building and knowledge sharing sessions/events on gender and sound management of pesticides and agricultural plastics</p> <p>No. of workshops and events presenting and discussing gender-focused knowledge products from Output 1.1</p>	<ul style="list-style-type: none"> <li>• Gender machinery representative(s) are connected and aware of FARM project with consistent invitation and capacity building</li> <li>• Participation of diverse civil society organizations for each child project country are mapped with ongoing, accessible engagement pathways</li> <li>• Ongoing engagement and communication (2-way) mechanism established with stakeholders</li> <li>• Community of Practice for Gender Equality and the Sound Management of Pesticides and Agricultural Plastics Group established, coordinated, and facilitated through engaging online platform</li> <li>• Webinar/event with specialists on gender+pesticides and agri-plastics, disseminating research and knowledge products</li> <li>• Gender advocacy and engagement at technical workshops and events (e.g., international fora such as: SAICM, Rotterdam Convention, etc.</li> </ul>

		<p>No. of participants (W/M/NB) attending gender sessions at international, regional, or national convenings</p> <p>No. of FARM-facilitated events with integration of gender issues in session</p> <p>No. of gender sessions FARM stakeholders participate in (speak on panel, present findings, etc) at international, regional, or national convenings</p>	<p>and national-level events with relevant ministries and partners)</p> <ul style="list-style-type: none"> <li>• FARM gender research is presented and integrated into workshops and event sessions</li> </ul>
<b>Component 2. Finance and Investment</b>			
<b>FARM Outcome 2:</b> 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.			
<p><b>Gender-responsive approach outcomes</b></p> <ul style="list-style-type: none"> <li>• Gender-responsive approaches are implemented and shared with FARM partners and stakeholders (private and public) to promote best practices and existing mechanisms of women-specific financial access initiatives in agriculture investments.</li> <li>• Gender and socioeconomic analysis is conducted as part of all research and knowledge generated and all developed materials (e.g., market mechanism research, agricultural plastics cost-benefit study), and made available and accessible to stakeholders, as well as public and private finance actors, on any data and knowledge management platform.</li> <li>• Financial institutions have enhanced knowledge and prompt action on sexual and gender-based violence in agri-business sector and opportunities for investments to mitigate, reduce, and support violence survivors.</li> <li>• Gender considerations are integrated into all capacity building materials developed for financial institution training sessions/initiatives.</li> <li>• Gender and socioeconomic aspects are integrated in the risks and impacts tool/methodology for the financial institutions based on contextual gender analysis research identifying barriers and entry points to more equitable financial access and benefits.</li> <li>• FARM-generated knowledge actively supports civil society and women's rights organizations advocacy and engagement in fiscal and financial policy processes, including consultation and validation, relating to pesticides and agri-plastics.</li> </ul>			
<b>FARM Output</b>	<b>Gender activities</b>	<b>Gender Indicators</b>	<b>Indicative outputs</b>
<p>Output 2.1</p> <p>Private finance actors have increased knowledge, capacity, and</p>	<p>Design and facilitate a session/module on gender and GBV-risk assessment, as part of capacity building</p>	<p>No. of private finance professionals (W/M/NB) trained on gender-responsive methodology, tools, or guidance through a capacity-building programme</p>	<ul style="list-style-type: none"> <li>• Training materials (slide deck) developed for gender session and GBV-risk assessment session as part of capacity building program</li> </ul>

tools to align their portfolios with global, regional, and national goals to prevent and reduce chemical and plastic pollution	<p>program(s) for financial institutions (2.1.3)</p> <p>Conduct gender SWOT analysis of key private agricultural financing actors to determine barriers to entry for women and marginalized groups, risks, and impacts, as well as identifying case studies and promising practices for targeted recommendations (private and public). (2.1.2, 2.1.4)</p>	No. of methodologies, tools, studies, or guidance developed for private finance actors inclusive of gender analysis, section, and women-specific components	<ul style="list-style-type: none"> <li>• Gender and GBV-risk sessions conducted for finance stakeholders on sexual and GBV in agri-business sector</li> <li>• Guidance note available/shared on integrating gender-responsive approach in agri-business financing mechanisms (ex: <a href="#">Gender Toolkit</a> available from British International Investment (BII))</li> <li>• Gender inequality risks and dimension integrated in financial institution tool/study</li> <li>• Financial institutes conduct gender diagnostic assessment at onset of new investments</li> <li>• Findings of gender analysis integrated into all component 2 activities for developing finance knowledge products/materials, engagements/sessions, etc.</li> <li>• Women-specific entrepreneurship training and/or mentorship programs established by financial institution to reduce women's barriers to accessing financing and promoting women-led entrepreneurship and initiatives for sound pesticides access and use</li> </ul>
<p>Output 2.2.</p> <p>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</p>	<p>Identify and curate innovative policies and market practices for enhancing women's opportunities for financial access and empowerment (2.2.1, and 2.1.4)</p> <p>Support capacity building on gender with public and</p>	<p>No. of FARM best practice guidance and reports developed on finance measures that integrate gender analysis findings and good practices</p> <p>No. of reports produced on FARM countries' experiences in implementing financial policies and market mechanisms integrating</p>	<ul style="list-style-type: none"> <li>• Guidance document on best practice policies and market mechanisms includes component on integrating gender-responsive approach in agri-business financing mechanisms (based on analysis evidence in activity 2.1.4)</li> <li>• Gender data and information integrated in online platforms sharing FARM financing</li> <li>• Gender data and information integrated in reports on country experiences implementing financial policies and market mechanisms</li> </ul>

	private sector experts and stakeholders	gender data and information, and a specific section on gender	<ul style="list-style-type: none"> <li>Number of fiscal and financial policies updated/produced from FARM knowledge inclusive of gender-responsive elements</li> </ul>
<b>Component 3. Value chains and public demand</b>			
<b>FARM Outcome 3:</b> 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.			
<b>Gender-responsive approach outcomes</b> <ul style="list-style-type: none"> <li>Women, girls, men, boys and all people have equal opportunities and support to access, engage, and address environmental, social, and economic issues in their lives and communities related with agricultural products and processes to reduce pesticides and agricultural plastics.</li> <li>All FARM knowledge and communications consider gender inequalities and mainstream gender responsive approach toward more equitable outreach and engagement of all value chain actors and stakeholders.</li> <li>Stakeholder engagement and outreach with value chain actors and partners reaches beyond the “usual suspects” to expand cross-sectoral and cross-programmatic knowledge generation and sharing from local to global levels for increased understanding and behavioral shift.</li> <li>FARM website and knowledge repository demonstrates thought leadership and outreach on gender and pesticides and agricultural plastics toward reorienting demands and priorities on products and processes</li> <li>FARM-led events (and events with FARM staff leadership) mainstream gender and promote women’s leadership throughout processes and sessions to ensure inclusive, engaging, and progressive knowledge sharing and learning outcomes on pesticides and agricultural plastics</li> <li>Differentiated issues and impacts in the child projects due to sociocultural norms and traditions determining women’s roles, responsibilities, perspectives, access, capacity, and leadership are documented, recognized, and valued as foundational to reducing and removing pesticides and agricultural plastics.</li> <li>Communications staff have increased capacity and ownership to integrate and ensure gender-responsive communications and strategies</li> </ul>			
<b>FARM Output</b>	<b>Gender activities</b>	<b>Gender indicators</b>	<b>Indicative outputs</b>
Output 3.1  FARM and FARM-related knowledge is curated and disseminated for global public access under the FARM brand.	Collate resources on gender and relevant project components (3.1.2)	No. of single-entity users/access points for gender thematic page, gender knowledge products, links and communication materials disseminated online (W/M/NB as possible)  No. of gender-relevant knowledge products available on FARM knowledge repository platform	<ul style="list-style-type: none"> <li>The FARM website includes gender thematic page on key issues from relevant desk review and country experiences</li> <li>The FARM website knowledge repository includes, and continuously updates, with promotion, tagging, and outreach, curated knowledge products, tools, etc. (e.g., gender+ agriculture, pesticides, agri-plastics, health, labor, GBV, social protections, care work, child project national context, etc.)</li> </ul>

	<p>Draft and disseminate gender-specific communications materials and messaging focused on gender inequalities, gender-differentiated aspects, and opportunities (3.1.7 and 3.1.6)</p> <p>Build capacity on gender-responsive communication and strategies with FARM project staff (prioritizing communications teams) (3.1.8)</p>	<p>No. of FARM gender-specific public information materials and communications produced</p> <p>No. of public information materials and communication produced on the basis of FARM and FARM-related knowledge products integrating gender considerations, issues, activities, results, etc.</p> <p>Number of staff/consultants (W/M/NB) participating in gender-responsive communications training</p>	<ul style="list-style-type: none"> <li>• Knowledge product template integrates guidance for inclusion of gender equality</li> <li>• All communication materials reviewed for gender mainstreaming, and gender-specific considerations</li> <li>• FARM Gender updates, issues, resources produced and disseminated (2x or 3x/year) to FARM staff and project stakeholders</li> <li>• Gender-focused public information materials based on child project evidence and experiences published and shared to wide audience (e.g., tweets, blogs, animations, infographics on women's participation and leadership in pesticide decision-making spaces; differentiated labor practices on farms and use/practice with pesticides, differentiated exposure routes, health ramifications, etc.)</li> <li>• Materials developed for participatory learning module on gender-responsive communications and strategies</li> <li>• Participatory learning training/sessions conducted with FARM CP staff</li> </ul>
Output 3.2 New stakeholders engaged to build momentum and boost demand for pollution-free agricultural products.	Identify and consistently engage cross-value chain stakeholders and actors from civil society organizations, including women's rights, gender equality, and social equity organizations/groups, and individual advocates, gender focal points and the gender machinery (3.2.1, 3.2.2)	No. of partnerships established with women and men farmer associations, women-led enterprises, and gender-related groups/organizations	<ul style="list-style-type: none"> <li>• Diverse stakeholders across the value chain, particularly the oft-marginalized, are consistently engaged and represented to participate and share in FARM data collection, decision-making, validation of knowledge generated and shared</li> <li>• Gender-related partners (e.g., UN Women, gender focal points at leading agriculture organizations, etc.) co-create and mobilize advocacy campaigns knowledge-sharing through collaborative partnerships</li> <li>• Gender partners invited and participating in Green Forum FARM groups, and presenting relevant materials, initiatives, campaigns, results, etc.</li> </ul>

	Design and integrate gender themes and sessions into the Asia and Latin America Biennial For a (3.2.4 and 3.2.5)	<p>No. of events/sessions integrating gender at FARM biennial forums</p> <p>No. of panels with gender balance at FARM biennial Forums</p> <p>No. of participants (W/M/NB) attending gender-focused sessions</p>	<ul style="list-style-type: none"> <li>At least one gender session organized and conducted at each FARM Biennial forum</li> <li>Biennial Event Reports include information on gender sessions, mainstreaming process, and data collected on participants, panels, leadership, etc.</li> </ul>
<b>Component 4. Monitoring and evaluation</b>			
FARM Outcome 4: GEF child projects and partners implement activities using a coordinated programmatic approach, including shared visibility, gender and reporting practices			
<b>Gender-responsive approach outcomes</b> <ul style="list-style-type: none"> <li>Data is disaggregated wherever possible by: gender (W/M/NB), age, race, and ethnicity</li> <li>Additional data collection on socioeconomic and cultural factors are collected where reasonable and appropriate for stakeholders and participants, such as: education level, occupation, career level (junior/entry, mid, senior, director, etc.), mobile technology access, faith, etc. to advance understanding of barriers and opportunities to engaging and shifting local to national attitudes and practices on pesticides.</li> <li>Significant contributions are made and documented on advancing both gender mainstreaming in process and equality outcomes across FARM project implementation</li> <li>Project operations are implemented and tracked in considerate and appropriate manner to support equitable project team engagement, opportunities, and leadership through sound management and support for the efficiency and effectiveness of the project implementation, and the safety and security of project staff.</li> </ul>			
<b>FARM Output</b>	<b>Gender activities</b>	<b>Gender indicators</b>	<b>Indicative outputs</b>
<p>Output 4.1</p> <p>Programmatic reporting templates are finalized and used, ensuring that the status of project execution is reported and monitored annually and adaptive management is applied when necessary</p>	<p>Include qualitative and quantitative indicators on mainstreaming gender in process as well as outcomes of enhanced socioeconomic equity and gender equality in programme reporting template (4.1.1)</p> <p>Conduct survey on project management, leadership and opportunities for project</p>	<p>No. of programmatic reports published with integration of quantitative and qualitative social, cultural, economic information on gender equality outcomes</p> <p>Number of W/M (and %) respondents to project management survey</p>	<ul style="list-style-type: none"> <li>Reporting template includes adequate space to report explicitly on gender equality programming in process and outcomes, with review and accountability for adequately reporting</li> <li>Collated annual reporting includes gender mainstreaming inputs and outcomes.</li> <li>Project management and leadership survey developed and issued to all project staff (Y1) Project management survey report and recommendations for adaptive management</li> </ul>

	<p>staff in all child projects (MTR 1x) (4.1.4)</p> <p>Conduct gender stocktake and impact report on program (2x) with child project data and evidence collated. (4.1.5)</p>	<p>What impact has the entire FARM project made on advancing a gender-responsive approach, and progress on gender equality outcomes (qualitative)</p>	<ul style="list-style-type: none"> <li>• Report developed on project management and implementation findings</li> <li>• Targeted recommendations are discussed with project team leadership with adaptive management plan prepared</li> <li>• Gender specialist(s) track and collect data for accountability with global Gender Action Plan and country GAP</li> <li>• Impact report developed</li> <li>• Communication on impact report developed</li> </ul>
<p>Output 4.2</p> <p>Global child project reports are submitted timely and adaptive management is applied when necessary</p>	NA		

## 6 Annexes

### Guidance Note for FARM Child projects on Gender Mainstreaming and Gender Analysis template

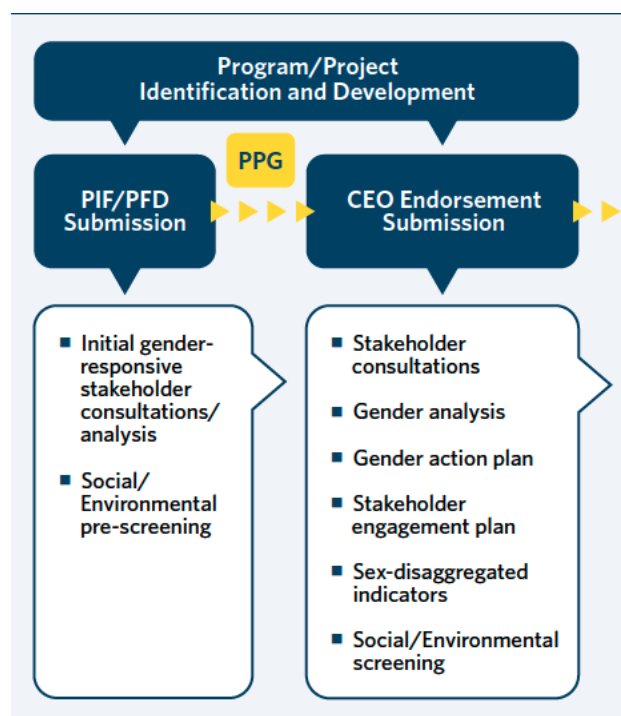
#### Purpose of this guidance note

This document is intended for the use of implementing and executing partners developing child projects under the FARM Programme to understand and document how gender is considered and responded to in relevant policy, programmes, and measures in the countries/child project regions.

The guidance introduces how GEF FARM is considering and integrating gender throughout the processes and activities for the program and its Child projects, including a snapshot of end-goal integration in project documents. Next it defines useful concepts and terms for understanding, discussing, and applying the gender mainstreaming approach. It follows highlighting the two main components for Child projects to mainstream gender at this stage with key considerations and guiding question to inform the stakeholder engagement process and data collection for analysing gender.

#### Integrating gender in child projects

The FARM programme is implementing from its onset gender mainstreaming, including in its design and development of the project documents at both the child project and global level. Generally speaking, a gender-mainstreaming approach in the project design process results in a mix of integrated activities, targeted gender activities, and activities that address underlying causes of gender inequality. To identify and design appropriate project activities, first, accurate and contextual evidence needs to be collected and analyzed on gender-relevant issues by each child project through stakeholder engagement and gender analysis. These processes will inform the design of the child projects, and also the priority needs for mainstreaming gender at the global (coordinating) level culminating in the indicative outputs for approval of the project as indicated below in the image. These are required activities and outputs for mainstreaming gender in a GEF project design as outlined in the GEF Policy on Gender Equality for mainstreaming gender in the PPG phase.





The following is a snapshot and high-level run-sheet of how and where to integrate gender in the process and development of the project documents (Annex 1 includes insight on additional components as a checklist).

- Establishing gender responsiveness as a guiding principle
- Leveraging existing gender policies and commitments to create the mandate for integrating gender considerations in environmental process
- Gender and human rights section summarizing analysis findings
- Gender integrated in each section/technical aspect (not only in gender section and gender action plan)
- Development of gender framing throughout
- Gender activities allocated specific and appropriate budget; processes to ensure gender-responsive approaches are allocated resources (in stakeholder engagement, or trainings, etc.)
- Beneficiaries targeted are not burdened, and is equitable in participation and benefits
- Indicators of progress for gender equality, beyond just counting women and men as stakeholders or beneficiaries

The sections that follow below the definitions provide further detail on how to consider gender, including what question to ask and collect data on, to be able to mainstream gender comprehensively in project documents.

### **Key definitions for understanding GEF FARM approach to gender mainstreaming**

Gender is complex and dynamic. To ensure concepts are understood and terms are being used appropriately the following brief list of terms and definitions are included to guide Child projects in the process of mainstreaming gender.

**Gender** refers to the economic, social and cultural attributes and opportunities associated with being male or female. It encompasses the roles, behaviors and activities that are deemed acceptable for people of different genders and influences the relationships between the people who fall within these groups.

**Gender actors** are the collective of institutions and individuals working on gender in a particular context, including government, academic and civil society actors. Within government, this may include the government ministry responsible for gender and/or women's affairs, as well as gender experts or focal points in different ministries or at subnational levels (also termed "**gender machinery**"). Outside the government, gender actors include academic researchers, technical experts, non-governmental organizations, women's rights organizations or gender equality advocate organization's and organizations representing people of gender or sexual orientation minorities.

**Gender analysis** is a tool that examines the differences between and among women, men, girls, boys (and people of other genders) in terms of their relative distribution of resources, opportunities, constraints and power in a given context.

**Gender equality** refers to the notion that every individual is entitled to the same rights, responsibilities, and opportunities, and they should not be discriminated based on their gender.

**Gender equity** reinforces equality through recognizing and addressing social structures that inhibit women and men from fully exercising and benefiting from their rights. It refers to the process of treating women and men fairly, according to their respective needs, which can include specific measures to compensate for historical and structural disadvantages. *Equity is often a means to true equality.*

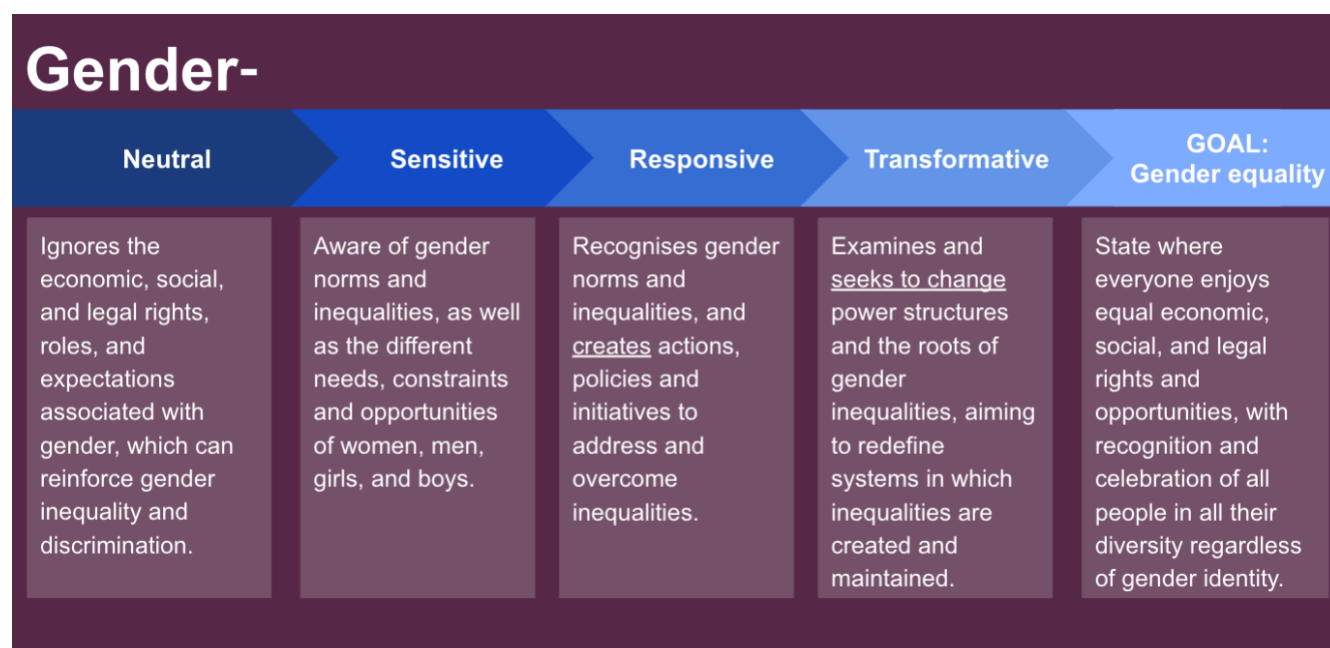
**Gender mainstreaming** is the process of ensuring that women's and men's concerns and experiences are addressed as an integral dimension of the design, implementation, monitoring and evaluation of policies and programs at all levels and sphere.

**Gender-responsive approaches** examine and actively address gender norms, roles and inequalities. Gender-responsive approaches go beyond sensitivity to gender differences—they actively seek to promote

gender equality. This often involves specific actions to empower women in their households and communities as well as broader policy and planning processes.

**Inclusive approaches** recognize intersectionality and the consequent differences among women, men and people of gender and sexual minorities. They are attentive not only to gender balance but also to representation of people with other socio-cultural characteristics (such as age, race, ethnicity, sexual orientation, locale, language and literacy etc.) that may influence their marginalization and vulnerability, as well as their capacities and their ability to participate in and benefit from action.

The image below visualizes the spectrum of integration for gender from neutral to transformative toward the goal of gender equality. GEF FARM project intends to implement a gender-responsive approach, with transformative elements, toward progress on gender equality.



### Mainstreaming gender-responsive approach

It is key in the project/programme development stage to gather information on gender dimensions relevant to the activity and fully integrate gender into the project, via mainstreaming a gender-responsive approach in process. This means engaging women and men of all ages with diverse backgrounds/characteristics and relevance to the project in discussions and to begin collecting and analyzing data and information on the gender-specific context of the project. The findings from all stakeholder engagements, baseline information, and analysis should be incorporated into the project on a whole, integrating gender-responsive approaches as part and parcel to all activities.

The following are areas where gender considerations should be integrated in preparation of Child projects.

#### *Stakeholder engagement*

Comprehensive integration of gender throughout the project comes from systematic consideration of gender during the stakeholder identification and consultations stage. This is needed to ensure that women's and men's voices alike are heard and valued. It strengthens the design and implementation of projects and activities by reducing risks and addressing the social and economic needs of affected stakeholders.

Questions to consider when mapping and identifying stakeholder partners include:

- Do the key stakeholders mapped/consulted include gender actors?
- Is there a balanced gender representation among key stakeholders? (equitable numbers of women and men, with equitable means to participate, share perspectives and have contributions valued)
- Is there specific stakeholders included that has the skills, expertise, and capability to share experiences on gender dynamics, assess integration, and analyze gender data and information?

#### *Gender analysis*

The indicative information required can draw on data and information derived from any initial stakeholder consultations (entailing primary source input on gender dynamics and issues) or reviews of available information (desk review). For example, these can include relevant sectoral and country reports; gender analyses undertaken for similar projects and programs; or the social and environmental pre-screening of the project.

The analyses should serve to inform the project on the gender-specific social, cultural, and legal context. The following generally depicts the baseline gender information and disaggregated data to consider gathering and where to potentially find it to include in the analysis (as referenced in the [UNDP Guidance Document on Gender and Chemicals](#)).

- **Define chemicals' health effects on women and men.** The following information could be utilized: Literature review, available statistics data, and interviews with health providers and patients. Ensure that interviewees represent females and males equally. Consider organizing individual interviews as well as group interviews, both by gender and mixed groups. In some countries women are not used to discussing their health problems with men and may be more willing to speak openly in women only groups.
- **Define gender-specific routes of exposure.** The following information could be utilized: Results of national human biomonitoring, literature review, reports from global human biomonitoring projects, and interviews with project stakeholders and community leaders. Collecting this type of gender information and sex-disaggregated data could also require field trips to the communities. Ensure that the project field team consists of men and women. This is specifically important in countries where females do not interact freely with males and where male fieldworkers will not be allowed to interview females in the community.
- **Assess the economic conditions of the women related to the project.** The following information could be utilized: Statistic data, national reports on economic developments, national reports on the implementation of the relevant international conventions, and interviews with project stakeholders. Make sure to conduct interviews with male and female community leaders and stakeholders to discuss gender-specific routes of toxic exposure. This approach will help better understand the social and economic situation in the community that forces women to choose occupations that leads to toxic chemicals exposure, such as low paid, unsecure and unskilled labor positions.

#### *Conducting the gender analysis*

This should include the following considerations with data and information collection to inform the analysis and project development.

#### *What are key gender issues in the sector?*

- What differences in terms of roles and needs exist between women and men in the geography? For example: Who does what considering household care economy, livelihoods, income-generation, decision-making (in household generally on use and consumption of chemicals), and community/stakeholder participation)?
- What are the main sources of livelihoods for women and men, and associated income(s) in the sector?
  - Throughout day and seasonally, what roles and responsibilities in different sites
  - What legal status, e.g., pesticide sprayers, harvesters, land rights owners; migrant workers
  - How many women work in fields, factories, etc.? (total and as percentage of total)
- What is the different exposure and susceptibility impacts for women and men from chemicals and associated agriculture production/value chains (consider where and how women and men come into contact with chemicals (what roles); also throughout value chain development, application, along with transmission to family members, particularly children)? Is the community affected by exposure? What health (issue) data exists on women, men and children related to relevant chemical exposure?

- What resources and services do women and men have access to
  - In the technical sector consider:
    - agricultural inputs,
    - agricultural technical extension,
    - chemicals application safety gear/protective wear,
    - safety training,
    - knowledge on chemicals, impacts and safety measures
    - capacity building/skills training
  - broadly in women's and men's lives and for social protection consider
    - Education,
    - job and recruitment services,
    - livelihood insurance,
    - land rights, inheritance,
    - property and resource insurance,
    - financial savings,
    - loan access,
    - mobility (e.g., transportation access and safety),
    - health care/insurance,
    - maternal and child healthcare,
    - childcare, elderly care,
    - GBV prevention and victim/survivor services

*What disaggregated data is available?*

- See Social Institutions and Gender Index (SIGI) Database (<https://www.genderindex.org/>) for country profiles.
- What disaggregated data or information is available from national entities (Ministry/Bureau of Gender/women's affairs or statistics offices) or regional gender entities (UN Women, development banks, gender organizations, etc.) for data or analyses ensuring statistics on:
  - labor participation rates in sectors,
  - parliament/decision-making,
  - education,
  - literacy,
  - GBV,
  - birth and death rates,
  - workplace rights, etc.

*How might the project affect women and men differently?*

- What are the positive and negative effects on women, men, and children (also consider disaggregation by social characteristics) based on the different issues and potential/proposed activities? (For example, what risk would reduction measures pose to women and men such as: reducing pesticides and synthetic fertilizers; use of traditional knowledge and agroecology; introduction of safer chemical and non-chemical alternatives; promotion of protective measures, etc.)
- Identify, if possible, legal, cultural, or religious constraints/barriers on women's potential participation in activities. What laws, or customary practices exist limiting women's full and effective participation?
- What are the economic considerations from shifting "business as usual" in the project activities?
- How do activities need to be adjusted based on these issues and challenges for more equitable outcomes?

*What enabling conditions for gender equality exist in the sector/country?*

- Is there national commitment and institutional arrangements established promoting gender equality?
  - national gender machinery functioning (with adequate resources—human and financial)
  - national gender policy; gender equality enshrined in constitution; and national planning
- Does equitable stakeholder engagement exist?
  - active women's rights organizations, women's environmental health actors, civil society
  - and other gender actors able to organize and advocate for rights
  - local level women's groups, cooperatives, municipal gender machinery
- Is there policy harmonization in the sector?:
  - gender integrated in sector policy (ies), and National Implementation Plan of Convention
  - coordination and collaboration with gender actors is systematic and institutionalized, including in consultation and new policy/planning review
- Is gender responsive planning and programming resourced?
  - national commitment on gender-responsive budgeting, financial allocations and expenditure for women's empowerment, women's health needs, education, and engagement and leadership opportunities

*Who are the target beneficiaries?*

- Try to disaggregate the beneficiaries by gender and any intersectional social characteristics (e.g., considering age—elderly, reproductive years, youth/children; ethnicity; indigeneity; social status/wealth—poorer communities; urban, peri-urban, rural). Consider that equitable approaches does not necessarily mean equal split of beneficiaries (50%/50% women and men)
- Ensure that consultations include a good balance between women and men, and equitable contributions.

*What capacity exists to deliver benefits to or involve women?*

- Will specialized gender/development expertise be required to ensure a gender-responsive project development beyond the GEF Agency or project partners? For example, will an external consultant/staff member on gender and social needs outside of agencies staff, at the national level, or regionally support data collection, integration of gender mainstreaming, knowledge sharing and coordination for diverse representation in stakeholder engagement?
- What gender equality/women's rights organizations or local consultants are present and interested in engaging in the sector-specific work?
- Have other projects engaged on gender work, is there data/information, resources available to access and build on?

*How is the project expected to contribute to gender equality in the following (what activities are/can be put in place to):*

- Closing gender gaps in access to and control over agriculture, access and use of pesticides and other inputs including agri-plastics, food and nutritional security
- Improving women's participation and decision making
- Generating socioeconomic benefits or services for women

### **References and resources for further knowledge and application**

GEF. Guidance to advance gender equality in GEF projects and programs. Accessed: <https://www.thegef.org/sites/default/files/publications/GEF%20Guidance%20on%20Gender.pdf>

UNDP. Mainstreaming gender into UNDP-GEF projects on chemicals and waste. Accessed: [https://procurement-notices.undp.org/view\\_file.cfm?doc\\_id=225056](https://procurement-notices.undp.org/view_file.cfm?doc_id=225056)



## 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  (Please attach the documents or provide the hyperlinks)	<ul style="list-style-type: none"><li>• Feasibility report [ ]</li><li>• Gender Action Plan [x]</li><li>• Stakeholder Engagement Plan [x]</li><li>• Safeguard risk assessment or impact assessment [x]</li><li>• ES Management Plan or Framework [ ]</li><li>• Indigenous Peoples Plan [ ]</li><li>• Cultural Heritage Plan [ ]</li><li>• Others _____</li></ul>

## Section 2: Safeguards Risk Summary

### A. Summary of the Safeguards Risk Triggered

Safeguard Standards Triggered by the Project	Impact of Risk <sup>1</sup> (1-5)	Probability of Risk (1-5)	Significance of Risk (L, M, H)  Please refer to the matrix below
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 Level<sup>2</sup> -

<sup>1</sup> Refer to UNEP Environmental and Social Sustainability Framework (ESSF): Implementation Guidance Note to assign values to the Impact of Risk and the Probability of Risk to determine the overall significance of Risk (Low, Moderate or High).

<sup>2</sup> **Low risk:** Negative impacts minimal or negligible: no further study or impact management required.

**Moderate risk:** Potential negative impacts, but limited in scale, not unprecedented or irreversible and generally limited to programme/project area; impacts amenable to management using standard mitigation measures; limited environmental or social analysis may be required to develop a Environmental and Social Management Plan (ESMP). Straightforward application of good practice may be sufficient without additional study.





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

Low risk



Moderate risk



High risk



Additional information required



5	H	H	H	H	H
4	M	M	H	H	H
3	L	M	M	M	M
2	L	L	M	M	M
1	L	L	L	L	L
#	1	2	3	4	5

### 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

Cleared<sup>3</sup>

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



**High risk:** Potential for significant negative impacts (e.g. irreversible, unprecedented, cumulative, significant stakeholder concerns); Environmental and Social Impact Assessment (ESIA) (or Strategic Environmental and Social Assessment (SESA)) including a full impact assessment may be required, followed by an effective comprehensive safeguard management plan.

<sup>3</sup> This is signed only for the full projects latest by the PRC time.



- Take Good Practice approach<sup>4</sup> ☒
- 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/ May be	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.

<sup>4</sup> Good practice approach: For most low-moderate risk projects, good practice approach may be sufficient. In that case, no separate management plan is necessary. Instead, the project document demonstrates safeguard management approach in the project activities, budget, risks management, stakeholder engagement or/and monitoring segments of the project document to avoid or minimize the identified potential risks without preparing a separate safeguard management plan.



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 ( <a href="https://www.unep.org/resources/report/un-environments-environmental-social-and-economic-sustainability-framework">https://www.unep.org/resources/report/un-environments-environmental-social-and-economic-sustainability-framework</a> ). 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? <sup>5</sup>	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	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. 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 Please consult sections 3. Gender Equality and 10. Benefits of the project document for further detail
<b>Safeguard Standard 1: Biodiversity, Ecosystems and Sustainable Natural Resource Management</b>			
<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.

<sup>5</sup>For example, a project may consider investing in commercial shrimp farm by clearing the nearby mangrove forest to improve the livelihood of the coastal community. However, long term economic benefit from the shrimp farm may be significantly lower than the mangroves if we consider full costs factoring safety from storms, soil protection, water quality, biodiversity and so on.



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	The program will advocate for the increased use of bio-pesticides, which may contain alien species.  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.
1.11	handling or utilization of genetically modified organisms?	N	
1.12	collection and utilization of genetic resources?	N	
<b>Safeguard Standard 2: Climate Change and Disaster Risks</b>			
<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	
<b>Safeguard Standard 3: Pollution Prevention and Resource Efficiency</b>			
<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 <a href="#">Montreal Protocol</a> , <a href="#">Minamata Convention</a> , <a href="#">Basel Convention</a> , <a href="#">Rotterdam Convention</a> , <a href="#">Stockholm Convention</a> )	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	
<b>Safeguard Standard 4: Community Health, Safety and Security</b>			
<i>Would the project potentially involve or lead to:</i>			
4.1	the design, construction, operation and/or decommissioning of structural elements	N	



	such as new buildings or structures (including those accessed by the public)?		
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	
<b>Safeguard Standard 5: Cultural Heritage</b>			
	<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	
<b>5.6 identification and protection of cultural heritage sites or intangible forms of cultural heritage</b>			
<b>Safeguard Standard 6: Displacement and Involuntary Resettlement</b>			
	<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	N	



	to which they have traditional or recognizable use rights?		
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	
<b>Safeguard Standard 7: Indigenous Peoples</b>			
	<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	
<b>Safeguard Standard 8: Labor and working conditions</b>			
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.



## UNEP's ESSF: Supplementary guidance to respond to COVID-19

In line with the [UN Framework for the immediate socio-economic response to COVID-19](#) (April 2020), this paper provides additional safeguard measures to the recently approved UNEP Environmental and Social Sustainability Framework (ESSF) for UNEP's proper response during the COVID-19 and COVID-19 recovery phases. We encourage UNEP project managers to examine any changes in the project context as well as potential risks that may be exacerbated by the project activities using this tool. This document is to guide identify and manage potential environmental and social risks in projects in the context of COVID-19.<sup>1</sup>

### CHECKLIST FOR IDENTIFYING AND MANAGING ENVIRONMENTAL AND SOCIAL RISKS IN PROJECTS IN CONTEXT OF COVID-19 PANDEMIC

#### Human Rights

Potential heightened risks to/from project due to COVID-19	Possible risk management measures and adjustments to project
Is there a heightened risk of vulnerability of marginalized groups and individuals in project approach due to the COVID-19 outbreak (e.g. lack of access to resources, information, health services)?	Not to the knowledge of the project (November 2022), due to its global scope and knowledge management nature.
Are there risks of discrimination and stigmatization against perceived virus carriers or other groups in project activities?	Non-discrimination policies will be reinforced in all project activities and the collection and sharing of accurate and accessible information regarding COVID-19 in project areas covered by the FARM programme, especially regarding vulnerable individuals (e.g. elderly people, people with pre-conditions) and groups will be promoted. Use simple language and avoid clinical terms.
Have emergency declarations or other COVID-19 restrictions limited human rights (e.g. freedom of expression, access to information) in project areas?	Stakeholders have been informed of possible project risks, including COVID-19. This was done through email updates, inception meetings, review and update calls. They will continue to be informed of risks throughout the project execution phase, including risks posed by COVID-19. Stakeholder engagement activities have already largely been occurring online to facilitate ongoing communication under restricted travel.
Are there increased risks of privacy violations to project beneficiaries from COVID-19 response activities and surveillance?	There are no increased risks of privacy violations to project beneficiaries from COVID-19 response activities and surveillance under the FARM programme.

<sup>1</sup> This Guide is adapted from the draft "UN EMG Model Approach to Environmental and Social Standards for UN Programming-COVID19 Supplementary Guidance" for the UNEP projects.

Does the COVID-19 outbreak present particular risks to indigenous peoples in project areas?	Not to the knowledge of the project (November 2022), due to its global scope and knowledge management nature, thereby not directly involving indigenous peoples in any particular area.
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### Gender Equality and Women's Empowerment

Potential heightened risks to/from project due to COVID-19	Possible risk management measures and adjustments to project
Is there a risk that the virus outbreak and/or response regulations would increase gender inequality in access to project resources and benefits?	Project's gender analysis will be reviewed and, if needed, updated to account for gender differentiated impacts of the virus and response regulations.
Is there a heightened risk of gender-based violence in project area due to COVID-19 response and regulations?	No such risk is anticipated, but if needed, project's gender analysis will be reviewed and updated to include prevention and response plans to minimize gender-based violence due to COVID-19 responses and regulations.

### Stakeholder Engagement and Accountability/Operational and Procedural challenges

Potential heightened risks to/from project due to COVID-19	Possible risk management measures and adjustments to project
Are there planned meetings risking spread of the virus?	The consultative platforms at global, regional and national levels (from the in-country child projects) may enhance the risk of spreading the virus. The project will follow all relevant guidelines related to COVID-19, including restrictions on gatherings.
Do restrictions on group meetings limit or rule out certain project activities?	
Do virus-related restrictions limit ability to share information with stakeholders?	
Do limitations on social interaction impede stakeholder access to GRM?	No, they do not. All project stakeholders have regular exchanges with the project through online communication tools. If activities must be moved entirely online during the execution phase of the FARM Programme, additional action plans will be made for engagement of relevant vulnerable and marginalized groups with restricted access to forms of communication and media.
	Stakeholders have continued access to GRM established by the FARM programme, as well as UNEP-wide GRM.

Is the GRM able to continue to operate (e.g. lock-down, staff absence, call center closure)?	The GRM is able to continue to operate.
Is there a heightened risk of retaliation against stakeholders who complain about project activities that may exacerbate virus risks?	The project will ensure that all team members understand that there is zero tolerance for any retaliatory actions against project stakeholders. The project will confirm that stakeholders are informed about Agency-level complaints mechanisms in addition to local GRM.
Will project be redesigned and/or postponed until the virus risk subsides?	No, according to circumstances as of November 2022, as most project activities can be adapted to a virtual modality, such as global forums, annual programme meetings and awareness raising events.
Is it still possible to undertake social and environmental assessments in collaboration with stakeholders (e.g. restricted field visits, cancellation of household surveys, no public meetings, etc.)?	It is currently possible to implement most of the planned activities: workshops, consultations platforms, etc.
Does the spread of the virus limit the ability to monitor project risks and implementation of mitigation measures?	It is expected that COVID-19 will not limit the ability to monitor project risks or implement mitigation measures. Remote monitoring will also be considered.

#### Risks and impacts related to environment, biodiversity, climate change and disasters

Potential heightened risks to/from project due to COVID-19	Possible risk management measures and adjustments to project
Is there a risk of soil/water contamination from discarded PPE and use of disinfectants in project areas?	The risk will be very low because the project will privilege the use of locally available disinfectants and the use of soap during events hosted by the project, no project sites are envisioned within this project.
Are partner governments relaxing environmental regulations and/or enforcement in the context of their COVID-19 response?	The project does not have in-country presence.
Will impacts from the pandemic increase vulnerability to climate hazards in project areas?	No such risk, given the global knowledge management scope of the project.

#### Labor and Working Conditions/Community Health, Safety and Security

Potential heightened risks to/from project due to COVID-19	Possible risk management measures and adjustments to project
Is there a risk that project-supported workers would increase their risk of virus exposure (e.g. project labor camps, construction sites, worker housing)?	<p>Representatives of the public and private sectors will not be particularly exposed to the virus, as long as social distancing measures are applied during events hosted by the project. The project will follow all relevant guidelines related to COVID-19, including restrictions on gatherings.</p> <p>Global project will not have direct interaction with farmers in the field.</p>
Do project activities involve use and disposal of potentially contaminated PPE or other health care waste?	PPE may potentially be used during events hosted by the project if required by the hosting country. If PPE is used or disposed of as part of these meetings, best practices will be followed for safely managing waste, including assigning responsibility and resources to ensure waste is collected safely in designated containers and bags, treated, and safely disposed.
Is there a risk that use and storage of disinfectants and sanitizers may lead to health and safety risks?	No, local solutions such as soap for hand washing will be privileged during events hosted by the project
Are project activities being carried out in areas where military and security personnel are being utilized to manage the COVID-19 response (e.g. public health emergency)?	Project activities are not being carried out in areas where military and security personnel are being utilized to manage the COVID-19 response.
Is there a potential for social unrest that may threaten project-supported workers?	Social unrest due to the effects of COVID-19 is deemed unlikely at this stage.



## FARM Component 3 Joint Strategy

### Introduction

The overall goal of the Financing Agrochemical Reduction and Management (FARM) programme is to reduce and eventually eliminate the use of persistent organic pollutants (POPs) and Highly Hazardous Pesticides (HHPs), as well as promote the environmentally sound management of agriplastics in agriculture. A core element of achieving this objective is the coordinated generation, continuous management and analysis, and systematic dissemination of knowledge and tools by the global child project for target audiences.

While the FARM programme will directly support a range of key stakeholders through each of its child projects, the overall ambition is to achieve an impact that is greater than the sum of the individual child projects and which will continue to grow and mainstream the outcomes well beyond the lifespan of the FARM programme.

The agricultural sector is complex and typically influenced much more by market forces than environmental concerns. Therefore, to ensure that agrochemicals and agriplastics action initiated by the FARM programme is largely self-sustaining after the project finishes, a key objective will be to provide a clear business case to its many diverse private sector actors, financing institutions, and policymakers and regulators<sup>1</sup> that incentivises the required behaviour and operational changes<sup>2</sup> of producers and users—in line with the business reality and greater public good for women, men, and youth in communities and countries.

For this strategy, business case is defined as the justification for taking action to address harmful agrochemicals and agricultural plastics even without the support of FARM child projects. While this will often have profitability and cost effectiveness in mind given the concerns of the actors who will be essential in making these changes – from farmers to manufacturers to consumers – that is not the foundation of this approach. It is about creating a compelling justification for actors throughout all sectors to continue or start to make these improvements based on their own interests, from reducing food costs for their constituents or reducing the cost of health impacts from status quo practices to increasing the profitability of their farms or strengthening the appeal of their products to consumers.

Through this approach the global child project aims to have the activities and knowledge established through FARM continue after the programme ends. Taking a business case approach essentially means building the evidence throughout the programme to justify the continued mainstreaming FARM's objectives post-programme. The evidence needed will depend on each activity and target actor but given the importance of profitability and productivity for farmers, governments, and financial institutions, these are two areas where evidence will need to be firmly established. It is key to take into account the business reality in which agriplastics and agrochemicals end-users operate when developing both policies and financing protocols to regulate and incentivise the reduction and better management of agriplastics and harmful agrochemicals. The business case approach also considers the fact that the type of agriplastics and agrochemicals available to and used by end-users varies

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<sup>1</sup> All actors that are commercially engaged in agriculturally based product value chains, e.g. farmers, processors, business associations, retailers and commercial banks.

<sup>2</sup> Operational changes include those that related to tangible changes in technologies, machinery, materials, etc. used by farmers, food producers, chemical manufacturers, etc., whereas behaviour changes relate to, for example, how they use existing equipment/materials more efficiently, or engage in more sustainable procurement methodologies.

considerably depending on where they are situated in the overall value chain. This means any operational investments and/or changes by upstream agriplastics and agrochemicals end-users are typically dictated more by the market price buyers are willing to pay, which often does not include the negative externalities from producing the commodity such as health and environmental impacts.

For the FARM programme to achieve an upscaled and self-sustaining impact that builds upon the successes of the individual child projects, it will need to understand the interaction between the various tiers of private sector actors within the agricultural sector and specific agricultural commodity value chains, as well as the parameters and enabling conditions that guide those interactions. This will help determine what business case approach, along with the relevant knowledge, financing solutions and regulation, needs to be developed for the range of actors at the different tiers within a value chain. An example of the interaction between value chain actors spanning across geographical borders is further elaborated in Annex II that puts this into context.

Developing the business case for effective action on agrochemicals and agriplastics therefore does not mean putting profit over people or planet, rather it ensures that all the value chain private sector actors, from the farmer to the retailer to the financial institution, are equipped with a clear, adapted and above all viable business-based reason to bring about or benefit from the required change.

Importantly, the process of developing a strong business case for action on agriplastics and harmful agrochemicals by private sector actors also provides the necessary information and learnings for public sector actors<sup>3</sup> in the same value chain to develop relevant policies, financing and support programmes to help underpin the mainstreaming of the FARM outcomes. By considering the key requirements for the private and public sector actors in parallel, the global child project will be able to put in place an approach for a long-term and effective public-private collaboration for impactful action on agriplastics and harmful agrochemicals.

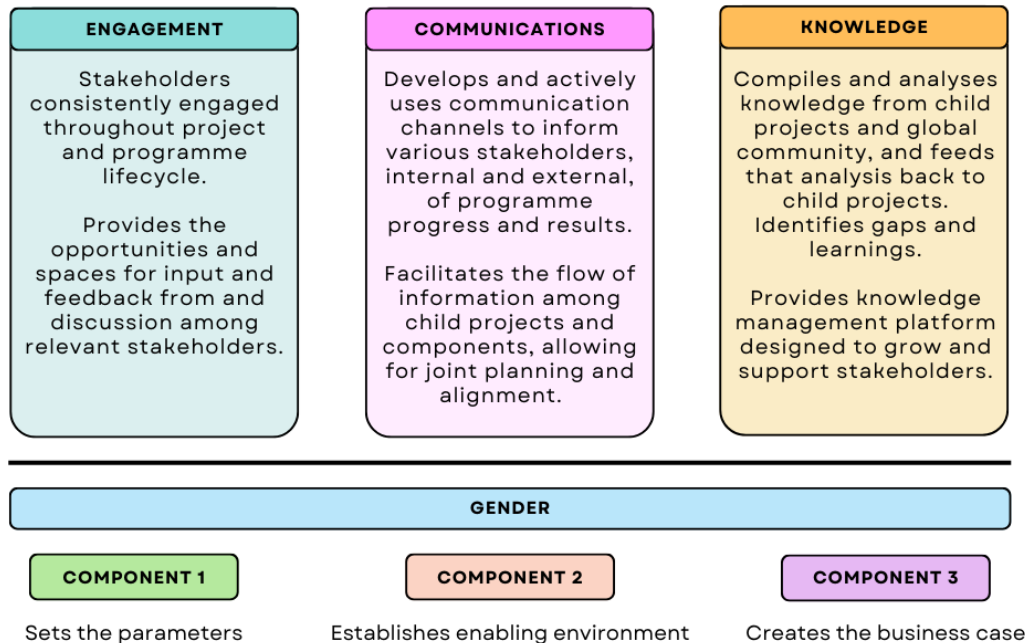
To ensure that the individual child projects have the required knowledge management support and that the overall FARM programme achieves the targeted impact during and after its lifespan through a parallel business case and public-private collaboration approach, the global child project will have three key workstreams, Stakeholder Engagement, Communications and Knowledge Management under Component 3. These three workstreams will be interlinked to provide a continuously improving feedback loop between knowledge generation, application and lessons learned.

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<sup>3</sup> All actors that are not commercially engaged in agriculturally based product value chains but are engaged with such value chains in a policy and/or support position, e.g. governments, NGOs, development organisations and development banks.

## COMPONENT 3 JOINT STRATEGY

*Creating a business case that justifies upscaling and use of FARM outcomes during and post-programme.*

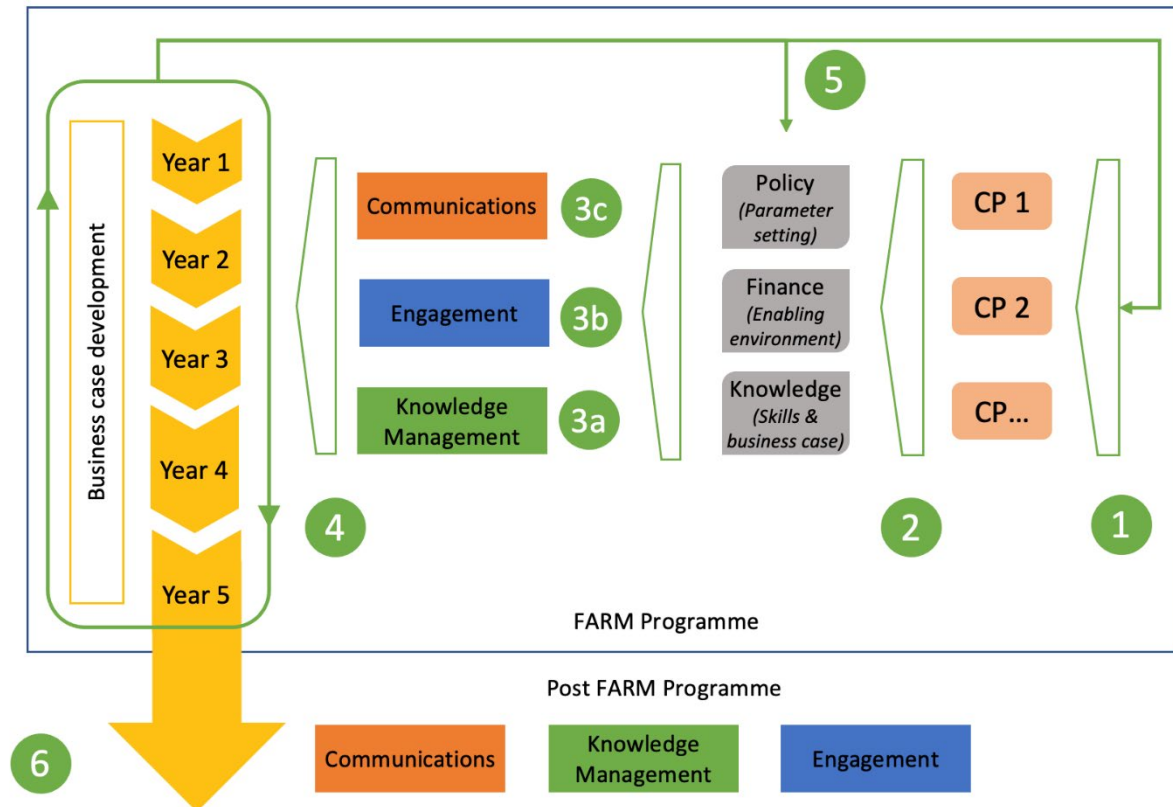


### Strategy outline

While the Stakeholder Engagement, Communications and Knowledge Management workstreams each follow a specific strategy, their key activities are interlinked to deliver a cohesive and continuously improving global project architecture. One of the key benefits of this interlinked project architecture will be a clear alignment between those stakeholders that produce knowledge products and services, provide enabling policy environment and financial supports, and those that are the end-users of the same.

Throughout the course of the FARM Programme this joint coordination will ensure that the project data and knowledge products and services from the individual FARM child projects are compiled, analyzed, and shared across all the child projects and with the wider global audience as they are produced. Knowledge products will also be shared with child projects in their interim form to encourage constructive engagement in its iteration and support their activities where possible and appropriate. This continuous generation and exchange of data, knowledge and associated lessons learned will also enable all stakeholder types to provide comprehensive feedback at regular stages to further improve the development and dissemination of the most relevant knowledge within and outside of the child projects.

Importantly, regular feedback from stakeholders will also provide the key inputs for the development of the core business case for long-term impactful action on agriplastics and harmful agrochemicals. Over the course of the FARM programme, the business case will be developed through the following continuously improving outline strategy:



*Note: The steps indicated below are laid out in sequence for descriptive purposes but the flow of information, in particular between the global child project and child projects, is effectively continuous and not restricted by time delays between steps.*

1. The global child project provides input to the child projects to support the planning of activities based on the gaps between existing knowledge and tools and identified country level needs, as well as the timelines of similar activities across the child projects.
2. Real time learnings and stakeholder feedback from individual child project activities inform the three global components about the relevance of country level piloted knowledge and tools to the typical business operations of the different value chain private sector actors engaged within each child project country.
3. The collated learnings from the individual child projects and associated insights from the global child project components are analyzed and shared on a continuous basis over the course of the FARM programme as follows:
  - a) All knowledge and tools are compared across child projects for lessons learned as well as their relevance in connecting skills improvement, adapted financing approaches and appropriate regulation.
  - b) The cross-child project analysis regularly shared with the global network of stakeholders (private and public) provides feedback on how policy, financing and knowledge support programmes will be developed and/or adapted in line with viable integration into typical business operations for maximum impact. Over the course of the FARM project, engagement will continuously expand to include ever more stakeholders well placed to build on the programmes outcomes, such as private training institutions, service providers, national banks, etc.
  - c) The regular outcomes of the cross-child project analysis and feedback from stakeholder engagement are continuously shared with an ever-growing wider audience through an active communication campaign.
4. The outputs from the overall analysis are used to develop the outline business case approach that is designed to be adaptable across the value chain private sector actors and



for different country level situations. As progressively over the course of the FARM programme more knowledge and lessons learnt are obtained from the child projects, more feedback is obtained from key stakeholders and as the intersection between policy, financing and skills improvement is better understood, the business case approach will advance and be tested out by both the child projects and the wider relevant target audience.

5. The outputs of the overall analysis in conjunction with the associated business case learnings are shared with child projects for integration into their new activities and with the finance and policy components to ensure the continued interconnectivity of their activities.
6. In the period post FARM programme, the adaptable business case for reduction of agriplastics and harmful agrochemicals will be well established for key stakeholders along the value chain in different countries and taken into account within policies and financing solutions developed through the FARM programme. The Green Grow Knowledge Partnership supported knowledge management system, engagement platforms and ongoing communication programme will remain in place and ensure the continued interaction of key stakeholders around the core established business case approach.

Developing a convincing and viable business case at the early stages of the FARM programme and then continuously improving thereafter will be crucial to achieving the scaling up of the learning and application of solutions from every child project to a wider group of countries, agroecological systems, and value chains. Orientating activities around a clear business case will provide the incentive for both the end-user stakeholders and those that support and regulate them to engage voluntarily over the longer-term in pollution reduction measures.

To be able to deliver such a business case that will ensure both the impact of the programme being more than the sum of the individual child projects and the outcomes being continuously upscaled after the lifespan of the programme, the strategies of the individual workstreams will have a focus on the following key interlinked activities:

**Engagement:**

- Providing the networking environment and community spaces through which practical alignment between the different stakeholders that contribute to, produce and use knowledge across the complete value chain can be established.
- Facilitating internal FARM coordination meetings to ensure smooth flow of information among child projects and between project components.

**Communications:**

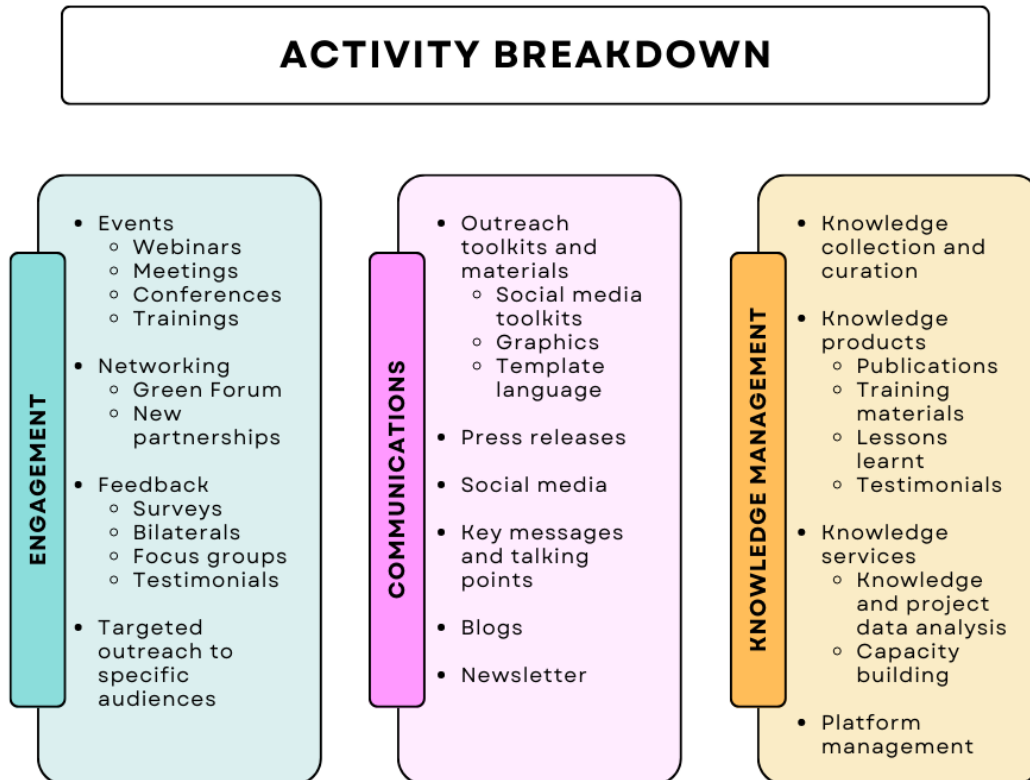
- Developing and actively using dedicated communication formats and channels tailored to specific audience and knowledge types that both build awareness amongst stakeholders along the complete value chain and incentivise market leaders into action.
- Establishing informal communications channels and consistent formal updates to keep FARM organizers looped into each other's work and the most relevant news.

**Knowledge Management:**

- Compiling and analyzing knowledge on a regular basis as it is produced by child projects and the global community to ensure that new knowledge planning and production is based on up-to-date stakeholder needs and associated existing knowledge gaps and learnings.
- Supporting child projects with data collection, analysis and management processes and carrying out subsequent global data analyses to provide additional insights to the individual child projects and inform the development of the core business case.

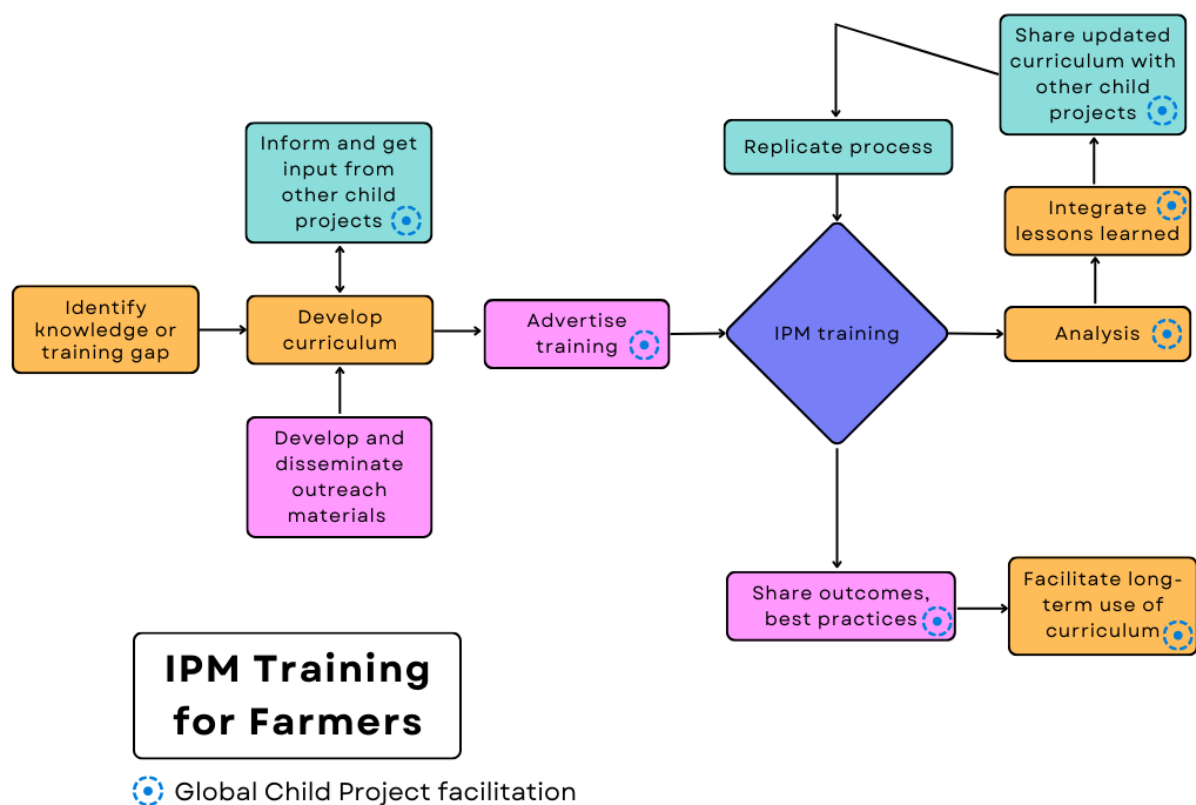
- Providing knowledge management platforms that are designed to grow and support the different types of stakeholders in a coordinated fashion well beyond the lifespan of the FARM programme.

Delineating responsibility among these workstreams can be difficult given how much they overlap, however, below is a simplified and adaptable breakdown of the activities each workstream will be leading on. This is by no means a comprehensive list.



To ensure the success of the FARM Programme, these three workstreams will work together to coordinate among each other and the other child projects. A consistent flow of information among child projects and a unified approach will allow child projects to build off of each other's work, actively engage with each other, and scale their outputs.

*An example of what the process looks like, simplified:*



*Orange is knowledge management. Pink is communications. Blue is stakeholder engagement.*

In addition to annual FARM programme meetings, the coordination team will set up periodic check-ins and establish informal communication channels.

The GCP aims to support CPs 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 CPs include but are not limited to the following and will be updated as needed during the implementation:

- Pesticide and biopesticide registration process
- Reduction of HHPs
- EPR schemes
- Cost benefit analysis and benefits of alternatives for chemicals and agriplastics
- Sustainable management of agriplastic waste in the supply chains, from farms to recycling facilities (including tracking agri-plastics)
- Political will for taxing HHPs/POPs
- Political will for shifting subsidies
- Cost comparison of shifting practices
- Agricultural subsidy schemes
- European double standards
- Pesticide residue management
- Linking industry and finance

Find more details in the individual strategies for stakeholder engagement (CEO ER – Appendix 8), knowledge management (CEO ER – Appendix 9), and communications (CEO ER – Appendix 10).

## Annex I. Component 3 Activities

Component 3. Value chains and public demand			
Outcome 3	Outcome indicators	Targets	
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.	No. of value chain actors and knowledge providers engaged in sharing knowledge.	10 value chains actors (30% by end-2025)	
	No. of individuals accessing the FARM website, knowledge products, links and communications materials disseminated and online	5,000 individuals (Disaggregated by gender) (30% by end-2025)	
Output	Output indicators	Target	Activities
<u>Output 3.1</u> FARM and FARM-related knowledge is curated and disseminated for global public access under the FARM brand.	No. of public information materials and communications produced on the basis of FARM and FARM-related knowledge products.	10 public information materials (30% by end-2025)	1) Ensure all communications, engagement, and FARM knowledge adhere to the global brand identity. 2) Create and launch a FARM website as a repository of Programme related knowledge and a means for knowledge management 3) Collect, analyse and curate knowledge products for the FARM website for target stakeholders 4) Develop communication materials based on child project activities and results and most relevant global knowledge. 5) Manage coordination among child projects to facilitate knowledge exchange and sharing
	No. of FARM and FARM-related knowledge products curated and made publicly available.	100 knowledge products (30% by end-2025)	
<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.	3 partnerships established at global or regional levels (30% by end-2025)	1) Scope and identity potential value chain actors to approach. 2) Create and manage Green Forum group, including communities of practice hosted within the group. 3) Create and execute awareness and/or advocacy campaigns in partnership with value chain actors.
	No. of FARM Biennial Forums held.	2 Biennial Forums, one in Asia and one in Latin America (30% by end-2025)	

	No. of participants at FARM Biennial Forums.	200 participants (Disaggregated by gender) (30% by end-2025)	<p>4) Organize and execute 1 hybrid Biennial Forum in Asia, bringing together FARM partners and stakeholders, and disseminate event report and communication materials.</p> <p>5) Organize and execute 1 hybrid Biennial Forum in Latin America, bringing together FARM partners and stakeholders, and disseminate event report and communication materials.</p>
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## Annex II. Example of interaction between value chain actors

**The agricultural food product actors:** A large retailer procures from many of the large multinational food brands and a wide variety of smaller national and local brands. The food brands either process their own final food products or procure from external food processing companies. The food processing companies procure their food product ingredients through a variety of suppliers ranging from those that clean and cut raw agricultural products to those that carry out extensive raw agricultural product processing. These suppliers in turn procure directly from individual farmers, small and large, and farming cooperatives. The farmers procure agriplastics and agrochemicals from a variety of sources, ranging from local hardware stores to large suppliers, depending primarily on their size.

**The supporting and regulatory actors:** Commercial banks, governments, development organisations and banks, and NGOS, amongst others, engage individually and/or collaboratively with any one or more of the above actors at one or more different tiers within the value chain and within one or more of its geographical locations.

Each of the agricultural food product actors is typically competing with others within their value chain tier and as a result typically puts time and price pressure on their suppliers accordingly. Without a clear top-down requirement to improve the environmental impact of final food products, few of these actors will see the commercial benefit to require/incentivise reduction of agriplastics and harmful agrochemicals. Therefore, a business case approach needs to be taken whereby each tier of actors is provided with the relevant commercial reason and tailored selection of knowledge and financing solutions that will ensure they systematically pass on the requirement/incentive down through value chain tiers to reduce agriplastics and harmful agrochemicals at the farmer level.

The commercial reason typically starts at consumer and retail level, but also often at the level of major food brands and is generally driven by a mix of consumer environmental awareness, corporate image building and regulation. However, to maintain this commercial reason down through the value chain tiers requires extensive stakeholder engagement to develop fair and adapted sustainability procurement criteria that are in line with available knowledge and financial support to assist suppliers at the various tiers to comply without negative impact on their business.

The development of fair and adapted sustainability procurement criteria along with adapted knowledge, financing solutions and regulation to ensure effective and simplified compliance at each different value chain tier and across geographical borders requires clear coordination amongst and by the supporting and regulatory actors.

# FARM Global Child Project Stakeholder Engagement Strategy

## 1. 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.

## 2. 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.

## 3. Classification of Stakeholder Groups

### 3.1. 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.

### 3.2. 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;	High – Critical to provide financial guidance and tools to support the transition to more sustainable agriculture

		Align with relevant frameworks for the reduction and sound management of pesticides and agri-plastics	
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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;	Tap into agricultural value chain networks; Connect through sustainability, corporate social responsibility units;

		Informal business is challenging to engage with due to their size and structure	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

## 4. 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
<b>FARM IAs and EAs</b>			
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
<b>International organisations</b>			
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	Consulted during PFD and PPG	Knowledge producer and influencer (Component 1 – Output 1.1, 1.2; Component 2 – Output	Knowledge exchange, capacity building, technical cooperation and consultations at global level, participation in HHP discussion

Management (SAICM) Secretariat		2.1, 2.2; Component 3 - Output 3.1)	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
<b>Regional organizations</b>			
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
<b>Academic and research institute</b>			
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;	Collaborated research, publications, and training on pesticide use and pesticide safety behavior.

		Component 3 – Output 3.1)	
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.
<b>Non-profit and non-governmental organizations</b>			
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.
<b>Government entities</b>			
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.
<b>Financial institutions (public)</b>			
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
<b>Financial institutions (private)</b>			
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
<b>Private sector and agricultural value chain actors</b>			
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

<b>Pesticide manufacturers</b> e.g. Croplife International, Hindustan Insecticides Limited (HIL)	Engaged by child projects <ul style="list-style-type: none"> <li>• Croplife International – ADB, FAO</li> <li>• HIL - UNIDO</li> </ul>		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).
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## 5. Process of Stakeholder Engagement

### 5.1. 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 <ul style="list-style-type: none"> <li>• 1<sup>st</sup> meeting : focus on first results of child</li> </ul>

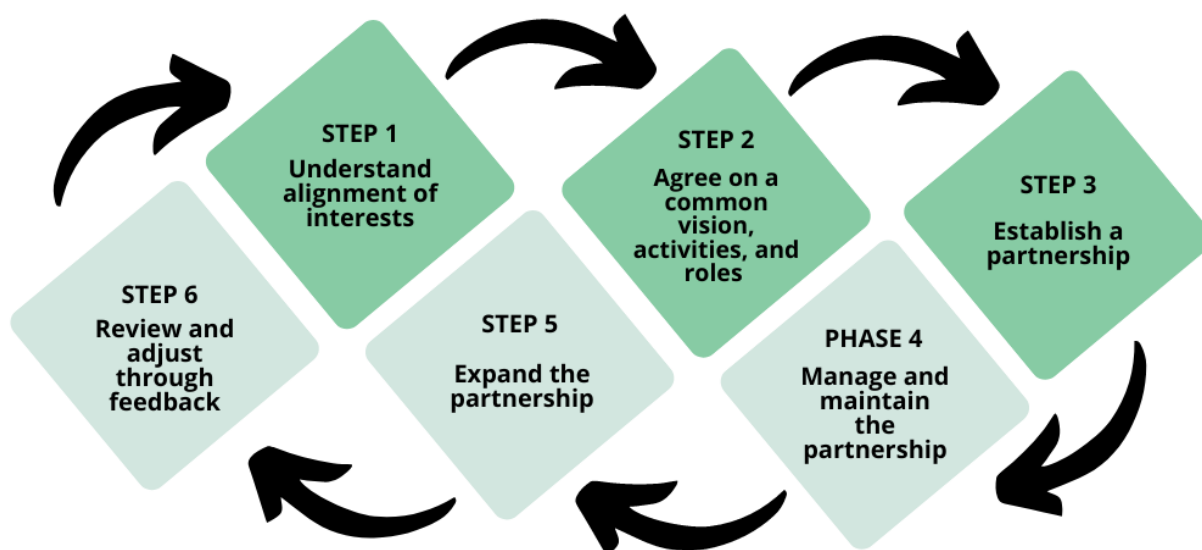


			projects across the program <ul style="list-style-type: none"> <li>• 2<sup>nd</sup> meeting : key success and next steps</li> </ul>
Thematic Working Group Meeting	Regular (quarterly), online and informal	Thematic focal points from child projects	Cross-cutting areas: Knowledge Management, Communication, 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

## 5.2. 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



### 5.3. 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.

## 6. 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

## 7. 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](mailto: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.

## Appendix 8: FARM Global Child Project Knowledge Management Strategy

In line with the Financing Agrochemical Reduction and Management (FARM) Component 3 Joint Strategy (Appendix 10), the FARM global child project Knowledge Management (KM) Strategy outlines the vision, goals, method and actions of FARM knowledge management to be executed by the Green Growth Knowledge Partnership (GGKP).

### 1. Vision

The overall aim of knowledge management (KM) for 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 and upscaling of FARM best practices, in line with the programme's objective to ensure an impact that is greater than the sum of the individual child projects.

To do so, the FARM KM workstream will ensure that key stakeholders including farmers, regulators, policy makers, NGOs, development partners, researchers, value chain companies (including, amongst others, chemical, pesticides and plastic manufacturers, food processors and retailers), private sector associations and financial practitioners (including microfinance organisations, public and commercial banks) have easy access to best practices and knowledge generated from the FARM programme, as well as from outside the FARM programme at national, regional and global levels.

### 2. Goals

To achieve the vision stated above, the FARM global child project aims to attain two high level goals described below.

**With FARM child projects**, the global knowledge management 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 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. This is to ensure consistency of the message in knowledge products and services and to synergise knowledge production by FARM countries by adapting any best practice knowledge/services from an individual child project to other child projects or by avoiding any duplicated or siloed effort. This will also help build upon lessons learned within the different child projects and take into account existing best practices from outside the FARM programme.

The KM workstream will in particular focus on ensuring that best practices and lessons learned within each child project are prepared and the access to the knowledge repositied in the FARM knowledge management system will be maintained for long-term replication within the specific countries during and post the FARM programme. In addition, the KM workstream will focus on evaluating best practices and lessons learnt

within an individual child project against relevance to other child projects to avoid any duplication and to take the opportunity to adapt best practice between child projects.

Prioritized knowledge needs among child projects include, but are not limited to, management of pesticides, reduction of harmful chemical use including highly hazardous pesticides (HHPs) and persistent organic pollutant (POPs) and their registration, agriplastics alternatives, biopesticide registration processes, integrated pesticide management (IPM), sustainable agriculture practices and agroecological production, financial mechanisms for sustainable agriculture, and government subsidy design to promote the use of alternative pest control measures (See Section 4 for more information).

- For this, the GGKP will collect, analyse and synthesis 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 KM workstream 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 of the FARM knowledge in non-FARM countries at global level.

- To do so, the GGKP will work on a knowledge management process that includes knowledge collection, analysis, curation and synthesis throughout the project cycle and involves stakeholders beyond FARM to scale up the impact of the programme. The target stakeholder groups for this upscaling are elaborated in the FARM Global Child Project Stakeholder Engagement Strategy (Appendix 7).
- The global KM workstream will provide an environment for the coordinated generation, continuous management and analysis, and systematic dissemination of knowledge and services for target audiences by working closely with the communications and stakeholder engagement workstreams of the global project making the best use of GGKP's available state of art online knowledge management system.

To achieve these goals, the FARM global child project will work to:

- ✓ Provide a global central point for all knowledge management within FARM by tracking, compiling, tagging, curating, analysing and actively disseminating knowledge and associated data for its use by target stakeholder groups including those from child projects and those from non-FARM countries at regional and global levels.
- ✓ Establish the online FARM knowledge management system (KMS). This will be done by building upon GGKP's existing online knowledge management infrastructure to provide an interconnected tailored KMS solution for FARM. In turn, the process will enable the FARM knowledge to be available, accessible, and disseminated beyond the FARM programme period. 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.
- ✓ Organize a virtual and/or hybrid format of knowledge sharing event such as knowledge fairs and knowledge cafés to ensure that knowledge is shared and managed internally within the

FARM programme as well as externally, therefore also including stakeholders from non-FARM countries.

- ✓ Develop a clear business case that incentivizes the required behaviour and operational changes of the diverse stakeholders to grow and mainstream the FARM outcomes beyond the programme cycle with the coordinated manner with stakeholder engagement and communications as described in the Component 3 Joint Strategy (Appendix 10).

GGKP's neutral knowledge management and sharing platforms can embrace a diverse range of actors of the programme such as policy makers and green growth practitioners through its policy platform, financiers and investors through its finance platform and finally value chain actors and small and medium enterprises in the agriculture sector through its industry platform. Furthermore, these online knowledge platforms can also provide a neutral and inclusive online knowledge space across this diverse range of actors mentioned above and help stimulate discussions on topics of FARM focus areas by sharing a wide range of research results and knowledge from existing projects or initiatives. Virtual discussion is encouraged at online groups under 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 Section 4.) from different stakeholders which are related to agriculture and could be relevant to FARM.

### 3. Definition and value of knowledge management and knowledge management system

This FARM knowledge management strategy defines key terms as follows:

**Knowledge** is defined as the understanding of a subject, or within GEF, the experience and lessons learned related to GEF projects and programs<sup>1</sup>. According to this definition, in the FARM programme knowledge is taken to cover (1) **knowledge products** which are outputs such as databases, publications (e.g. technical reports, brochures, guidance documents, guidelines, case studies, research, training manuals, etc.), visual material (e.g. videos, media cards, graphical supports, etc.), tools and maps, and (2) **knowledge services** which are outcomes such as awareness raising, information sharing, communications, and capacity building efforts. The FARM knowledge management framework elaborated in the following section promotes the generation and development of both types of knowledge by enhancing knowledge exchange and collaboration among the child projects.

**Project data** refers to the information that is used to develop knowledge products and services by the FARM child projects. For instance, a case study that might outline the quantities of highly hazardous pesticides (HHPs) used by a group of farmers before and after a targeted training provided by a child project would be based on measuring the quantities of HHPs used before and after the training. In this case, project data

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<sup>1</sup> 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](https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.48.07.Rev_.01_KM_Approach_Paper.pdf))

would include the quantities of HHPs used, the information on the crop types, seasonal and climate information, etc.

In GEF, **Knowledge management (KM)** is defined as the systematic processes, or range of practices, used by organizations to identify, capture, store, create, update, represent, and distribute knowledge for use, awareness, and learning across and beyond the organization. Following this, in the FARM programme KM is to track, compile, tag, curate, analysis and disseminate knowledge and lessons learned from child project countries in order to ensure that learning strengthens each national programme and generates lessons for other countries and stakeholders in the region and beyond. This would include activities that mine repositories for hidden knowledge within and outside the child project countries.

In line with the GEF definition<sup>2</sup>, the FARM programme defines a **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 KM process. The KMS is designed for both internal programme use and external public use.

Knowledge generated from each child project country can provide learning opportunities for other countries under the FARM programme as well as neighbouring countries in each region. With knowledge consistently collected and curated, child projects can synthesize and compare their knowledge with other countries and quickly learn from each other. This learning process and knowledge application by wider stakeholder groups at the global level will also help ensure achieving the goals of the FARM programme.

## 4. Knowledge management baseline analysis and knowledge needs

### 4.1. Baseline analysis: Knowledge Management Platform

An initial analysis on knowledge management platforms was conducted to set a baseline of the principal actors currently managing knowledge on FARM focus areas: the use of pesticides and agricultural plastics, as well as low/no chemical and sustainable agriculture more broadly. With the definition of the knowledge management system (KMS) as referred in the section 3, total 24 platforms were analysed (Table 1). These include but are not limited to platforms or websites of intergovernmental organisations and agencies (IO), NGOs, and public-private partnerships (PPP), research institutions that are generating or collecting knowledge assets on these topics.

The FARM programme encompasses a wide range of sectors such as agriculture, finance, food value chains, chemicals, plastics, and waste management. Consequently, there are many institutions that engage in thought leadership, knowledge management and lobbying. They vary widely in size, area of interest, objectives and intended audience. There are global level online platforms for the fields such as sustainable agriculture, climate smart agriculture, biodiversity conservation, sustainable land management which are related to agriculture and could be relevant to FARM. Other platforms focus on chemicals and plastics; however, they address the issues from a general perspective and are only indirectly of relevance to FARM.

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 (IPFRI), FAO's resources on pest and pesticide management and SAICM have a

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<sup>2</sup> Ibid.

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:

- 1) Resources are not easily searchable, limited in quantity, not under the category of knowledge or not curated but stored as "database".
- 2) 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.
- 3) 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.
- 4) Regional scopes of certain platforms are limited to specific country or regions such as North America, EU countries.

*Table 1. Current platforms related to FARM focus areas*

Platform/ Website	Main Organization	Analysis related to KMS capability
<a href="#">UNEP</a>	UN	UNEP features a chemicals and pollution action topic. However, the agriculture topic is not highlighted and not easy searchable on the menu. Strong focus on biodiversity, ecosystem, and climate change, does not include projects and programmes specific content. This is not a knowledge management system (KMS).
<a href="#">UNDP Green Commodities Program</a>	UN	The UNDP Green Commodities Program features a portfolio of tools targeting policymakers, civil society, and private sector actors, aiming to strengthen national farmer support systems. The tools focus on sustainable commodity production. While the program focuses on learning, it carries this out through direct instruction and events, rather than knowledge management, and does not archive these learning activities; the library is limited in size. This is not a KMS.
<a href="#">FAO</a>	FAO	FAO hosts a sizeable library on sustainable food and agriculture, including resources on creating sustainable food systems. In addition to the FAO page, there is the Farmers' and Rural Producers' Organizations Mapping (FO-MAPP) online database that provides geo-referenced information on local smallholders', family farmers' and other rural producers' organizations. Yet it does not have space for agriculture chemicals and waste, third party links. This is not a KMS.
<a href="#">Pest and Pesticide Management</a>	FAO	While the FAO official website is difficult to be considered as a KMS for FARM related topics as indicated above, this specific site on pest and pesticide management houses over 70 knowledge products which can make synergies with FARM knowledge products and feed into the FARM KMS. In addition to knowledge products on the thematic area, the site presents the definitions



		and FAO's approaches on FARM related topics such as IPM as well as pesticide risk reduction.
<a href="#">WHO</a>	WHO	The WHO knowledge library includes a short section on agrochemicals. However, the resources are out of date and focus primarily on the health outcomes of agrochemical use. This is not a KMS.
<a href="#">BioProtection Portal</a>	Centre for Agriculture and Biosciences International (CABI)	The database aims to create, curate, and disseminate scientific knowledge. facilitates the identification, sourcing, and application of more environmentally friendly, cost-effective, and sustainable biological control products in the global fights against agricultural pests and diseases.
<a href="#">Pesticide Action Network (PAN)</a>	Pesticide Action Network (PAN)	The PAN project page shares some resources on limiting dangerous uses of pesticides by corporations. The page features conventions, position papers, and advocacy work with the focus on the North America. However, it is limited in scope and provides no targeted resources on better use of agrochemicals. This is not a KMS.
The GEF Food Systems, Land Use and Restoration (FOLUR) Impact Program ( <a href="#">Global Platform</a> )	World Bank	This aims to promote sustainable integrated landscapes and efficient food value chains at scale, focusing on greenhouse gas emissions and deforestation and land use. It sets out to encourage transformation to environmentally sustainable production and practice through two main elements- a Global Knowledge to Action Platform Project and Country Projects designed to tackle the dual challenges of achieving a global food system built on sustainable land use practices and productive, healthy landscapes, using both top-down and bottom-up strategies.
<a href="#">GEF</a>	GEF	The GEF website features GEF projects focusing on reducing agricultural dependency, including some stories featured. Users can see all GEF projects implemented globally, with high-level type of information. The website's "project database" section does not allow to host knowledge products developed by specific projects/programmes. This is not a KMS.
<a href="#">OECD</a>	OECD	The OECD has dedicated topic page on Agriculture and fisheries with many subtopics including resources on biological pesticides, sustainable agriculture, and food systems. It is easy to navigate through resources by using search function or selecting sub-topic. The page also provides links to national sites of <a href="#">pesticides</a> . Existing knowledge is targeted to policymakers and regulators and does not offer substantial guidance for farmers.
<a href="#">Development Alternatives</a>	Development Alternatives Group	The Development Alternatives platform features a subsection on sustainable agriculture, which houses reports from the organisation's work with Indian farmers. These resources focus on building sustainable food systems in the Indian context. The number of resources is very limited. This is not a KMS.
<a href="#">Good Food Finance Network (GFFN)</a>	Good Food Finance Network	The GFFN features some research and news from its network and partners. The resources focus on food-related finance, the health of natural systems, and sustainable development imperatives. The resources do not directly treat agrochemicals. This is not a KMS, it is project platform for the community.

<a href="#">Just Rural Transition</a>	Meridian Institute	The JRT platform features both a case study library and Knowledge Hub. The case studies primarily focus on financial interventions and are not necessarily targeted at a particular scale of farmers; they are very limited in number. The Knowledge Hub features around 75 reports and technical notes by JRT's knowledge partners, which focus on a range of topics, including sustainable food systems and agricultural finance. The Hub can be filtered by category, but not by any other criteria, does not offer a search function. This is not a KMS.
<a href="#">Food and Land Use Coalition</a> (FOLU)	FOLU	The FOLU platform features a case study library and a Knowledge Hub. The case study library is very limited and focuses on corporate social responsibility programmes. The Knowledge Hub houses 70+ reports and policy briefs by FOLU and knowledge partners. The Knowledge Hub is not searchable. The resources cover sustainable food systems and land use, but with no specific coverage of chemicals. This is not a KMS.
<a href="#">WRI</a>	WRI	WRI hosts an extensive library of over 5,600 resources, mostly comprised of research and insight papers. The library is easily searchable and well-categorised by type of resource, region, and tag. There are over 50 resources that touch on pesticides and there is a featured "Food" category, but no category tag for agrochemicals or pesticides. Also presents contacts details of the experts.
<a href="#">Syngenta Foundation for Sustainable Agriculture</a>	Syngenta	The Syngenta Foundation for Sustainable Agriculture platform hosts a resource library that targets farmers, especially smallholders. The library has dedicated topic spaces for sustainable intensification, biodiversity and resource use, and smallholder risk management, each of which touch on agrochemicals, but none of which list any resources. Their publications are limited to foundation performance reports.
<a href="#">CGIAR</a>	CGIAR	Consultative Group for International Agricultural Research (CGIAR) gathers resources from its research centres. The library is easily searchable and includes 40+ resources on fertilizers and agrochemical subsidies. It has a user-friendly search function and filtering by organization and theme. However, there is no dedicated space for agrochemicals.
<a href="#">International Food Policy Research Institute</a>	CGIAR	The International Food Policy Research Institute hosts an extensive resource library of over 18,000 resources. The library focuses primarily on food security and production but has over 600 resources on agrochemicals and fertilisers, mainly comprised of journal articles, discussion papers, and book chapters. The library is well-categorised and easily searchable but lacks a dedicated space for agrochemicals.
<a href="#">The alliance of Biodiversity International and CIAT</a>	CGIAR	CIAT focuses on scientific evidence, management practices and policy options to use and safeguard agricultural biodiversity to attain global food and nutrition security. CIAT hosts a large library of publications, data, and tools covering these issues, including an extensive number of resources on fertilisers and pesticides, though with no explicit focus on reducing agrochemical use. The

		library is easily searchable, but does not include a dedicated tag, category, or space for agrochemicals.
<a href="#">International Panel of Experts on Sustainable Food Systems</a>	IPES-Food	The IPES Food Systems platform features a well-organised library featuring high-quality reports on sustainable food systems. The library is primarily targeted at policymakers (both national and in IGOs) and regulators. The library is not searchable, but presents Agribusiness topic on the main menu. There is no specific focus on agrochemicals. This is not a KMS.
<a href="#">Strategic Approach to International Chemicals Management (SAICM)</a>	UNEP	SAICM hosts a large resource library focusing on chemical management, and with a dedicated program on Highly Hazardous Pesticides. The library is mainly comprised of articles, reports, and briefs. It offers a search function, but no further categorization by type of topic. The resources included are broadly targeted at policymakers. The number of resources focusing on agrochemicals is limited.
<a href="#">Agrinatura</a>	Agrinatura	Agrinatura hosts a modest library of studies and reports focusing on food systems and development from European universities and research organizations. It shares examples of ongoing and past projects with links of external partners. There is no dedicated space for or focus on agrochemicals. It is not a KMS.
<a href="#">CropLife International</a>	CropLife International	CropLife hosts a mid-sized library of its own case studies and third-party resources on pesticides, with particularly large focus on anti-counterfeiting efforts, pollinators, regulatory frameworks, and environmental stewardship. The resources are targeted to farmers and policymakers; their focus is not on reducing agrochemical use. It is not a KMS.
<a href="#">IFOAM Organics International</a>	IFOAM	The International Federation of Organic Agriculture Movements (IFOAM - Organics International) brings together 800 organisations in the organic agriculture movement. It hosts a modest library of publications elucidating organic systems and markets. The library is well-functioning, easily searchable, and includes a tag for pesticides, but ultimately collects very few resources on agrochemicals.

#### 4.2. Knowledge Needs: knowledge products and services

The global child project identified knowledge needs especially in relation to key knowledge products and services to be generated around the programme outputs and components by child projects. As mentioned above, priority knowledge areas for the FARM programme are: pesticide management, reduction of harmful chemical use including highly hazardous pesticides (HHPs) and persistent organic pollutant (POPs) and their registration, agriplastics alternatives, biopesticide registration processes, integrated pesticide management (IPM), sustainable agriculture practices and agroecological production, financial mechanisms for sustainable agriculture, and government subsidy design to promote the use of alternative pest control measures. In terms of needs on knowledge management and sharing, through the thematic group coordination during the PPG phase, 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 2. 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

The knowledge will be materialized in the form of knowledge products including technical reports, economic valuation studies, normative documents on guidelines on registration and enforcement and legislative framework, training manuals, project reports, project communication materials such as press

release, news article, factsheets, and infographics. Equally, these knowledge products, together with already existing relevant knowledge such as FAO pesticide registration manual and pesticide code of conduct, will be promoted and disseminated through training, awareness raising, information sharing and capacity building activities.

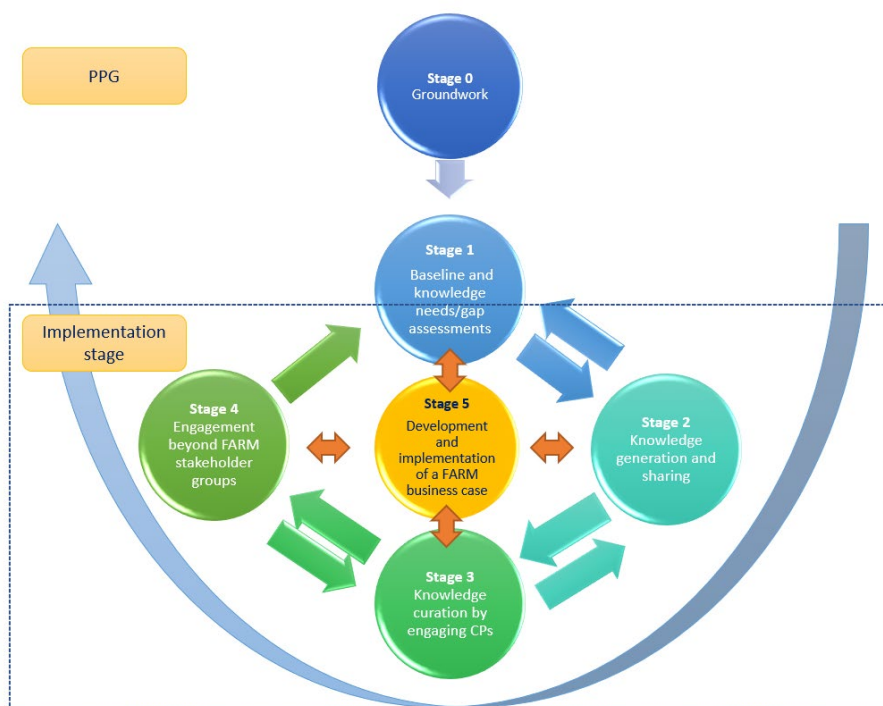
Through consultations with child project focal points, it was identified that knowledge curation and internal knowledge sharing between child projects and stakeholder engagement beyond the FARM programme were identified as key knowledge management needs. These in turn form the foundation of the FARM knowledge management approach and action plan elaborated in the following sections.

## 5. FARM Knowledge Management Approach

As indicated in Figure 1, the FARM global child project knowledge management takes a step-by-step approach to elucidate what kind of actions are required by the global child project to support the child projects and engage with non-FARM stakeholders during the FARM programme. This approach also includes the development of a viable business case to ensure that the programme's outcomes continue to be mainstreamed beyond its lifespan (Stage 5).

This KM approach also outlines what actions are required by the child projects to ensure the most effective and timely exchange both between child projects themselves and between child projects and the global child project. To reflect knowledge needs, status and possible analyses in real time, this approach forms a continuously improving feedback loop. This will ensure that as knowledge is produced and applied within individual child projects, feedback from stakeholders and from the different child projects can be easily integrated into new iterations and/or for timely replication by other child projects.

This section highlights key elements of each step and the detailed actions are further described in the next section.



*Figure 1. FARM Global Child Project Knowledge Management Approach*

**Stage 0 - Groundwork:** Developing a clear understanding of the types of knowledge target audiences and what type of knowledge products and services would be most relevant to their needs in order to develop an adapted knowledge management system to support the overall framework. Although shown as outside of the main feedback loop, this stage can be considered as the foundation of the global child project that is constantly upgraded to meet the evolving needs of the child projects and all stakeholders.

**Stage 1 - Baseline and knowledge needs/gap assessments:** Based on the understanding of the knowledge products and needs to develop an KMS, a global baseline of knowledge beyond the FARM programme is to be set at the PPG period. With inputs from child projects such as knowledge management plans, knowledge gaps and target audience need will be further identified. The process is iterative throughout the programme cycle by feeding in programme outputs and knowledge inputs from child projects. This stage is also to take stock of existing knowledge on FARM focus areas such as IPM, reduction of the use of highly hazardous pesticides and registration of biopesticides.

**Stage 2 - Knowledge generation and sharing:** As soon as child projects start knowledge generation through their country implementation, the global child project supports the design of knowledge and project data collection frameworks which can be used throughout child projects for similar knowledge products. The knowledge and data collection framework will help promote experience exchanges such as data collection and knowledge generation processes between child projects. Once knowledge products and services are ready to be shared in a publishable form, they are uploaded on the online FARM KMS which enables a real-time update for further knowledge sharing, curation and analysis.

**Stage 3 - Knowledge curation by engaging child projects:** With knowledge inputs from child projects and activities to be fully implemented in the seven FARM countries, the global child project continues to collect and share knowledge between child projects and countries outside the FARM programme. At this stage, the global child project analyses and synthesises the shared knowledge and related project data from child projects. This knowledge analysis is to help child projects' knowledge generation process by avoiding unnecessary duplication and adapting best practices from one child project to others. Any key knowledge input by other key stakeholders identified by the stakeholder engagement workstream may be included. The synthesized results will be used for knowledge curation and engagement with key stakeholders. Any feedback received from child projects and their key stakeholders is going to be fed back into the current and previous stages for more targeted knowledge generation, curation and sharing processes.

**Stage 4 - Engagement beyond FARM stakeholder groups:** Based on the feedback and knowledge management process through the iterative feedback loop in the previous stages, the global child project engages wider stakeholder/knowledge user groups by sharing FARM knowledge generated by child projects and curates it for their needs. Like Stage 3, feedback on the use and application of FARM knowledge from the wider stakeholder groups beyond the programme is to be reflected in the on-going knowledge management, collection, curation and analysis process of the global project using GGKP's state-of-art knowledge management system and platform.

**Stage 5 - Development and implementation of a FARM business case:** Empirical knowledge from the previous stages such as inputs, experiences and lessons learnt feeds into formulating and developing a clear FARM business case. As elaborated in the Component 3 Joint Strategy (Appendix 10), a FARM business case will ensure that FARM knowledge continues to be used and applied by actors and countries beyond the

lifespan of the FARM programme by taking into account the business reality in agricultural value chain actors operate in both the development of policies and financing protocols. To 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 ensures this process during and beyond the programme duration.

## 6. Action plan

### Action 1: Develop and maintain FARM Knowledge Management System (KMS)

This action will focus on developing an online KMS to support each of the child projects individually as well as to provide the main platform through which knowledge will be stored and disseminated and to support stakeholder engagement with available and curated knowledge. The KMS will consist of a collection of online databases and community spaces and will be developed in two phases, firstly an initial version rapidly provided through GGKP's existing standard services, followed by a long-term version especially designed to meet the specific needs of each child project and to ensure a clear connection to key stakeholders within and outside the programme.

A clear understanding of the types of knowledge target audiences and those of knowledge products and services should precede for GGKP to develop an adapted knowledge management system in a most relevant form.

#### Timeline:

- **0 - 6 months:** Definition of knowledge and associated target audience types, initiation of the FARM knowledge database development, establishment of a FARM initiative page and FARM community space
- **3 – 12 months:** Development of a standalone FARM website supported by GGKP knowledge infrastructure and internal FARM project management community spaces in English and other languages such as Spanish using automatic translation or google widget based on machine learning
- **0 – 5 years:** Maintenance and updating of FARM KMS

#### Key deliverables:

- KMS framework structure developed with definition of target audience and most applicable knowledge types
- FARM online knowledge management platform developed and maintained in a form of GGKP initiative page with FARM branding and associated knowledge database adapted to existing knowledge and planned knowledge from the child projects
- FARM community spaces built for finance community of practice, project management and stakeholder engagement under one FARM green forum group and associated training to child project teams delivered

### Action 2: Assess knowledge baseline, needs and gap

This action will focus on identifying FARM knowledge gaps and bridging the gaps by setting the knowledge baseline and needs, then assessing and updating the related FARM knowledge gaps. This will be done by collecting existing knowledge on agrochemicals and agriplastics and financing tools for farmers using

agrochemicals and agriplastics and engaging with child projects for their knowledge generation plans. The knowledge needs and associated gaps will be identified at global and regional level, starting with FARM country regions, and then expanding to other non-FARM country regions toward the second half of the programme period. Based on the knowledge baseline and identified needs, a systematic tagging structure will be developed for an efficient and effective knowledge search function to support widespread dissemination (Actions 3-6).

Timeline:

- **0 - 6 months:** Collection of existing knowledge on harmful pesticides and agriplastics management and reduction and financing tools and mechanisms, if available, as well as planned knowledge from each child project
- **3 – 12 months:** Update of knowledge baseline, needs and gaps based on research by the global project, input by child projects and development of data collection framework for child project knowledge products and services
- **0 – 5 years:** Update of knowledge needs and gaps each year and continuation of knowledge collection from stakeholders beyond FARM

Key deliverables:

- FARM knowledge baseline needs identified at the beginning of the implementation phase
- Knowledge management roadmap at the global level developed with a timeframe to meet the identified knowledge needs and gaps
- Systematic tagging structure developed for the FARM online KMS based on knowledge needs and gap assessments
- Knowledge needs and gaps identified and updated for each target region of the FARM programme, i.e., East Africa (Kenya), South America (Ecuador and Uruguay), South Asia (India), Southeast Asia (Laos, Philippines, Viet Nam)
- Database of FARM relevant knowledge from stakeholders beyond the programme developed to store and link their knowledge in the FARM online KMS

**Action 3: Generate and share FARM knowledge**

This action will primarily focus on supporting the knowledge generation activities of child projects by providing opportunities and platforms for active knowledge exchange and sharing. Based on Action 2, the global project will identify where child projects can collaborate and make synergies (e.g., trainings on reducing harmful pesticides for farmers and extension services on which all child project countries have an activity), and then develop a plan to match relevant child projects. This will be done through knowledge analysis which will categorize and compare project data and knowledge generated from child project to offer insights on coordinated and streamlined FARM knowledge generation activities. To promote active knowledge and experience exchange, the global project will also coordinate the thematic working group on knowledge management on a quarterly basis.

Timeline:

- **0 - 6 months:** Consultation with child projects on their knowledge generation plans based on each approved child project workplan



- **3 – 12 months:** Helping match child projects which share the same knowledge needs and starting to update the KMS with FARM knowledge products and services through knowledge analysis
- **0 - 5 years** months: Support to child projects in their knowledge generation process by providing knowledge and data collection frameworks, promoting internal knowledge sharing among child projects while continuously sharing FARM and non-FARM relevant knowledge products on FARM KMS

Key deliverables:

- Child project knowledge activity workplan developed with recommendations for each child project on how best to benefit from each other's knowledge activities timelines
- Knowledge map developed to help child project for internal knowledge sharing and exchange through knowledge analysis
- Thematic working group on knowledge management led by the global project quarterly organized throughout the programme duration
- Quarterly reports on the FARM online KMS on knowledge sharing generated and shared with child projects

**Action 4: Curate, analyse and synthesise FARM knowledge**

This Action is to help build the FARM KMS not only be an online knowledge repository but to make the most effective use of the online platform so that it becomes the go-to-place for knowledge sharing to support knowledge application and stakeholder engagement.

Timeline:

- **0 - 6 months:** Based on the child project knowledge activity workplan (Action 3) and the knowledge baseline (Action 2), the global project will propose knowledge and data collection frameworks for common knowledge generation activities, e.g., training on pesticide registration.
- **3 – 12 months:** Through a test run with a child project, the global project collects feedback on the frameworks and further improves them. The global project will also start working on knowledge curation through analysis of both FARM and non-FARM knowledge products and services.
- **0 – 5 years:** With inputs from child projects and interaction with non-FARM stakeholder groups through the stakeholder engagement process, the global project will continuously curate relevant knowledge and provides analytical results.

Key deliverables:

- Data collection framework developed for common knowledge generation activities
- Key knowledge needs areas curated and featured in the online KMS platform
- Knowledge analysis and synthesis brief produced every 6 months and disseminated to child projects and non-FARM key stakeholders during the FARM programme

**Action 5: Collect feedback from both FARM and beyond FARM stakeholder groups**

Along with the ongoing knowledge management, sharing and curating process and online KMS, this Action will be jointly implemented with the communications and stakeholder engagement workstreams to receive feedback on FARM knowledge products and services, online KMS and its knowledge curation and synthesis

approach. Harnessing GGKP's knowledge partners and network, the global project will engage with key stakeholders who are not directly involved in the child projects but could be potential knowledge producers, outreach targets, influencers and end users, as well as potential co-financiers of the programme. The feedback received by engaged stakeholders will feed back into other activities to better target and curate the knowledge for the target groups.

Timeline:

- **0 - 6 months:** The global project will reach out to identified stakeholders at regional and global level and invite them to the FARM online KMS including the Green Forum group.
- **3 – 12 months:** Through active communications and knowledge sharing by the GGKP, stakeholders will start to interact each other and receive access to FARM knowledge products and services. A direct page to receive online feedback on global project's knowledge management will be built in the online KMS. Additional feedback can be obtained through events, green forum groups and direct interactions.
- **0 – 5 years:** In the mid-term and at the end of the programme, through online survey, stakeholders will have chance to provide continuous detailed feedback on their user experience, type, quality and quantity of knowledge products and services in the KMS. This will then be reflected and fed back into previous actions for improvement on KM and better knowledge curation.

Key deliverables:

- Stakeholder mapping with specific categories basing on their role developed for continuous engagement
- Communications package template drafted for targeted stakeholder groups for better curation and engagement
- Continuous feedback received through the interaction through the green forum or direct interaction at events.
- Online survey conducted for every two years to receive feedback from stakeholders meet their needs.

### **Action 6: Development and implementation of a FARM business case**

Based on each action described above and extensive stakeholder engagement at the regional and global levels, a clear FARM business case will be developed over the course of the FARM programme. The business case will be developed together with child projects to reflect lessons learnt from the programme. Equally the business case will play an essential part in ensuring the impact of FARM knowledge beyond the implementation phase by perpetuating the FARM knowledge and practice within stakeholders engaged throughout the programme and beyond.

Timeline:

- **0 – 2 years:** Based on the stakeholder engagement workstream, the global project will collect key elements for a business case and develop a business case framework which will be shared with child projects for feedback

- **2 – 5 years:** With iterative knowledge management process and lessons learnt from child project implementation, the business case will be strengthened, and pilots will be implemented with key value chain actors.
- **Beyond 5 years:** The FARM business case will be shared and applied in target countries and regions.

#### Key deliverables:

- A baseline business case framework developed and shared with child projects, their stakeholders and value chain actors for feedback.
- A working business case framework disseminated and piloted within key value chain stakeholders for the application of FARM knowledge practices in non-FARM countries and regions.
- A final business case framework maintained and disseminated through GGKP beyond the lifespan of the FARM programme

## 7. Monitoring and reporting

A knowledge report will be prepared quarterly with the focus to track the engagement and outreach through the FARM online knowledge management system. The following data and progress will be tracked:

1. Number of authentic visitors, pageviews, and sessions.
2. Percentage of bounce rate.
3. Comparison of new visitors gain per quarter and returning visitors from the previous period.
4. Browser visitors used to access the knowledge and country from which visitors accessed the knowledge.
5. What was a behaviour of visitors, how many new visitors the knowledge management system visited, how much time they spent on the FARM online knowledge management platform.

In addition to this, the global project will conduct a platform user survey to receive feedback. This will be done online at the mid-term and end-of the programme. For feedback from FARM child projects, various knowledge sharing sessions will be held. These will include a quarterly thematic working group session on knowledge management led by the GGKP and annual meetings of the programme. In these sessions, the key analytics on knowledge management and sharing will be shared to keep FARM stakeholders informed on the status of knowledge management. To continuously receive feedback and promote FARM knowledge application beyond the programme duration, a FARM targeted online survey will be continued beyond the FARM programme phase in line with GGKP's global online survey schedule.

# FARM Communications Strategy

## 1. Objectives and Vision

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The overall objective of the Financing Agrochemical Reduction and Management (FARM) project is to catalyze a framework for investment in the agriculture sector which looks to detoxify the sector by eliminating the use of the most harmful inputs to food production systems. By achieving this objective, FARM will play a significant role in creating a more sustainable and ethical agricultural system that protects human and environmental health.

FARM Communications has two key elements that must be successfully implemented to support the pursuit of the programme objective: internal and external communications. Effective internal communications is essential for ensuring FARM brand cohesion, coordination, and amplification.

The overall objectives of Global Child Project (GCP) Communications are:

- Creating a consistent, identifiable FARM brand utilised by all child projects and recognized by external stakeholders.
- Bringing together and providing key knowledge to stakeholders along agricultural value chains.
- Advancing progress toward a pollution-free agroecosystem through raising the profile of and building public awareness around the FARM programme's objectives and impact.
- Scaling up and replicating FARM programme results by reaching a wide global and regional audience.

The GCP will be a central connector amongst the other child projects (CPs) and will create a communications ecosystem that facilitates:

- cross-child project collaboration;
- coordination at the planning and dissemination phases of FARM activities;
- a cohesive brand identity and voice;
- greater reach and impact than one child project could achieve on its own;
- actionable knowledge reaching relevant stakeholders; and
- equitable advancement towards healthier agricultural systems, particularly from a gender perspective.

FARM Communications will also support the implementation of external communications activities, which will focus on connecting with target audiences and stakeholders around FARM's progress and products. Key elements of this work are:

- disseminating best practices, lessons learned, and project results;

- conveying complex and technical knowledge in an accessible and engaging manner;
- utilising personal and unexpected stories to build trust and engagement with the FARM programme;
- developing a network of trusted messengers who can share FARM knowledge to their communities;
- building FARM's brand to be recognized and respected by key stakeholders and audiences; and
- creating behaviour change by targeting audiences that can influence key decision-making stakeholders.

The Green Growth Knowledge Partnership (GGKP) is the executing agency for the GCP's communications, knowledge management, and coordination work.

## 2. Communications Approach

FARM communications should be purposeful and aimed at behaviour change among targeted stakeholders and audiences.

For Component 3 of the GCP, communication is aimed at global and regional audiences and the general public and is generally non-technical; in contrast to Components 1 and 2 communications which are directed to specific, technical audiences with the intent of direct, rather than indirect, behaviour change. For example, C3 communications could be sharing a new blog piece on a FARM activity through a newsletter directed at policy, finance, and industry professionals, whereas C1 would be the organizing and promoting of a training for regulators on drafting impactful policy.

*Table 1. Example of behaviour change communications mapping*

Behavior Change	Stakeholders	Knowledge	Target Audience	C3 Communication Channel(s)
Policy and regulatory changes that discourage toxic agrochemical use and/or encourages pollution-free agriculture	<ul style="list-style-type: none"> <li>- policymakers</li> <li>- agency or ministry decisionmakers</li> <li>- pesticide registrars</li> <li>- regional pesticide regulators' forum</li> </ul>	pesticide registration and pesticide code of conduct; guidelines on registration and enforcement and legislative framework	<ul style="list-style-type: none"> <li>- policymakers' constituents</li> <li>- value chain actors impacted by the changes</li> <li>- identified stakeholders</li> <li>- general public</li> </ul>	<ul style="list-style-type: none"> <li>- newsletters</li> <li>- social media</li> <li>- blogs</li> <li>- infographics</li> <li>- media engagement (radio, opinion, etc.)</li> </ul>
Financial portfolios aligned to FARM objectives	<ul style="list-style-type: none"> <li>- private finance actors</li> <li>- MDBs</li> </ul>	Financing mechanisms and tools for sustainable agriculture	<ul style="list-style-type: none"> <li>- policymakers</li> <li>- finance regulators</li> <li>- investors</li> <li>- shareholders</li> </ul>	<ul style="list-style-type: none"> <li>- presentations</li> <li>- newsletters</li> <li>- media engagement (radio, opinion, etc.)</li> </ul>

		targeting the agricultural sector as well as small holder farmers	- board of directors	
Financial flows are redirected to support pollution-free agriculture	- private finance actors - public finance actors - policymakers	Economic valuation studies	- policymakers - investors - shareholders - board of directors - general public	- presentations - media engagement (radio, opinion, etc.) - newsletters - social media
Farmers switch to pollution-free methods	- farmers - government officials - finance actors	Training manuals and knowledge products on agriplastic alternatives, IPM, agroecological production	- general public - value chain actors - farmer's associations	- newsletters - infographics - media engagement (radio, opinion, etc.) - farmer association listservs
Consumers advocate for sustainable, pollution-free products	- general public	Health impacts of agrochemicals and agriplastics; solutions value chain actors could be implementing to reduce negative impacts	- general public	- social media - infographics - media engagement (radio, opinion, etc.)

Another key aspect will be creating a shared understanding of FARM among CPs and external audiences.

The GCP has a slightly different role to play in the programme than the other CPs, as it operates on a more general, global level and as the coordinator for the overall programme. Given this, the GCP's audience is generally much broader than the other CPs, particularly in communications, which has the goal of awareness raising and sharing of knowledge to those outside the targeted stakeholders whom FARM will be working with closely on project components. The GCP's target audiences for communications are:

- General public
- Government officials outside of CP countries and Component 1 activities
- Finance actors outside of the key partners in Component 2 and those in CP countries
- Industry players outside of CP countries
- Farmers beyond those being directly worked with through FARM activities
- International, regional, and national organizations that can utilize, replicate, and scale up FARM results

The strategy gives a high-level look at what role GCP communications will play over the five years of the FARM programme. Detailed workplans will be created annually based on planned FARM activities within each child project, including the other workstreams in GCP's Component 3 as well as in Components 1 and 2. Additionally, the GCP will undertake influence

mapping, examining key stakeholder groups, who can influence them, and which communications methods have the potential to reach them. This will be an iterative process.

### 3. Gender and Intersectionality

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Identity will be a key consideration throughout FARM Communications. The objective is to have communications support FARM's gender-responsive approach and mainstreaming of gender issues by tailoring materials and messaging to reach diverse audiences in a way that empowers them to take action.

Communications activities will take into account possible barriers women and other vulnerable communities face, from lack of access to resources and technology to limited or no English comprehension. Additionally, how these groups are depicted in visual imagery and other communications materials will be thoughtfully considered.

See the Gender Analysis and Gender Equality Action Plan for more information.

### 4. Communication Ecosystem

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#### *Internal*

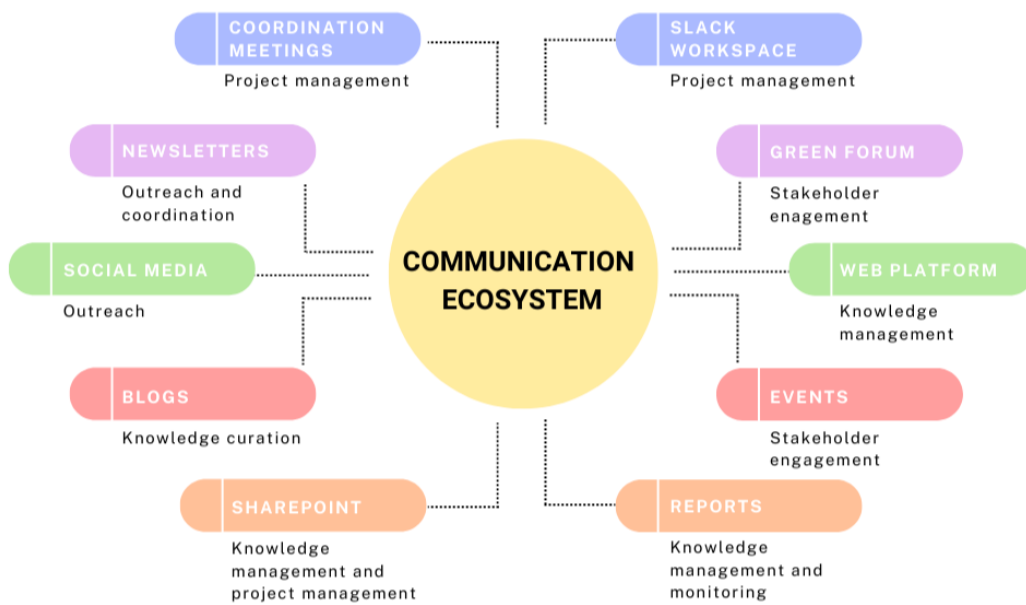
- Slack
  - Project management and communication tool. Allows for informal conversations among executing team members across all child projects. Can carry on conversations across time zones. Themed discussion channels allow for troubleshooting and sharing around specific topics, such as communications, finance, and policy.
- Sharepoint
  - Allows for all project documents to be stored in one place and accessed by all FARM team members. Can collaborate in real time on project documents.
- Newsletter
  - An internal facing newsletter sent to the FARM team and co-finance partners to keep them informed on programme progress, activities, and opportunities.
- Programme Coordination Group meetings
  - Periodic meetings throughout each year of the programme coordinated with the other workstreams of Component 3. A debrief on progress and a look ahead to what is next.
- Thematic working groups
  - Periodic coordination meetings held quarterly for chemical and plastics issues (C1), finance (C2) and knowledge and communications (C3).

## *External*

- Social media
  - Will utilise GGKP's established social media channels - Twitter, Facebook, LinkedIn, and YouTube - so FARM does not have to build a social media following from scratch and use #FARM on all FARM posts. Using the hashtag will also create a stream where all FARM related posts can be found.
  - All IAs and EAs will be asked to use the FARM hashtag on all project posts and across all social media channels.
- Newsletter
  - An external facing newsletter sent to all interested parties and FARM collaborators to keep them informed of programme activities and opportunities. To start, will utilise the GGKP listserv which reaches close to fifteen thousand green growth experts and practitioners across the policy, finance, and industry sectors. As FARM build momentum, it will develop its own outreach list that operates through but independently of the GGKP list.
- Green Forum
  - Assisting in keeping the FARM community and individual communities of practice on the Green Forum, GGKP's virtual community engagement space, active by posting or encouraging CPs to post their latest resources, news, etc.
- Knowledge products
  - Translating knowledge products produced by the CPs into communications materials, such as infographics, factsheets, press releases, etc., and creating or facilitating the creation of blogs, explainers, and news articles.
- Web platform
  - Assisting in the curation and population of the FARM site to ensure the knowledge collected and stored is communicated in a clear and impactful manner.
- Biennial FARM Forums
  - Organize two face-to-face forums for internal and external stakeholders. One will take place in Latin America and the other in Asia.

## *Communication Ecosystem\**





*\*Key elements of the FARM GCP Communications, a non-exhaustive look at how the GCP will create impact and build a cohesive FARM brand, including public facing elements managed by the other Component 3 workstreams and which will pull from Components 1 and 2.*

## 5. Communications Activities

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The activities listed below are potential actions that the GCP will take to support the FARM programme, however, detailed plans will come in the annual workplans and in consultation with CPs.

A non-exhaustive list of FARM GCP communications activities:

- Social Media
- Blogs
- Explainers
- Event promotion
- Media engagement
- Email marketing
- Articles
- Press Releases
- Awareness campaigns
- Talking points
- Unified guidelines
- Translation
- Internal communication facilitation

These activities will support all CPs by sharing not just general FARM relevant knowledge, but the results and lessons learned from CP pilot projects and activities to a global audience, as well as providing collateral for the CPs to use and adapt to their needs.

The CPs are operating among diverse cultural and linguistic landscapes, and translation and interpretation will be key to reaching their targeted stakeholders. Acknowledging that these services are resource intensive, the GCP will assess which materials should be translated on an ongoing basis and will generally stick to the official UN languages of French, Spanish, and potentially Arabic. There may be some support for translation into key local languages for child projects, however, that will in most cases fall to the child projects themselves. English will be the default given its wide use in government, finance, and business, as well as being the working language of the FARM programme. The translated materials will become part of the joint FARM collateral.

*Table 2. High-Level Timeline*

FARM – Draft Communications Workplan	Year:	0	1	2	3	4	5
Finalize visual identity and brand book							
Start developing core communications collateral, such as guidelines and best practices, programme video, etc.							
Develop internal and external newsletters							
Establish internal coordination processes, such as Slack channel, coordination meetings, etc.							
Develop programme, website, and social media launch materials							
Disseminate newsletters							
Create communications materials from FARM knowledge products and services, as well as relevant external knowledge							
Organizer and execute quarterly thematic coordination meetings (Comp 3)							
Organize and execute 1 hybrid Biennial Forum in Asia (GCP)							
Organize and execute 1 hybrid Biennial Forum in Latin America (GCP)							
Assist in managing Green Forum FARM group							
Create and execute awareness/advocacy campaigns with partners							
<b>Annual or Periodic External Communication Opportunities</b>							
BRS COPs							
World Pulses Day, 10 February							
International Women's Day, 8 March							
International Day of Forests, 21 March							
World Water Day, 22 March							
United Nations World Health Day, 7 April							
World Earth Day, 22 April							
International Seeds Day, 26 April							
International Day for Biological Diversity, 22 May							
World Environment Day, 5 June 2020							
World Oceans Day, 8 June							

International Day of the World's Indigenous People (IP), 9 August						
International Day of Rural Women, 15 October						
World Food Day, 16 October						
World Soil Day, 5 December						

## 6. Assets

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The GCP will both create assets for FARM and utilise the IA and EA's existing assets, especially for dissemination (see Table 4).

For FARM, the GCP will develop the following assets:

- Templates
- Brand Book
- Key Messages
- Shared Understandings
- Best Practices
- Adaptable Guidelines
- Programme Video
- Programme Brochure
- Infographics

Templates to be developed by GCP for use by all CPs:

- Email signature and graphic
- PowerPoint deck
- Report
- Case study
- Factsheet
- Social media banners
- Newsletter
- Press Release
- Brochure
- Stand up banner

# Annex

## 1. Communications Baseline Analysis

— From CEO Endorsement Request document —

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. These existing activities will be complemented by the planned outreach each child project is planning within their FARM project, which broadly includes behaviour change and awareness raising campaigns, farmer trainings, sharing of technical and capacity building materials, South-South cooperation schemes, and digital content creation. These will be coordinated and aligned through the FARM communications strategy to ensure consistent messaging and maximum impact.

TABLE 1. SUMMARY OF COMMUNICATION APPROACHES OF FARM PARTNERS.

	Sustainable Agriculture or Chemicals Programmes	Related Campaigns/Activities	Reach (No. of followers/subscribers - November 2022)
UNEP	<a href="#">Chemicals and Pollution Action</a>	<ul style="list-style-type: none"><li>- <a href="#">Global Partnership on Nutrient Management</a></li><li>- <a href="#">HHPs</a></li><li>- <a href="#">Green and Sustainable Chemistry</a></li><li>- <a href="#">POPs</a></li><li>- <a href="#">Special Programme</a></li></ul>	Twitter: 1.2M Facebook: 1.4M Instagram: 2M Newsletter:
ADB	<a href="#">Agriculture and Food Security Focus</a>	<ul style="list-style-type: none"><li>- <a href="#">Operational Priority 5: Promoting Rural Development and Food Security</a></li><li>- <a href="#">Asia-Pacific Rural Development and Food Security Forum 2022</a></li><li>- <a href="#">Environment Focus</a></li></ul>	Twitter: 249.7K Facebook: 326K Instagram: 16.8K Newsletter:
UNDP	<a href="#">Food &amp; Agricultural</a>	<ul style="list-style-type: none"><li>- <a href="#">Green Commodities Programme</a></li></ul>	Twitter: 1.8M Facebook: 1.8M

	<a href="#">Commodity Systems (FACS)</a>		Instagram: 711K Newsletter:
UNIDO	<a href="#">Agro-industry, agribusiness and food security</a>	<ul style="list-style-type: none"> <li>- <a href="#">Chemical Leasing Programme</a></li> <li>- <a href="#">Green Chemistry</a></li> <li>- <a href="#">POPs</a></li> </ul>	Twitter: 108.9K Facebook: 219K Instagram: 15.5K Newsletter:
FAO	<a href="#">Pest and Pesticide Management</a>	<ul style="list-style-type: none"> <li>- <a href="#">Food Systems</a></li> <li>- <a href="#">Agrifood Economics</a></li> <li>- <a href="#">Family Farming Knowledge Platform</a></li> <li>- <a href="#">Agroecology</a></li> <li>- <a href="#">Sustainable Food and Agriculture</a></li> </ul>	Twitter: 565K Facebook: 2M Instagram: 789K Newsletter:
GGKP	N/A	<ul style="list-style-type: none"> <li>- <a href="#">Green Policy Platform</a> (GPP)</li> <li>- <a href="#">Green Finance Platform</a> (GFP)</li> <li>- <a href="#">Green Industry Platform</a> (GIP)</li> <li>- <a href="#">Agriculture Sector Knowledge Assets</a></li> <li>- <a href="#">ISLANDS</a> [GEF Project]</li> </ul>	GGKP - Facebook: 15.6K Instagram: N/A Newsletter: 14.8K  GPP - Twitter: 9K  GFP - Twitter: 4K  GIP - Twitter: 749
GEF SEC	<a href="#">Chemicals and Waste</a>	<ul style="list-style-type: none"> <li>- <a href="#">SAICM</a></li> <li>- <a href="#">Small Grants Programme Chemicals Focus</a></li> <li>- <a href="#">Agriculture, Forestry and Other Land Uses</a></li> <li>- <a href="#">Persistent Organic Pollutants Issue Area</a></li> </ul>	Twitter: 110.2K Facebook: 110K Instagram: 5K Newsletter:
Viet Nam, Ministry of Agriculture and Rural Development	N/A	<a href="#">2021-2030 Strategy for Sustainable Agriculture and Rural Development</a>	Twitter: N/A Facebook: N/A Instagram: N/A Newsletter:
India, Ministry of Chemicals and Fertilizers	<a href="#">Chemicals &amp; Petrochemicals Department</a> + <a href="#">Fertilisers Department</a>	Ministry of Agriculture's <a href="#">Integrated Pest Management Division</a>	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	<a href="#">Fertiliser and Pesticide Authority</a>	Twitter: N/A Facebook: 329K Instagram: N/A Newsletter:

Lao PDR, Department of Agriculture	<a href="#">Agriculture Development Strategy to 2025 and Vision to the Year 2030</a> (Ministry of Agriculture and Forestry)		Twitter: N/A Facebook: N/A Instagram: N/A Newsletter: N/A
Ecuador, Ministry of Environment and Water and Ministry of Agriculture, Livestock, Aquaculture, and Fisheries	<a href="#">Chemical Management Programme</a> (Ministry of Environment)  <a href="#">National Participatory Technological Innovation and Agricultural Productivity Programme</a> , PITPPA (Ministry of Agriculture)  <a href="#">Amazonian sustainable agroproductive transformation</a> (Ministry of Agriculture)	<ul style="list-style-type: none"> <li>- <a href="#">SAICM Project</a></li> <li>- <a href="#">Agrochemical Container Disposal</a></li> <li>- <a href="#">Cooperative Programme funding Organic Production</a></li> <li>- <a href="#">Pesticide Containers</a></li> <li>- <a href="#">Pesticide Container in Galapagos</a></li> <li>- <a href="#">Pesticide Container Azuay</a></li> <li>- <a href="#">Organic Inputs El Napo</a></li> <li>- <a href="#">Promotion of Sustainable Agricultural Practices</a></li> <li>- <a href="#">Family Farming Food Safety</a></li> <li>- <a href="#">Pesticide Container Management</a></li> <li>- <a href="#">Organic Inputs</a></li> <li>- <a href="#">Rural Financing with gender approach</a></li> <li>- <a href="#">FAO LAC - Transformation of Agri food systmes</a></li> <li>- <a href="#">BPA Certification - potato crop</a></li> <li>- <a href="#">BPA Certification - Tomato Crop</a></li> <li>- <a href="#">BPA Certification</a></li> <li>- <a href="#">Strengthening Rural Women Capacities</a></li> <li>- <a href="#">Cacao Sustainable Production</a></li> <li>- <a href="#">Non chemical crop production in Azuay</a></li> </ul>	Env - Twitter: 289.3K Facebook: 212K Instagram: N/A Newsletter: N/A  Ag - Twitter: 177.6K Facebook: 70K Instagram: N/A Newsletter: N/A
Uruguay, Ministry of Agriculture, Livestock and Fisheries (MGAP), Ministry of Economy and Finance, and Ministry of Environment	<a href="#">Pesticides</a> (Ministry of Environment)  <a href="#">Responsible use of agrochemicals</a> (MGAP)  <a href="#">Agricultural Awareness</a> (MGAP)	<ul style="list-style-type: none"> <li>- <a href="#">Intergovernmental Negotiating Committee (INC) - Plastics</a></li> <li>- <a href="#">Uruguay + Circular</a></li> <li>- <a href="#">Network of Environmental Promoters</a></li> </ul>	MGAP - Twitter: Facebook: Instagram: Newsletter:  Finance - Twitter: 50K Facebook: N/A Instagram: 1.9K Newsletter:  Environment - Twitter: 6K Facebook: 3K Instagram: 8K Newsletter:
Kenya, Ministry of Finance, Ministry of Environment	<a href="#">Pest Control Products Board</a>	<ul style="list-style-type: none"> <li>- <a href="#">KCEP-CRAL</a> (climate focused)</li> <li>- <a href="#">Agriculture Sector Development Support Programme</a> (value chain commercialization)</li> <li>- <a href="#">Sound Chemicals Management Mainstreaming and UPOPs Reduction</a> (not ag related)</li> </ul>	Finance - Twitter: 30K Facebook: N/A Instagram: Newsletter:

and Forestry, and Ministry of Agriculture and Livestock Development			Environment - Twitter: 58.5K Facebook: 15K Instagram: N/A Newsletter:  Agriculture - Twitter: 18.8K Facebook: 8.4K Instagram: N/A Newsletter:
UNEP FI		- <a href="#">Pollution and Circular Economy</a> (not specifically ag related) - <a href="#">Food, Forests, and Land</a> (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. 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. By bringing together these organisations under one umbrella, FARM can create an outsized impact utilising coordinated messaging, consistent branding, and a significant, global outreach network.

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.

## 2. Future Elements to Develop

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Additional resources to be developed between December 2022 and June 2023:

- Key Messages
- Shared Understandings
- Brand Book
- Adaptable Guidelines
- Best Practices
- Communications Leads Table
- Distribution Capacity and Sign Off Processes Table
- Programme Video
- Programme Brochure

→ Infographics

### **Key Messages**

Key messages for FARM overall, as well as for each CP country.

### **Shared Understandings**

Persistent organic pollutants (POPs):

Highly Hazardous Pesticides (HHPs):

Reducing or eliminating POPs and HHPs:

### **Brand Book**

Core visual identity and guidelines on how to use logos and FARM assets.

### **Adaptable Guidelines**

Highlighted as a need during consultations with CPs. Overall guidelines that can be adjusted based upon the local context. This will most likely be more expansive than just the communications workstream, so will need to consult with the other Component 3 workstreams and with Components 1 and 2.

### **Best Practices**

These will evolve over the programme period and are specifically communications best practices, generally for internal use, rather than overall FARM best practices, as the knowledge management workstream and Components 1 and 2 will be developing technical best practices, such as for regulations, finance, etc. They will draw from CP experience throughout the programme.

### **Communications Leads and Sign Off Processes**

Table 3. Communications Leads\*

Organisation	Type	Communications Lead	Location	FARM Lead (Back-Up)
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GEF	Funder			
UNEP	Lead IA			Eloise Touni ( <a href="mailto:eloise.touni@un.org">eloise.touni@un.org</a> )
UNDP	IA			
UNIDO	IA			Rasha Abdrabu ( <a href="mailto:r.abdrabu@unido.org">r.abdrabu@unido.org</a> )
ADB	IA			
FAO	EA (UNEP)			Ivy Saunyama ( <a href="mailto:Ivy.saunyama@fao.org">Ivy.saunyama@fao.org</a> )
GGKP	EA (UNEP)	Brittany King ( <a href="mailto:Brittany.king@ggkp.org">Brittany.king@ggkp.org</a> )	Geneva, CH	John Maughan ( <a href="mailto:jmaughan@ggkp.org">jmaughan@ggkp.org</a> )
UNEP-FI	EA (UNEP)			Peggy Lefort ( <a href="mailto:peggy.lefort@un.org">peggy.lefort@un.org</a> )
Viet Nam	EA (ADB)			
India	EA (UNIDO)			
Philippines	EA (UNIDO)			
Lao PDR	EA (UNDP)			
Ecuador	EA (UNDP)			

\* To be filled out and kept updated during implementation phase.

Table 4. Distribution Capacity and Sign Off Processes\*

GEF	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
UNEP	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	

Adding to Website	
Potential Assets	
<b>UNDP</b>	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
<b>UNIDO</b>	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
<b>ADB</b>	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
<b>FAO</b>	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
<b>GGKP</b>	

Communication Staff Capacity	<p>Very limited capacity for each platform</p> <p><i>Green Policy Platform (GPP)</i>: Brittany King, <a href="mailto:brittany.king@ggkp.org">brittany.king@ggkp.org</a>, Geneva-based</p> <p><i>Green Finance Platform (GFP)</i>: Gayeon Shin, <a href="mailto:gshin@ggkp.org">gshin@ggkp.org</a>, Seoul-based</p> <p><i>Green Industry Platform (GIP)</i>: Hannes Mac Nulty, <a href="mailto:hmacnulty@ggkp.org">hmacnulty@ggkp.org</a>, Geneva-based</p> <p><i>GGKP Communications and Green Forum</i>; Stephani Widorini, <a href="mailto:swidorini@ggkp.org">swidorini@ggkp.org</a>, Geneva-based</p>
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
<b>UNEP-FI</b>	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
<b>Viet Nam</b>	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
<b>India</b>	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	

Philippines	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
Lao PDR	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	
Ecuador	
Communication Staff Capacity	
Press Release Approval	
Social Media Distribution	
Adding to Website	
Potential Assets	

*\* To be filled out and kept updated during implementation phase.*

### **Programme Video**

Short video introducing FARM.

### **Programme Brochure**

FARM brochure outlining the purpose, GEBs, and organizations involved.

### **Infographics**

Series of infographics demonstrating importance of FARM through data on negative impacts of HHPs, POPs, agriplastics, etc. and potential solutions and calls to action.

Baseline Report for Component 2 - desk review and external interviews

FARM (Financing Agrochemical Reduction and Management) Programme – November 2022

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Annex 1: Detailed externally available information of commercial banks .....	<b>Error! Bookmark not defined.</b>
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## 1. Introduction

This baseline report provides a summary and analysis of the current policies, processes, practices, metrics, tools and financial instruments and gaps and opportunities observed in the management and reduction of chemical and plastic pollution by financial institutions in the agriculture sector.

The baseline report informs Component 2 on Finance of the Global Child Project of Project FARM.

Section 2 of this report briefly presents the methodological approach adopted and main sources of data and information utilized to construct this baseline report. Section 3 provides an overview of the main financial actors in sustainable agriculture, globally. Sections 4 and 5 discuss the landscape of frameworks, policies, and methodologies and industry associations and initiatives that relate to plastic and chemical pollution in the financing of agriculture. Section 6 summarizes the desk top review, and survey of the current practices in commercial banks as they relate to chemical and plastic pollution in agriculture and details the barriers to progress which were highlighted by interviewed banks which are standing in the way of them making more rapid progress towards the consideration of plastic and chemical pollution within their financing decision-making and transactional analysis.

Knowledge management and communication including how the generation, continuous management and analysis, and systematic dissemination of knowledge and tools by the global child projects will be vital for target audiences to support the overall aims of the FARM project is discussed in Section 7. Section 8 details conclusions of the previous sections and provides recommendations for work to be progressed going forward in the Global Child Project.

## 2. Methodology

This review utilizes various sources and secondary data from open-source information via desk top review of documents, websites, and policy/framework documents from relevant think-tanks and newspaper articles. Interviews were carried out with senior representatives from the financial services industry. An on-line survey was distributed to over 60 financial services institutions following which 14 responses were received. Formal interviews were conducted with 10 commercial banks with significant agricultural portfolios.

## 3. Landscape of sustainable agriculture financing

### 3.1 Overview of financial flows to sustainable agriculture

The World Bank estimates that at least US\$80 billion annual investments will be needed to meet the 70% growth in demand for food between now and 2050, the majority of which they expect will come from the commercial sector, there is however a significant shortfall in investment in agriculture<sup>1</sup>.

Despite this shortfall, the sector attracts large amounts of investment, though most investment is to support the intensification of agriculture driving an increase in the use of pesticides and agricultural plastics. The 2019 UNCTAD report identifies the four largest sources of finance for investment in agriculture globally as commercial banks (providing US\$701 billion annually on average between 2015

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<sup>1</sup> <https://www.gatsby.org.uk/uploads/africa/reports/pdf/2019-development-finance-for-agriculture-gatsby-africa-wellspring-cepa.pdf>

and 2017), foreign direct investment (US\$36 billion), development flows (US\$11 billion) and central government capex (US\$9 billion<sup>2</sup>). However, when looking at specific regions (e.g., sub-Saharan Africa), market segments (e.g., smallholder farmers or agri-SMEs) or value chains (e.g., commodities vs. food value chains), commercial banks play very limited<sup>3,4</sup>

There is a lack of measurement of financial flows directed to sustainable / regenerative agriculture. No concrete amount of financial flows has been found. Yet, 90 per cent of banks which have signed up to UNEP FI's Principles of Responsible Banking (PRB) have identified sustainability as a strategic priority and are establishing the systems and policies to set targets for action, and there are early signs of impact on the real economy with the mobilization of US\$2.3 trillion of sustainable finance as reported by 87 banks which are signatories of the PRB. There is no disaggregation of the US\$2.3 trillion by impact area, but a clear focus on climate and financial inclusion can be observed. Only 15 per cent of banks identified biodiversity and nature, which are more closely related to sustainable / regenerative agriculture, as an area of significant impact. Resource efficiency is identified by 30.5 per cent of the banks and none of them identified pollution as an area of significant impact.<sup>5</sup>

The Food and Land Use Coalition estimates that US\$300 – 350 billion of annual investment capital to 2030, spread across themes related to regenerative agriculture, healthy diets, nature-based solutions, reducing food loss & waste and financing smallholders, is required for the transition to sustainable food and land-use systems. This investment could unlock US\$5.7 trillion worth of economic and social gains to society.<sup>6</sup> 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.<sup>7</sup>

UNCTAD (2019) estimated total investment needs for food and agriculture (including processing facilities, rural infrastructure, and research and development) to achieve related SDGs in developing countries at US\$480 billion annually, with actual investment at US\$220 billion, thus leaving a gap of US\$260 billion. UNCTAD estimated that around 75 per cent of this gap could be financed, in principle, by the private sector – with the potential to mobilize US\$195 billion annually.<sup>8</sup>

Yet, the agricultural sector is considered as one of the riskiest sectors for banks, which leads to insufficient allocation of capital to finance existing agricultural business models. This finance gap will only increase considering the additional capital required for the transition to more sustainable

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<sup>2</sup> [https://unctad.org/system/files/official-document/diaemisc2019d4\\_en.pdf](https://unctad.org/system/files/official-document/diaemisc2019d4_en.pdf)

<sup>4</sup> <https://www.convergence.finance/resource/deploying-blended-finance-to-mobilize-investment-at-scale-in-food-and-agriculture/view>

<sup>5</sup> UNEP FI (2021). Responsible Banking: Building Foundations. <https://www.unepfi.org/wordpress/wp-content/uploads/2021/10/Responsible-Banking-Building-Foundations-Report.pdf>

<sup>6</sup> 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>

<sup>7</sup> Shakhovskoy et al. 2019. Pathway to Prosperity, Rural and Agricultural Finance. State of the Sector Report. [https://pathways.raflerning.org/wp-content/uploads/2019/11/2019\\_RAF-State-of-the-Sector.pdf](https://pathways.raflerning.org/wp-content/uploads/2019/11/2019_RAF-State-of-the-Sector.pdf)

<sup>8</sup> [https://unctad.org/system/files/official-document/diaemisc2019d4\\_en.pdf](https://unctad.org/system/files/official-document/diaemisc2019d4_en.pdf)



practices.<sup>9</sup> Financial innovation, including blended public and private financial solutions, are needed to accelerate investments in, and drive down the costs of healthy food produced by chemicals and plastic-free forms of farming, using scalable investment. IFIs, MDBs and DFIs have minimal amounts allocated to private investment mobilization for agriculture: only around 15 per cent of US\$45 billion of MDB and DFI own financing and 5 per cent of the USD 19 billion of “direct private mobilization” annually are for agriculture.<sup>10</sup> Only 15 per cent of global blended finance transactions focus on agriculture – much less than other sectors. The most common sub-sectors therein are finance for SMEs and smallholder farmers as well as funds, facilities and projects aiming to increase farm productivity and improve agricultural inputs such as seeds and fertilizer.<sup>11</sup>

Nevertheless, the agriculture sector has witnessed increased momentum in the blended finance market from 2018-2020, driven by an increased focus on agribusiness and climate-smart agriculture.<sup>12</sup> In the report “The State of Blended Finance” published in 2021, Convergence notes a positive correlation between the growth of company transactions and the growth of the agriculture sector in blended finance: 40% of all companies with a blended finance structure in 2019 and 2020 operated in the agriculture sector. Agriculture focused transactions comprised 28% of 2020 blended finance deals, compared to 16% between 2015-17. Investment into agribusinesses is driving these growing capital flows, especially in firms focused on agricultural inputs (accounting for 55% of agriculture deals since 2018).<sup>13</sup> Although agri-transactions most often target agricultural inputs / farm productivity (36% of agri-transactions) and agri-finance (35%), climate-resilient / sustainable agriculture (18%) is becoming increasingly important, with agribusinesses under increased pressure to ensure sustainability within their supply chains, down to the primary farmer.<sup>14</sup> It must be noted that the report of Convergence refers to sustainable agriculture in more general terms and does not specifically measure financial flows directed to reducing the input of agrochemicals and agriplastics.

Although agriculture represents 22% of total blended transactions, it accounts for only 9% of financing volumes, demonstrating the relatively small size of transactions targeting the sector (median size of US\$38 million compared to USD 57.1 million for all transactions).<sup>15</sup> There are very few large transactions of more than US\$200 million and most project-level financing amounts in agriculture are small (e.g., less than USD 500,000). Thus, there are few project-level transactions deploying blended finance and compared to the overall blended finance market, blended finance transactions in

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<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf>

10

<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf>

<sup>11</sup> <https://www.convergence.finance/resource/deploying-blended-finance-to-mobilize-investment-at-scale-in-food-and-agriculture/view>

<sup>12</sup> <https://www.convergence.finance/resource/the-state-of-blended-finance-2021/view>

<sup>13</sup> <https://www.convergence.finance/resource/blended-finance-and-agriculture/view>

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<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf>

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<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf>

agriculture rarely achieve scale in financial terms. This suggests that mobilizing private capital into the sector from investors with large investment capacity may require portfolio approaches and/or standardization and consolidation of existing structures, as well as risk mitigation instruments.<sup>16</sup> Rural communities and smallholder farmers appear as the end beneficiaries in 86% of agri-transactions, with nearly half of agri-transactions targeting micro, small and medium enterprises (MSMEs) (49%) as direct beneficiaries. Hence, most of the underlying projects or recipients of funding in the sector have small financing needs, less than US\$1 million – amongst the lowest compared to other sectors/SDGs.<sup>17</sup> Funds are therefore the most common blended finance vehicle type for agriculture accounting for 53% of agri-transactions, compared to 39% of total blended finance transactions.<sup>18</sup> In its report “Deploying blended finance to mobilize investment at scale in food and agriculture” (2021), SAFIN estimates that if 20 per cent of existing agriculture ODA funds were allocated for blended finance with six times leverage, an additional US\$13 billion could be mobilized annually for the sector, contributing substantially to narrowing the sector-specific SDG investment gap and with potential large-scale demonstration effect.<sup>19</sup>

UNEP’s report “State of Finance for Nature” (2021) finds that approximately USD 133 billion/year currently flows into nature-based solutions (NBS) (using 2020 as base year), which is smaller than the flow of climate finance. Public funds make up 86 per cent and private finance 14 per cent. Of the public funds, which total USD 115 billion/year, over a third is invested by national governments into protection of biodiversity and landscapes. Nearly two-thirds is spent on forest restoration, peatland restoration, regenerative agriculture, water conservation and natural pollution control systems. Private sector finance of NBS amounts to USD 18 billion/year. This spans biodiversity offsets, sustainable supply chains, private equity impact investment and smaller amounts from philanthropic and private foundations. It is important to highlight that finance for NBS cannot be put on the same level as sustainable agriculture, because NBS refer to the sustainable management and use of natural features and processes in a broader sense and are almost entirely funded by non-returnable capital up to this point. Nevertheless, there are some overlaps, for instance in the investment categories sustainable supply chain (sustainable forest products, sustainable agricultural products, sustainable fisheries and seafood products or sustainable palm oil) to which USD 7 billion of finance for NBS are allocated each year, as well as payment for ecosystem services and water trading services (e.g. land managers and owners receive payments to maintain forest cover or practice sustainable agricultural techniques) with up to USD 51 million per year.

### 3.2 Landscape of key actors involved in financing sustainable agriculture

The financial sector is comprised of many actors with differing priorities and roles, and indeed different risk appetites or business models. Establishing a baseline at a macro level for the financial services community is therefore challenging. An initial assessment of varying actors within the

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<sup>16</sup> <https://www.convergence.finance/resource/deploying-blended-finance-to-mobilize-investment-at-scale-in-food-and-agriculture/view>

<sup>17</sup>

<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf>

<sup>18</sup> Convergence. 2020. The State of Blended Finance 2020.

<https://www.convergence.finance/resource/1qEM02yBQxLftPVs4bWmMX/view>

<sup>19</sup> <https://www.convergence.finance/resource/deploying-blended-finance-to-mobilize-investment-at-scale-in-food-and-agriculture/view>

financial services community in respect of sustainable agriculture was carried out to understand the global trends towards the transition towards more sustainable practises, of which the move to lower chemical and lower plastic use is one. Within the sector, commercial banks play a critical role in providing funding and liquidity services to agricultural production.

Banks are the main providers of private domestic credit, followed by microfinance institutions. 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. The agricultural sector is considered as one of the riskiest sectors for banks, which leads to insufficient allocation of capital to finance existing agricultural business models. This finance gap will only increase considering the additional capital required for the transition to more sustainable practices.<sup>20</sup>

Broadly, in addition to bilateral/donor finance to the agriculture industry, three main types of banks support the agriculture industry at a local level. Multilateral development banks, commercial banks and public development banks in addition to public and philanthropic capital.

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.<sup>21</sup> For smallholder farmers and related SMEs (Small Medium Enterprise) and cooperatives, basic access to the financial system is often a challenge because of the lack of access to a bank account, credit (in local currencies) and insurance products. Access to lending products is restrictive given the lack of collateral, financial track record and distribution channels.”<sup>22</sup> Women face increase difficulties in access in credit as they frequently lack title deeds to land. Commercial banks are one of the largest sources of finance for investment in agriculture globally, except when looking at specific regions (e.g., sub-Saharan Africa), market segments (e.g., smallholder farmers or agri-SMEs) or value chains (e.g., commodities vs. food value chains), where commercial banks play very limited roles compared to other sources of finance, including savings, informal lenders, value chain actors and non-bank financial institutions.<sup>23</sup>

### Corporate investment

Corporate actors (e.g., input providers, traders, and processors) take up the role of “financing agents”: They act as aggregators, distributing loans to (smallholder) farmers (e.g., for seedlings, fertilizer) to secure their supply of commodities (e.g., cocoa, coffee, soy). Despite their role in short-term investments, these corporate actors are often not able to provide medium- and long-term financial solutions, as it is not part of their core business and capabilities.

The core Food Value Chain is comprised of actors who produce products from the upstream, add value to these products and then sell them on to the next step in the value chain. These actors carry out four functions: production (farming, fishing, forest harvesting or agroforestry), aggregation, processing, and distribution (wholesale and retail). The aggregation step is especially important to

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<sup>20</sup> [https://a1be08a4-d8fb-4c22-9e4a-2b2f4cb7e41d.filesusr.com/ugd/643e85\\_58a8df7fe51e4076a64e2bbb38ed3a92.pdf](https://a1be08a4-d8fb-4c22-9e4a-2b2f4cb7e41d.filesusr.com/ugd/643e85_58a8df7fe51e4076a64e2bbb38ed3a92.pdf)

<sup>21</sup>

<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf?sequence=3&isAllowed=y>

<sup>22</sup>

<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf?sequence=3&isAllowed=y>

<sup>23</sup> <https://nourishingafrica.com/documents/1616769419blended%20finance.pdf>

FVCs (Food Value Chain) in developing countries, where efficiently aggregating and storing small volumes of produce collected from widely dispersed smallholder producers is often a major challenge<sup>24</sup>.

#### Bilateral donor finance

Bilateral donors allocate significant financial contributions for agricultural development globally. FAOSTAT's dataset on Development Flows to Agriculture includes Official Development Assistance (ODA) Official Other Flows (OOFs) and Private Grants reported by donor countries, international organizations and private entities to the OECD Development Assistance Committee (DAC) Directorate from all donors to all recipients since the early 1970s. The tool offers an overview of development funds going towards the sectors of agriculture, forestry and fishing, including their respective sub-sectors, such as agricultural land resources, food security programmes, livestock and veterinary services. Official development assistance (ODA) for agriculture (including rural development) reached US\$10.3 billion in 2019, a 4%-increase in real terms over 2018. Over the past decade, agriculture's share of total development assistance has hovered between 5% and 6%. It stood at 5.2% in 2019.<sup>25</sup>

In 2019, top donors to the sector were Germany (US\$1.4 billion), Japan (US\$1.2 billion), the US (US\$1.1 billion), the UK (US\$971 million), and France (US\$907 million).

The picture changes when looking at the share of donors' total funding going towards agriculture and rural development. In relative terms, the top donors were Iceland (12% of its ODA goes to agriculture and rural development), Luxembourg (10%), New Zealand (10%), Belgium (9%), and South Korea (9%). To avoid double-counting, EU Institutions are not included as a donor in the ranking of total agriculture ODA.

Bilateral funding towards agricultural financial services, accounting for almost US\$1.13 billion, is more diversified among the donor countries: Japan contributes the highest share of almost US\$487 million going to Myanmar, Bangladesh, Philippines, Uzbekistan, and Mozambique. Germany had committed almost US\$206 million to India, Ethiopia, Kenya, Uganda, Ghana and Benin, whereas France had allocated US\$120 million of which the majority went to Peru, Egypt, Senegal, Mali and Togo. However, in view of the US\$11bn shortfall in capital, identified by the World Bank,<sup>26</sup> for Sub-Saharan African alone, which is needed to expand agricultural output<sup>27</sup>, the available funding for agricultural financial services continues to be inadequate.

A total of US\$1.33 billion was channeled towards agricultural research by a variety of donor countries. Australia accounts for the highest share with US\$404 million flowing to a wide range of recipient countries, followed by France (US\$310 million), UK (US\$140 million) and the US (US\$136 million).

Plant and post-harvest protection and pest control only accounts for US\$83 million and is highly diversified in terms of donor countries. New Zealand provides the biggest share with a total of US\$24 million channeled towards Indonesia, Papua New Guinea, Solomon Islands, Vanuatu and Viet Nam,

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<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf?sequence=3&isAllowed=y>

<sup>25</sup> <https://donortracker.org/sector/agriculture>

<sup>26</sup> World Bank. Financing Agribusiness in Sub-Saharan Africa: Opportunities, Challenges, and Investment Models. Retrieved here: [https://www.agrifinfacility.org/sites/agrifin/files/Africa\\_Agrifinance\\_%202016.pdf](https://www.agrifinfacility.org/sites/agrifin/files/Africa_Agrifinance_%202016.pdf)

<sup>27</sup> <https://www.gatsby.org.uk/uploads/africa/reports/pdf/2019-development-finance-for-agriculture-gatsby-africa-wellspring-cepa.pdf>

followed by Canada (US\$13 million), France (US\$9 million), Republic of Korea (US\$7 million) and the USA (US\$7 million).

### Multilateral development finance

An analysis by Coventry University of European Union (EU), Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), World Food Programme (WFP), and Green Climate Fund (GCF) concluded that a minimal portion of public money is channeled towards supporting the conversion to agroecological practices and steering the sector away from the use of hazardous chemical inputs.<sup>28</sup> As an example, only 2.7% of the EU disbursements to FAO, IFAD and WFP between 2016 and 2018 flowed to projects supporting first steps towards agroecology through a focus on substitution of harmful inputs. At the same time, 79.8% of the EU funds channeled through the FAO, IFAD, and WFP and 79.3% of the GCF's agriculturally relevant investments support is for projects that focus on conventional agriculture and/or efficiency-oriented approaches such as sustainable intensification. Additionally, the International Panel of Experts on Sustainable Food Systems (IPES), concluded that as much as 85% of the research projects for agricultural development in Africa focus on conventional agricultural approaches, increasing profitability and minimizing crop losses, whereas only a minimal fraction of those had incorporated elements of regenerative agroecology and focused on the substitution of harmful and synthetic products.<sup>29</sup>

According to data extracted from FAOSTAT<sup>30</sup>, multilateral donors committed a total of US\$3.3 billion to the categories of "agricultural alternative development", "agricultural financial services", "agricultural research", and "plant and post-harvest protection and pest control", representing only 7.4% of total official development assistance dedicated to "agriculture, forestry, fishing" (US\$44.63 billion). Flows to these four categories are dominated by the International Development Association (IDA) with 1.82 billion, of which US\$1 billion is directed towards agricultural research, US\$830 million towards agricultural financial services and US\$23 million towards plant and post-harvest protection and pest control. The second biggest multilateral donor is the International Fund for Agricultural Development (IFAD) committing to a total of US\$792 million (US\$679 million agricultural research and US\$88 million agricultural financial services) followed by European Union (EU) Institutions with a total of US\$449 million (US\$378 million to agricultural financial services, US\$47 million to alternative agricultural development, US\$20 million to agricultural research) and Inter-American Development

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<sup>28</sup> Moeller (2020) Analysis of Funding Flows to Agroecology: the case of European Union - monetary flows to the United Nations' Rome-based agencies and the case of the Green Climate Fund. CIDSE & CAWR. <https://www.cidse.org/wp-content/uploads/2020/09/AE-Finance-background-paper-final.pdf>

<sup>[1]</sup> Moeller (2020) Analysis of Funding Flows to Agroecology: the case of European Union - monetary flows to the United Nations' Rome-based agencies and the case of the Green Climate Fund. CIDSE & CAWR. <https://www.cidse.org/wp-content/uploads/2020/09/AE-Finance-background-paper-final.pdf>

<sup>29</sup> European Commission (2020) Money Flows: What is holding back investment in agroecological research for Africa? , [https://knowledge4policy.ec.europa.eu/publication/money-flows-what-holding-back-investment-agroecological-research-africa\\_en](https://knowledge4policy.ec.europa.eu/publication/money-flows-what-holding-back-investment-agroecological-research-africa_en)

<sup>30</sup> FAOSTAT (2022), Development Flows to Agriculture, <http://www.fao.org/faostat/en/#data/EA>

Bank with a total of US\$105 million (US\$80 million to post-harvest protection and pest control and 23 million to agricultural financial services).

### Public Development Banks (or Development Finance Institutions)

In driving this transformation from the public sector bank view, Public Development Banks (PDBs) – institutions with public mandates at the global, regional, and national levels – have a vital role in promoting investments at scale for food systems transformation. With their social impact mandates, counter-cyclical roles, flexible financing tools, and significant resources they can have an important role in financing the transition to more sustainable and inclusive food systems. As public bodies, they can convene diverse stakeholders, and set and promote shared standards to accelerate investment. As banks with social impact mandates, they can leverage concessional financing and apply a diverse array of tools to attract additional investment to the sector (guarantees, blending instruments, concessional financing for early-stage innovations, etc.).

DFIs (development finance institutions) also leverage their deep reach and networks to bring together the right actors, accelerate good practice and innovation, and to help shape the policy environment. This can all serve to lower costs and improve access to finance to those who need it most (the ‘last mile’), and to incentivise sustainable practices.

Indeed, PDBs can create favourable conditions for private investments in support of sustainable agriculture practices. This can take the form of innovative instruments to attract private investors and financial services that are better tailored to the needs of rural producers and small-and-medium sized businesses to help drive the shift to more environmentally sustainable and fairer food systems.

Given the barriers that typically hinder financial transactions in sustainable agriculture, and the complexity of crop and livestock finance development bank and commercial bank need appropriate policy environment to overcome these hurdles. The enabling environment consists of (1) innovation policy and corresponding governance structures to strengthen agricultural innovation framework, (2) regulatory frameworks that stimulate innovation directly, indirectly, or toward certain preferred outcomes, and (3) accompanying agricultural investments in rural credit, infrastructure, and markets.<sup>31</sup>

### Public Finance

According to the Food and Land Use Coalition’s (FOLU) report “Growing Better: Ten Critical Transitions to Transform Food and Land Use” (2019), inefficiencies in public finance constitute a major obstacle to transforming the current food system and land use. Agricultural subsidies are mainly geared towards production intensification<sup>32</sup>: most of the US\$600 billion 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 less subsidies are available for regenerative farmers.<sup>33</sup> The UNEP-FAO-UNDP global report on the repurposing of agriculture subsidies<sup>34</sup> finds that 87% of current support to

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<sup>31</sup> World Bank, Agricultural Innovation Systems, An Investment Sourcebook, February 2012

<sup>32</sup> [https://www.rsm.nl/fileadmin/Faculty-Research/Centres/EPSCV/20220621\\_Financing\\_Regenerative\\_Agriculture.pdf](https://www.rsm.nl/fileadmin/Faculty-Research/Centres/EPSCV/20220621_Financing_Regenerative_Agriculture.pdf)

<sup>33</sup> <https://documents1.worldbank.org/curated/en/879401632342154766/pdf/Food-Finance-Architecture-Financing-a-Healthy-Equitable-and-Sustainable-Food-System.pdf>

<sup>34</sup> 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>



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. Few governments are currently putting in place integrated policy frameworks or making use of the tools available (including the alignment of public finance with public goods) to shape economically efficient food and land use systems that protect biodiversity, align with positive public health outcomes or support inclusion. Banks with substantial agricultural loan books are at risk from shifts in regulations and a repurposing of the public subsidies to the food and agriculture sectors that may<sup>3536</sup>

### Private and philanthropic finance flows

Philanthropic donors now play a major role alongside governments and international organisations, with public-private partnerships (PPPs) increasingly widespread, and non-governmental organisations (NGOs) often involved in rolling out projects. One-third of overall philanthropic funding goes to agriculture, of which almost two-thirds goes to sub-Saharan Africa. In 2017, philanthropic foundations disbursed more than US\$500 million to agriculture in Africa.<sup>37</sup>

Philanthropic actors are extremely heterogeneous in their missions, core areas of work and practices, including in their support for agroecology. While the Bill and Melinda Gates Foundation (BMGF) currently dominates philanthropic investments in agriculture, US-based philanthropic foundations like the Ford Foundation and the Rockefeller Foundation have long supported and shaped the Green Revolution research agenda. Other important private philanthropies for agriculture such as the IKEA Foundation and the McKnight Foundation have recently increased their support for regenerative agriculture, agroforestry and farmer-researcher agroecological networks. Foundations focussing on nature conservation and environmental issues often tend to invest more in the promotion of agroecological practices and science (e.g., Packard Foundation). Some private philanthropic foundations are organised in funder alliance, such as the Global Alliance for the Future of Food which allies 31 philanthropic foundations. Such alliances aim to increase coordination and communication between the various funders working on similar topics, thereby creating more efficient funding mechanisms. Among those alliances, the Agroecology Fund and the Global Alliance for the Future of Food have prioritised agroecology projects and initiatives, although the total amounts of funding remain modest in the wider agricultural research for development context. The Agroecology Fund, for example, provides funding of approximately US\$1 million per year. Philanthropic alliances are also more willing to take an active part in the global development dialogue.<sup>38</sup>

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<sup>36</sup> <https://www.foodandlandusecoalition.org/wp-content/uploads/2019/09/FOLU-GrowingBetter-GlobalReport.pdf>

<sup>37</sup> [https://www.ipes-food.org/\\_img/upload/files/Money%20Flows\\_Full%20report.pdf](https://www.ipes-food.org/_img/upload/files/Money%20Flows_Full%20report.pdf)

<sup>38</sup> Idem

However, as many as 85% of projects funded by the BMGF were limited to supporting industrial agriculture and/or increasing its efficiency via targeted approaches such as improved pesticide practices, livestock vaccines or reductions in post-harvest losses. Meanwhile, only 3% of BMGF projects were agroecological, i.e., they included elements of agro-ecosystem redesign. Like many philanthropic givers, the Bill and Melinda Gates Foundation (BMGF) looks for quick, tangible returns on investment, and thus favours targeted, technological solutions, emphasizing measurable impacts on agricultural production and financial benefits for farmers.<sup>39</sup>

According to data extracted from FAOSTAT<sup>40</sup>, private donors committed to a total of approximately US\$719 million in the categories of “agricultural alternative development”, “agricultural financial services”, “agricultural research”, and “plant and post-harvest protection and pest control”, representing approximately 20% of total private grants dedicated to “agriculture, forestry, fishing” (US\$3.48 billion). These flows are dominated by BMGF, committing to almost US\$665 million flowing towards United Republic of Tanzania, Uganda, Nigeria, Kenya, India, Bangladesh and Mali. The second biggest donor is MasterCard Foundation with a comparatively low commitment of US\$40 million compared to BMGF.

### Commercial Banking and Investment

From a regulatory perspective the EU Taxonomy classification system<sup>41</sup> helpfully enables categorization of economic activities/sectors that play key roles in climate change mitigation and adaptation. By the end of 2022, technical screening criteria for pollution related objectives will be released. However, at present there is little guidance for investors and financial institutions operating in the Climate Smart Agriculture (CSA)<sup>42</sup> market, and more broadly in activities which promote sustainable food systems within which the use of chemicals and plastics will fall.

There are examples of banks focusing on developing products for agriculture. For instance, NMB has a specialist agribusiness department and has the following products specific to agriculture which are being deployed with varying degrees of success.

*Warehouse receipts financing.* Loans are given to registered farmer cooperatives/groups based on the commodity stocked in NMB approved warehouses after submission of a warehouse receipt. The minimum crop value to qualify for the scheme is 50 metric tons. NMB’s programme has received a loan of up to US\$35m from IFC, together with a trade finance guarantee of up to US\$10m.

*Out-grower loan scheme.* Targeted at contract farmers, it provides working capital finance to meet costs of farming, input purchase, crop maintenance, harvesting and other related crop development costs. NMB finances crop inputs which are either delivered by the off-taker or agri-input dealers. The harvest is contracted to the off taker who pays the crop proceeds through the bank, whereby the loan is re-paid and the remainder is available for the farmer/producer group.

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<sup>39</sup> Idem

<sup>40</sup> FAOSTAT (2022), Development Flows to Agriculture, <http://www.fao.org/faostat/en/#data/EA>

<sup>41</sup> [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en)

<sup>42</sup> <https://www.worldbank.org/en/topic/climate-smart-agriculture>



*Investment and working capital loans.* These have term loans for up to 10 years to support investment in agricultural production/productivity (e.g., through the purchase of on-farm equipment, irrigation systems, etc.)

*Emerging and commercial farmer's finance.* NMB provides loans to farmers with between 5 to 20 hectares that are within specified distances of milling/processing facilities and have some form of arrangement with an off-taker, land title and the ability to secure the loan with collateral.

There is growing activity directed towards understanding the link between finance and the protection of nature and biodiversity and more broadly, sustainable development which are both relevant within the agriculture sector. The Finance for Biodiversity (F4B) Pledge was launched in September 2020 by a group of 26 financial institutions (now 84 signatories as of 2022) from around the globe who are committed to protecting and restoring biodiversity through their finance activities and investments.<sup>43</sup>

The World Bank have formed a partnership with Rabobank on financial cooperatives that aims to contribute to the global knowledge on these institutions and their promotion building on concrete experiences.

There are several impact investment mechanisms that target sustainable and environmentally friendly agricultural investments such as AGR13 A Forest Conservation and Sustainable Agriculture Fund for Developing Countries established by Rabobank and the Danish government in 2020 to de-risk USD 1billion of private sector financing. However, the impact of these impact funds on sustainable agriculture may be limited. A 2018 survey of impact investors showed that only 6% of impact investment assets were invested in agriculture and food and existing Impact Funds with an exclusive agriculture mandate had failed in most cases to preserve their capital.

Further detailed information on commercial bank activity in the agricultural sector is provided in section 6 of this report.

## Microfinance

Microfinance has experienced rapid growth over the last few decades and has become a popular development tool among policymakers<sup>44</sup>. It has been an engine for industrial growth in many developing economies by bridging the gap in supply of basic financial services and increasing the funding opportunities. After more than 30 years of experience, the microfinance sector has reached a clear degree of maturity. Considering the inaccessibility of 3 billion people around the world to financial services, microfinance has become a critical tool and a financial mainstream with 200 million clients since the early 2000s.

Agriculture is a highly dependent sector in which small businesses and family farms are spreading at an accelerated rate. They often face the major local need e.g., land, seed, water, fertilization, and market which require sufficient funding.

In rural areas, financial products are often aimed at farmers and promoted to help them adopt more productive agricultural technologies. For instance, increasing access to credit may provide farming households with the funds to make productive investments in agricultural technologies such as improved seeds or fertilizer. Financial products may also act as a safety net to help farmers cope with the risks inherent in agricultural production, such as crop loss from too little or too much rain, and

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<sup>43</sup> <https://www.financeforbiodiversity.org>

<sup>44</sup> <https://iiste.org/Journals/index.php/RJFA/article/viewFile/32737/33627>

other unexpected expenses. In addition, participating in microfinance groups may encourage farmers to share information about new farming technologies, potentially reducing the likelihood that farmers fail to adopt innovative technologies due to lack of information. To date there has been limited evidence on the impact of either microfinance or broader financial access in rural areas, especially its impact on agricultural technology adoption.<sup>45</sup>

#### 4. Landscape of frameworks, policies, and methodologies (“Frameworks”)

Desktop-research exercise has been completed on the current landscape of approaches, frameworks, policies, and methodologies (“Frameworks”) for understanding risk or impact within financing of sustainable agriculture from four different dimensions.

- 1) Frameworks that relate to finance and:
  - a. Sustainable agriculture or sustainable food systems
  - b. Plastic use in the agriculture sector
  - c. Chemical use in the agriculture sector
- 2) Tools and models available in the agriculture sector

The research objective was to identify 1) potential frameworks which might immediately be of use to the finance sector to better manage risk, dependencies and impacts within sustainable agriculture, 2) potential frameworks which might be adapted and built on to address the issue of plastic and chemical pollution and 3) potential partners and stakeholders who may potentially support and contribute to the objectives of the FARM programme.

The research is non-exhaustive in nature but was designed to provide a thorough analysis of the landscape for the purpose of identifying a clear direction of work for Component 2 of the FARM programme.

##### 4.1 Finance related frameworks

###### a. Frameworks relevant to sustainable finance or sustainable agriculture/ sustainable food systems

The analysis has revealed limited or no reference to reduction of chemical or plastic pollution in agriculture, in existing frameworks and methodologies relevant for sustainable finance or sustainable agriculture.

Framework	Framework/ methodology	Link	Chemical and plastic pollution references
Principles for Responsible Banking (PRB)	F	<a href="#">here</a>	n/a
Principles for Responsible Investment (PRI)	F	<a href="#">here</a>	n/a
Principles for Sustainable Insurance (PSI)	F	<a href="#">here</a>	n/a
Positive impact KPI directory for land use finance (UNEP-WCMC)	F	<a href="#">here</a>	n/a

<sup>45</sup> <https://www.povertyactionlab.org/evaluation/microfinance-increase-agricultural-technology-adoption-among-rural-farmers-india>

PRB Guidance on Biodiversity with exclusion criteria and Nature positive KPIs (Key Performance Indicators)	M	<a href="#">here</a>	Pollution is one of the human-induced pressure on nature in the Science Based Target for Nature framework
PRB Guidance on Resource Efficiency and Circular Economy	M	<a href="#">here</a>	Core set of indicators includes a category for pollutant emissions; examples of KPIs for the agriculture and for chemicals
Sustainable Blue Economy Finance Guidance, notably “Turning the Tide”, “Diving Deep”, and “Recommended Exclusions for Financing a Sustainable Blue Economy” (UNEP FI)	M	<a href="#">here</a>	Reference to pollution through harmful chemicals (recommended exclusions)
ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) tool (UNEP FI, UNEP-WCMC-Global Canopy): to assess nature-related impacts and dependencies of portfolios	M	<a href="#">here</a>	Impact drivers include soil pollutants, water pollutants and solid waste (including plastic)
Guidance for Responsible Agricultural Supply Chains (OECD-FAO) sets out five step risk-based due diligence along agricultural supply chains	F	<a href="#">here</a>	The model enterprise policy includes Environmental protection, including avoiding or reducing waste and substituting or reducing the use of toxic substances (with references of lists of toxic substances)
Principles for Responsible Investment in Agriculture and Food Systems (CFS)	F	<a href="#">here</a>	Principles 6 and 8 relate to pollution (in part)
FAOSTAT Land Use Domain	F	<a href="#">here</a>	Data on conversion of land use to organic/sustainable farming practices
Land-Use Finance Tool	M	<a href="#">here</a>	Module 3 (developing a land-use finance definition ) refers to reduced or improved fertilizer use as well as pesticide application
Growing Better: Ten Critical Transitions to Transform Food and Land Use (FOLU)	M	<a href="#">here</a>	Transition 2 relates to promote use of synthetic and bio-based pesticides
E&S Performance Standards (IFC): Pollution Prevention and Pesticide Use and Management specifications	M	<a href="#">here</a>	Performance Standard 3 relates to pollution prevention
ESG Toolkit with Sector Profile on Agriculture & Aquaculture (CDC Group): Chemical & waste risks	M	<a href="#">here</a>	Produced 2 tools for plastic waste management and 2 for chemical waste management

addressed under Resource Efficiency and Pollution Prevention			
Seven Calls to Action (Global Alliance for the Future of Food)	M	<a href="#">here</a>	Call to Action 6 refers to the need to shift power which is currently concentrated in the food, seed, and agrochemical industry and advance more ecological and regenerative approaches; however, no direct reference to reduction of agrochemicals / agriplastics
Sustainable Agriculture Initiative (SAI) Farm Sustainability Performance Assessment	M	<a href="#">here</a>	Pesticides (LCA): Potential Risk Score (on people and environment)
Better Cotton Initiative – Requirement from farmers for participation in the scheme	M	<a href="#">here</a>	Requires from its farmers a complete phase out HHPs and the adoption of IPM Approaches
Bonsucro Standard – Agrochemical indicator framework	F	<a href="#">here</a>	<a href="#">Indicator 4.1.5</a> : Agrochemicals applied per hectare per year Must be less than 5kg of active ingredient /h a/y
Fairtrade International – Hazardous materials list	F	<a href="#">here</a>	Includes a clearly outlined <a href="#">Hazardous Materials List</a> . The list includes prohibited, restricted and flagged substances that are to be used with extreme caution.
Forest Stewardship Council – Guidance on IPMs for certified sites	M	<a href="#">here</a>	Has a clear <a href="#">guide on IPM</a> in certified sites, which contributes to the implementation of the FSC Pesticides Policy
International Sustainability and Carbon Certification Sustainability Requirements guidance material	M	<a href="#">here</a>	Includes <a href="#">Sustainability Requirements</a> . Section 2.4 of the guidance prescribes the avoidance of hazardous chemicals stated under relevant chemical conventions. Section 2.5 prescribes avoiding plant protection products by integrated pest management.
Roundtable on Sustainable Biomaterials – Screening and certification protocol	M	<a href="#">here</a>	RSB's <a href="#">screening tool</a> and <a href="#">certification protocol</a> include considerations for Good

			Agricultural Practices (GAP) use of pesticides, advising to use selective pesticides rather than broad spectrum pesticides and limiting to targeted application.
Rainforest Alliance – List of prohibited and risk mitigation use pesticides	F	<a href="#">here</a>	Includes <a href="#">lists of Prohibited and Risk Mitigation Use Pesticides</a> of the Rainforest Alliance Sustainable Agriculture Standard for farms’ and producer groups’ crop and cattle production.

The Principles for Responsible Banking (PRB)<sup>46</sup>, the Principles for Sustainable Insurance (PSI)<sup>47</sup> and the Principles for Responsible Investment (PRI)<sup>48</sup>, established or co-created by UNEP-FI, set the norms for sustainable finance. They provide guidance to help ensure that private finance fulfils its potential role in contributing to achieving the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change. However, these three industry-led frameworks are not specific to the agricultural sector, and they do not explicitly address chemical and plastic pollution.

UNEP FI develops resources to support the implementation of these principles by its members, such as guidance to support banks in setting targets on biodiversity protection or on resource efficiency and circular economy.

The PRB Guidance on Biodiversity includes exclusion criteria and Nature Positive KPIs, but these do not relate directly to plastic or chemical pollution.<sup>49</sup> The PRB Guidance on Resource Efficiency and Circular Economy supports banks in their efforts to set targets for resource efficiency and circular economy financing. By using this guidance, banks can understand how to align their portfolios with the UN Sustainable Development Goals (SDGs), focusing on SDG 8.41 and SDG 12 (Responsible Consumption and Production), and can contribute to financing the transition to a more resource efficient and circular economy.<sup>50</sup> The guidance is sector agnostic and can apply to all sectors, including the agriculture sector. It includes a core set of impact indicators and examples of indicators for Agriculture and for Chemicals.

UNEP FI’s Sustainable Blue Economy Finance provides exclusion criteria for financing activities with a damaging impact on the ocean and high risk. Sustainable Blue Economy Finance also offers a practical toolkit for financial institutions to pivot their activities towards financing a sustainable blue economy (“Turning the Tide” Guidance) as well as a science-based, actionable toolkit for banks, insurers, and investors to align decision-making with a sustainable blue economy (“Diving Deep” Guidance).

The ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) tool helps global banks, investors and insurance firms assess the risks that environmental degradation, such as the pollution of oceans or destruction of forests, causes for financial institutions. The web-based tool helps global banks, investors and insurance firms assess the risks that environmental degradation, such as the pollution of oceans or destruction of forests, causes for financial institutions.

It is part of the project ‘Advancing Environmental Risk Management’ which builds upon Natural Capital Finance Alliance (NCFA’s) previous work to provide a comprehensive view of the ways in which

<sup>46</sup> <https://www.unepfi.org/wordpress/wp-content/uploads/2018/12/PRB-consultation-brochure.pdf>

<sup>47</sup> [https://www.unepfi.org/fileadmin/documents/PSI\\_document-en.pdf](https://www.unepfi.org/fileadmin/documents/PSI_document-en.pdf)

<sup>48</sup> <https://www.unpri.org/download?ac=10948>

<sup>49</sup> <https://www.unepfi.org/publications/guidance-on-biodiversity-target-setting/>.

<sup>50</sup> <https://www.unepfi.org/wordpress/wp-content/uploads/2021/12/PRB-Guidance-Resource-Efficiency.pdf>

degradation or destruction of natural capital constitutes a risk to financial institutions. The first output towards including natural resource risks in cost of capital highlighted the fragmented nature of information that financial institutions face when it comes to such risks.

The collaborative effort between the Asian Development Bank (ADB), the African Development Bank (AfDB), European Bank for Reconstruction and Development (EBRD), and the United Nations Development Programme (UNDP) and International Finance Corporation (IFC) has led to the development of eight Environmental and Social (E&S) Performance Standards that describe their clients' responsibilities for managing their environmental and social risks. Resource efficiency and pollution prevention is covered under Performance Standard No. 3.<sup>51</sup>

The Pollution Prevention and Pesticide Use and Management specifications require IFC clients to avoid or minimize the release of hazardous materials and explicitly prohibit chemicals and hazardous materials that are banned internationally or are in phase out. General requirements also include implementing IPM approaches, careful selection and use of chemical pesticides, and conditions around packaging, labelling, protection of workers, production by licensed companies, and avoiding or minimizing damage to the natural enemies or pest resistance.

The UK's development investment arm the CDC Group provides tools for responsible private equity fund managers investing in emerging markets. Their Environmental, Social and Governance (ESG) Toolkit for Financial Institutions includes a Sector Profile on Agriculture & Aquaculture, which identifies risks and opportunities and recommends mitigation and management measures to be applied by investors to all their primary investments.<sup>52</sup> Chemical and waste risks are addressed under Resource Efficiency and Pollution Prevention, requiring procedures for procuring, storing, applying chemicals, and disposing their containers, applying IPM, appropriate permits and robust systems to store and dispose safely of waste, etc. The overall advice from the CDC on the agriculture and aquaculture sector is to consider using independent ESG experts to support them in transactions in this sector as their ESG risks and impacts are likely to have material implications for long-term shareholder value and to be aware of the increasing scrutiny from regulators, buyers, stakeholders in the supply chain, consumers, and Non-Governmental Organizations (NGOs) in relation to ESG issues in the sector.

In 2021, the Global Alliance for the Future of Food proposed seven bold Calls to Action<sup>53</sup>, which align with the FARM programme, including accounting for the environmental, social, and health impacts of food systems policies and practices to inform better decision-making, directing public sector investment and unlocking investment opportunities toward sustainable food systems, and creating enabling environments where agroecology and regenerative approaches flourish.

Guidance on responsible investment in the agricultural sector is provided by FAO. Together the OECD (Organization for Economic Cooperation and Development) and FAO published the Guidance for Responsible Agricultural Supply Chains which sets out a five-step risk-based due diligence along

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<sup>51</sup> International Finance Corporation (2012) Performance Standard 3, Resource Efficiency and Pollution Prevention, [https://www.ifc.org/wps/wcm/connect/1f9c590b-a09f-42e9-968c-c050d0f00fc9/PS3\\_English\\_2012.pdf?MOD=AJPERES&CVID=jjVQlwF](https://www.ifc.org/wps/wcm/connect/1f9c590b-a09f-42e9-968c-c050d0f00fc9/PS3_English_2012.pdf?MOD=AJPERES&CVID=jjVQlwF)

<sup>52</sup> CDC (2021) CDC ESG Toolkit: Agriculture and Aquaculture, <https://toolkit.cdcgroup.com/sector-profiles/agriculture-and-aquaculture/>

<sup>53</sup> Future of Food (2021), How to Transform Food Systems: 7 Calls to Action, <https://futureoffood.org/insights/how-to-transform-food-systems-7-calls-to-action/>

agricultural supply chains.<sup>54</sup> The model enterprise policy includes prevention and reduction of agrochemicals and hazardous and non-hazardous waste, and their sound management.

Developed by the EU REDD Facility and Climate Policy Initiative, the Land-use Finance Tool offers methodological guidelines to countries, jurisdictions and their partners to map public and private investments that support forest and climate objectives, and those which might be driving deforestation. The tool has eight modules, which represent the various analytical steps involved in developing a land-use finance mapping analysis. They can be approached in a linear way or independently. This is because the development of a land use mapping analysis is an iterative process, which requires revisiting certain elements of the work as data collection and analysis progress.<sup>55</sup>

In 2014, the Committee on World Food Security (CFS) published the Principles for Responsible Investment in Agriculture and Food Systems.<sup>56</sup> Although principle 8 refers to the promotion of safe and healthy agriculture and food systems and principle 6 to the conservation and sustainable management of natural resources by preventing, minimising, and remedying, negative impacts on air, land, soil, water, forests, and biodiversity, there is no specific reference to the reduction of chemical or plastic pollution in agriculture and food systems within the Principles. There may be a possibility to include the use of agrichemicals and plastics in the implementation of the principles. The same applies to the Food Finance Architecture which was established by the Finance Lever of the UN Food System Summit, helping to optimise public capital and mobilise private capital through five core imperatives and concrete actions to take.<sup>57</sup>

The report from the Food and Land Use Coalition (FOLU) “Growing Better: Ten Critical Transitions to Transform Food and Land Use” proposes a reform agenda to make global food systems and land use more sustainable.<sup>58</sup> It proposes actions for investors and financial institutions and provides concrete financing solutions to mobilise capital needed for the transformation. Reducing the overuse of agrochemicals is mentioned as an important part of achieving more healthy and resilient food and land use systems. Plastic pollution, however, is only mentioned in the context of aquaculture and fishing.

The Sustainable Agriculture Initiative (SAI) is a global food industry initiative and non-profit organization to support the development and implementation of sustainable agriculture practices along the food chain. It has developed the Farm Sustainability Assessment (FSA),<sup>59</sup> which is built around a simple set of questions to farmers and enables food and drink businesses to assess, improve, and validate on-farm sustainability in their supply chains. Currently, 10 main environmental issues are addressed with different indicators largely focusing on life cycle assessments (LCA), including Pesticides LCA with a potential risk score on people and the environment.

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<sup>54</sup> OECD-FAO Guidance for Responsible Agricultural Supply Chains: [https://www.oecd-ilibrary.org/agriculture-and-food/oecd-fao-guidance-for-responsible-agricultural-supply-chains\\_9789264251052-en](https://www.oecd-ilibrary.org/agriculture-and-food/oecd-fao-guidance-for-responsible-agricultural-supply-chains_9789264251052-en)

<sup>55</sup> [https://www.climatepolicyinitiative.org/publication/the-land-use-finance-toolbox/#:~:text=What%20is%20land-use%20finance,positive%20or%20negative\)%20on%20forests.](https://www.climatepolicyinitiative.org/publication/the-land-use-finance-toolbox/#:~:text=What%20is%20land-use%20finance,positive%20or%20negative)%20on%20forests.)

<sup>56</sup> [https://www.fao.org/fileadmin/templates/cfs/Docs1314/rai/CFS\\_Principles\\_Oct\\_2014\\_EN.pdf](https://www.fao.org/fileadmin/templates/cfs/Docs1314/rai/CFS_Principles_Oct_2014_EN.pdf)

<sup>57</sup> <https://documents1.worldbank.org/curated/en/879401632342154766/pdf/Food-Finance-Architecture-Financing-a-Healthy-Equitable-and-Sustainable-Food-System.pdf>

<sup>58</sup> <https://www.foodandlandusecoalition.org/wp-content/uploads/2019/09/FOLU-GrowingBetter-GlobalReport.pdf>

<sup>59</sup> <https://saipatform.org/fsa/>

Better Cotton Initiative (BCI),<sup>60</sup> a non-profit, multi-stakeholder governance group, promotes better standards in cotton farming and practices across 21 countries. It requires from its farmers a complete phase out of HHPs and the adoption of Integrated Pest Management (IPM) approaches.

Another labelling organization is the product-oriented multistakeholder group Fairtrade International, which works with farmers and workers of more than 300 commodities, in particular coffee, cocoa, banana, flowers, tea and sugar. Its standards are centered around farmer wellbeing, climate action and prescriptive agricultural practices throughout the production and supply of a product or ingredient. Fairtrade International includes a clearly outline hazardous materials list with prohibited, restricted and flagged substances that are to be used with extreme caution.<sup>61</sup>

The Roundtable on Sustainable Biomaterials (RSB), a global membership organization driving the just and sustainable transition to a bio-based and circular economy, has developed a screening tool<sup>62</sup> and certification protocol<sup>63</sup> which includes considerations for Good Agricultural Practices (GAP) recommended use of pesticides, herbicides or chemical fertilizers. They advise using selective pesticides rather than a broad spectrum and limiting to targeted application but restrictions on specific substances were not identified.

Bonsucro Standard is dedicated to reducing the environmental and social impacts of sugarcane production while recognizing the need for economic viability. Agrochemicals applied per hectare per year, measured by indicator 4.1.5,<sup>64</sup> must be less than 5kg of active ingredient of agrochemicals applied. This also contributes to the initiative's core indicator, namely to minimize air, soil and water contamination.

The Sustainable Agriculture Standard for farms' and producers' groups' crop and cattle production of The Rainforest Alliance – an international non-profit organization working at the intersection of business, agriculture, and forests to make responsible business the new normal through certification – also includes lists of prohibited and risk mitigation use pesticides<sup>65</sup>.

Forest Stewardship Council (FSC) is another multi-stakeholder organization and market-based certification program that promotes responsible management of the world's forests via timber certification. FSC has a clear guide on IPM in certified sites,<sup>66</sup> which contributes to the implementation of the FSC Pesticide Policy whose core elements are a) the identification and avoidance of “highly hazardous” pesticides – use of which is only possible in exceptional circumstances; b) the promotion of “non-chemical” methods of pest management; and c) the appropriate use of any pesticides applied. In addition, it includes a list of highly hazardous pesticides.

The six previously mentioned labelling organizations are also members of the IPM Coalition, which launched an app called “Pesticides and Alternatives”<sup>67</sup> specifically designed to reduce the use of highly toxic pesticides in agriculture among farmers.

International Sustainability and Carbon Certification (ISCC) is the first recognized biomass and bioenergy certification scheme. It has developed the ISCC PLUS (ISCC+) certification scheme, which

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<sup>60</sup> <https://bettercotton.org>

<sup>61</sup> [https://files.fairtrade.net/standards/Hazardous\\_Materials\\_List\\_EN.pdf](https://files.fairtrade.net/standards/Hazardous_Materials_List_EN.pdf)

<sup>62</sup> [https://rsb.org/wp-content/uploads/2018/07/RSB-GUI-01-002-02\\_Screening-Tool.pdf](https://rsb.org/wp-content/uploads/2018/07/RSB-GUI-01-002-02_Screening-Tool.pdf)

<sup>63</sup> <https://rsb.org/wp-content/uploads/2017/07/RSB-PRO-01-002-Certification-Protocol-SAI.pdf>

<sup>64</sup> <https://bonsucro.com/wp-content/uploads/2017/01/Bonsucro-Production-Standard-4.1.pdf>

<sup>65</sup> <https://www.rainforest-alliance.org/de/resource-item/listen-fuer-den-umgang-mit-pflanzenschutzmitteln/>

<sup>66</sup> <https://connect.fsc.org/document-centre/documents/resource/383>

<sup>67</sup> <https://bettercotton.org/nine-sustainability-initiatives-collaborate-to-tackle-highly-toxic-pesticides/>



includes the sustainability and traceability of all types of agricultural and forestry feedstocks, such as crops and wood used in the production of biofuel, as well as agricultural waste, and processing residues. ISCC lays down specific sustainability requirements,<sup>68</sup> of which section 2.4 outlines the restrictions on plant protection products and seeds. The guidance also prescribes the avoidance of hazardous chemicals stated under relevant chemical conventions. Section 2.5 calls for the avoidance of plant protection products by integrated pest management. However, no restriction of chemicals beyond the chemical conventions is mentioned.

#### b. Frameworks, policies, and methodologies relating to finance and plastic use in agriculture

No global frameworks, policies, and methodologies have been identified which specifically relate to financing the reduction of plastic use in agriculture. Nonetheless, different frameworks exist which could be relevant for financial institutions in addressing the issue of plastic waste and plastic pollution more generally.

The Global Plastic Action Partnership (GPAP), which brings together policymakers, businesses, civil society advocates and entrepreneurs to align on a common approach for addressing plastic pollution and waste in the most effective and sustainable manner, has published a Toolkit for Investment to unlock the Plastics Circular Economy in 2022.<sup>69</sup> In countries committed to taking bold action to combat plastic pollution, GPAP works with local partners to build a unified national roadmap to tackling plastic pollution - so-called National Plastic Action Partnerships (NPAPs), which bring together the most influential players across the plastics value chain, from policymakers to consumer goods giants to non-governmental organizations. Since launching in September 2018, GPAP has announced NPAPs with four national governments - Indonesia, Ghana, Viet Nam and most recently Nigeria - and is developing NPAPs with four additional states.<sup>70</sup>

<sup>71</sup>

Ellen MacArthur's publication "Financing the Circular Economy" proposes recommendations on how the financial services sector can help scale the circular economy in the plastics and packaging sector.<sup>72</sup>

As an outcome of UNEA (United Nations Environment Assembly) 5.2, the resolution "End plastic pollution: Towards an international legally binding instrument" lays the groundwork to negotiate a comprehensive, global treaty on plastics by 2024 which will have implications for all actors along the plastic value chain and related stakeholders, including the finance sector.<sup>73</sup> The "Global Agreement to Prevent Plastic Pollution - Exploring the Financing Needs and Opportunities" by the Nordic Council of Ministers discusses viable options for the basic financial set-up, specific financial support, and

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<sup>68</sup> [https://www.icao.int/environmental-protection/CORSIA/Documents/SCS-Evaluation/ISCC/ISCC\\_CORSIA\\_202\\_Sustainability\\_Requirements\\_v1.1.pdf](https://www.icao.int/environmental-protection/CORSIA/Documents/SCS-Evaluation/ISCC/ISCC_CORSIA_202_Sustainability_Requirements_v1.1.pdf)

<sup>69</sup>

[https://globalplasticaction.org/wp-content/uploads/GPAP\\_Finance\\_Policy\\_Toolkit-2022.pdf](https://globalplasticaction.org/wp-content/uploads/GPAP_Finance_Policy_Toolkit-2022.pdf)

<sup>70</sup> <https://www.globalplasticaction.org/countries>

<sup>72</sup> <https://ellenmacarthurfoundation.org/financing-the-circular-economy-capturing-the-opportunity>

<sup>73</sup> <https://www.unep.org/news-and-stories/press-release/historic-day-campaign-beat-plastic-pollution-nations-commit-develop>

approaches to resource mobilisation and delivery that ensure effective operation and implementation of the the future international plastic treaty at international and national levels.<sup>74</sup>

Regional and national laws regulating the production, use and disposal of plastics might be of further relevance for financial institutions and their clients. At European level, for instance, Agriculture Plastics Environment (APE) Europe has developed the European Plasticulture Strategy which aims at making a significant contribution to Agri-Plastic waste management in Europe by establishing a shared responsibility and governance.<sup>75</sup>

The Ocean Plastics Charter<sup>76</sup> aims to bring together leading countries, sub-national governments, businesses, and civil society organizations to commit to a more resource efficient and sustainable approach to keep plastics in the economy, and out of the environment. By adopting the Charter, partners commit to act, notably through policy measures on:

- sustainable design, production and after-use markets;
- collection and management systems and infrastructures;
- sustainable lifestyles and education;
- research, innovation and modern technologies; and
- coastal and shoreline.

The Pew Charitable Trusts partnered with SYSTEMIQ to build on previous research and create a first-of-its-kind model of the global plastics system, with results suggesting that there is an evidence-based, comprehensive, integrated, and economically attractive pathway to reduce plastic pollution entering oceans. The findings of the analysis were published in the Breaking the Plastic Wave publication which is a comprehensive assessment of pathways towards stopping ocean plastic pollution.<sup>77</sup> ClientEarth, have produced the paper “Risk Unwrapped”: which assesses the degree to which plastic pollution should be viewed as a material business risk.<sup>78</sup>

UNEP will publish in Q4 2022 a flagship report on plastic pollution, which will identify pathways for a system change to prevent and reduce plastic pollution globally.

The UNEP FI report “Unwrapping the risks of plastic pollution to the insurance industry” shows that plastic pollution risks can affect insurance and investment portfolios in the form of physical, transition, liability and reputational risks. These range from threats to human health to evolving liability claims connected to marine litter and plastic pollution should be closely monitored by insurers in coming years. The study identifies how risks related to plastic pollution play out across insurance lines and asset classes in which insurers invest. It argues that insurers should take an active role in addressing the risks related to plastic pollution and in contributing to global efforts to reduce it. Insurers can

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<sup>74</sup> <https://www.norden.org/en/publication/global-agreement-prevent-plastic-pollution>

<sup>75</sup> <https://apeeurope.eu/wp-content/uploads/2021/10/EPS-EPA-2021.pdf>

<sup>76</sup> <https://www.canada.ca/en/environment-climate-change/corporate/international-affairs/partnerships-organizations/ocean-plastics-charter.html>

<sup>77</sup> [https://www.pewtrusts.org/-/media/assets/2020/07/breakingtheplasticwave\\_summary.pdf](https://www.pewtrusts.org/-/media/assets/2020/07/breakingtheplasticwave_summary.pdf)

<sup>78</sup> <https://www.documents.clientearth.org/wp-content/uploads/library/2018-07-24-risk-unwrapped-plasticpollution-as-a-material-business-risk-ce-en.pdf>

consider the following approaches: Introduce policies to reduce plastic, understand, prevent and reduce plastic pollution, insure risks associated with plastic pollution, support alternatives to plastic and support wider efforts to reduce plastic pollution.<sup>79</sup>

Minderoo Foundation, with the support of UNEP FI, developed a report “The Price of Plastic Pollution: Social Costs and Corporate Liabilities” which analyses, from a quantitative perspective, the plastic related social costs and corporate liabilities facing the plastics industry and its insurers and investors.<sup>80</sup> This report is, for the first time, an attempt to provide a quantitative estimate of these costs and liabilities, and guides businesses and financial institutions on priority actions to be taken to reduce business risks arising from plastic pollution. The report has revealed that plastic pollution costs society over US\$100bn per year.

### c. Frameworks, policies, and methodologies related to chemical use in agriculture

No frameworks, policies, and methodologies have been identified which specifically relates to financing the reduction of chemical pollution in agriculture.

The European Green Deal, notably its Farm to Fork strategy<sup>81</sup> and 2030 Biodiversity strategy<sup>82</sup>, outline how the EU wants to guide the interplay of farming, food, and nature in the coming decade. They address the topic of chemical pollution in agriculture, promoting the advancement of bio-fertilisers and bio-chemicals.

The EU Common Agriculture Policy (CAP) helpfully provides 28 indicators, including e.g., consumption of pesticides, pesticide risk which could be of use from a data reporting and analysis perspective for private finance.<sup>83</sup>

Of further relevance are national, regional and international frameworks which ban or regulate the use of certain chemicals (e.g., REACH<sup>84</sup> in the EU, although these are not specific to the use of chemicals in agriculture).

“Financing Regenerative Agricultural Practices: A Recommendation for BRICS” is another interesting brief which makes a case for BRICS, as a forum, to build a strategy for financing regenerative agriculture.<sup>85</sup>

The Farm Requirements of the new Sustainable Agriculture Standard of the Rainforest Alliance provide a practical framework for sustainable agriculture, and a targeted set of innovations to support certified farmers.<sup>86</sup> The report “Soil Wealth - Investing in Regenerative Agriculture across Asset Classes”

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<sup>79</sup> <https://www.unepfi.org/industries/insurance/psi-unwrapping-the-risks-of-plastic-pollution-to-the-insurance-industry/>

<sup>80</sup> <https://cdn.minderoo.org/content/uploads/2022/10/14130457/The-Price-of-Plastic-Pollution.pdf>

<sup>81</sup> [https://food.ec.europa.eu/system/files/2020-05/f2f\\_action-plan\\_2020\\_strategy-info\\_en.pdf](https://food.ec.europa.eu/system/files/2020-05/f2f_action-plan_2020_strategy-info_en.pdf)

<sup>82</sup> [https://ec.europa.eu/environment/europeangreencapital/wp-content/uploads/2020/07/Biodiversity\\_2030\\_for\\_EGCA-urban-KDK.pdf](https://ec.europa.eu/environment/europeangreencapital/wp-content/uploads/2020/07/Biodiversity_2030_for_EGCA-urban-KDK.pdf)

<sup>83</sup> (<https://ec.europa.eu/eurostat/web/agriculture/agri-environmental-indicators>)

<sup>84</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1907&from=EN>

<sup>85</sup> [https://www.orfonline.org/wp-content/uploads/2021/09/ORF\\_IssueBrief\\_491\\_BRICS-RegenerativeAgri.pdf](https://www.orfonline.org/wp-content/uploads/2021/09/ORF_IssueBrief_491_BRICS-RegenerativeAgri.pdf)

<sup>86</sup> <https://www.rainforest-alliance.org/wp-content/uploads/2022/01/2020-RA-Sustainable-Agriculture-Standard-Farm-Requirements.pdf>

provides interesting insights and recommendations on the reduction of chemicals in agriculture for a diverse audience of stakeholders, including investors, philanthropic funders, and policymakers.<sup>87</sup> It should be noted that the report has a US (United States) focus by quantifying the US landscape of investment funds that explicitly make sustainable food and agriculture or regenerative agriculture part of their investment strategy or criteria across investment asset classes.

Although Ellen MacArthur Foundation (EMF)'s publication "Financing the Circular Economy"<sup>88</sup> is not specific to agriculture, it proposes key circular economy strategies for the food and agriculture sector and urges that a shift is made from synthetic to organic fertilisers, that finance supports more regenerative agricultural practices, employs crop rotation practices and greater crop variations are used.<sup>89</sup> EMF's report "The Big Food Redesign" shows that circular design for food, in which ingredients are sourced through regenerative production, offers significantly greater benefits than using the same ingredients as today.<sup>90</sup> The report also highlights the need to reduce chemical pollution in agriculture.

#### 4.2 Tools and models available in the agriculture sector

In view of the lack of measurement of risks and impacts of chemical and plastic pollution in the agriculture portfolio of financial institutions (see Section 6 below), 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 UN Environment Programme World Conservation Monitoring Centre (WCMC) assessed their existing database of 299 tools and datasets.

WCMC selected ten datasets or tools with relevance for potential further development, based on the following criteria:

- Terms of use (able to be used for commercial purposes).
- The potential usability for the private sector and financial institutions.
- Data or tool relevant at the global scale.
- Included at least two of the three priority themes on the GEF FARM project: agriculture, pollution from chemicals, or pollution from plastics.

The list of tools and datasets analysed was as follows:

- ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) (see section 4.1a)
- Hand-in-Hand Geospatial Platform
- FAOSTAT Land Use Domain (see section 4.1a)
- Harmonized World Soil Database
- IRIS+
- USEtox Model
- OECD.Stat
- OPAL (Offset Portfolio Analyzer and Locator)
- Resource Watch
- What a Waste Global Database

#### General suggestions and recommendations

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<sup>87</sup> <https://croataninstitute.org/wp-content/uploads/2021/03/soil-wealth-2019.pdf>

<sup>88</sup> <https://emf.thirdlight.com/link/TheBigFoodRedesignReport/@/#id=2>

<sup>89</sup> <https://ellenmacarthurfoundation.org/financing-the-circular-economy-capturing-the-opportunity>

<sup>90</sup> <https://ellenmacarthurfoundation.org/resources/food-redesign/overview>

The analysis concluded that there is sufficient information available on agriculture pollution on water, soils, and nutrients to understand the impact of agriculture on soils. However, there is not enough for developing a global outlook of the impact of chemicals derived from agriculture, since there is not much detail on specific pesticides' impact. Nevertheless, to match the specific goal of the GEF FARM project, datasets need to be arranged in a decision-making tool with a user-friendly interface for financial institutions.

Furthermore, the review did not identify any tools or datasets on plastic-related risks and impacts in the agriculture sector. This suggests a lack of recognition or understanding of the problem and highlights that it could be worth raising global awareness about this issue.

The analysis recommended to align a possible future tool to current and forthcoming international agreements, to allow supporting progress to their fulfillment that support the elimination or reduction of chemicals and plastic pollution, for example:

- The Post-2020 Global Biodiversity framework, which will include targets on elimination of pollution including plastics and pesticides, and sustainable agriculture.
- The Strategic Approach to International Chemicals Management.
- The global legally binding agreement to end plastic pollution.
- The Stockholm Convention on Persistent Organic Pollutants.

As mentioned above, none of the reviewed tools seem to provide information on the link between agriculture and plastics pollution. It seems that the link between agricultural practices and plastic pollution is not acknowledged so far among the tools. Therefore, it would be useful to conduct user needs research within the financial sector to address this knowledge gap and inform future development work.

Drawing on lessons learnt from the development of the ENCORE tool, the following activities are suggested to be included in the GEF FARM project's tool development work plan:

- Scoping and user needs assessment (responding to the point raised in the previous bullet point).
- Exploring the potential use or further development of existing tools.
- Subject-matter research streams (suggested as two streams – one for chemicals pollution and one for plastic pollution).
- Tool development.
- Communications activities.

It is recommended to conduct user experience tests with financial institutions, to identify specific gaps and requirements from a functionality perspective, which could respond to user needs and enhance uptake/usability of the tool.

It is suggested to explore enhancing interoperability among the tools, where, for example, some of the FAO tools could connect to ENCORE data (and vice versa) to create modules responding to financial sector needs. Thus, instead of creating new tools, one could envision greater collaboration to share data and create new modules within existing tools, and pursuing greater efficiency and return on investment for donors.

In conclusion, the study has identified ENCORE, Hand-in-Hand Geospatial Platform, FAOSTAT Land Use Domain, and the Global Plastics Outlook of OECD.Stat as tools with high potential for further development in the GEF FARM context.

## 5. Landscape of organisations, associations, and initiatives

Desktop research has shown that here are a number of organisations / associations / networks which could provide valuable guidance and support to increase finance for more sustainable and regenerative agricultural practices, including a reduction of the use of agrochemicals and agroplastics. They usually do not simultaneously address the topic of plastic pollution in agriculture.

### Potential collaboration partners

Organisation / Association / Initiative	Link	Addresses chemical and plastic pollution?
<b>Prioritised stakeholders</b>		
UNEP Economics of Nature Unit (TEEB)	<a href="#">here</a>	Chemical pollution
Strategic Approach to International Chemicals Management (SAICM)	<a href="#">here</a>	Chemical pollution
Good Food Finance Network	<a href="#">here</a>	Pollution
UNEP Climate Finance Unit	<a href="#">here</a>	Not specifically
Carbon Disclosure Project (CDP)	<a href="#">here</a>	Plastic pollution questionnaire currently being developed
Planet Tracker	<a href="#">here</a>	Chemical pollution
Global Innovation Lab for Climate Finance (the Lab)	<a href="#">here</a>	Not specifically
Organisation for Economic Co-operation and Development (OECD)	<a href="#">here</a>	Both
Food and Agriculture Organisation of the United Nations (FAO)	<a href="#">here</a>	Both
International Finance Corporation (IFC)	<a href="#">here</a>	Both; has developed an E&S Performance Standard referring to pollution prevention and pesticide use / management
World Bank	<a href="#">here</a>	Plastic pollution, not specifically addressing agrochemical pollution (focus lies on climate-smart agriculture)
Asian Development Bank (consortium partner)	<a href="#">here</a>	Plastic pollution (not related to agriculture)
African Development Bank (AfDB)	<a href="#">here</a>	Plastic pollution (not related to agriculture)
Inter-American Development Bank (IABD)	<a href="#">here</a>	Plastic pollution (not related to agri), supports sustainable agricultural practices

		but not specifically addressing chemical pollution
<b>Other stakeholders</b>		
Blended Finance Taskforce	<a href="#">here</a>	Not specifically
Chemsec	<a href="#">here</a>	Chemical pollution
Ellen MacArthur Foundation (EMF)	<a href="#">here</a>	Both
Farm Animal Investment Risk and Return (FAIRR)	<a href="#">here</a>	Not specifically
Finance Lever (UN Food Systems Summit)	<a href="#">here</a>	Not specifically
Food and Land Use Coalition (FOLU)	<a href="#">here</a>	Chemical pollution
Global Plastic Action Partnership (GPAP)	<a href="#">here</a>	Plastic pollution
International Fertilizer Development Center (IFDC)	<a href="#">here</a>	Chemical pollution
International Food Policy Research Institute (IFPRI)	<a href="#">here</a>	Both
Worldwide Fund for Nature (WWF)	<a href="#">here</a>	Plastic pollution (not related to agriculture)
AGRI3 Fund	<a href="#">here</a>	Not specifically
Scale for Resilience	<a href="#">here</a>	Chemical pollution
VERRA's Plastic Standard	<a href="#">here</a>	Plastic pollution (not related to agriculture)

As displayed in the table above, there are a wide range of different initiatives by a variety of organisations which aim at supporting the transition to more regenerative agriculture, including the reduction of chemicals in agriculture, as well as reducing plastics. They have been prioritised depending on what they can bring to the activities to be developed under the FARM Program. The FARM Program will need knowledge partners to make science and criteria for chemicals and plastics available to the finance sector and provide support to the development of the guidance and capacity building program; as well as partners who can share experience and expertise, and provide case studies.

#### **Prioritised Stakeholders:**

**UNEP Economics of Nature Unit**, otherwise known as (**TEEB**), is investing a significant amount in valuing ecosystems impacts and dependencies in agricultural value chains.<sup>61</sup> 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.

**The Strategic Approach to International Chemicals Management (SAICM)** is a policy framework to promote chemical safety around the world.<sup>91</sup> The Declaration and Strategy are accompanied by a Global Plan of Action that serves as a working tool and guidance document to support implementation of SAICM and other relevant international instruments and initiatives. It does not specifically focusing on finance, however, it is relevant for adequate financing for sound management of chemicals and waste. A future framework for sound management of chemicals and waste beyond 2020 will be defined by the Fifth session of the International Conference for Chemicals Management (ICCM5) which has been postponed due to Covid 19 and will take place in September 2023. It could be highly relevant to engage with SAICM on the chemical aspect and build on the beyond 2020 framework which is currently under process, in which finance is gaining momentum.

The **Good Food Finance Network** gathers high-level leaders, technical experts and agropreneurs from finance, business and the public sector to promote investment and provide finance solutions for sustainable food systems. To this end, it has identified new financial instruments, financing strategies and enabling policies (14 Actionable Areas of Innovation).<sup>92</sup> By providing a platform for collaboration between a variety of stakeholders on the instrumentation of a global transition to finance for sustainable food systems, including roundtables, it could be relevant for banks to become involved. However, it must be noted that there is no specific reference to chemicals or plastics.

The **UNEP Climate Finance Initiative** aims at supporting 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. The Climate Finance Initiative recently published a report highlighting a series of key recommendations to accelerate adaptation finance from the private sector.<sup>93</sup>

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<sup>91</sup> <http://www.saicm.org/About/Overview/tabid/5522/language/en-US/Default.aspx>

<sup>92</sup> <https://goodfood.finance/2021/09/20/2nd-good-food-finance-high-level-leaders-roundtable/>

<sup>93</sup> <https://www.unep.org/explore-topics/climate-action/what-we-do/climate-finance>



The **Carbon Disclosure Project (CDP)** runs the global environmental disclosure system. Launched in 2019, CDP's Sustainable Food Systems Initiative<sup>94</sup> endeavors to take a systems value chain approach to demonstrate the direct link and impact of our current food system on emissions, water security and deforestation in order to shift business and procurement practices – ultimately working toward a food system capable of surviving and thriving in a 1.5 °C world.

**Planet Tracker** provides information to financial professionals to assist investment decision-making through data-driven and financially grounded research and has already established a programme of proactive engagement with financial institutions. For instance, Planet Tracker's Toxic Footprints shows how investors are exposed to petrochemical facilities and their toxic releases in the Gulf of Mexico, USA.<sup>95</sup> Planet Tracker's Food Systems Transition Programme<sup>96</sup> examines the relationship between food production, environmental risks and financial return with the aim to align capital markets with the sustainable management of agriculture resources.

The **Global Innovation Lab for Climate Finance (The Lab)** through its projects and ideas focused on sustainable agriculture can help identify existing international practices and sustainable financial instruments such as funds, green guarantees, climate insurance, thematic bonds and other financial tools which are mobilizing capital to promoting sustainable agriculture development. The Lab also engages high-level leaders and financial experts from both the public and private sectors, thus its wide network will be beneficial for stakeholders' engagement on the Green Forum.<sup>97</sup>

Since 1992, the **Organisation for Economic Co-operation and Development (OECD)**'s Programme on Pesticides and Sustainable Pest Management has worked to streamline the process of pesticide approval and registration by helping governments work together to evaluate the risks of individual pesticides more quickly and thoroughly. It has also developed tools and approaches to reduce risks from pesticides and to evaluate progress in risk reduction, taking into account impacts caused by climate change and threats to biodiversity. More recently, it has developed a cooperative global approach to the regulation of agricultural pesticides and sustainable pest management.<sup>98</sup> OECD's report "Global Plastics Outlook – Policy Scenarios to 2060", the second of two reports, provides a set of coherent projections on plastics to 2060, including plastics use and waste as well as the environmental impacts.<sup>99</sup>

The **Food and Agriculture Organization of the United Nations (FAO)** leads international efforts to defeat hunger and improve nutrition and food security. The organisation addresses both plastic and chemical pollution in agriculture: in December 2021, FAO published its first global report "Assessment of agricultural plastics and their sustainability: a call for action".<sup>100</sup> The report revealed alarming facts and figures and helped raise awareness on agricultural plastic pollution. In addition, FAO and its projects promote sustainable crop production practices, especially reduced pesticide use.<sup>101</sup> Together

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<sup>94</sup> <https://www.cdp.net/en/sustainable-food-systems>

<sup>95</sup> <https://planet-tracker.org/investors-toxic-footprints-revealed/>

<sup>96</sup> [https://planet-tracker.org/reports/?redirect\\_to=https%3A%2F%2Fplanet-tracker.org%2Ffood-system-transition%2F#food-land-use](https://planet-tracker.org/reports/?redirect_to=https%3A%2F%2Fplanet-tracker.org%2Ffood-system-transition%2F#food-land-use)

<sup>97</sup> <https://unfccc.int/climate-action/un-global-climate-action-awards/financing-for-climate-friendly-investment/global-innovation-lab>

<sup>98</sup> <https://www.oecd.org/chemicalsafety/pesticides-biocides/OECD-Pest-Vision-Final.pdf>

<sup>99</sup> <https://www.oecd.org/environment/plastics/>

<sup>100</sup> <https://www.fao.org/publications/card/en/c/CB7856EN>

<sup>101</sup> <https://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/en/>

with the World Health Organization (WHO), the FAO published in 2014 the "International Code of Conduct on Pesticide Management"<sup>102</sup>, which serves as a voluntary framework on pesticide management for all public and private entities engaged in, or associated with, production, regulation and management of pesticides. It has been endorsed by FAO members, and is supported by key pesticide industry associations and civil society organizations. FAO has also supported several national and regional programmes to tackle HHPs in Africa, Caribbean, Latin America, South East Asia and Pacific.<sup>103</sup>

**The International Finance Corporation (IFC)**, a member of the World Bank Group, aims at advancing economic development and improves the lives of people by encouraging the growth of the private sector in developing countries by creating new markets, mobilizing other investors, and sharing expertise. Together with its partners, it has developed eight Environmental and Social (E&S) Performance Standards that describe their clients' responsibilities for managing their environmental and social risks.<sup>104</sup> As previously mentioned in section 4.1, Resource efficiency and pollution prevention is covered under Performance Standard No. 3. IFC also aims at strengthening sustainability in the plastics industry.<sup>105</sup>

The **World Bank** is currently scaling up climate-smart agriculture. In its first Climate Change Action Plan (2016-2020)<sup>106</sup>, as well as the forthcoming update covering 2021-2025, the World Bank committed to working with countries to deliver climate-smart agriculture that achieves the triple win of increased productivity, enhanced resilience, and reduced emissions. In 2020, 52 percent of World Bank financing in agriculture also targeted climate adaptation and mitigation.<sup>107</sup>

The **Asian Development Bank (ADB)** supports research that boosts agricultural productivity, incomes, and livelihoods, including studies to reduce yield gaps, increase crop yield potential and ways to reduce crop losses during harvest, storage, or processing. ADB also works with international agricultural research groups on issues like stress tolerant varieties and better crop management.<sup>108</sup> In September 2022, ADB announced plans to provide at least \$14 billion over 2022-2025 in a comprehensive program of support to ease a worsening food crisis in the region, and improve long-term food security by strengthening food systems against the impacts of climate change and biodiversity loss.<sup>109</sup> While the ADB supports several projects related to the improved management of hazardous chemicals<sup>110</sup>, the reduction of plastics in agriculture is not specifically addressed.

The overarching objective of the **African Development Bank (AfDB) Group** is to spur sustainable economic development and social progress in its regional member countries (RMCs), thus contributing to poverty reduction. In the area of Natural Resource Management, emphasis lies on improved conservation, utilization, governance and management regimes for land, water, fish and forest

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<sup>102</sup> <https://www.fao.org/3/I3604E/i3604e.pdf>

<sup>103</sup> <https://www.fao.org/pest-and-pesticide-management/pesticide-risk-reduction/hhps/fao-and-hhps/en/>

<sup>104</sup> [https://www.ifc.org/wps/wcm/connect/24e6bfc3-5de3-444d-be9b-226188c95454/PS\\_English\\_2012\\_Full-Documents.pdf?MOD=AJPERES&CVID=jkV-X6h](https://www.ifc.org/wps/wcm/connect/24e6bfc3-5de3-444d-be9b-226188c95454/PS_English_2012_Full-Documents.pdf?MOD=AJPERES&CVID=jkV-X6h)

<sup>105</sup> [https://www.ifc.org/wps/wcm/connect/industry\\_ext\\_content/ifc\\_external\\_corporate\\_site/manufacturing/resources/strengthening+sustainability+in+the+plastics+industry](https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/manufacturing/resources/strengthening+sustainability+in+the+plastics+industry)

<sup>106</sup> <https://openknowledge.worldbank.org/handle/10986/24451>

<sup>107</sup> <https://www.worldbank.org/en/topic/climate-smart-agriculture>

<sup>108</sup> <https://www.adb.org/what-we-do/sectors/agriculture/overview>

<sup>109</sup> <https://www.adb.org/what-we-do/sectors/agriculture/long-term-food-security>

<sup>110</sup> <https://www.adb.org/projects/52019-001/main>

resources as well as conserving biodiversity. Particular focus is being given to those operations which demonstrate production of regional public goods.<sup>111</sup> No reference has been found regarding the reduction of chemical and plastic pollution in agriculture.

The **Inter American Development Bank (IADB)** established the AgroLAC 2025 multi-donor funding platform with the aim to mobilize \$30-50 million by 2025, bringing together a broad range of public and private sector donors from around the world to identify and support sustainable agricultural practices and market systems in the region.<sup>112</sup> The bank has a variety of projects related to sustainable management of natural resources and low carbon agriculture<sup>113,114</sup> and provides loans aimed at fostering sustainable farming in the LAC region<sup>115</sup>. The innovation laboratory of the Inter-American Development Bank “IDB Lab” convened the BlueTech for Waste Challenge, an initiative to find innovative solutions that contribute to the sustainable management of chemicals and hazardous waste in twelve countries in the Caribbean in collaboration with GEF. Together with the Climate Bonds Initiative, IADB also launched the Protected Agriculture Criteria for certification under the Climate Bonds Standard, which includes a stipulation on chemicals used<sup>116</sup>. The bank is committed to leverage its blended finance resources and advisory services to pilot, replicate and scale projects with innovative practices and business models that can lead the way to regenerative agriculture and has already closed different deals in collaboration with GEF blended finance resources.<sup>117</sup> Although the bank has shown commitments in tackling plastic pollution, notably through its IDB Lab, it does not specifically address the issue of plastics in agriculture.

#### **Other stakeholders:**

The **Blended Finance Taskforce** identified key barriers to the effective use of blended finance and called for action from leaders in the investment and development finance community in its flagship report “Better Finance, Better World”.<sup>118</sup>

**Chemsec** is a technical advocacy for recommending limitations on chemicals, driving the change to sustainable chemicals. They publish the ChemScore<sup>119</sup> ranking the world’s top 50 chemical producers on their work to reduce their chemical footprint and are engaged with investors. However, there is no focus on agrochemicals.

**Ellen MacArthur Foundation (EMF)** engages with a wide range of actors, including major banks; publishes reports on financing the circular economy and related risks and opportunities; develops measurement tools to improve data quality & availability (e.g. Circulytics); and provides a variety of relevant initiatives to increase financing of circular economy principles, which encompass the

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<sup>111</sup> <https://www.afdb.org/en/topics-and-sectors/sectors/agriculture-agro-industries/bank-group-vision>

<sup>112</sup> <https://www.iadb.org/en/sector/agriculture/agrolac/home>

<sup>113</sup> <https://www.iadb.org/en/sector/agriculture/agrolac/home>

<sup>114</sup> <https://www.iadb.org/en/projects-search?country=&sector=AG&status=&query=sustainable>

<sup>115</sup> <https://www.iadb.org/en/news/idb-approves-15-million-loan-spur-sustainable-farming-and-tourism-belize>

<sup>116</sup> <https://www.climatebonds.net/2019/05/climate-bonds-idb-launch-protected-agriculture-criteria-fira-mexico-first-certify-new>

<sup>117</sup> <https://idbinvest.org/en/blog/agribusiness/regenerative-agriculture-offers-fresh-solutions-latin-america-caribbean>

<sup>118</sup> [http://s3.amazonaws.com/aws-bsdc/BFT\\_BetterFinance\\_final\\_01192018.pdf#asset:614:url](http://s3.amazonaws.com/aws-bsdc/BFT_BetterFinance_final_01192018.pdf#asset:614:url)

<sup>119</sup> <https://chemscore.chemsec.org>

reduction of plastic waste<sup>120</sup> as well as the adaptation of more regenerative agricultural practices with less chemical inputs.<sup>121,122</sup>

Another relevant association could be **Farm Animal Investment Risk and Return (FAIRR)**, the world's fastest-growing investor network focusing on ESG risks in the global food sector. It helps investors identify and prioritise these factors through innovative research which can be integrated into investment decision-making and active stewardship processes. FAIRR produces and analyses data from the world's largest protein producers and manufacturers to help minimize risks and maximize profits. It works closely with investors and provides them with the tools necessary to address the most material issues, including climate change, deforestation and water scarcity. In addition, FAIRR produces a comprehensive annual assessment of the largest protein producers on critical ESG issues and has created products, such as the Collier FAIRR Climate Risk Tool,<sup>123</sup> to help investors quantify the implications of climate change on the meat sector.

The **Finance Lever** of the Food Systems Summit aims to leverage finance as a tool to enable a transition to a more sustainable global food system. More specifically, it seeks to increase alignment on what actions which stakeholders need to take to mobilize the additional US\$300b+ needed to transform food systems.<sup>124</sup> It has also established the Food Finance Architecture (see section 2.1) to optimize public spending and mobilize private capital for a global food system transformation.

The **Food and Land Use Coalition (FOLU)** aims at catalyzing and speeding up the transformation to sustainable food and land use systems.<sup>125</sup> To this end, it develops evidence-based transformation pathways and empowers diverse change leaders across public, private and civil society sectors. Hence, it could be an additional partner for banks to engage with to increase financing for more regenerative agricultural practices, especially regarding the reduction of agrochemicals.

With its workstream on unlocking financing, the **Global Plastic Action Partnership (GPAP)** designs and supports strategic tools and resources that facilitate investment in a circular economy for plastics.<sup>126</sup> It aims to identify barriers to investment and highlight emerging opportunities, while delivering solutions in partnership with global and local stakeholders. In February 2022, it published the Unlocking the Plastics Circular Economy as a toolkit for both public and private investment.<sup>127</sup> Morgan Stanley, among others, joined the GPAP as an affiliate member. Although GPAP does not specifically address agriplastic pollution, a focus on financing the reduction of plastic pollution in the agricultural sector resonates with their overall objectives.

Ongoing initiatives from the **International Fertilizer Development Center (IFDC)** bring together groups of farmers, commodity buyers, agro-input dealers, banks, service providers, and processors to expand access to input, finance, and output markets for smallholders.<sup>128</sup> Working with local partners, IFDC conducts scalability assessments that estimate financial and economic profitability and identifies potential risks / opportunities. Going forward, IFDC and partners will focus on a combination of integrating organic biomass from the field itself and applying balanced inorganic fertilizers. Notably,

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<sup>120</sup> <https://ellenmacarthurfoundation.org/topics/plastics/overview>

<sup>121</sup>

<sup>122</sup> <https://ellenmacarthurfoundation.org/resources/food-redesign/overview>

<sup>123</sup> <https://www.fairr.org/research/climate-risk-tool/>

<sup>124</sup> <https://www.blendedfinance.earth/the-finance-lever>

<sup>125</sup> <https://www.foodandlandusecoalition.org/about/>

<sup>126</sup> <https://bioplasticfeedstockalliance.org>

<sup>127</sup> [https://globalplasticaction.org/wp-content/uploads/GPAP\\_Finance\\_Policy\\_Toolkit-2022.pdf](https://globalplasticaction.org/wp-content/uploads/GPAP_Finance_Policy_Toolkit-2022.pdf)

<sup>128</sup> <https://ifdc.org>

it focuses on the development of more nutrient-efficient, environmentally sound fertilizers; the validation of soil and nutrient testing technologies; the scaling up of production and adoption of new, tailored fertilizers; and the refining and scaling of Integrated Soil Fertility Management (ISFM).<sup>129</sup>

The **International Food Policy Research Institute (IFPRI)** provides research-based policy solutions to sustainably reduce poverty and end hunger and malnutrition in developing countries. It is a research center of CGIAR, a worldwide partnership engaged in agricultural research for development. “Fostering Climate-Resilient and Sustainable Food Supply” is one of five main research areas focuses. Although its research does not specifically focus on financing a reduction of agrichemical and agriplastic inputs, it has published papers and articles on chemicals and plastics in agriculture as well as the role of financing.<sup>130</sup>

The **World Wide Fund for Nature (WWF)** also has interesting initiatives regarding the reduction of plastics and alternative solutions, for example by establishing the **Bioplastic Feedstock Alliance (BFA)**, a science-driven organization to help the bioplastic industry’s emerging supply chain move in a positive direction.<sup>131</sup> WWF’s initiatives on plastics, however, are not specific to agriculture. Focusing on food systems, WWF aims at having 50% of area used for agriculture and aquaculture sustainably managed, with no new areas being converted. WWF also leads the Business Statement for a UN plastic treaty with Ellen MacArthur Foundation and publishes interesting studies reports which are relevant for the financial community, e.g., “seeing the forest for the trees - a practical guide for financial institutions to act against deforestation and conversion risks”.<sup>132</sup> Is part of UNEP FI's Civil Society Advisory Body.

Although not specific to the reduction of plastics and chemical pollution in agriculture, the **AGRI3 Fund** launched in 2020 by UNEP, Rabobank, IDH (the Sustainable Trade Initiative) and FMO (Dutch development bank) provides an interesting example of a blended finance solution in the agricultural space. The fund de-risks loans from banks to various actors in the agricultural value chain, while the ultimate beneficiary is always the farmer willing to transition to more sustainable practices while the technical assistance facility (managed by IDH) supports pipeline development, monitoring and evaluation, and capacity building for producers to transition to sustainable and climate-smart agriculture.<sup>133</sup>

Another interesting, but smaller initiative is **Scale for Resilience**,<sup>134</sup> which aims at addressing three key barriers which prevent the scaling up of financing for adaptation and resilience, with a particular focus on agriculture and smaller holder farmers: insufficient availability and adoption of climate risks data and tools; perceived lack of profitable investments; and perceived low commercial readiness of adaptation and resilient solutions. It is open for any investor, financial institution or facilitating institution, that is committed to create resilience among smallholders by supporting the spread and

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<sup>129</sup> [https://ifdc.org/wp-content/uploads/2020/04/IFDC\\_Full\\_Strategy\\_2020-2030email.pdf](https://ifdc.org/wp-content/uploads/2020/04/IFDC_Full_Strategy_2020-2030email.pdf)

<sup>130</sup> <https://www.ifpri.org/search?query=chemicals>; <https://www.ifpri.org/search?query=plastics>; <https://www.ifpri.org/search?query=finance>

<sup>131</sup> <https://bioplasticfeedstockalliance.org>

<sup>132</sup> [https://wwfint.awsassets.panda.org/downloads/seeing\\_the\\_forest\\_for\\_the\\_trees.pdf](https://wwfint.awsassets.panda.org/downloads/seeing_the_forest_for_the_trees.pdf)

<sup>133</sup>

<https://cgspace.cgiar.org/bitstream/handle/10568/115123/Scaling%20up%20critical%20finance%20for%20sustainable%20food%20systems%20through%20blended%20finance.pdf?sequence=3&isAllowed=y>

<sup>134</sup> <https://www.scaleforresilience.global>

adoption of nature-based solutions. To do so, Scale for Resilience asks its members to commit to a pledge of their own which is in line with the initiative and report against it on a regular basis.

**VERRA** has developed a Plastic Standard<sup>135</sup> with the aim to drive finance to projects that increase recovery from the environment and/or the recycling of plastic waste. The standard will enable new and scaled-up projects to be independently audited to determine the extent to which they have reduced plastic waste and/or increased recycling. The “plastic crediting mechanism” provides an efficient and powerful means to drive new finance to projects and activities that verifiably reduce plastic in the environment anywhere in the world. Although not specific to agriculture, it is an interesting initiative to reduce plastic waste and pollution.

## 6. Landscape review of current practices in commercial banks

In the context of sustainable agriculture, banks have been increasingly involved in providing trade finance and financing, often with public sector assistance providing funding to small farmers. Commercial banks play a key role as funding sources for agri-food innovators, underlying the strong reliance on traditional borrower-lender relationships.<sup>136</sup> Commercial and global banks also hold relationships with important players in the value chain, most importantly large corporations (distributors, aggregators, food manufacturers, retailers, and logistics firms).

The strong combination of interaction at a local level and relevance of commercial banks to the global value chain points towards a strong leverage point for work stream related to private finance within this project. Other child projects are focusing on finance which is sourced from public sources and development banks which when combined with outputs from this work stream will provide a broad coverage of financial actors within the overall FARM project.

### Methodology

A three-part methodology has been used to conduct an analysis of the current practices of commercial banks in relation to chemical and plastic pollution in the agricultural sector. Firstly, desktop analysis was carried out using publicly available information on 24 commercial banks active in agriculture or with a significant presence in agricultural markets. An on-line survey was distributed to 69 banks which are UNEP-FI members (14 responded) and finally structured interviews were carried out with representatives of 10 commercial banks from different regions with a significant agriculture portfolio.

### Desktop review

Externally available information from 24 regional/global banks was analysed to establish whether any communication/statements had been made by those banks in respect of plastic and chemical pollution within the agriculture sector. The research also had the objective of understanding whether the banks have engaged in formal partnerships with civil society or industry associations in respect of the issues of sustainable agriculture and, lastly, to establish whether external strategy statements or position papers had been established to govern their support of the agriculture industry.

Of the banks researched, 21 out of the 24 externally state that they support the agricultural sector and make one form of statement on sustainable agriculture. 15 out of the 24 banks communicated that they had engaged in some form of partnership or engagement on sustainable agriculture. The purpose of this exercise was to establish that the banks assessed were relevant to identifying the

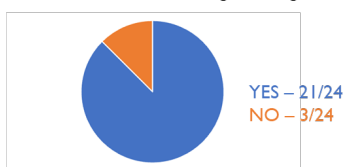
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<sup>135</sup> <https://verra.org/wp-content/uploads/2020/02/Terms-of-Reference-for-the-Plastic-Standard-29-JULY-2020-formatted-version.pdf>

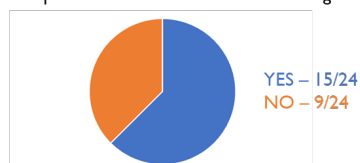
<sup>136</sup> [https://a1be08a4-d8fb-4c22-9e4a-2b2f4cb7e41d.filesusr.com/ugd/643e85\\_58a8df7fe51e4076a64e2bbb38ed3a92.pdf](https://a1be08a4-d8fb-4c22-9e4a-2b2f4cb7e41d.filesusr.com/ugd/643e85_58a8df7fe51e4076a64e2bbb38ed3a92.pdf)

extent to which plastics and chemicals form a subset of activity within the topic of sustainable agriculture.

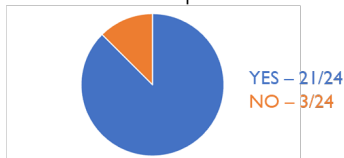
Does the bank offer funding in the agricultural sector?



Does the bank engage in partnerships with other banks/organizations to help reach their aims with sustainable agriculture?



Does the bank state a position on sustainable agriculture?



What are the specific banks doing?

The ten largest financiers in the plastics supply chain account for 62% of finance into the plastics industry.<sup>137</sup> Whilst many banks offer a wide range of funding and support in the form of loans, targeted technical assistance, and expertise insight to help farmers purchase equipment, grow their businesses long-term and reduce inequality in the industry. Typically, public information focuses on sustainable agriculture and sustainable food systems with recognition of the challenges that are to come. Sustainable agriculture is considered and referred to as a broad topic, but few specifically talk about reducing plastics and chemical waste in the agroindustry.

Despite the considerable proportion of banks making public statements or promoting external partnerships in respect of sustainable agriculture, this has not translated into activity or communications about chemicals and plastics pollution in agriculture and what banks are doing to tackle the challenge. Whilst a small number of banks have developed agricultural position or sector papers e.g., **HSBC** and **Standard Chartered**, there is little public domain evidence of a deeper understanding of plastics and chemical use within the agricultural sector or in customer decision making. Investment banks such as **UBS** and **Credit Suisse** have produced thought leadership papers around pollution in agriculture.

**Rabobank** has stated that "packaging plays a crucial role when it comes to protecting, transporting, and selling food & beverage products. The primary function of packaging is to ensure the longest possible product shelf life, which results in less product waste" ... "compared with other packaging materials, plastic has a low CO2 impact during production" ... "Rabobank believes that all packaging materials have their important functions and that a world without plastic packaging is not realistic".

**BTG Pactual S.A** is a member of the Brazilian Coalition on Climate, Forests and Agriculture which has the aim to advance sustainable land use among other things.<sup>138</sup> 5.4% of the bank's companies lending goes to agribusinesses. Plastics is mentioned in Sustainable Finance Framework but not in respect of agriculture and Chemical use is mentioned in 2019 ESG Report from TIG/BTG Pactual report.<sup>139</sup> Documents reveal the illegal sale of land to foreigners by **Brasilagro** which is a partner of BTG Pactual.

<sup>137</sup> [https://portfolio.earth/wp-content/uploads/2021/01/Portfolio-Earth\\_Bankrolling-Plastics.pdf](https://portfolio.earth/wp-content/uploads/2021/01/Portfolio-Earth_Bankrolling-Plastics.pdf)

<sup>138</sup> <https://static.btgpactual.com/media/btg-relatorio-2020-d4-en-20210520161448.pdf>

<sup>139</sup> <https://static.btgpactual.com/media/tig-esg-annual-report-mar-2020.pdf>



**Banco Bradesco** is the largest transfer agent of the Brazilian Development Bank, promoting business through agreements and partnerships with companies in the major links of the production chain.<sup>140</sup> Banco Bradesco launched the Low Carbon Agriculture Program with on-lending funds from the Brazilian Development Bank BNDES (Banco Nacional De Desenvolvimento Econômico e Social) to promote lower emission agriculture. The program offers special interest rates for farmers to remediate pastureland and forests and adopt farming technologies that help to reduce GHG emissions, achieving both conservation and financial returns. From 2017 – 2020, Bradesco has on lent over RUS\$ 1.5 billion as part of the program and has supported customers in implementing more sustainable and environmentally compliant practices in agribusiness.<sup>141</sup> In addition, it is the only bank member of the ILPF network which seeks to provide compatibility to agricultural, livestock and forestry production in the same area.<sup>142</sup> Sustainable Agriculture also appears in its SDG (Sustainable Development Goal) Bond Framework. However, there is no explicit mention of plastics or chemicals.

## Survey

The quite low rate of answer to the survey (14 out of 69) revealed the low level of priority of the topic of chemical and plastic pollution in the agriculture sector in commercial banks' agenda, as well as the low level of awareness on the importance of the topic.

Three headline questions were asked to deepen the understanding of the issues of plastic and chemical pollution within the operating model of the bank, the challenges faced and to understand what interventions might assist with promoting a rapid change to more sustainable practices.

Q1 How would you most describe your current approach to managing chemical/plastic pollution within your client portfolio?

*42.1% of respondents said their bank had taken a limited approach to minimising the use of polluting chemicals and plastic use within our lending/investment portfolio. Action is limited to avoiding banned chemicals within agricultural practices. Their bank has taken some steps to understand the risks and impacts of plastic/chemical pollution but has yet to formalise this into either policy or strategy that can be implemented by the business.*

*28.6% said their bank has taken some steps to develop agriculture portfolio guidance or position statements on pollution and chemical use by customers.*

*28.6 said their bank had developed agriculture sector level position statements and policies to guide the prevention and reduction of polluting chemical and plastic use by customers.*

*None of the surveyed banks has developed an overarching strategy in respect of pollution and/or plastic use in customer activity and has fully embedded or begun to embed this strategy into the business.*

Q2 What are the biggest challenges you face as an institution which prevent transitioning your agriculture portfolio to being low/no plastic/chemical pollution?

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<sup>140</sup> [https://banco.bradesco/assets/classic/pdf/sustentabilidade/en/2020\\_Bradesco\\_integrated-report.pdf](https://banco.bradesco/assets/classic/pdf/sustentabilidade/en/2020_Bradesco_integrated-report.pdf)

<sup>141</sup> [https://banco.bradesco/assets/classic/pdf/sustentabilidade/Climate%20Change\\_Bradesco-1.pdf](https://banco.bradesco/assets/classic/pdf/sustentabilidade/Climate%20Change_Bradesco-1.pdf)

<sup>142</sup> [https://banco.bradesco/assets/classic/pdf/sustentabilidade/en/Climate-Change\\_Bradesco-1.pdf](https://banco.bradesco/assets/classic/pdf/sustentabilidade/en/Climate-Change_Bradesco-1.pdf)



**A lack of data, metrics, and tools** to understand and assess the intensity and impacts of chemical and plastic pollution at a customer level was highlighted as the most critical issue by over half of respondents.

The **lack of business case, leverage with clients and knowledge/capacity** in the subject collectively account for the most important consideration of nearly half of respondents.

The **lack of shareholder or customer pressure is not perceived to be a barrier** to progress by any respondents.

**Low plastic and low chemical alternative solutions are not perceived to be of a higher risk** than traditional alternatives. This view is corroborated within individual interviews. The credibility and record of accomplishment of the counterparty is a far more significant factor in risk evaluation.

Q3 What initiatives or action would be instrumental to catalyse a shift of your agriculture portfolio to low/no chemical/plastic pollution (please select up to three)?

The development of **guidance material** to help banks understand strategic ways to respond to the issue of plastic and chemical pollution was selected by 78.6% of respondents. **Development of quantitative tools** (64.3%) and **metrics** (71.4%) was the next ranked responses and **capacity-building, and training** was ranked 4<sup>th</sup> with 57.1%

#### Consolidated interview findings

Several key barriers to progress were highlighted within interviews with financial institutions which were corroborated by findings from the on-line survey and desktop analysis.

#### Unclear business case within commercial banks

Whilst the importance of reducing chemical use and plastics within the agricultural value chain was not doubted in any interview, the business case and hence the commercial reasons for doing this were not well articulated. None of the banks interviewed highlighted any form of shareholder, customer, or political/regulatory pressure to act on the issues of plastics and chemicals within agriculture, beyond supporting the elimination of the use of banned substances in agricultural practices.

There is significant competition for attention at board level – climate change/biodiversity. Plastic and chemical pollution have not been raised as strategic issues by any board given importance and firstly climate change and secondly nature/biodiversity from a stakeholder and shareholder perspective. Unfamiliarity with the level or significance of risks or transactional impact also leads to an inability to price or value that risk.

Given the unclear business and lack of data, banks articulated a lack of clarity on where they were best positioned to leverage positive impacts within their customer base. There was a general lack of awareness reported in the understanding of complex issues in the agricultural value chain in respect of the use of plastics and chemicals. Guidance on the materiality and relative importance of the use of plastics and chemicals in the agriculture value chain would be supported as a useful contribution to help articulate a clear business case for action.

Given the role of large and multinational corporate in shaping the agricultural market through their supply chain influence a lack of understanding of where these customers are seeking to make changes in respect of plastic and chemical use was communicated by banks interviewed. A related piece of guidance material which banks suggested may be helpful to help bridge this gap would be guidance

material on best practices for corporates looking to make progress around low plastic and chemical pollution.

### **Lack of capacity and knowledge in respect of plastic and chemical pollution within agriculture**

The importance of in-depth sector knowledge and highly specialised teams was consistently stressed within interviews held with banks. Familiarity with the specifics of the agri-food sector as they relate to plastic and chemical pollution supports the ability to manage the higher risks associated with lending to innovative companies or to new farming practices is clearly important. A lack of sector or issue-specific knowledge inhibits the ability of lenders to assess the risks of new innovations and agricultural practices.

Since sector-specific knowledge is essential, the national agri-food lending landscapes are usually divided among a small number of banks with specialised agri-food teams. This enables the banks to adapt to the specific conditions of the market. Specialised agri-food banks also have experience with arranging securities from public banks, thereby providing access to financing for agri-food companies that less specialised lenders would be reluctant to finance.”<sup>143</sup>

Whilst a small number of banks interviewed had produced sector level guidance on agriculture or on thematic issues within agriculture, no bank interviewed, nor researched, had included either plastic or chemical pollution considerations within those sector-level guidance papers. An opportunity exists to provide guidance on how plastic and chemical pollution could be incorporated into sector, or thematic level guidance to promote best practice.

Banks interviewed highlighted the role of local or international policy in shaping their approach to transactional evaluation. A lack of knowledge of such regulations or emerging trends therefore 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 between Finance and Science communities regarding pesticide and plastics pollution as well as a lack of initiatives between the public and private sector. Initiatives to reduce reliance on agrochemicals are predominantly donor-funded projects which have not systematically been scaled up and financed by agricultural value chains, investors, or governments.

Another challenge highlighted in the Guidance for Responsible Agricultural Supply Chains by OECD and FAO, which was corroborated in interviews is the lack of proper environmental impact assessment prior to the investment and the absence of an effective environmental management system during implementation. The quality, comprehensiveness and public availability of these assessments have often been the object of criticism of large-scale investments. Risks are higher when scientific evidence is not sufficient to fully assess adverse impact and are also rapidly evolving as international standards on efficient

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<sup>143</sup> Ibid

resource utilisation and recycling, emission reduction, substitution, or reduction of use of toxic substances, and biodiversity conservation advance.<sup>144</sup>

### **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. Partly due to the current Basel III and upcoming Basel IV guidelines, banks are increasingly strict when it comes to agricultural loans. It might mean that under the Basel IV guidelines banks must hold more capital for loans with a relatively “low” risk profile, such as agricultural loans which often have a lot of land as collateral. Holding more capital for these types of loans could mean therefore that banks may have less appetite for such financing.<sup>145</sup>

Agricultural loans made by banks tend to account for around just 3 to 10% of their total portfolio. Banks typically cite factors such as the prohibitive costs involved in trying to service the agricultural sector as being a key limiting factor. From the point of view of prospective borrowers in the agricultural sector – particularly SMEs – commercial banks are seen as charging interest rates that are too high and having collateral requirements that are simply not possible for them to meet. Products are also not typically tailored to the cash flow patterns associated with agricultural production cycles.<sup>146</sup>

A review of the current sources of finance available for sectors such as agriculture show that there is a 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<sup>147</sup>. There is both lack of initiatives and collaboration between public and private sectors to scale the financing opportunities for sustainable agriculture<sup>148</sup> and providers of development and philanthropic capital are underusing instruments such as guarantees and insurance to mitigate the challenges and investors’ risks.<sup>149</sup>

Even though agriculture as a sector contributes 17% to global GDP, only 5% of loans, by value, are extended to the sector. A similar level of under-resourcing from donors is identified to support a shift to alternative agriculture – 47m of 44bn, globally which equates to only 0.1%.

Given the perceived risk of new methodologies and innovations identified within interviews, an increased scope of donor funding and the use of credit/yield enhancement tools to promote alternative methods could be useful to promote a transition.

There are at present no subsidies for pesticides (biopesticides) in most countries – subsidies are geared toward production support instead. Opportunities exist to direct subsidies towards alternatives which could provide a meaningful level of risk mitigation to promote private sector investment.

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<sup>144</sup> <https://mneguidelines.oecd.org/oecd-fao-guidance.pdf>

<sup>145</sup> [https://www.rsm.nl/fileadmin/Faculty-Research/Centres/EPSVC/20220621\\_Financing\\_Regenerative\\_Agriculture.pdf](https://www.rsm.nl/fileadmin/Faculty-Research/Centres/EPSVC/20220621_Financing_Regenerative_Agriculture.pdf)

<sup>146</sup> <https://www.gatsby.org.uk/uploads/africa/reports/pdf/2019-development-finance-for-agriculture-gatsby-africa-wellspring-cepa.pdf>

<sup>147</sup> <https://www.gatsby.org.uk/uploads/africa/reports/pdf/2019-development-finance-for-agriculture-gatsby-africa-wellspring-cepa.pdf>

<sup>148</sup> [https://www.rsm.nl/fileadmin/Faculty-Research/Centres/EPSVC/20220621\\_Financing\\_Regenerative\\_Agriculture.pdf](https://www.rsm.nl/fileadmin/Faculty-Research/Centres/EPSVC/20220621_Financing_Regenerative_Agriculture.pdf)

<sup>149</sup> <https://www.foodandlandusecoalition.org/wp-content/uploads/2019/09/FOLU-GrowingBetter-GlobalReport.pdf>

## 7. Knowledge management and communication

The overall goal of the Financing Agrochemical Reduction and Management (FARM) programme is to reduce and eliminate the use of persistent organic pollutants (POPs), Highly Hazardous Pesticides (HHPs), and agriplastics in agriculture. A core element of achieving this objective is the coordinated generation, continuous management and analysis, and systematic dissemination of knowledge and tools by the global child projects for target audiences.

Clear findings were identified from interviews with banks that the lack of capacity and knowledge of commercial banks on both the subject and data needed for comparative analysis is a barrier to progress for banks to take more strategic action on reducing the plastic and chemical pollution intensity of their portfolios. The outcomes of the knowledge hub and of localised pilot projects are likely to provide tangible useful for banks to help develop their strategic response.

As is noted in the FARM component 3 Joint Strategy, the value chain for agriculturally based products is very complex and, in many cases, governed more by market forces than regulation. Therefore, to bring about impactful agrochemicals and agriplastics action by its many diverse private sector actors<sup>[4]</sup>, a key starting point is to provide a clear business case to incentivise the required behaviour and operation changes in line with business reality. Developing the business case for effective action on agrochemicals and agriplastics does not mean putting profit first, it ensures that all the value chain private sector actors, from the farmer to the retailer, are empowered with a clear, adapted and above all viable business-based reason to bring about the required change.

Importantly, the process of developing a strong business case for action on agrochemicals and agriplastics by private sector actors also provides the necessary information and learnings for public sector actors in the same value chain to develop relevant policies and support programmes. It is thus important to consider the key requirements for the private and public sector actors in parallel, in order to put in place an approach for a long-term and effective public-private collaboration for impactful action on agrochemicals and agriplastics.

This required business case also resonates well with needs identified in the research stage of the production of this baseline report.

## 8. Conclusions and Recommendations

The findings from interviews, desktop research and survey identified several barriers to progress. Those point to two main types of barriers and broad areas of coverage for action, one directed to private financial institutions and one directed to public finance actors and coordination with national child projects, which underpin the recommendations made for activities within Output 2.1 and Output 2.2 of the FARM log framework.

**Barrier 1: Environmental impacts of HHPs and agricultural plastics are not a priority risk for financial institutions and not well understood or assessed.**

**Key finding:** Lack of understanding of the issue and unclear business case for action: *Environmental impacts of HHPs and Agriplastics are not well understood and are not a priority for financial institutions*

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 the issue 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 for sustainability focused initiatives .e.g. climate change/nature/biodiversity. As a result of this competition, the environmental impact of HHPs and Agriplastics are not a priority for financial institutions at the present time. This is further exacerbated by the unclear business case.

Hence it is recommended to develop guidance for financial institutions and support to raise awareness and build capacity.

- Detailed guidance should be produced on how to include the consideration of chemicals and plastics in agricultural sector decision making using the three frames of references of risk management, connected dependencies, and areas of impact. The guidance should include information on the trajectory of the use of plastics and chemicals within the agriculture sector, and on the possible alternatives.

Guidance could include how and where value is placed at risk due to plastic and agrichemical use within the agriculture sector, to build momentum behind financial decision making which supports low pollution pathways.

Guidance should include the interlinkages of actors within the agriculture value chain and where the most significant leverage to promote low pollution/low plastic and increased use of alternatives and biopesticides can be obtained by commercial banks.

- Develop and implement an awareness raising and capacity building program for financial institutions (through webinars, workshops and/or awareness raising/capacity material delivered or made available to financial institutions) on chemical and plastic pollution in the agriculture sector.

Knowledge of impending policy changes towards banned substances should be enhanced as well as knowledge of existing practices which should be discouraged and eliminated through client relationship management.

General awareness must be raised within the financial community on key risks and possible pathways to better manage risks around plastic and chemical pollution, in addition to methods to incentive changes in behaviour and catalyse the use of innovative practices in customer base and at a portfolio level.

**Key finding:** *Impacts and risks: Impacts and risks related to chemical and plastic pollution in the agriculture sector are not adequately measured and included in finance decision making.*

The ability to measure impacts and dependencies is limited due to a lack of availability of the data and metrics which would enable comparability of practices at a counterparty or sectoral level.

Assessing and reducing the risk at a transactional level for new practices is key to promoting activity within commercial banks. Mitigating key risk areas, by effective public sector support and regulation, will promote support for emerging practices and lower plastic/pollution methods.

Scoping, user needs and feasibility should be assessed for the possible development of a tool/methodology to assess impacts and risks related to chemical and plastic pollution in the agriculture sector. This detailed study should evaluate risks and dependencies, creating clarity around relevant data and metrics which would enable comparative analysis of intensity of impact and to measure ongoing progress.

***Barrier 2: Public finance actors lack understanding of the environmental and health impacts of agricultural policies and don't align their policies and de-risking strategies to reduce chemical and plastic pollution.***

**Key finding:** The majority of public financial and regulatory support is currently directed towards intensive farming practices. A shift in the extent to which public funding, policy and regulation can be enhanced to promote directing both public and private financing towards lower HPP/POPs and plasticulture in the agri value chain is needed.

Critical to catalyze a framework for investment in sustainable agriculture practices will be measures within the financial system to incentivize private finance through adjustments to key policies, regulations, standards, and norms, and through market innovations.

However public finance actors lack understanding of the environmental and health impacts of agricultural policies. 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, for example, by using public sector support or using blended finance to share risk etc. 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.

Several types of actions are recommended to address this barrier:

- Information on where regulatory and fiscal incentives have been implemented to reform subsidies, internalize costs and target lending would support capacity building activity as would knowledge that highlights blended finance mechanisms, including concessional finance, that support early stage or highly innovative business models in sustainable land use have been used.
- A summary of international requirements in respect of banned substances and how and where to apply these (i.e., which area of the agricultural supply chain) was highlighted as a key solution to facilitate implementation and replication in public policies, as well as to assist with increasing financial institutions' capacity.
- Guidance should be produced with compiling best practices on policies, regulations and market mechanisms that have been implemented to internalize costs within the financial sector, target lending for reducing the risks of carbon-intensive chemicals, reducing funding to the plastics industry and create investment opportunities for safer initiatives (e.g., the restoration of soils).

- Establish ways to finance the transition to new practices using risk mitigation measures such as blended financing structures or guarantee products to promote uptake.
- The concessionary element within agricultural blended finance transactions can be used to address many different challenges, including the use of public funds to ensure adequate training through technical assistance (TA), creating market facilitating infrastructure (e.g., collateral registries, warehouses), establishing subsidized guarantee programs and insurance schemes.
- Establish how and where governments can support local subsidized lending programs by issuing government bonds that attract private capital; provide domestic investment incentives such as tax holidays and rebates to spur agricultural investment; or manage specific strategically important crops, e.g., through specialized commodity boards, that then incentivize private investment in production. Key is to take into account local context, economic reality and stage of development.
- A lever of change will be to share best practice in countries with the view to identify what type of policies work and can be replicated in other countries and adapted to local context.
- In view of the key role that women play in adopting less polluting practices it is required to analyse how they can be supported, especially by public finance actors, to get a better access to financing.

## 9. Proposed activities

In view of the conclusions and recommendations of the baseline analysis, two domains of intervention need to work side by side, complementing and reinforcing each other's effectiveness, directed to private financial institutions and to public finance actors. Critical to aligning financial and capital markets with national, regional, or global sustainable agriculture goals will be guidance and increased capacity to assess and manage private financial institutions portfolio's risks and impacts related to chemical and plastic pollution, and adjustments to key financial policies, regulations and standards, as well as, and in tandem with, market innovations.

The overall ambition of Outcome 2 is to catalyse 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. Proposed activities are directed to Private Finance actors under Output 2.1 and to Public Finance actors under Output 2.2.

### Output 2.1 – Private Finance

The three proposed activities directed to private financial institutions are expected to result in private finance actors having increased knowledge, capacity, and tools to align their portfolios with global, regional, and national goals to prevent and reduce chemical and plastic pollution.

#### 2.1.1 Guidance material

It is proposed to develop 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, with the inputs of experts and of interested financial institutions. 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.

**Rationale:** The need for guidance was clearly highlighted in all forms of research carried out to inform this baseline report. 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 the issue of plastic and chemical pollution in agriculture and how it should affect financial and transactional decision making. The clear articulation of a business case through a suitable guidance document or study will support the reorientation of financial resources and will help deepen the understanding of impact and dependencies at a portfolio level. There is a great deal of competition for attention at the board levels of financial institutions for sustainability related activity. A clear rationale for why agrichemicals and plasticulture should be given priority in decision making and how deeper consideration will support climate and biodiversity strategy will help create greater traction with front-office personnel.

Developing guidance material which supports financial institutions in aligning their portfolios with global, regional and national goals to prevent and reduce chemical and plastic pollution in the agriculture sector is required.

**Deliverable:** Guidance developed on how financial institutions can support the transition to low/no chemical and plastic pollution in the agriculture sector.

**Potential partners:** SAICM, GFFN, UNEP Climate Finance Unit, UNEP TEEB, CDP, OECD, FAO, IFC, World Bank, AfDB, ADB, IADB

### **2.1.2 Methodology, tool or study to support risks and impacts assessment**

Building on the previous work of the UNEP Finance Initiative, for example the ENCORE tool, it is proposed to 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, as follows:

- scope the tool or methodology to be developed,
- assess user needs to identify specific gaps and requirements from a functionality perspective, which could respond to user needs and enhance uptake/usability of the tool,
- explore the potential use or further development of existing tools.

**Rationale:** The lack of a clear understanding of risks and impacts that agrichemicals and plastics have on the environment and biodiversity is a key barrier to progress for redirecting finance to less intensive practices. Similarly, an ability to measure progress and provide comparability at a customer or sector level would further support this transition.

The findings of the baseline reported, concluding to a lack of assessment by the finance sector of agrichemicals and agriplastics risks and impacts, pointed to a clear need to develop a study to catalyse support for the development of a tool or methodology to assess risks and impacts related to chemical



and plastic pollution in the agriculture sector: run a feasibility study, scope the tool or methodology to be developed, and assess user needs.

**Deliverable:** Methodology, tool or study developed to support financial institutions to assess risks and impacts related to chemical and plastic pollution in the agriculture sector.

**Potential partners:** UNEP WCMC, Planet Tracker, FAO, OECD

### 2.1.3 Capacity Building

Capitalizing on its outreach to financial institutions throughout the development of the guidance and the methodology, tool or study above as relevant, it is proposed to develop and deploy a capacity-building program for private finance professionals in all regions. 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 program 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. In order to develop and deploy the capacity building program, UNEP FI will be able to leverage on its existing capacity building platforms and programs for financial institutions, and on its regional presence and activity through regional coordinators and teams.

**Rationale:** Clear findings from all aspects of research identified a lack of capacity and knowledge of commercial banks on both the subject and data needed for comparative analysis This presents a major barrier to progress for banks to take more strategic action on reducing the plastic and chemical pollution intensity of their portfolios. Relationship managers have a very limited understanding of 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.

Developing and implementing an awareness raising and capacity building program for financial institutions on chemical and plastic pollution in the agriculture sector aims at addressing this knowledge gap and supporting the use of the guidance material and study/tool/methodology, as relevant, which will be produced in deliverables 2.1.1 and 2.1.2.

**Deliverable:** Awareness raising and capacity building program developed for financial institutions on chemical and plastic pollution. Programme delivered through webinars, workshops and/or awareness raising/capacity material delivered or made available to financial institutions) to reorient practices towards the reduction and sound management of chemical and plastic pollution in the agriculture sector.

**Potential partners:** SAICM, GFFN, UNEP Climate Finance Unit, CDP, OECD, FAO, Multilateral Development Banks

## Output 2.2 - Enabling environment

The five proposed activities directed to public finance actors are expected to result in public finance actors having 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.

### **Proposed activities 2.2.1 and 2.2.2**

Several innovative policies and market innovations have developed in recent years in the areas of green and sustainable finance. It is proposed that the policies and market innovations on financing sustainable agriculture are summarized and uploaded into the Financial Measures Database on the Green Finance Platform, and that during the first phase of the project (2023-2025) the Green Finance Platform publishes a guidance document compiling best practices on key policies, standards and market mechanisms that enable lowering financial risks to catalyze investment in sustainable agriculture. This will draw on relevant recent policies, regulations and market mechanisms taken in FARM and non-FARM countries and 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.

**Rationale:** Critical to catalyze a framework for investment in sustainable agriculture practices will be measures within the financial system 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 investments in, and drive down the costs of, healthy food produced by chemicals and plastic-free forms of farming, using scalable investment. The objective of the Output 2 is to provide guidance on how to leverage scarce public-sector funds to mobilise the much larger pool of private financial funds, ultimately providing pathway for scaling investment for food system transformation through blended finance by mobilizing commercial banks and non-bank financial institutions.

Policy and regulatory levers are the most widely explored in shaping the financialisation of food<sup>150</sup>. These range from the use of public procurement, agricultural and other subsidies, through to innovative approaches to blending public and private finance, taxes, labelling and other public interventions to shape food consumption behavior, and a multitude of small farmer financing mechanisms. Many, indeed most, of these policy measures therefore in some way impact private financing decisions. Monetary policy and financial regulatory measures are needed to accelerate the incorporation of nature and climate risks into financing decisions<sup>151</sup>. Sustainable finance measures can directly or indirectly help align the financial system with a net zero future in the food and agriculture sector. As evidenced by the [Green Finance Measures Database](#), 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.

### **Deliverables:**

- **2.2.1** Policies and market innovations on financing sustainable agriculture identified, summarized, curated and uploaded into the Financial Measures Database on the Green Finance Platform.
- **2.2.2** Guidance published compiling best practices on policies, regulations and market mechanisms that have been implemented to internalize costs within the financial sector,

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<sup>150</sup> Finance for Biodiversity Initiative, Making Finance Work for Food – Financing the Transition to a Sustainable Food System

<sup>151</sup> Finance for Biodiversity Initiative, Making Finance work for food, September 2021

target lending for reducing the risks of carbon-intensive chemicals, reducing funding to the plastics industry and create investment opportunities for safer initiatives (e.g., the restoration of soils).

**Potential partners:** UNEP TEEB, [The Lab](#), [CDP](#), [SBTI](#), IFC.

**Related national projects:** UNIDO (United Nations Industrial Development Organization) (India, Philippines), FAO (Kenya, Uruguay), ADB (Vietnam), UNDP (Laos and Ecuador)

### **Proposed activities 2.2.3, 2.2.4 and 2.2.5**

The project will also focus on the coordination of the national child projects' outputs. Lessons learned and best practices from the experience of the countries will be compiled in annual reports and shared in a community of practice to coordinate actions across stakeholders and leveraged to support national projects' implementation, while establishing and strengthening connections and conducting 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.

**Rationale:** economic systems differ significantly across countries and stage of development. What might be appropriate and effective in terms of financing sustainable agriculture in one place may not be in another. Need to understand what is unique and what can be shared depending on countries' economic outlook, agricultural production, farming communities, land degradation etc.

Agricultural production is characterized by the heterogeneity of soils and climate across and within regions, and high variability of weather over time and space. These conditions give rise to information asymmetries and to monitoring difficulties, as well as to covariant incomes, which arise from weather and price fluctuations.

Compiling and sharing the knowledge developed in the various FARM child projects will be key to tackle this issue. 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 programs abilities to track, analyze, 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.

Furthermore, 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 program. The scope of the reports will cover all finance-related activities undertaken by FARM child projects. They will be published on the Green Finance Platform with open access to FARM and non-FARM stakeholders alike.

The FARM global child project will also 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.

**Deliverables:**

- **2.2.3:** Annual reports produced on FARM countries' experiences in implementing financial policies and market mechanisms.
- **2.2.4:** Community of practice developed to share a repertoire of national practices on financing strategies.
- **2.2.5:** 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.

**Potential partners:** [PRI](#), OECD, UN WOMEN, INSPIRE.

**Related national projects:** UNEP, UNDP, UNIDO, FAO, ADB

## Annex 1: Detailed externally available information of commercial banks

**Rabobank**, signatory of the UN's Net Zero Banking Alliance and of partnerships with FAO, offers sustainability-linked loans and blended finance solutions. In 2017, it has launched the AGRI3 fund in partnership with UNEP to unlock US\$ 1 billion in capital for the transition towards sustainable agriculture.<sup>152</sup> The Fund offers commercial and development banks guarantees to partly de-risk projects, the ability to offer longer tenors and grant money for technical assistance. In addition, Rabobank has a food inspiration centre and has made public statement on reducing plastic pollution, however, not specifically in the agricultural sector.

**BNP Paribas** has partnered with UNEP to increase access for small-scale farmers to climate adaptation finance and has partnerships with small-scale farmers to provide them with farm machinery finance.<sup>153</sup> In partnership with IFC, BNP also launched a US\$100 million risk-sharing facility to provide borrowers in the agricultural sector with short-term loans against the value of their produce, using warehouse receipts or similar stock-financing instruments.<sup>154</sup> As the only major bank which has signed the legally binding UN treaty to tackle plastic pollution in 2022, BNP Paribas shows commitment towards address global plastic pollution, especially with a focus on coastal plastic pollution. In addition, BNP Paribas has announced to review all customers' biodiversity related risks by 2025.<sup>155</sup> However, both commitments are not agriculture specific.

**FirstRand Bank** has had a US\$ 50m loan provided by Proparco that promoted access to land for non-white farmers in order to reduce inequalities and ensure food security.<sup>156</sup> While FirstRand Bank has no sustainable agriculture or sustainable food policy or strategy in public domain, it has a global ESG risk policy / climate policy aligned to the SDGs and the Paris agreement: it assesses every application for finance of activities that fall within the control and ambit of international treaties within the confinements of an environmental and social risk management framework. Although it does not explicitly mention a chemicals or plastics strategy, it has made statements within policy statements. FirstRand will not finance or invest in clients or businesses where the primary business activity involves, the manufacturing, use, procurement and distribution of ozone-depleting substances, PCBs (POLYCHLORINATED BIPHENYLS) and specific listed restricted hazardous chemical substances unless compliant with the Montreal Protocol, Stockholm Convention, Rotterdam Convention, WHO (World Health Organization) Red list and/or REACH, where relevant to the activity.<sup>157</sup>

**Grupo Financiero Banorte** partnered with Franklin Templeton to launch the NTEESG fund, which is made up of international issuers that have the best ESG practices.<sup>158</sup> In 2018, the bank created its own taxonomy which defines 91 codes of sustainable sector activity to identify sustainable projects financed mainly in Corporate Banking and Commercial Banking, including projects from waste and

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<sup>152</sup> <https://www.rabobank.com/en/press/search/2020/20201221-agri3fund-transactions-derisking.html>

<sup>153</sup> <https://www.unep.org/events/un-environment-event/un-environment-and-bnp-paribas-join-forces-increase-access-small-scale>

<sup>154</sup> <https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=21452>

<sup>155</sup>

[https://group.bnpparibas/uploads/file/biodiversity\\_position\\_2021.pdf?internal=false&opensInNewTab=true](https://group.bnpparibas/uploads/file/biodiversity_position_2021.pdf?internal=false&opensInNewTab=true)

<sup>156</sup> <https://www.proparco.fr/en/carte-des-projets/firststrand-bank-2019-agri-transfo>

<sup>157</sup> <https://www.firststrand.co.za/media/society/risk/policy-statements-restrictions-on-financing.pdf>

<sup>158</sup> [https://investors.banorte.com/~media/Files/B/Banorte-IR/financial-information/annual-reports/en/2021/ARBANORTE2021\\_.pdf](https://investors.banorte.com/~media/Files/B/Banorte-IR/financial-information/annual-reports/en/2021/ARBANORTE2021_.pdf)

recycling, water treatment and sustainable agriculture sectors.<sup>159</sup> Grupo Financiero Banorte does not have a publicly stated strategy for chemicals and plastics or wider agriculture sector position papers.

**Credit Suisse** launched a nutrition fund in partnership with JP Morgan which focuses on making food systems less carbon intensive.<sup>160</sup> In addition, the bank partners with FINCA, a non-profit organization advancing sustainable agriculture, to build a sustainable agriculture finance programme in Africa.<sup>161</sup> Credit Suisse bank has another partnership to invest in new infrastructure underlying new methods of agriculture production with Equilibrium, a leading sustainability-driven asset management firm that develops sustainable finance and active ESG strategies in sustainable food and agriculture.<sup>162</sup> The bank also hosts the Credit Suisse Chemicals and Agriculture, Packaging and Cement Conference.

**UBS** is a founding member of Leading Harvest, an outcomes-based sustainability standard.<sup>163</sup> Its philanthropic impact investing covers sustainable food systems and sustainable land use including landscape conservation.<sup>164</sup> UBS offers exposure to existing and new food preservation projects and does recognize plastic pollution as a key ESG risk.<sup>165</sup>

**Standard Chartered** only provides services to businesses which do not harm the environment.<sup>166</sup> It has a central chemicals and manufacturing policy<sup>167</sup> as well as a separate, quite extensive agriculture policy.<sup>168</sup> However, neither of these two policies address plastics or the use of chemicals such as POPs (Persistent Organic Pollutants) or pesticides in agriculture. Their CSR (Corporate Social Responsibility) reports mentioned the funding of agriculture projects and partnerships with DEG and Zambia's Food Reserve Agency, however, these reports are not fully accessible.

**Lloyds Bank** provides tailored funding to support the expansion, modernization and diversification of the farming business. It also offers subsidies to farmers in partnership with Woodland Trust to plant trees and hedges.<sup>169</sup> Through its Clean Growth Financing Initiative, it provides discounted lending for green purposes.<sup>170</sup> Yet, the bank has more of a focus on cutting emissions, GHGs, and being Net Zero rather than agriculture.

**HSBC** offers long-term solutions tailored to farming businesses, as well as loans and overdrafts, asset finance and personal finance planning. HSBC has an agricultural commodities policy and a dedicated agriculture banking team in the UK. HSBC UK recently launched a £1.2bn fund for the agriculture sector promoting sustainable practices as part of its nationwide SME Fund to support businesses as they

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<sup>159</sup> <https://investors.banorte.com/en/sustainability/sustainability-strategy/riesgos-naturaleza>

<sup>160</sup> <https://www.credit-suisse.com/about-us-news/en/articles/media-releases/credit-suisse-launches-nutrition-fund-in-partnership-with-j-p-m-202111.html>

<sup>161</sup> Sustainable Agricultural Finance Initiative FINCA International <https://www.credit-suisse.com › mcbi-finca-en>

<sup>162</sup> <https://www.credit-suisse.com/about-us-news/en/articles/media-releases/csam-equilibrium-partnership-202010.html>

<sup>163</sup> <https://www.ubs.com/content/dam/assets/asset-management-reimagined/global/insights/asset-class-perspectives/real-estate/docs/making-change.pdf>

<sup>164</sup> <https://www.ubs.com/global/en/ubs-society/philanthropy/optimus-foundation/what-we-do/environment-and-climate-philanthropy/sustainable-land-use.html>

<sup>165</sup> <https://www.ubs.com/global/en/investment-bank/in-focus/2021/plastic-pollution.html>

<sup>166</sup> <https://av.sc.com/corp-en/content/docs/sustainability-summary.pdf>

<sup>167</sup> <https://www.sc.com/en/sustainability/position-statements/chemicals-manufacturing/>

<sup>168</sup> <https://www.sc.com/en/sustainability/position-statements/agro-industries/>

<sup>169</sup> <https://www.woodlandtrust.org.uk/partnerships/our-partners/lloyds-banking-group/>

<sup>170</sup> <https://www.lloydsbank.com/business/commercial-banking/clean-growth-financing-initiative.html>

bounce back from the pandemic.<sup>171</sup> In addition, HSBC has partnered with AGROAG to work toward sustainability goals, for example by financing bio-digesters.<sup>172</sup> Articles published on HSBC's website refer to the more efficient use of fertilizers rather than chemicals and plastic pollution.

**Citi** partners with Olam International, co-convened by the IRRI and UNEP, to offer an ESG trade loan which helps farmers adopt more sustainable practices.<sup>173</sup> In addition, it has a partnership with Babban Gona to increase lending to local smallholder farmers.<sup>174</sup> Although there is a recognition that more action is needed to make the agricultural sector more sustainable, there is no information on how this will be done. The focus and investments lie in sustainability in general and are not specific to agriculture.

**YES Bank** works towards building customised fintech and digital solutions for the agriculture sector, including instant payments and expense management. In addition, YES Bank collaborates with several state governments to digitize agriculture-related schemes to make the industry more efficient.<sup>175</sup> YES Joint Liability Group provides banking services to the bottom of the pyramid across India and direct financing in partnership with other institutions to reach the financially most excluded segments.<sup>176</sup> Through timely availability of credit, it enhances the holding capacity for farmers and thereby facilitates better income for them. YES Bank does not explicitly mention chemicals and plastics pollution in agriculture.

**Banco Bradesco** is the largest transfer agent of the Brazilian Development Bank, promoting business through agreements and partnerships with companies in the major links of the production chain.<sup>177</sup> Banco Bradesco launched the Low Carbon Agriculture Program with on-lending funds from the Brazilian Development Bank BNDES (Banco Nacional De Desenvolvimento Econômico e Social) to promote lower emission agriculture. The program offers special interest rates for farmers to remediate pastureland and forests and adopt farming technologies that help to reduce GHG emissions, achieving both conservation and financial returns. From 2017 – 2020, Bradesco has on lent over RUS\$ 1.5 billion as part of the program and has supported customers in implementing more sustainable and environmentally compliant practices in agribusiness.<sup>178</sup> In addition, it is the only bank member of the ILPF network which seeks to provide compatibility to agricultural, livestock and forestry production in the same area.<sup>179</sup> Sustainable Agriculture also appears in its SDG Bond Framework. However, there is no explicit mention of plastics or chemicals.

**BTG Pactual S.A** is a member of the Brazilian Coalition on Climate, Forests and Agriculture which has the aim to advance sustainable land use among other things.<sup>180</sup> 5.4% of the bank's companies lending goes to agribusinesses. Plastics is mentioned in Sustainable Finance Framework but not in respect of

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<sup>171</sup> <https://www.about.hsbc.co.uk/news-and-media/farming-sector-needs-changes-and-investments-to-meet-green-ambitions>

<sup>172</sup> <https://www.business.hsbc.com/sustainability/agriculture>

<sup>173</sup> <https://www.citigroup.com/citi/news/2021/211110a.htm>

<sup>174</sup> <https://www.bloomberg.com/news/articles/2022-05-27/citibank-targets-nigerian-smallholder-farmers-with-new-facility>

<sup>175</sup> <https://www.yesbank.in/digital-banking/agriculture>

<sup>176</sup> <https://www.yesbank.in/yes-sme/industry-products/agri-food-business/loan-and-finance/agri-loan-liability-group>

<sup>177</sup> [https://banco.bradesco/assets/classic/pdf/sustentabilidade/en/2020\\_Bradesco\\_integrated-report.pdf](https://banco.bradesco/assets/classic/pdf/sustentabilidade/en/2020_Bradesco_integrated-report.pdf)

<sup>178</sup> [https://banco.bradesco/assets/classic/pdf/sustentabilidade/Climate%20Change\\_Bradesco-1.pdf](https://banco.bradesco/assets/classic/pdf/sustentabilidade/Climate%20Change_Bradesco-1.pdf)

<sup>179</sup> [https://banco.bradesco/assets/classic/pdf/sustentabilidade/en/Climate-Change\\_Bradesco-1.pdf](https://banco.bradesco/assets/classic/pdf/sustentabilidade/en/Climate-Change_Bradesco-1.pdf)

<sup>180</sup> <https://static.btgpactual.com/media/btg-relatorio-2020-d4-en-20210520161448.pdf>



agriculture and Chemical use is mentioned in 2019 ESG Report from TIG/BTG Pactual report.<sup>181</sup> Documents reveal the illegal sale of land to foreigners by Brasilagro which is a partner of BTG Pactual.

**Access Bank** supports the Nigerian Government's efforts in the diversification of the economy, especially in the agricultural sector.<sup>182</sup> It is ready to help customers access any of the agricultural intervention schemes available, including the Commercial Agriculture Credit Scheme, MSME (Micro, Small, Medium Enterprise) Development Fund, Non-Oil Export Stimulation Fund and Anchor Borrower Programme. Access Bank also participates in other schemes such as the Agricultural Credit Guarantee Scheme Funds and has partnered with FG to provide loans for gainful agricultural production and value addition activities.

**Santander** has partnered with Agrotoken to offer loans secured by crypto assets, allowing farmers and the agroecosystem to easily access a new financing system, as well as expanding credit capacity.<sup>183</sup> While each token represents one tonne of grain sold and delivered by the farmer to the wholesaler, these tokens can be used to carry out various transactions. Santander is also working alongside top banks such as Wells Fargo, Rabobank and Barclays to support the decarbonisation of the agriculture sector.<sup>184</sup> Their Responsible Agribusiness Program aims to incentivize low-carbon agriculture, with the adoption of crop and livestock farming systems that combine productivity, conservation of natural resources and lower environmental impacts, and promotes the use of solar energy. In 2018, for instance, Santander allocated RUS\$396.1 million to low-carbon agriculture, modernization and innovation in rural areas, through BNDES lines.<sup>185</sup> Plastic pollution is mentioned at Group level and the bank launched the Santander Natura Programme – a volunteering programme linked to plastic pollution, which is, however, not specific to agriculture.<sup>186</sup>

**Bank of America** is one of the largest providers of financial services to the food and agribusiness sector including financing for agricultural equipment. Bank of America's Environmental Business Initiative will deploy and mobilize US\$1 trillion by 2030 to accelerate the transition to a low-carbon, sustainable economy, as part of a broader US\$1.5 trillion sustainable finance goal aligned to addressing the United Nation's SDGs.<sup>187</sup> However, there is little information on its company website about partnerships the bank has and the loans they offer that specifically help agribusinesses. Bank of America is also one of the banks called out for role in causing plastic pollution<sup>188</sup> and there is neither visible information on reducing plastics use or reducing HPP use in agriculture nor visible sector position papers on plastics.

**Wells Fargo** is the leader across all commercial banks in the agriculture field. It is a major player in the US, with over US\$30 billion in commitments to 35,000 agribusinesses in the US. Wells Fargo provides customised solutions such as crop and feed lines of credit, livestock, poultry and dairy lines of credit, term financing, equipment financing and various other types of financing and management. It is part

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<sup>181</sup> <https://static.btgpactual.com/media/tig-esg-annual-report-mar-2020.pdf>

<sup>182</sup> <https://www.accessbankplc.com/AccessBankGroup/media/Documents/Sustainable%20Reports/NSBP-at-5-Industry-Report.pdf>

<sup>183</sup> <https://www.santander.com/en/press-room/press-releases/2022/03/santander-and-agrotoken-join-forces-to-offer-loans-secured-by-cryptoassets>

<sup>184</sup> <https://www.wbcsd.org/Programs/Food-and-Nature/News/Leading-banking-institutions-join-forces-in-new-initiative-to-support-decarbonization-of-the-agriculture-sector>

<sup>185</sup> <https://www.santander.com.br/sustainability/social-environmental-business/agribusiness>

<sup>186</sup> <https://www.santander.com/es/sala-de-comunicacion/notas-de-prensa/2022/05/santander-natura-reinicia-sus-actividades-para-la-conservacion-de-los-ecosistemas-en-espana>

<sup>187</sup> <https://about.bankofamerica.com/en/making-an-impact/environmental-sustainability>

<sup>188</sup> <https://portfolio.earth/wp-content/uploads/2021/03/Portfolio-Earth-Bankrolling-Plastics.pdf>



of B4ICA, an initiative of the WBCSD (World Business Council for Sustainable Development), which focuses on reducing GHG emissions.<sup>189</sup>

**NatWest Group** has a dedicated team of agriculture relationship managers. The Bank has been working in the Agri-industry for over 200 years and 1.3% of the group's lending goes to agriculture. In 2021, NatWest Group launched the Green Loans Initiative to help farmers and other SMEs looking to invest in renewables, clean technologies and other low-carbon initiatives.<sup>190</sup> It has produced some interesting research on single-use plastics. Yet, there is no visible policy or statements on plastics and chemicals in agriculture and lending decision.

**Westpac** offers various financial services including livestock leasing, seasonal funding, personalised solutions, management, purchasing land for growth, and buying farm machinery. It has a sophisticated agriculture unit with a dedicated section on their website for the agriculture sector, as well as an agribusiness position statement which talks about working with customers to minimize impact.<sup>191</sup> Yet, there is no mention of plastics or chemicals on their website, in their agribusiness position paper or in any other material.

**Standard Bank of South Africa** offers Agriculture Production Loans as short-term credit facility for farmers. The Bank also offers credit plans, vehicle and asset finance for farmers, and finance the buying or leasing of agricultural land. The Bank also provides Farm Asset Insurances as well as Crop and Livestock Insurances. For instance, it gave an agribusiness in Western Cape Town which wanted to share ownership of farming operations with the workers a stake in the profits of a family-owned business.<sup>192</sup> Yet, there is no specific agriculture sector position statement or plastic/chemical policy.

By the end of 2019, **Agriculture Bank of China Limited** offered agriculture related loans worth US\$17.7 billion to agricultural companies and US\$39.8 billion to farmer households. The bank helped upgrade agricultural infrastructure, rural prosperity, and increased income of farmers. By the end of 2019, its Green Credit Loans balance was US\$150 billion.<sup>193</sup> Although the use of plastic film for agricultural production is a major issue in China, the bank does not mention either plastic or chemical pollution in its CSR Report.

**Guyana Bank for Trade and Industry Limited** is a lead lender in the agricultural sector, specifically in rice and sugar industries and prawn industries as part of their 2022 initiatives.<sup>194</sup> The bank offers agri loans for all farmers. However, there is little in the public domain and sustainable development and no mention of any specific sectoral approach or specific mentions of plastics or chemicals and pesticides.

The **Bank for Agriculture and Agricultural Cooperatives** has been operating since 1966, driving strategies for sustainability and the environmental conditions for farmers. It has an interesting local

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<sup>189</sup> <https://www.wbcsd.org/Programs/Food-and-Nature/Food-Land-Use/News/COP26-highlights-from-a-Food-Agriculture-perspective>

<sup>190</sup> <https://www.natwestgroup.com/news/2022/03/green-loans-and-green-asset-finance-launched-for-businesses.html>

<sup>191</sup>

[https://www.westpac.com.au/content/dam/public/wbc/documents/pdf/aw/sustainability/Agribusiness\\_Position\\_Statement.pdf](https://www.westpac.com.au/content/dam/public/wbc/documents/pdf/aw/sustainability/Agribusiness_Position_Statement.pdf)

<sup>192</sup> <https://www.standardbank.co.za/southafrica/business/products-and-services/business-solutions/industry/agribusiness>

<sup>193</sup> <https://www.abchina.com/en/AboutUs/csr-report/202003/P020200402552823524561.pdf>

<sup>194</sup> <https://www.gbtibank.com/media-center/spotlight-on-gbti-and-its-agricultural-loans/>

remit and a vision to enhance sustainability and quality of life for farmers by providing financial assistance, knowledge and technology to farmers, farmer institutions and agricultural sector businesses and by collaborating with other relevant agencies in both government and private sectors to support their business and agricultural related activities.<sup>195</sup> There is no mention of either plastic use or polluting chemicals in public domain.

**Industrial and Commercial Bank of China** offers green finance but more for sustainability than for agriculture. There is little in public domain beyond annual CSR report.

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<sup>195</sup> [https://www.baac.or.th/baac\\_en/content-about.php?content\\_group\\_sub=0001](https://www.baac.or.th/baac_en/content-about.php?content_group_sub=0001)

## GEF FARM

### Briefing note with findings and recommendations

#### Introduction

This document presents the results of a brief review of relevant nature-related tools. The analysis focused on tools that could potentially allow the assessment, quantification and monitoring of financial institutions' exposure to two key pressures on nature resulting from agricultural activities: 1) pollution from chemicals and 2) pollution from plastics. The review also identified key gaps covering chemicals and plastic pollution, among the reviewed tools, which can be used by UNEP-FI when considering next steps in the GEF FARM project development.

The tools included in this brief were selected from a database created as part of previous projects conducted by UNEP-WCMC and partner organisations. These previous efforts focused on creating an inventory of available nature-related datasets, portals, and tools. Among other things it has been used as the basis for the [Trade Tools Navigator](#).

In this project, we assessed the existing database of tools, selecting ten with particular relevance for further development based on the following criteria:

- Terms of use (able to be used for commercial purposes).
- The potential usability for the private sector and financial institutions.
- Data or tool relevant at the global scale.
- Included at least two of the three priority themes on the GEF FARM project: agriculture, pollution from chemicals, or pollution from plastics.

#### Selected tools

*The tools discussed below are the most relevant ones selected from Deliverable 1 “Inventory of tools and models available in the agriculture sector” (Annex 1). They are listed in alphabetical order.*

##### 1. ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure)

Key theme(s)	Agriculture, chemicals, and plastics.
Description	ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) is a tool to help financial institutions and businesses better understand and visualise the impact of environmental change on the economy. By focusing on the ecosystem services that nature provides to enable economic production, it guides users towards identifying their potential most material dependencies and impacts on nature, and how these might represent a business risk. These risks can be explored further to understand location-

	specific risks with maps of natural capital assets, drivers of environmental change, impact drivers and hotspots of natural capital depletion. Link: <a href="https://encore.naturalcapital.finance/en">https://encore.naturalcapital.finance/en</a>
Potential for further development	ENCORE includes information about impacts of the agriculture sector by water pollutants: herbicide and pesticide use, run-off from beef and dairy farms, volume discharged to receiving water body of nutrients (e.g., nitrates and phosphates) or other substances (e.g., heavy metals and chemicals). ENCORE is linked to other platforms such as FAOstat and What a Waste, tools that also have been selected for the GEF FARM analysis The platform is easy to use and designed for finance sector users. The platform assesses the risks and impacts from chemicals in agriculture. It could be developed further, by adding the risks and impacts from plastic pollution in the agriculture sector, if sufficient funding is available.
Gaps	ENCORE does not include data on soil pollutants for agriculture, nor data on plastic pollution from agriculture.

## 2. Hand-in-Hand Geospatial Platform

Key theme(s)	Agriculture and chemicals
Description	<p>FAO's open access <a href="https://www.fao.org/hih-geospatial-platform/en/">Hand in Hand (HIH) Geospatial Platform</a> provides advanced information for more targeted agriculture interventions, including food security indicators and agricultural statistics. The platform serves as the key enabling tool for FAO's HiH Initiative and serves digital agriculture experts, economists, government and non-government agencies, and other stakeholders working in the food and agriculture sector.</p> <p>The Hand-in-Hand Geospatial Platform brings together all FAO data and tools such as those included in FAOSTAT, AQUASTAT, and Harmonized World Soil Database. It also incorporates data on fertilizer use by nutrient and by product.</p> <p>The platform presents data about the impacts of the agriculture sector by water pollutants: herbicide and pesticide use, run-off from beef and dairy farms, volume discharged to receiving water body of nutrients (e.g., nitrates and phosphates) or other substances (e.g., heavy metals and chemicals).</p> <p>Link: <a href="https://www.fao.org/hih-geospatial-platform/en/">https://www.fao.org/hih-geospatial-platform/en/</a></p>
Description	<p>FAO's open access <a href="https://www.fao.org/hih-geospatial-platform/en/">Hand in Hand (HIH) Geospatial Platform</a> provides advanced information for more targeted agriculture interventions, including food security indicators and agricultural statistics. The platform serves as the key enabling tool for FAO's HiH Initiative and serves digital agriculture experts, economists, government and non-government agencies, and other stakeholders working in the food and agriculture sector.</p> <p>The Hand-in-Hand Geospatial Platform brings together all FAO data and tools such as those included in FAOSTAT, AQUASTAT, and Harmonized World Soil Database. It also incorporates data on fertilizer use by nutrient and by product.</p> <p>The platform presents data about the impacts of the agriculture sector by water pollutants: herbicide and pesticide use, run-off from beef and dairy farms, volume discharged to receiving water body of nutrients (e.g., nitrates and phosphates) or other substances (e.g., heavy metals and chemicals).</p> <p>Link: <a href="https://www.fao.org/hih-geospatial-platform/en/">https://www.fao.org/hih-geospatial-platform/en/</a></p>

Potential for further development	The platform is easy to use for the general public but does not include indicators tailored to the financial sector. Considering this, it could be useful to develop that information, such as levels of risks or exposure in the financial sector to allow decision-making by financial institutions. Data can be exported (as datasets and APIs). It is also updated on a regular basis. There is potential for future updates to be informed by GEF FARM research.
Gaps	Does not currently include data on plastic pollution.

## 1. FAOSTAT Land Use Domain

Key theme(s)	Agriculture and chemicals
Description	The FAOSTAT Land Use domain contains data on forty-four categories of land use, irrigation, and agricultural practices, relevant to monitor agriculture, forestry, and fisheries activities at national, regional, and global level. It holds a global map of land use by agricultural land, cropland, land under temporary crops, and agricultural land under organic agriculture. The platform has updated data on chemical use in agriculture as fertilizer use by nutrient and product. Furthermore, it holds data on livestock manure, pesticide use and trade. It also includes sustainability indicators on fertilizers, pesticides, soil nutrient budget and livestock patterns. Link: <a href="https://www.fao.org/faostat/en/">https://www.fao.org/faostat/en/</a>
Potential for further development	FAOSTAT is easy to use, and datasets can be exported. The data is updated regularly. There is potential for future updates to be informed by GEF FARM research. It is recommended to create a user interface for financial institutions with relevant information (levels of exposure, risks, impacts).
Gaps	Does not currently include data on plastic pollution.

## 2. Harmonized World Soil Database

Key theme(s)	Agriculture and chemicals.
Description	The Harmonized World Soil Database (HWSD) is the global soil database, framed within a Geographic Information System on world soil resources. It is of immediate use in the context of the Climate Change Convention and the Kyoto Protocol for soil carbon measurements and for the FAO/IIASA Global Agro-ecological Assessment studies (GAEZ 2012), for which HWSD was developed in the first place. The HWSD contributes sound scientific knowledge for planning sustainable expansion of agricultural production to achieve food security and provides information for national and international policymakers in addressing emerging problems of land competition for food production, bio-energy demand, and threats to biodiversity. Link: <a href="https://iiasa.ac.at/models-and-data/harmonized-world-soil-database">https://iiasa.ac.at/models-and-data/harmonized-world-soil-database</a>
Potential for further development	The platform includes information on soil health such as nutrient availability, nutrient retention capacity, rooting conditions, oxygen availability to roots, excess salts, and toxicity. This data could relate to chemicals use in agriculture. It seems that HWSD does not update regularly. The last time the tool was updated was in 2013, and so this might not be a good candidate for further development as many of the datasets will already be outdated.
Gaps	Does not currently include data on plastic pollution.

## 1. IRIS+

Key theme(s)	Agriculture and chemicals.
Description	<p>IRIS+ is an impact accounting system that impact investors can use to measure, manage, and optimize their impact. Proper use of the IRIS+ system ensures a minimum level of consistency in users' impact claims and performance, which makes it easier for investors to analyse and extract useful information for decision making. The IRIS+ Catalogue of Metrics for Agriculture includes metrics on Pesticide use, Water Quality Standards Pass Rate, and Biodiversity Footprint.</p> <p>IRIS+ includes information on agricultural water use practices and improving ecosystem health through agriculture. The data is uploaded by investors and enterprises. The information is aligned with the Sustainable Development Goals targets, so it is easier to identify the risks and impacts related to, for example, SDG12 related to sustainable production which includes Improving Ecosystem Health through Agriculture.</p> <p>Link: <a href="https://iris.thegiin.org/">https://iris.thegiin.org/</a></p>
Potential for further development	User experience is designed for the financial sector, which makes this a good candidate for further expansion.
Potential for further development	User experience is designed for the financial sector, which makes this a good candidate for further expansion.
Gaps	The tools does not include data, lists, or metrics on plastic pollution.

## 1. USEtox Model

Key theme(s)	Chemicals
Description	<p>The USEtox model characterizes human and ecotoxicological impacts of chemicals in life cycle impact assessment. It includes a database of recommended and interim characterisation factors including environmental fate (human and freshwater ecosystem), exposure, and effect parameters for human toxicity and ecotoxicity.</p> <p>Link: <a href="https://usetox.org/model">https://usetox.org/model</a></p>
Potential for further development	<p>Even though the tool follows the whole impact pathway from a chemical emission to the final impact on ecosystems, it does not seem to relate to pollution from the agricultural sector.</p> <p>The tool appears to be updated regularly and publicly available information points to interest in developing it further. In this sense and with the GEF FARM project goals, the tool could be useful to provide financial institutions with information on chemicals pollution from agriculture.</p>

Gaps	The tool does not include data regarding plastics, nor does it link pollution to the agricultural sector.
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## 2. OECD.Stat

Key theme(s)	Agriculture, chemicals, and plastics. <b><i>This is the only tool in this shortlist which covers all three key themes.</i></b>
Description	<p>OECD.Stat is a platform with data related to economic development and indicators, such as prices and purchasing power parities, finance, and international trade and balance of payment. It includes an agricultural outlook which provides analyses of commodity markets. It also includes agricultural policy indicators, agro-environmental indicators, particularly nutrients. It includes the Global Plastics Outlook, which quantifies the current production, use, disposal, and key environmental impacts throughout the entire plastics lifecycle. And includes the Global Plastics Outlook with economic drivers, environmental impacts, policy options, and policy scenarios to 2060.</p> <p>The platform includes datasets on chemical use in agriculture and its impacts on ecosystems, as well as data on sales of agricultural pesticides, ammonia emissions, and water quality (nitrates, phosphates, and pesticides).</p> <p>Link: <a href="https://stats.oecd.org/">https://stats.oecd.org/</a></p>
Description	<p>OECD.Stat is a platform with data related to economic development and indicators, such as prices and purchasing power parities, finance, and international trade and balance of payment. It includes an agricultural outlook which provides analyses of commodity markets. It also includes agricultural policy indicators, agro-environmental indicators, particularly nutrients. It includes the Global Plastics Outlook, which quantifies the current production, use, disposal, and key environmental impacts throughout the entire plastics lifecycle. And includes the Global Plastics Outlook with economic drivers, environmental impacts, policy options, and policy scenarios to 2060.</p> <p>The platform includes datasets on chemical use in agriculture and its impacts on ecosystems, as well as data on sales of agricultural pesticides, ammonia emissions, and water quality (nitrates, phosphates, and pesticides).</p> <p>Link: <a href="https://stats.oecd.org/">https://stats.oecd.org/</a></p>
Potential for further development	The datasets from the portal are updated regularly and can be exported and the platform is easy to use. Thus, it might be worth considering its further development. The same could be considered for the data related to agriculture, but this is only available for OECD countries.
Gaps	The portal does not include data on plastics related to agriculture, just plastic use, and pollution in general. Most of the information is just for the 37 OECD countries, except for the Global Plastics Outlook.

## 1. OPAL (Offset Portfolio Analyzer and Locator)

Key theme(s)	Agriculture
Description	OPAL enables users to estimate the impacts of development activities, such as infrastructure, on terrestrial ecosystems and several of the



	services they provide, and then to identify offset options for mitigating losses. OPAL combines ecological and social data with the Natural Capital Project's InVEST ecosystem service models. Link: <a href="https://naturalcapitalproject.stanford.edu/software/opal">https://naturalcapitalproject.stanford.edu/software/opal</a>
Potential for further development	OPAL includes the InVEST nutrient delivery model to map nutrient sources from watersheds and their transport to the stream. It is not clear if nutrient streams from agriculture can be identified. If applicable, the tool can be useful to understand impacts of nutrient pollution from agriculture. It is suggested to contact the developer to clarify this and their interest on developing further.
Gaps	Does not include data on plastic pollution.

## 2. Resource Watch

Key theme(s)	Agriculture
Summary	Resource Watch contains datasets on the state of the planet's resources and citizens. Users can visualize challenges facing people and the planet, from climate change to poverty, water risk to social instability, air pollution to human migration. The portal includes a map on crop nutrient balance which shows the excess or deficit of elemental nitrogen and phosphorus globally to understand nutrient pollution. Link: <a href="https://resourcewatch.org/">https://resourcewatch.org/</a>
Potential for further development	The information is not regularly updated, and the current dataset represents the year 2000. Nevertheless, the platform indicates that it aims to develop further and add datasets regularly. The information of this portal is quite limited and outdated. Because of the lack of maintenance, it is not recommended to consider this tool for future development.
Potential for further development	The information is not regularly updated, and the current dataset represents the year 2000. Nevertheless, the platform indicates that it aims to develop further and add datasets regularly. The information of this portal is quite limited and outdated. Because of the lack of maintenance, it is not recommended to consider this tool for future development.
Gaps	Does not include direct information on chemicals or plastic pollution.

## 1. What A Waste Global Database

Key theme(s)	Chemicals and plastics
Summary	What a Waste is a global database aggregating data on solid waste management from around the world. This database features statistics covering nearly all countries and over 330 cities. Its metrics cover every step in the waste management value chain, including waste generation, composition, collection, and disposal, as well as information on user fees and financing, the informal sector, administrative structures, public communication, and legal information. The database has information on the percentage of plastic waste globally and by country. The data can be exported as a dataset or via API. It includes the What a Waste 2.0: A Global Snapshot of Solid Waste Management report. The document covers information on plastic waste



	management practices and case studies. It also provides limited information on chemicals disposal.  Source: <a href="https://datatopics.worldbank.org/what-a-waste/">https://datatopics.worldbank.org/what-a-waste/</a>
Potential for further development	The information on plastic is very limited at the moment, but the datasets could be useful to feed the GEF FARM tool in terms on plastic pollution.
Gaps	Neither the website nor the report includes information on the link between waste and the agricultural sector.

## General suggestions and recommendations

- There is sufficient information available on agriculture pollution on water, soils, and nutrients to understand the impact of agriculture on soils. However, there is not enough for developing a global outlook of the impact of chemicals derived from agriculture, since there is not much detail on specific pesticides' impact. Nevertheless, to match the specific goal of the GEF FARM project, datasets need to be arranged in a decision-making tool with a user-friendly interface for financial institutions.
- The review did not identify any tools or datasets on plastic-related risks and impacts in the agriculture sector. This suggests a lack of recognition or understanding of the problem. UNEP FI could focus efforts towards raising global awareness about this issue.
- It is recommended to align the GEF FARM tool to current and forthcoming international agreements, to allow supporting progress to their fulfillment that support the elimination or reduction of chemicals and plastic pollution, for example:
  - The Post-2020 Global Biodiversity framework, which will include targets on elimination of pollution including plastics and pesticides, and sustainable agriculture.
  - The Strategic Approach to International Chemicals Management.
  - The global legally binding agreement to end plastic pollution.
  - The Stockholm Convention on Persistent Organic Pollutants.
- None of the reviewed tools seem to provide information on the link between agriculture and plastics pollution. It seems that the link between agricultural practices and plastic pollution is not acknowledged so far among the tools. Therefore, it would be useful to conduct user needs research within the financial sector to address this knowledge gap and inform future development work.
- Drawing on lessons learnt from the development of the ENCORE tool, the following activities are suggested to be included in the GEF FARM project's tool development work plan:
  - Scoping and user needs assessment (responding to the point raised in the previous bullet point).
  - Exploring the potential use or further development of existing tools.
  - Subject-matter research streams (suggested as two streams – one for chemicals pollution and one for plastic pollution).
  - Tool development.
  - Communications activities.
- It is recommended to conduct user experience tests with financial institutions, to identify specific gaps and requirements from a functionality perspective, which could respond to user needs and enhance uptake/usability of the tool.

- It is suggested to explore enhancing interoperability among the tools, where, for example, some of the FAO tools could connect to ENCORE data (and vice versa) to create modules responding to financial sector needs. Thus, instead of creating new tools, one could envision greater collaboration to share data and create new modules within existing tools, and pursuing greater efficiency and return on investment for donors.
- In conclusion, we have identified **ENCORE**, **Hand-in-Hand Geospatial Platform**, **FAOSTAT Land Use Domain**, and the **Global Plastics Outlook** of OECD.Stat as tools with high potential for further development in the GEF FARM context.

## **Annex 1. Deliverable 1 “Inventory of tools and models available to assess financial institutions’ dependencies and impacts on natural capital related to chemical and plastic pollution in their portfolios in the agriculture sector”**

*Description of the columns.*

Column name	Description
<b>Tool name</b>	Indicates the name of the tool.
<b>URL</b>	Presents the link of the tool.
<b>Keyword/theme</b>	Describes the general theme related to the tool.
<b>Type of tool</b>	Indicates if the tool is a dataset, tool, or platform.
<b>Spatial Scale</b>	Specifies if the tool covers a national, regional, or global scale.
<b>Description</b>	Provides a brief and general description of the tool.
<b>Commodity data</b>	If applicable, indicates the commodities that the tool explores.
<b>Intended user</b>	If mentioned, specifies the intended user for the tool.
<b>Terms of use</b>	If clear, points out the terms of use applicable to the tool.
<b>Type of model</b>	Indicates what type of environmental model the tool is using.
<b>Biodiversity focus</b>	If applicable, indicates what kind of biodiversity information the tool covers.
<b>Additional comments regarding agriculture, plastic, and chemicals</b>	Gives a brief description of how the tool covers the GEF FARM priorities in terms of agriculture, plastic, or chemicals.

*Note: The tools highlighted in yellow are the ones selected jointly with UNEP FI for further analysis. The ones highlighted in orange are the ones considered for the final selection but discarded at the end. This Excel-based deliverable was provided separately to UNEP FI and should be read alongside this document.*



## GEF FARM

### Briefing note with findings and recommendations

#### *Introduction*

This document presents the results of a brief review of relevant nature-related tools. The analysis focused on tools that could potentially allow the assessment, quantification and monitoring of financial institutions' exposure to two key pressures on nature resulting from agricultural activities: 1) pollution from chemicals and 2) pollution from plastics. The review also identified key gaps covering chemicals and plastic pollution, among the reviewed tools, which can be used by UNEP-FI when considering next steps in the GEF FARM project development.

The tools included in this brief were selected from a database created as part of previous projects conducted by UNEP-WCMC and partner organisations. These previous efforts focused on creating an inventory of available nature-related datasets, portals, and tools. Among other things it has been used as the basis for the [Trade Tools Navigator](#).

In this project, we assessed the existing database of tools, selecting ten with particular relevance for further development based on the following criteria:

- Terms of use (able to be used for commercial purposes).
- The potential usability for the private sector and financial institutions.
- Data or tool relevant at the global scale.
- Included at least two of the three priority themes on the GEF FARM project: agriculture, pollution from chemicals, or pollution from plastics.

## Selected tools

The tools discussed below are the most relevant ones selected from Deliverable 1 “Inventory of tools and models available in the agriculture sector” (Annex 1). They are listed in alphabetical order.

### 1. ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure)

Key theme(s)	Agriculture, chemicals, and plastics.
Description	<p>ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) is a tool to help financial institutions and businesses better understand and visualise the impact of environmental change on the economy. By focusing on the ecosystem services that nature provides to enable economic production, it guides users towards identifying their potential most material dependencies and impacts on nature, and how these might represent a business risk. These risks can be explored further to understand location-specific risks with maps of natural capital assets, drivers of environmental change, impact drivers and hotspots of natural capital depletion.</p> <p>Link: <a href="https://encore.naturalcapital.finance/en">https://encore.naturalcapital.finance/en</a></p>
Potential for further development	<p>ENCORE includes information about impacts of the agriculture sector by water pollutants: herbicide and pesticide use, run-off from beef and dairy farms, volume discharged to receiving water body of nutrients (e.g., nitrates and phosphates) or other substances (e.g., heavy metals and chemicals).</p> <p>ENCORE is linked to other platforms such as FAOstat and What a Waste, tools that also have been selected for the GEF FARM analysis</p> <p>The platform is easy to use and designed for finance sector users. The platform assesses the risks and impacts from chemicals in agriculture. It could be developed further, by adding the risks and impacts from plastic pollution in the agriculture sector, if sufficient funding is available.</p>
Gaps	ENCORE does not include data on soil pollutants for agriculture, nor data on plastic pollution from agriculture.

### 2. Hand-in-Hand Geospatial Platform

Key theme(s)	Agriculture and chemicals
Description	<p>FAO's open access Hand in Hand (HiH) Geospatial Platform provides advanced information for more targeted agriculture interventions, including food security indicators and agricultural statistics. The platform serves as the key enabling tool for FAO's HiH Initiative and serves digital agriculture experts, economists, government and non-government agencies, and other stakeholders working in the food and agriculture sector.</p> <p>The Hand-in-Hand Geospatial Platform brings together all FAO data and tools such as those included in FAOSTAT, AQUASTAT, and Harmonized</p>



	<p>World Soil Database. It also incorporates data on fertilizer use by nutrient and by product.</p> <p>The platform presents data about the impacts of the agriculture sector by water pollutants: herbicide and pesticide use, run-off from beef and dairy farms, volume discharged to receiving water body of nutrients (e.g., nitrates and phosphates) or other substances (e.g., heavy metals and chemicals).</p> <p>Link: <a href="https://www.fao.org/hih-geospatial-platform/en/">https://www.fao.org/hih-geospatial-platform/en/</a></p>
Potential for further development	<p>The platform is easy to use for the general public but does not include indicators tailored to the financial sector. Considering this, it could be useful to develop that information, such as levels of risks or exposure in the financial sector to allow decision-making by financial institutions.</p> <p>Data can be exported (as datasets and APIs). It is also updated on a regular basis. There is potential for future updates to be informed by GEF FARM research.</p>
Gaps	Does not currently include data on plastic pollution.

### 3. FAOSTAT Land Use Domain

Key theme(s)	Agriculture and chemicals
Description	<p>The FAOSTAT Land Use domain contains data on forty-four categories of land use, irrigation, and agricultural practices, relevant to monitor agriculture, forestry, and fisheries activities at national, regional, and global level. It holds a global map of land use by agricultural land, cropland, land under temporary crops, and agricultural land under organic agriculture.</p> <p>The platform has updated data on chemical use in agriculture as fertilizer use by nutrient and product. Furthermore, it holds data on livestock manure, pesticide use and trade. It also includes sustainability indicators on fertilizers, pesticides, soil nutrient budget and livestock patterns.</p> <p>Link: <a href="https://www.fao.org/faostat/en/">https://www.fao.org/faostat/en/</a></p>
Potential for further development	<p>FAOSTAT is easy to use, and datasets can be exported. The data is updated regularly. There is potential for future updates to be informed by GEF FARM research. It is recommended to create a user interface for financial institutions with relevant information (levels of exposure, risks, impacts).</p>
Gaps	Does not currently include data on plastic pollution.

### 4. Harmonized World Soil Database

Key theme(s)	Agriculture and chemicals.
Description	<p>The Harmonized World Soil Database (HWSD) is the global soil database, framed within a Geographic Information System on world soil resources. It is of immediate use in the context of the Climate Change Convention and</p>

	<p>the Kyoto Protocol for soil carbon measurements and for the FAO/IIASA Global Agro-ecological Assessment studies (GAEZ 2012), for which HWSD was developed in the first place. The HWSD contributes sound scientific knowledge for planning sustainable expansion of agricultural production to achieve food security and provides information for national and international policymakers in addressing emerging problems of land competition for food production, bio-energy demand, and threats to biodiversity.</p> <p>Link: <a href="https://iiasa.ac.at/models-and-data/harmonized-world-soil-database">https://iiasa.ac.at/models-and-data/harmonized-world-soil-database</a></p>
Potential for further development	<p>The platform includes information on soil health such as nutrient availability, nutrient retention capacity, rooting conditions, oxygen availability to roots, excess salts, and toxicity. This data could relate to chemicals use in agriculture. It seems that HWSD does not update regularly. The last time the tool was updated was in 2013, and so this might not be a good candidate for further development as many of the datasets will already be outdated.</p>
Gaps	<p>Does not currently include data on plastic pollution.</p>

## 5. IRIS+

Key theme(s)	Agriculture and chemicals.
Description	<p>IRIS+ is an impact accounting system that impact investors can use to measure, manage, and optimize their impact. Proper use of the IRIS+ system ensures a minimum level of consistency in users' impact claims and performance, which makes it easier for investors to analyse and extract useful information for decision making. The IRIS+ Catalogue of Metrics for Agriculture includes metrics on Pesticide use, Water Quality Standards Pass Rate, and Biodiversity Footprint.</p> <p>IRIS+ includes information on agricultural water use practices and improving ecosystem health through agriculture. The data is uploaded by investors and enterprises. The information is aligned with the Sustainable Development Goals targets, so it is easier to identify the risks and impacts related to, for example, SDG12 related to sustainable production which includes Improving Ecosystem Health through Agriculture.</p> <p>Link: <a href="https://iris.thegiin.org/">https://iris.thegiin.org/</a></p>
Potential for further development	<p>User experience is designed for the financial sector, which makes this a good candidate for further expansion.</p>
Gaps	<p>The tools does not include data, lists, or metrics on plastic pollution.</p>

## 6. USEtox Model

Key theme(s)	Chemicals
Description	<p>The USEtox model characterizes human and ecotoxicological impacts of chemicals in life cycle impact assessment. It includes a database of recommended and interim characterisation factors including environmental fate (human and freshwater ecosystem), exposure, and effect parameters for human toxicity and ecotoxicity.</p> <p>Link: <a href="https://usetox.org/model">https://usetox.org/model</a></p>
Potential for further development	<p>Even though the tool follows the whole impact pathway from a chemical emission to the final impact on ecosystems, it does not seem to relate to pollution from the agricultural sector.</p> <p>The tool appears to be updated regularly and publicly available information points to interest in developing it further. In this sense and with the GEF FARM project goals, the tool could be useful to provide financial institutions with information on chemicals pollution from agriculture.</p>
Gaps	The tool does not include data regarding plastics, nor does it link pollution to the agricultural sector.

## 7. OECD.Stat

Key theme(s)	<p>Agriculture, chemicals, and plastics.</p> <p><b><i>This is the only tool in this shortlist which covers all three key themes.</i></b></p>
Description	<p>OECD.Stat is a platform with data related to economic development and indicators, such as prices and purchasing power parities, finance, and international trade and balance of payment. It includes an agricultural outlook which provides analyses of commodity markets. It also includes agricultural policy indicators, agro-environmental indicators, particularly nutrients. It includes the Global Plastics Outlook, which quantifies the current production, use, disposal, and key environmental impacts throughout the entire plastics lifecycle. And includes the Global Plastics Outlook with economic drivers, environmental impacts, policy options, and policy scenarios to 2060.</p> <p>The platform includes datasets on chemical use in agriculture and its impacts on ecosystems, as well as data on sales of agricultural pesticides, ammonia emissions, and water quality (nitrates, phosphates, and pesticides).</p> <p>Link: <a href="https://stats.oecd.org/">https://stats.oecd.org/</a></p>
Potential for further development	The datasets from the portal are updated regularly and can be exported and the platform is easy to use. Thus, it might be worth considering its



	further development. The same could be considered for the data related to agriculture, but this is only available for OECD countries.
Gaps	The portal does not include data on plastics related to agriculture, just plastic use, and pollution in general. Most of the information is just for the 37 OECD countries, except for the Global Plastics Outlook.

## 8. OPAL (Offset Portfolio Analyzer and Locator)

Key theme(s)	Agriculture
Description	OPAL enables users to estimate the impacts of development activities, such as infrastructure, on terrestrial ecosystems and several of the services they provide, and then to identify offset options for mitigating losses. OPAL combines ecological and social data with the Natural Capital Project's InVEST ecosystem service models.  Link: <a href="https://naturalcapitalproject.stanford.edu/software/opal">https://naturalcapitalproject.stanford.edu/software/opal</a>
Potential for further development	OPAL includes the InVEST nutrient delivery model to map nutrient sources from watersheds and their transport to the stream. It is not clear if nutrient streams from agriculture can be identified. If applicable, the tool can be useful to understand impacts of nutrient pollution from agriculture. It is suggested to contact the developer to clarify this and their interest on developing further.
Gaps	Does not include data on plastic pollution.

## 9. Resource Watch

Key theme(s)	Agriculture
Summary	Resource Watch contains datasets on the state of the planet's resources and citizens. Users can visualize challenges facing people and the planet, from climate change to poverty, water risk to social instability, air pollution to human migration.  The portal includes a map on crop nutrient balance which shows the excess or deficit of elemental nitrogen and phosphorus globally to understand nutrient pollution.  Link: <a href="https://resourcewatch.org/">https://resourcewatch.org/</a>
Potential for further development	The information is not regularly updated, and the current dataset represents the year 2000. Nevertheless, the platform indicates that it aims to develop further and add datasets regularly. The information of this portal is quite limited and outdated. Because of the lack of maintenance, it is not recommended to consider this tool for future development.
Gaps	Does not include direct information on chemicals or plastic pollution.

## 10. What A Waste Global Database

Key theme(s)	Chemicals and plastics
Summary	<p>What a Waste is a global database aggregating data on solid waste management from around the world. This database features statistics covering nearly all countries and over 330 cities. Its metrics cover every step in the waste management value chain, including waste generation, composition, collection, and disposal, as well as information on user fees and financing, the informal sector, administrative structures, public communication, and legal information.</p> <p>The database has information on the percentage of plastic waste globally and by country. The data can be exported as a dataset or via API.</p> <p>It includes the What a Waste 2.0: A Global Snapshot of Solid Waste Management report. The document covers information on plastic waste management practices and case studies. It also provides limited information on chemicals disposal.</p> <p>Source: <a href="https://datatopics.worldbank.org/what-a-waste/">https://datatopics.worldbank.org/what-a-waste/</a></p>
Potential for further development	The information on plastic is very limited at the moment, but the datasets could be useful to feed the GEF FARM tool in terms on plastic pollution.
Gaps	Neither the website nor the report includes information on the link between waste and the agricultural sector.

## General suggestions and recommendations

- There is sufficient information available on agriculture pollution on water, soils, and nutrients to understand the impact of agriculture on soils. However, there is not enough for developing a global outlook of the impact of chemicals derived from agriculture, since there is not much detail on specific pesticides' impact. Nevertheless, to match the specific goal of the GEF FARM project, datasets need to be arranged in a decision-making tool with a user-friendly interface for financial institutions.
- The review did not identify any tools or datasets on plastic-related risks and impacts in the agriculture sector. This suggests a lack of recognition or understanding of the problem. UNEP FI could focus efforts towards raising global awareness about this issue.
- It is recommended to align the GEF FARM tool to current and forthcoming international agreements, to allow supporting progress to their fulfillment that support the elimination or reduction of chemicals and plastic pollution, for example:
  - The Post-2020 Global Biodiversity framework, which will include targets on elimination of pollution including plastics and pesticides, and sustainable agriculture.
  - The Strategic Approach to International Chemicals Management.
  - The global legally binding agreement to end plastic pollution.
  - The Stockholm Convention on Persistent Organic Pollutants.

- None of the reviewed tools seem to provide information on the link between agriculture and plastics pollution. It seems that the link between agricultural practices and plastic pollution is not acknowledged so far among the tools. Therefore, it would be useful to conduct user needs research within the financial sector to address this knowledge gap and inform future development work.
- Drawing on lessons learnt from the development of the ENCORE tool, the following activities are suggested to be included in the GEF FARM project's tool development work plan:
  - Scoping and user needs assessment (responding to the point raised in the previous bullet point).
  - Exploring the potential use or further development of existing tools.
  - Subject-matter research streams (suggested as two streams – one for chemicals pollution and one for plastic pollution).
  - Tool development.
  - Communications activities.
- It is recommended to conduct user experience tests with financial institutions, to identify specific gaps and requirements from a functionality perspective, which could respond to user needs and enhance uptake/usability of the tool.
- It is suggested to explore enhancing interoperability among the tools, where, for example, some of the FAO tools could connect to ENCORE data (and vice versa) to create modules responding to financial sector needs. Thus, instead of creating new tools, one could envision greater collaboration to share data and create new modules within existing tools, and pursuing greater efficiency and return on investment for donors.
- In conclusion, we have identified **ENCORE**, **Hand-in-Hand Geospatial Platform**, **FAOSTAT Land Use Domain**, and the **Global Plastics Outlook** of OECD.Stat as tools with high potential for further development in the GEF FARM context.



## ***Annex 1. Deliverable 1 “Inventory of tools and models available to assess financial institutions’ dependencies and impacts on natural capital related to chemical and plastic pollution in their portfolios in the agriculture sector”***

*Description of the columns.*

<b>Column name</b>	<b>Description</b>
<b>Tool name</b>	Indicates the name of the tool.
<b>URL</b>	Presents the link of the tool.
<b>Keyword/theme</b>	Describes the general theme related to the tool.
<b>Type of tool</b>	Indicates if the tool is a dataset, tool, or platform.
<b>Spatial Scale</b>	Specifies if the tool covers a national, regional, or global scale.
<b>Description</b>	Provides a brief and general description of the tool.
<b>Commodity data</b>	If applicable, indicates the commodities that the tool explores.
<b>Intended user</b>	If mentioned, specifies the intended user for the tool.
<b>Terms of use</b>	If clear, points out the terms of use applicable to the tool.
<b>Type of model</b>	Indicates what type of environmental model the tool is using.
<b>Biodiversity focus</b>	If applicable, indicates what kind of biodiversity information the tool covers.
<b>Additional comments regarding agriculture, plastic, and chemicals</b>	Gives a brief description of how the tool covers the GEF FARM priorities in terms of agriculture, plastic, or chemicals.

*Note: The tools highlighted in yellow are the ones selected jointly with UNEP FI for further analysis. The ones highlighted in orange are the ones considered for the final selection but discarded at the end. This Excel-based deliverable was provided separately to UNEP FI and should be read alongside this document.*

### Appendix 13. Acronyms and Abbreviations.

ADB	Asian Development Bank
AfDB	African Development Bank
BII	British International Investment
BRS	Basel Rotterdam and Stockholm Conventions Secretariat
CABI	Centre for Agriculture and Biosciences International
CFS	Committee on World Food Security
COAG	FAO Committee on Agriculture
COP	Conference of Parties
CoP	Community of Practice
CPSP	Centre for Suicide Prevention, University of Edinburgh
DFI	Development Finance Institutions
EA	Executing Agency
EAC	East African Community
ENCORE	Exploring Natural Capital Opportunities, Risks and Exposure
ESG	Environmental, Social and Governance
EU	European Union
FACS	Food and Agriculture Commodity Systems - UNIDO
FAO	Food and Agriculture Organization of the United Nations
FaNSI	Food and Nutrition Security- NRI
FARM	Financing Agrochemical and Reduction program
FI	Financial Institution
FOLU	Food and Land Use Coalition.
FOLUR	Food Systems, Land Use and Restoration Impact Program
GAP	Good Agricultural Practice
GCI	Green Customs Initiative
GDP	Gross Domestic Product
GEB	Global Environmental Benefits
GEF	Global Environment Facility
GGKP	Green Growth Knowledge Platform
GHG	Green House Gas
GHS	Global Harmonized Classification and Labelling of Chemicals
HHP	Highly Hazardous Pesticides
IA	Implementing Agency
ISCC+	International Sustainability and Carbon Certification
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFI	International Financial Institutions
IFPRI	International Food Policy Research Institute
ILO	International Labour Organization
IOMC	Inter organizational program for the sound management of chemicals.
IPM	Integrated Pest Management
JMPM	FAO/WHO Joint Meeting on Pesticide Management
JMPS	Joint Meeting on Pesticide Specification
KM	Knowledge management
KMS	Knowledge management system
KPI	Key Performance Indicator
LMIC	Low-to-Middle-Income Country
MDB	Multilateral development banks
MEA	Multilateral Environmental Agreements

MEA-REN	Multilateral Environmental Agreements Regional Enforcement Network
MERCOSUR	The Southern Common Market (in Latin America)
MTR	Mid term reviews
NGO	Non-governmental Organisation
NIP	Stockholm National Implementation Plan (NIP)
NRI	Natural Resources Institute
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
PAN	The Pesticide Action Network
PCG	Programme Coordination Group
PFD	Program Funding Document for the FARM program
PIR	Program Implementation Report
POP	Persistent Organic Pollutant
POPRC	Persistent Organic Pollutants Review Committee of the Stockholm Convention.
PPA	Priority Programme Areas – FAO
PPE	Personal protective equipment
PPG	Project Preparation Grant
PPP	Public Private Partnership
PRB	Principles for Responsible Banking
PRI	Principles for Responsible Investment
PSI	Principles for Sustainable Insurance
SAPReF	Southern African Pesticide Regulators Forum
SAICM	Strategic Approach to International Chemicals Management
SDG	Sustainable Development Goal
SME	Small and medium-sized enterprises
TE	Terminal Evaluation
UNEP	United Nations Environment Programme
UNEP FI	United Nations Environment Programme Finance Initiative
UNIDO	United Nations Industrial Development Organization
UNODC	United Nations Office on Drugs and Crime
WCMC	World Conservation Monitoring Centre – UNEP
WHO	World Health Organization