Part I: Project Information

Name of Parent Program
Financing Agrochemical Reduction and Management (FARM)

GEF ID
10904

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Financing Agrichemicals Removal and Management (FARM) in Lao PDR

Countries
Lao PDR

Agency(ies)
UNDP

Other Executing Partner(s)
Ministry of Agriculture and Forestry (MAF), UNDP

Executing Partner Type
Government

GEF Focal Area
Chemicals and Waste

Sector

Taxonomy

Focal Areas, Chemicals and Waste, Waste Management, Hazardous Waste Management, Industrial Waste, Emissions, Open Burning, Sound Management of chemicals and waste, Disposal, Green Chemistry, Best Available Technology / Best Environmental Practices, Persistent Organic Pollutants, Uninentional Persistent Organic Pollutants, New Persistent Organic Pollutants, Pesticides, DDT - Other, DDT - Vector Management, Influencing models, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Demonstrate innovative approache, Deploy innovative financial instruments, Transform policy and regulatory environments, Stakeholders, Local Communities, Private Sector, Large corporations, SMEs, Capital providers, Beneficiaries, Civil Society, Non-Governmental Organization, Academia, Trade Unions and Workers Unions, Community Based Organization, Communications, Behavior change, Strategic Communications, Awareness Raising, Type of Engagement, Consultation, Participation, Information Dissemination, Gender Equality, Gender results areas, Knowledge Generation and Exchange, Access to benefits and services, Capacity Development, Access and control over natural resources, Participation and leadership, Gender Mainstreaming, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Capacity, Knowledge and Research, Learning, Theory of change, Adaptive management, Indicators to measure change, Innovation, Knowledge Generation, Workshop, Training, Targeted Research, Knowledge Exchange, Field Visit, South-South, North-South

Rio Markers

Climate Change Mitigation

No Contribution 0

Climate Change Adaptation

No Contribution 0

Biodiversity

Land Degradation

Submission Date

12/13/2022

Expected Implementation Start

11/1/2023

Expected Completion Date

11/1/2028

Duration

60In Months

Agency Fee($)

360,000.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CW-1-2	Sound management of chemicals and waste addressed through strengthening the capacity of sub-national, national and regional institutions and strengthening the enabling policy and regulatory framework in these countries	GET	4,000,000.00	20,400,000.00
		Total Project Cost($)	**4,000,000.00**	**20,400,000.00**

B. Project description summary

Project Objective

To reduce the use of harmful agrochemicals by incentivizing farmers to adopt sustainable crop management practices, improving access to low/non-chemical pest control alternatives, and improving access to financing environmentally sound management of hazardous pesticides and agricultural wastes including plastics in Lao PDR.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
1. Strengthen Regulatory, Policy and Investment Frameworks	Technical Assistance	1.1. Regulatory frameworks enhanced for sound agricultural chemicals management, agrochemical waste identified, and use of harmful agrochemicals reduced	1.1.1. Regulations on agrochemicals and agricultural wastes (including plastics) management strengthened to include life cycle approaches. New government incentives that favor reduction and/or substitution of hazardous agrochemicals considered.	GET	900,000.00	4,590,000.00
			1.1.2. Expansion of restricted or banned use list of agrochemicals through specific regulations supported as per FAO/WHO guidance on Highly Hazardous Pesticides (HHPs); more efficient registration of low/non-chemical pest			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			control alternatives (including emergency pest control) considered. 1.1.3. Conduct trainings for relevant authorities and strengthen cooperation with bordering countries as part of the regionally harmonized approach to avert illegal imports and trade of hazardous agrochemicals. 1.1.4. Capacity of government institutions and the private sector to properly uptake, utilize, and adapt tools such as the FAO Pesticide Registration Toolkit strengthened.			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
2. Improve access to finance aligned with the demonstration and promotion of sustainable alternatives and agricultural practices for income raising.	Investment	2.1. Investment /Financial frameworks incentivized. 2.2. Innovative and safer alternatives and sustainable agricultural practices piloted aiming to improve income and unlock access to finance for ultimate reduction of demand for agrochemicals.	2.1.1. Partnership with financial institutions including commercial banks promoted; capacities in safeguards and responsible investment strengthened; creation / extension of innovative financing products to reduce agrochemical and agricultural wastes pollution and encourage uptake of alternatives to POPS/HHP. 2.1.2. Capacities among national and sub-national extension agents, commercial banks, technical advisors, farmers, civil society organizations (CSOs) and other key stakeholders involved in	GET	2,100,000.00	10,710,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			agricultural production strengthened regarding the risks of agrochemical use, the benefits of sustainable alternatives, and the availability of financing options. 2.2.1. Pilot activities implemented for demonstrating how farmers can increase income, demonstrate outputs and provide warranties to financial mechanisms, as well as reducing the use of harmful agrochemicals in priority crops for export and domestic consumption through farming practices that encourage an agroecological approach through integrated farming and			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			integrated pest management (IPM), including less toxic options, non-chemical alternatives and cultural procedures conducted. 2.2.2. National Replication and Scaling-up Plan along with analysis of financing options to be implemented during GEF-8 and beyond designed for the scale up of piloted farming methods deployment and the access to financial mechanisms aiming to reduce the dependence on agrochemicals.			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
3. Effective Knowledge Management Platforms and capacities built in agrochemical waste management and disposal methods.	Technical Assistance	3.1. Information & KM platforms developed to catalyse evidence-based decision-making scale-up.	3.1.1. Multi-ministerial communication and outreach campaigns conducted to raise awareness on risks associated with the use and exposure of hazardous pesticides, especially for women , youth, and other vulnerable groups. 3.1.2. Training and capacity building provided, information sources strengthened or created, and experiences and lessons learned shared with other child projects, regional, and national stakeholders. 3.1.3. Technical support delivered to government agencies on methods and	GET	610,000.00	3,111,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			business cases for removing existing stockpiles and wastes of agricultural POPs/HHPs.			
4. Monitoring and Evaluation (M&E)	Technical Assistance	4.1. Monitoring and Evaluation tools and products delivered throughout project?s lifecycle	4.1.1. M&E and adaptive management applied to assess project performance and GEB impact. 4.1.2. M&E tools provided to evaluate progress, challenges and lessons learned; and for ensuring future sustainability of achievements made through the project in reducing/ replacing HHPs and waste.	GET	200,000.00	1,020,000.00
			Sub Total ($)		**3,810,000.00**	**19,431,000.00**
Project Management Cost (PMC)						
	GET		190,000.00			969,000.00

Project Management Cost (PMC)		
Sub Total($)	**190,000.00**	**969,000.00**
Total Project Cost($)	**4,000,000.00**	**20,400,000.00**

Please provide justification

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Ministry of Agriculture and Forestry (MAF)	Grant	Investment mobilized	7,900,000.00
Recipient Country Government	Ministry of Agriculture and Forestry (MAF)	In-kind	Recurrent expenditures	1,000,000.00
GEF Agency	UNDP	In-kind	Recurrent expenditures	200,000.00
Donor Agency	IFAD	Grant	Investment mobilized	6,000,000.00
Donor Agency	Korean Government	Grant	Investment mobilized	3,300,000.00
Donor Agency	World Bank	Grant	Investment mobilized	2,000,000.00
			Total Co-Financing($)	**20,400,000.00**

Describe how any "Investment Mobilized" was identified

Investment mobilized is from three parts: 1) 2 million out of a World Bank-funded ?Lao Agriculture Competitiveness Project? under implementation by Ministry of Agriculture and Forestry (MAF); 2) 3.3 million from a Korean-funded agriculture sector project ?Support Scaling-up Sustainable Low-Carbon Agricultural Practices and Improving Food Security in Lao PDR?, to be implemented by UNDP; and 3) two IFAD projects- ?Agriculture for Nutrition II? Project (AFN II) and ?Partnerships for Irrigation and commercialization for Smallholder Agriculture? (PICSA). The co-financing projects contribute to FARM objectives by supporting: i) Piloting innovative digital solutions that promote sustainable farming, reduce greenhouse gas emissions and other forms of pollution, and improve farm productivity and profitability. ii) Support smallholder farmer?s access to finance to promote green recovery and low-carbon solutions in the agricultural sector in Lao PDR and food security. iii) Improve Agricultural sector Efficiency and Sustainability through the adoption of Good Agricultural Practices (GAPs), building capacity in farmers on Integrated Pest Management (IPM) and enhanced Agricultural Commercialization; iv) Through the Ministry of Agriculture and Forestry at national level and through the Provincial Agriculture and Forestry Department directly involved in pilot sites public investment is foreseen to strengthen the existing agriculture production system through the promotion of sustainable production practices as well as the improvement of agriplastic waste.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	GET	Lao PDR	Chemicals and Waste	POPs	4,000,000	360,000	4,360,000.00
			Total Grant Resources($)		**4,000,000.00**	**360,000.00**	**4,360,000.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

140,000

PPG Agency Fee ($)

12,600

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	GET	Lao PDR	Chemicals and Waste	POPs	140,000	12,600	**152,600.00**
				Total Project Costs($)	**140,000.00**	**12,600.00**	**152,600.00**

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	0	564	0	0
Expected metric tons of CO?e (indirect)	0	0	0	0

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

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

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)		564		
Expected metric tons of CO?e (indirect)		0		
Anticipated start year of accounting		2023		
Duration of accounting		10		

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

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

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

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

Indicator 9 Chemicals of global concern and their waste reduced

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
0.00	1,950.00	0.00	0.00

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

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
		450.00		

Indicator 9.2 Quantity of mercury reduced (metric tons)

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

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

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

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

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

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

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

Indicator 9.6 POPs/Mercury containing materials and products directly avoided

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

Indicator 9.7 Highly Hazardous Pesticides eliminated

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
	1,500.00		

Indicator 9.8 Avoided residual plastic waste

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
	4,200.00		

Indicator 10 Persistent organic pollutants to air reduced

Grams of toxic equivalent gTEQ (Expected at PIF)	Grams of toxic equivalent gTEQ (Expected at CEO Endorsement)	Grams of toxic equivalent gTEQ (Achieved at MTR)	Grams of toxic equivalent gTEQ (Achieved at TE)
	31.30		

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

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

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

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

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		2,800		
Male		13,800		
Total	0	16600	0	0

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

Notes on Core Indicator 9.1: 450 MT of candidate POPs (Clorpyrifos) is targeted under this. Please note that Clorpyrifos does not show up in the drop-down menu, therefore we are adding this note her in the Portal. As agreed during the FARM programme design phase, the GEB are measured for 5 years of project implementation and 5 years after project implementation. The methodologies for measuring the GEB were agreed at Global Programme level as follows: Core Indicator 10: Reduction, avoidance of emissions of POPs to air from point and non-point sources (grams of toxic equivalent gTEQ) uPOP's are produce by open burning of plastic waste and different types of plastics release different amounts of uPOP?s. Avoiding uPOP?s emissions is achieved by reducing the total amount of plastics being open burnt, either by: improved management of agricultural plastic; extending the life of the plastic, thereby reducing the amount of plastic used; Recycling/Downcycling, to reduce amount of plastic waste to be disposed of; Safe disposal of plastic waste via approved incineration. The UPOPs calculation is done applying the Stockholm Toolkit : Group 6 ? Category b ? Class 2. 400ug TEQ/tonne to air of material burnt, assumption mixed material. The methodology. The model starts by estimating the total volume of agricultural plastics disposed of per year in the country, and the percentage that is open burnt. In Lao PDR there are no official records on empty plastic containers waste annual generation. Quantities were estimated based on pesticides use in LAO PDR. Total Agricultural plastic waste generation is estimated based on FAO report that estimates that pesticides containers represent 3% of total agricultural plastic. There are no national figures for open burnt plastics in agricultural activity. Based on FAO report 66% of plastic waste is open burnt in low-middle income countries. As plastic use is expected to increase year on year the baseline target and measure of achievement will be calculated using an estimate of the increase in use of agricultural plastics over the life of the project and 5 subsequent years. For Lao PDR the estimation of increase was calculated based on last year increase (year base 2021): 5% Through the implementation of project activities (mainly Component 2 and Component 3 activities) open burning of plastic waste in agricultural activity will be reduced at least 10 points (national figure decreases to 56%). This means avoiding the burning of 17,425.4 MT (7 gTEQ) of plastic waste during 5 years project implementation and 60,858.1 MT (24.3 gTEQ) of plastic waste 5 years after project completion. Total plastic waste avoided burnt 78,283.5 MT and 31.3 gTEQ avoided to air.

Core Indicator 6. Greenhouse Gas Emissions Mitigated (metric tons of CO2e) The reduction in GHG emissions will be calculated using the existing AMS III ? AJ methodology and the associated assumptions from the UNFCCC system . Equation 2 and 4 were used with following assumptions: 100% of plastic for agricultural use in Lao PDR is imported. As no detail on type of plastics, it is assumed an average of Polyethylene terephthalate (PET), High Density Polyethylene (HDPE), Low Density Polyethylene (LDPE), Polypropylene (PP). As plastic use is expected to increase year on year the baseline target and measure of achievement will be calculated using an estimate of the increase in use of agricultural plastics over the life of the project and 5 subsequent years. For Lao PDR the estimation of increase was calculated based on last year increase (year base 2021): 5%. Through the implementation of project activities (mainly Output 3.1.3) new plastic demand will be reduced. A total of 600 MT will be downcycled per year (from the 4th year onwards). This means downcycling 1,200 MT (161 MT GHG emissions mitigated) during 5 years project implementation and 3,000 MT (403 MT GHG emissions mitigated) 5 years after project completion. Total plastic waste downcycled 4,200 MT and 564 MT GHG emissions mitigated. Core Indicator 11. Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment Each Child Project will define the methodology for beneficiaries measurement. The detail of the number of Beneficiaries for Lao PDR is introduced in Annex 12 of the Project Document. It is estimated that 16,600 people (2,800 women and 13,800 men) will benefit from project activities implementation. Women direct beneficiaries rate was based on the available official data of women within agriculture sector. However, the project will try to further increase the number of women involvement during project implementation. Core Indicator 9. Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products (metric tons of toxic chemicals reduced) Import data over five years will be used to calculate the baseline, this will smooth out annual fluctuations and predict the potential future increase in use of POP?s and HHP?s. As use of pesticides is expected to increase year on year the baseline target and measure of achievement will be calculated using an estimate of the increase in use of pesticides over the life of the project and five subsequent years. For Lao PDR the reduction of POPs and HHP will be evidenced mainly through the implementation of the Output 1.1.2 as well as Outputs 2.1.1, 2.2.1, 2.2.2, 3.1.3. It is estimated that the project will evidence the reduction of 720 MT (150 MT of POPs and 570 MT of HHP) during 5 years project implementation and arise to 1,950 MT (450 MT of POPs and 1,500 of HHP) after 5 years project completion.

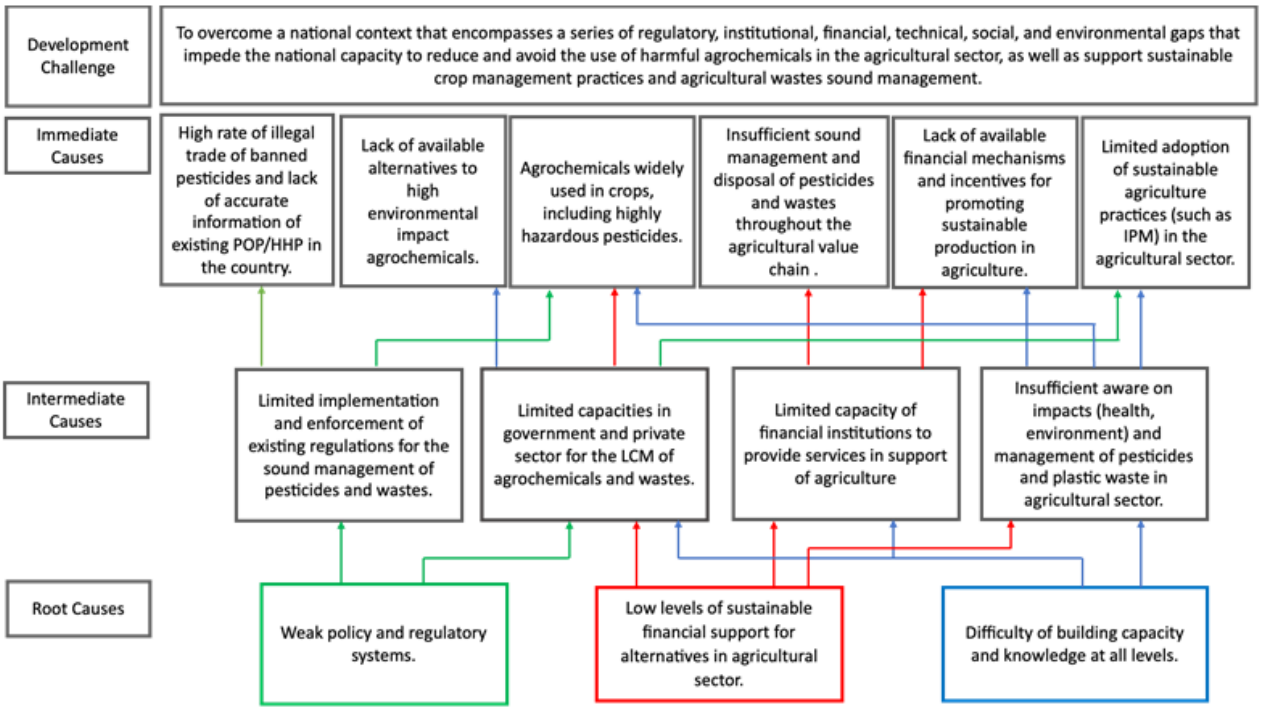
Part II. Project Justification

1a. Project Description

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (system description).

The development challenge is to overcome a national context that encompasses a series of regulatory, institutional, financial, behavioral, social, and environmental gaps that impede the national capacity to reduce and avoid the use of harmful agrochemicals and support sustainable practices in the agricultural sector.

The analysis of the development challenge during PPG phase has identified three levels of causes for environmentally sound management and reducing the use of agrochemicals and their waste within the national framework and international commitments. The problem tree with immediate, intermediate, and structural/root causes is detailed below:



2) The baseline scenario and any associated baseline projects.

Baseline Scenario

General Background

The Lao?s People Democratic Republic (Lao PDR) is a land locked country located in Southeast Asia. Lao PDR is bordering China (505 km) in the North, the Union of Myanmar (236 km) in the Northwest,

the Kingdom of Thailand (1,835 km) in the West, the Socialist Republic of Viet Nam (2,069km) in the East, and the Kingdom of Cambodia (435km) in the South.

The Lao PDR was established in 1975 and it is now administratively composed of 18 provinces, 148 districts, and 8,421 villages and is divided into three geographical zones (Annex 3): the Northern (with 7 provinces), the Central (with 7 provinces), and the Southern (with 4 provinces) regions. Its capital city is Vientiane which is the center for business and economic activities and where most of the national government and international development agencies are located.

Lao PDR has a land area of 236,800 km2 with 80% of the total area as mountainous with a large volume of renewable water resources. The Mekong River flows through 1,865 km of Lao PDR territory and forms the major portion of the border with Thailand. The total population is estimated at 7,231,000 million[1][1] (2020), being 67.1% identified as rural population while 32.9% urban population. Lao PDR is one of the world?s most ethnically diverse countries. The ethnic Lao, comprising around half of the population, dominate the country economically and culturally. The Lao government currently recognizes 160 ethnic subgroups within 50 ethnic groups[2][2].The predominant religions are Buddhism (65%), Animism and others (33.7%) and Christianity (1.3%)

Lao PDR is a developing country committed itself to building a socialist economy and moves with the ultimate aim of turning into an open-market economy. The country has been gradually undergoing structural transformation moving from primarily agrarian economy toward industrial and service sector economy. However, at the moment, agriculture can be considered as a main stay of the economy since this sector has comprised 15.20 % Gross Domestic Production (GDP) in 2019 and contributes more than 50% of employment.

Institutional and Legal Framework

The Environmental Protection Law promulgated in 1999 is the key legislation guiding the main policy for environmental protection. This law identifies the basic principles of environmental protection, components for environment protection, and different levels of Environment Management and Monitoring Units (EMMU). Under this law, there are four levels of EMMU, namely: the Central EMMU (Ministry of Environment and Natural Resources-MONRE), Sectoral EMMU (in every other Ministries), Provincial EMMU (a department of Natural Resources and Environment in each province) and district EMMU (an Office of the Natural Resources and Environment in each district). The Environmental Protection Law was amended in 2013[3][3] to define principles, regulations and measures related to environmental management, monitoring of protection, control, preservation and rehabilitation, with quality, of mitigating impacts and pollution created by anthropogenic loads or by nature, aiming to provide balance between social and natural environment, to sustain and to protect natural resources and public health; and contribution into the national socio-economic development and reduction of global warming.

Several cross-sectional legislations, decrees and guidelines were issued by the government of Lao PDR that provide legal basis for all sectors that implement environmental management for the purposes of

environmental protection and sustainability of natural resources. These legislations address air protection, energy regulations, forest and land use, agriculture, mining, water resources management, wildlife, and fisheries conservation.

Lao PDR approved the Law on Chemicals Management No 7/NA (2016), an umbrella law on a range of chemicals that recognizes the role of Ministry of Agriculture and Forestry (MAF) to control and monitor chemicals use (and waste) used in agriculture including for crops and livestock, and expressly includes pesticides as one of those types of chemicals. While the Environmental Authority is responsible for regulating and controlling the management of agricultural residues, the Agricultural Authority should be informed of pesticide residues that cannot be adequately treated and disposed of (decree No. 258/GOV). That Law called for MAF, and other line Ministries to promulgate legislations that address different aspects of chemicals management. Lao PDR has not instituted any legislation or regulation that addresses POPs specifically. Since POPs are chemicals, the management and monitoring of POPs follow the scheme of chemicals management under the Environmental Protection Law of 1999, amended in 2013.

The MAF is responsible for supervising the importation, manufacture, and usage of pesticides. Pesticides are regulated according to the Regulation on Management and Usage of Pesticides in Lao PDR (Regulation No. 0886/MAF, dated March 2000). Amendment in 2010 clearly states which pesticides are permitted to be imported and used, and it also clearly states which pesticides are prohibited. Currently, the list of pesticides banned in the country contains 55 pesticides, including POPs (9 banned)[4][4] and Highly Hazardous Pesticides (HHP) (2 banned)[5][5]. The Pesticide Registration Unit under the Department of Agriculture (DOA) is mainly responsible for reviewing and verifying all the registration applications, as well as editing and approving labels of pesticide, and other related tasks. A provisional pesticide registration certificate is valid one year, and a full pesticide registration certificate is valid for three years and can be extended upon request. The actual pesticide distribution activities are managed by the Provincial Agriculture and Forestry Office (PAFO). Any importers of pesticides and agricultural products should obtain import licenses from the PAFO. The District Agriculture and Forestry Office (DAFO) is in charge of implementing the regulations at the district level, which means that all local retail shops selling pesticides should be operating under the supervision of the DAFO. The following table shows the different levels of responsibilities for authorities in pesticide management with the country:

Table 1. Authorities responsibilities in pesticide management

Activities	Responsible Authorities
Pesticide registration	DOA
Import, sale, and application business license	PAFO
Import permit authorization	PAFO
Import inspection	PAFO
Storage inspection	PAFO, DAFO
Pesticide use inspection	DAFO (being the penalization competence of Environmental Police)
Law Enforcement	MONRE

Recently, in August 2017, the Government of Lao PDR has tightened regulations on pesticides nationwide through the Government Decree of Pesticide Management (No 258/GOL). This Decree brought the Lao PDR framework into greater alignment with the International Code of Conduct on Pesticides Management (2014). This Decree served as a legal foundation for a number of key controls that spanned the life cycle of pesticides and provided a legal basis to address different challenges. It also established a basis for cooperation (among health, industry and commerce, environment, customs, and other authorities; and at all levels: central, province, district, village and border checkpoints).

Through a World Bank technical assistance, a Ministerial Decision on Control of Pesticides Businesses No. 238/ MAF and a Ministerial Decision on Pesticide Registration No. 3604/MAF were developed and approved in February and September 2019 respectively. The decisions detail the requirements relating to various aspects of the pesticide business and reflect the guidance of the International Code of Conduct on Pesticides Management (2014). These regulations provide detailed guidance on procedures and requirements for the governmental authorities, the private sector, and users.

In addition, the country has the following legislation related to pesticides management:

The Agricultural Law No. 01/98 NA dated 10 October 1998.

Plant Protection and Quarantine Law No. 13/NA dated 15 November 2016.

Ministerial Ordinances (2):

- Protecting hazards of fake pesticide and pesticide banned in Lao PDR (No. 0620/MAF, 13 July 2005).

- Strengthening of management of importation, distribution and use of fertilizers, pesticides, and herbicides in Lao PDR (No. 2592/MAF, 15 August 2014).

Ministerial notices (4):

- Inspection of pesticides import and distribution (No. 0781/MAF, 23 September 2004).

- Monitoring of pesticide supplying and use of all stakeholders (No. 0642/MAF, 18 June 2008).

- Pesticide Management in Lao PDR (0627/MAF, 18 March 2013).

- Strengthening of management of pesticide importation and distribution for food production and commodities in Lao PDR (No. 1573/MAF, 13 September 2016).

The coordination structure for pesticide management in the country can be schematized as follows:

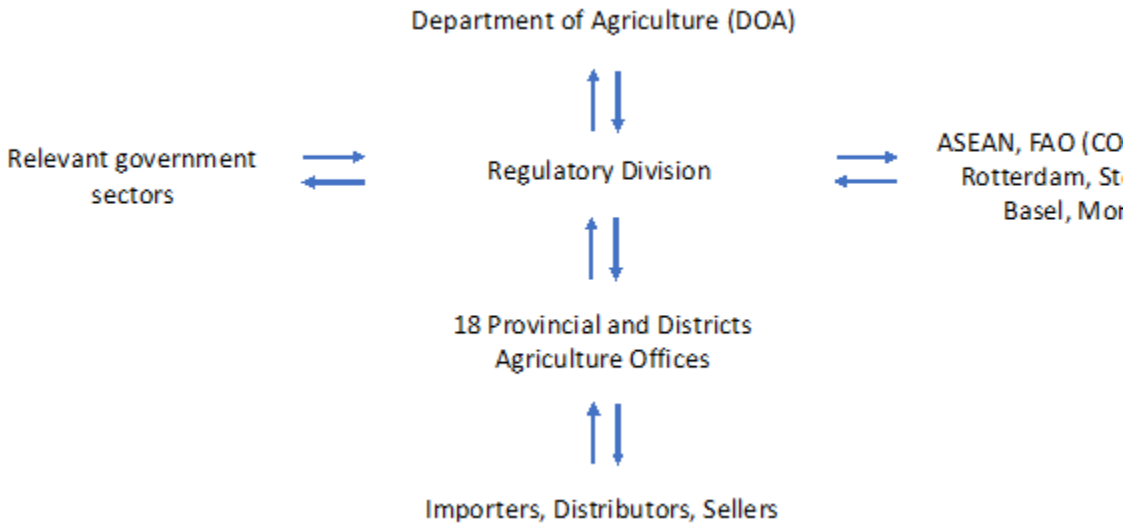


Figure 1. Lao PDR coordination structure for pesticide management.

Lao PDR?s Engagement in International Agreements on Chemicals and Waste Management:

With the objective of establishing an environmental sound management of hazardous pesticides within its lifecycle, Lao PDR has made significant efforts in the implementation of different international environmental agreements and guidelines. The Government indicates strong willingness to further pursue actions in the same direction.

To address the threats posed by POPs and HHP and related wastes, the Government of Lao PDR ratified the Stockholm Convention on Persistent Organic Pollutants in 2006, with the national focal point under is the Ministry of Natural Resources and Environment (MONRE). Lao PDR also acceded to the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal in 2010. Regarding the Stockholm Convention, the country published its first National Implementation Plan (NIP) in 2010 and updated it in 2016, in which the management of POPs pesticides is listed as a priority. The country, up to date, has so far banned 09 out of the 18 listed POPs pesticides in the Convention.

Additionally, Lao PDR acceded to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Pesticides and Industrial Chemicals in International Trade in 2010. As per the pesticides listed in Annex III of the Rotterdam Convention, 23 of 44 have been banned in Lao PDR.

Lao PDR is also a signatory of the Strategic Approach to International Chemicals Management (SAICM), and as such, has undertaken efforts to ensure the effective implementation of the objectives of the Global Plan of Action in the country. The outcomes of this project will contribute, incrementally, to carry out this Plan at the national level.

Agricultural sector in Lao PDR

The agricultural sector, as the main occupation and source of food for Lao PDR population, is an essential sector for national development. Majority of households (64%) live in the rural areas, those with access road account for 61% and those with no road access account for 3%, the urban accounts for 36%.[6][6] The northern region occupies 35.2% of the total farm population in 2019/2020; the central region occupies 43.5%; and the southern region occupies 31% of the total farm population. As per latest data from the World Bank and International Labour Organization (year base 2019)[7][7], employment in the agricultural sector represents 61% of total employment. In 2020, the output from agricultural sector contributed 16.2% to Gross Domestic Product (GDP)[8][8]. Although the Agriculture Sector in Lao accounts for a very high percentage of labor force, yet only generate a very small portion of the GDP, so this is a very low productivity sector. The project will contribute to increase productivity by moving them higher on the value chain (greener agricultural products, higher prices, higher contribution to GDP)

Based on the latest agricultural census carried out by the MAF in 2019/2020, the total number of households in Lao PDR are 1,241,420 households from 8,416 villages across the country. The agricultural households (those who perform the agricultural production, animal production, fisheries, and forestry)[9][9] are 644,098 households that account for 52% of the total households. Amongst the agricultural households only 10% are female headed.

Almost 30% of the farm population in Lao PDR are less than fifteen years old and slightly more than 5% of the population are more than 65 years, which means that the sector comprises a considerable young workforce that can ease and support the transition to new patterns of sustainable crop production. The distribution of farmland varies across regions. At the national level, about 23% of farm households operate on land of less than 1 ha, while 32% operate on between 1 and 2 ha of land, and 25% on 2 to 3 ha. Farm households with landholdings of more than 3 ha constitute 22% of total households but occupy 58% of the total farmland in the country. According to the Lao Agricultural Census, 2019/2020 among the total agricultural land in Lao PDR only about 8% is owned by females and the remaining 92% is owned by males.

The level of organization is very low. For instance, Lao PDR formed its first agricultural cooperative in 1975, the number of state-led cooperatives tripled between 1978 and 1985, by the end of the 1980s, state cooperatives were dismantled and replaced with farmers? groups, which lacked legal structures, and this led to a process in which farmers continue to be reluctant to join Cooperatives.

Of the total land area (23.68 million ha) in Lao PDR, only 5.3% is arable land[10][10] which is the lowest percentage in the region[11][11]. The low ratio of land area under cultivation has been partly due to the

continuing presence of unexploded ordnance (UXO) dating from the 70s. The following Table details the use of land by region:

Table 2: Land use by region

Land Use Category		North	Central	South	Lao PDR
Total Agricultural Land (000 ha)		621.37	682.61	318	1,621.99
Temporary Crops	(000 ha)	331.49	455.09	220.46	1,007.03
	%	53.3	66.7	69.3	62.09
Permanent Crops	(000 ha)	8.74	8.68	51.62	69.04
	%	1.4	1.3	16.2	4.25

Source: Lao PDR Census of Agriculture 2019/20

Cultivation of permanent crops seems to have been more attractive for larger farmers. Farmers with holdings below 1.5 ha rarely adopt these crops, while the larger farmers (with over 3 ha) are the highest adopters. Smaller farmers are more likely to devote their lands to meeting subsistence food needs, given expected revenues and risks. They are also likely to be more cash- constrained and therefore unable or unwilling to incur the cash outlays needed to establish permanent crops that give returns only in the relatively distant future. Large growers (>3 ha) report a higher percentage of total farmland area under permanent crops (23%) compared with 12 % in the case of medium and small growers (1.5-2.99 ha). On the other hand, in the smallest landholders (<1.5 ha), rice occupies 88-90 % of the area, compared with 75-80% in the larger (>1.5 ha) farms.

The main agricultural products are rice, maize, mung bean, cassava, sugarcane, vegetables, peanuts, soybean, tobacco, job?s tear. Almost 89 % of the temporary cropped area is devoted to rice, the main staple crop, and many farmers have very little additional land to allocate to other crops. The plantation of rice and maize has been reduced by 28% compared to the 2010/2011 Lao Agricultural Census. Other cash crops such as coffee and cassava also have increasing production in the recent years. Details on crop production and related planted area through the past years are shown in the following table:

Table 3: Priorities crops and production in Lao PDR

Crops	Planted area (ha)					Production (x 1000 Ton)				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	
Lowland rainfed rice	770,130	787,805	780,255	778,000	765,170	3,413	3,347	2,732	2,910	
Dry season rice	99,315	97,740	74.185	88,892	96,950	504	490	362	455	
Coffee	94,210	93,305	94,095	94,400	83,050	136	150	156	171	
Maize	224,160	176,130	121,415	123,510	106,080	1,246	955	603	615	
Peanut	26,700	18,887	13,786	15,270	20,994	63	49	34	39	
Cassava	75,810	70,930	101,100	101,494	112,450	2,410	2,277	3,324	3,320	
Sugarcane	36,180	29,090	22,195	30,160	24,002	2,019	1,764	1,109	1,490	
Job's tear	78,300	76,810	47,725	50,580	56,935	271	277	164	175	
Vegetables	180,820	170,150	162,065	180,957	170,900	1,691	1,437	1,337	1,467	
Tobacco	6,880	4,580	4,860	4,490	3,881	67	36	31	36	
Banana	28,600	22,605	26,085	26,828	26,261	796	946	750	761	
Total	1,621,105	1,548,032	1,447,766	1,494.581	1,466,673	12,616	11,728	10,602	11,439	

Source: Department of Agriculture (DOA), MAF.

Regarding, market access and utilization based on the LAC III 2019/2021, the majority of farm households (72%) engaged in selling agricultural produce either inside or outside their own village. Proportionally, about 85% of farm households sold inside the village while 15% sold outside the village.

Financing in agricultural sector

The use of credit for various farming operations is becoming more important, particularly with the increasing use of purchased inputs and the commercialization of farming. Main providers of credits are: public banks, Village Development Fund (VDF), agriculture extensions banks, microfinance institutions, other banks and financial institutions (see details in Table 4 below).

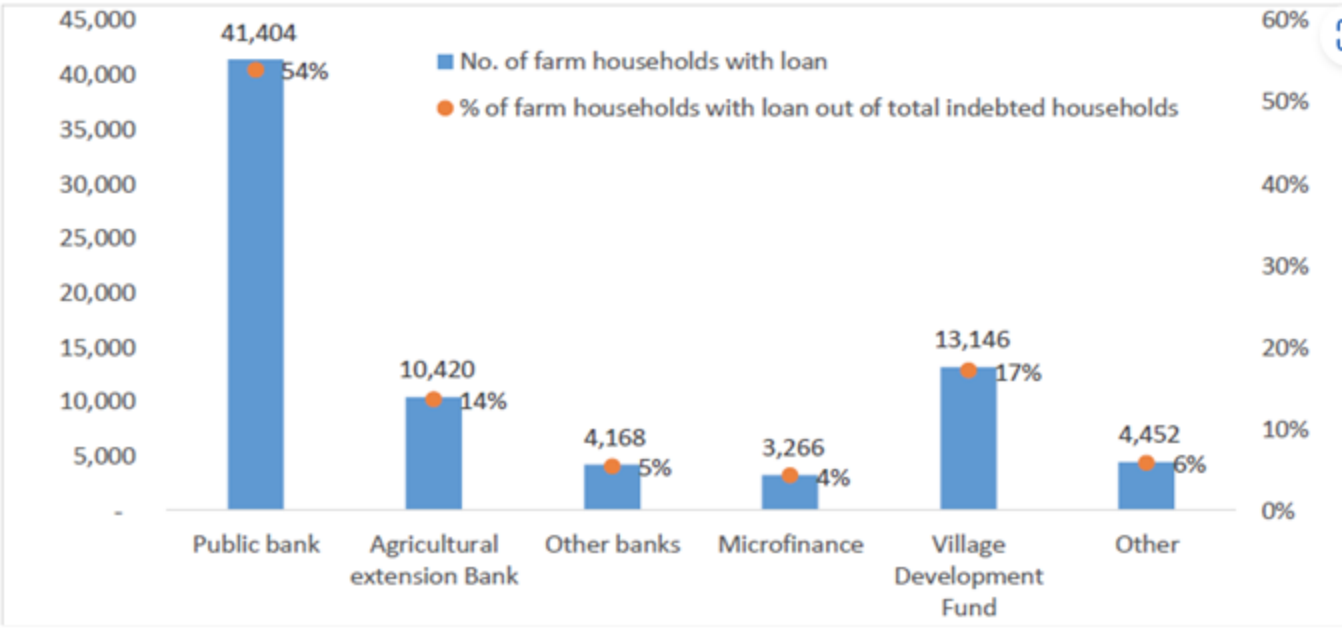
Data from the LAC 2019/21 show that credit use was still limited in Lao PDR; about 26% of farm households reported using credit for various farming operations. This proportion was slightly higher in the Northern region (37%) compared with the Central (18%) and Southern regions (24%). Around 54% of farm households using credit obtained it from public banks. Nayoby Bank bank is the main provider of credit for the agriculture sector, by the end of June 2022, the bank has a loan portfolio of 2,651.67 billion kip (equivalent to USD176.74 million). The loans provided to agriculture sector share 89% of the total loan portfolio.

Another major source of credit was the Village Development Fund (VDF), which provided credit around 17% of farm households using credit. The village funds are the primary semi-formal organizations offering financial services, which are community-based operations that accept deposits from, and issue loans to, their members. Village funds provide a rapidly growing, mostly savings-driven capital base for investment in local agriculture production and trade. The village funds do not employ permanent staff and can function with low operational costs. The main challenges for VDF are the professionalization of financial management and prudential management. As VDF normally manages by its management committee, it has no background and experience in banking and finance. When the VDF grows to a certain level, the management committee is unable to maintain good record keeping as well as maintain the quality of its loan portfolio, this challenges the sustainable and healthy growth to provide financial services to its members as well as to farmers in the areas of operation. On the other hand, due to the large number of VDFs in the country, the central bank, which is supposed to be the supervision and inspection body, cannot extend its effective supervision and inspection to the VDFs. Consequently, the risks of fraud in the VDF are exposed.

Microfinance institutions were utilized by about 4% of farm households using credit. Registered microfinance institutions (MFIs) in the Lao PDR are in the larger towns and do not yet adequately service rural areas. The key MFI clientele consists of salaried persons and traders. Many MFIs have developed appropriate systems and are expanding their operations to rural areas. As they lack lending capital, MFIs are often willing to borrow externally to expand their operations. MFIs charge a comparatively high interest rate, up to 2.5 to 3 times that of commercial banks, making smallholder farmers unaffordable. In addition, MFIs consider agricultural loans as high risk (market risks, flood, draught, and disease outbreak) and request stricter criteria (experience in the business, guarantees, cash flow, business income). The small agricultural producer is also challenged by MFI loan products in terms of repayment requirement, borrowers must pay principal and interest monthly or at least pay interest monthly principal quarterly. This requirement makes it difficult for agricultural productivity borrowers who normally earn their income after harvesting and selling their produce.

About half the farm households nationally used credit for buying farm inputs, such as fertilizer, pesticides, and fuel, and for purchase of livestock (47% of households), livestock inputs (9% of households) and farm equipment (6% of households).

Table 4: Farm households (HH) obtaining agricultural credit from major sources.



Source: Lao PDR Census of Agriculture 2019/2020

Extending financial inclusion is essential in poverty alleviation. Access to a wider range of financial products and services is needed by a broad range of households and micro, small, and medium-sized enterprises. The rural credit system in the Lao PDR is still underdeveloped in comparison with the demand, with limited lending for agriculture by commercial banks. Portfolio growth is restrained by cumbersome procedures that are not well adapted to agricultural activities and cause excessive delays in releasing funds.

The cause of difficulties of access to financial services for farming households are varied and relate the financial services providers, farming households themselves and the delivery mechanism. Below is a deeper analysis of the roles and constrains in each related stakeholders in the sector.

Public Banks: Farming households access credit from different sources, but banks, including commercial banks and specialize banks account for more than 70% of the of the total access to credit[12][12]. There are 38 active licensed banks in Lao PDR, however, only a few such as the Lao Agriculture Promotion Bank (APB), ACLEDA Bank Laos Ltd, and Lao Development Bank (LDB), and Nayoby Bank are actively providing credits to Micro, Small and Medium Enterprises (MSMEs) and to farming households. By the end of June 2022. Nayoby bank[13][13] recorded the main share of credit provided for the agriculture sector which amounted to total of 2,651.67 billion kip (equivalent to USD176.74 million). The loans provided to agriculture sector recorded a share 89% of the total loan portfolio.

The main barriers are:

- Long distance and opportunity cost: The transaction and opportunity costs of accessing financial services are prohibitive for many farm households, and this is particularly true for those living in rural areas. For most, the cost and time required to travel to urban areas, where banking services are located, outweigh the benefits. This is particularly the case for those looking for smaller transactions, making the relative cost of going to a bank's service center even higher.

- Cumbersome loan procedures: Bank loan requirements are not adapted to smaller, and informal MSMEs and for farm households. For business loans, bank requirements include a business license, financial statement, business plan, and cash flow projection. For personal loans, banks require a history of deposits with the bank that demonstrates stable income, which excludes most new customers or people who have irregular income, as is the case with most farm households that are engaged in the agricultural sector.

Nayoby bank and Agriculture Promotion bank, have attempted to reduce the cost of transaction, by adopting group-based lending methodology which requires 15-20 persons to organize themselves into a group, and apply for the loan in a collective guarantee. In this group lending approach, if one of the group members defaults his or her loan, other group members must repay on behalf of the defaulted member. Other group members will received further loans only if all the group members have repaid their loans.

Generally, banks loans underwriting involves a quite long process, while the farming household normally need their loans in a short time to finance their input supplies.

- Collateral based lending: Banks rely exclusively on tangible collateral to make their lending decisions (or guarantors holding these assets), such as permanent title deeds, savings accounts, or gold. The banks do not consider past and expected income from crops harvested.

- Perception of agricultural loans as high risks: In addition to the above barriers, the bank perceives agricultural loans as high risk. This is based on the fact that the farm households must assume different types of risks for the crop production, such as market risks (price fluctuations), risks of natural disasters (drought, floods) and plagues.

Microfinance institutions: There are 3 types of Microfinance Institutions (MFIs) in Lao PDR: i) Deposit Taking Microfinance Institutions (DTMFIs), ii) Non-Deposit Taking Microfinance Institutions (NDTMFIs), and iii) Credit Unions (SCUs). In the year 2019, the number of MFIs registered in the Bank of Lao PDR was 122 institutions (20 DTMFIs, 76 NDTMFIs and 26 SCUs). LAC 2019/21 data shows that access of agricultural households to credit from MFIs was only 4%. The microfinance institutions, in addition to sharing the previously mentioned barriers with the banks, have the following:

- Limited funds: A common constrained faced by MFIs face is insufficient funds for on-lending. DTMFIs are allowed to mobilize savings from the public, while SCUs are allowed mobilized savings from their members. However, both DTMFIs and SCUs fail to mobilize sufficient funds from public as well as members of SCU. s. This is due to savings practices and habits of Lao people where their preference is to hold-only cash. Based on results of baseline survey conducted by Microfinance in Rural Areas-Access to Finance for the Poor, the most commonly savings held is cash (53%) followed by gold and jewelry

(15%), bank accounts (9%) and livestock (7%)[14][14]. MFIs and Village banks were used for saving by only 2% of respondents. With limited funds, expanding outreach is a major challenge to MFIs. This is true particular in providing agricultural credit to farming households.

- High interest rate: MFIs in Laos commonly charge a high interest rate for the loans products to cover their costs and generate reasonable margin. The common interest rate that is applied in the Microfinance sector can range from 2.5% to 5% per month (or 30% to 60% per year), for loans less than LAK 5 million. MFIs use two methods in calculating the interest charged, namely, flat rate method on smaller loans (ie. Interest is calculated on original loan amount throughout the loan period, irrespective of loan payments), and the charge decline balance method on loans higher than LAK 5 million. Farming families find it very challenging and not viable to pay such high loan interest rates to finance their farming activities.

- Loan Products: generally, requires the borrower to repay interest and principal on a weekly or monthly basis. This requirement is challenging for farming activities as farmers will earn an income after harvesting their crops and selling them in the market. This normally happens seasonally or in some crops quarterly. The repayment schedule for MFI products does not match the cash flow of farm households and strictly limits farmers' access to credit from MFIs.

Village Development Funds: In 2003, The Bank of the Lao PDR?s Rural and Micro Finance Committee in its ?Policy Statement for the Development of Sustainable Rural and Micro Finance Sector? stated that ?Sustainable rural and micro finance can be effective tools for poverty reduction, which can help Lao PDR to emerge from LDC status by 2020.?

In support of the governments above mentioned Rural and Micro Finance policy, multilateral and bilateral development organizations (ADB, GIZ, ILO, UNDP/UNCDF, The World Bank), Non-governmental agencies (Association of Asian Confederation of Credit Unions (ACCU), DGRV, FIAM and CODI, SBFC) promoted village funds throughout the country, up to 2010s.

The microfinance survey by Ministry of Planning and Investment (MPI) National Economic Research Institute (NERI)[15][15] counted a total of 4,434 village funds established throughout the country. The rapid growth of these village development funds based on program supports from development organizations posed challenges to the Lao government after programs ended. Despite this situation, a small proportion of these village funds successfully operated and graduated to become Microfinance Institutions and Savings and Credit Unions. Some of them are still operating in the form of village funds. However, majority of village funds are no more active and have ceased to operate. Those are still active and providing basic financial services to members in the local communities as well as farming households share constraints in common with MFIs mentioned above.

From the gender perspective, bank processes that require land titles, assets, high interest, the signature of the head of household (most often men) all prevent women from accessing financing mechanisms as easily as men.

Farm households and Agribusiness: On the demand side, farm households and agribusinesses also share some problems that limit their access to financial services from financial institutions. These are the following:

- Lack of collaterals: Though financial institutions consider business experiences, and capacity to generate cash income as precondition to award a loan, the key decision for awarding a loan or not, is based on the collateral. Loans must be secured by collaterals while farm household?s lack of collateral, thus their proposed loan will not be approved. In practice financial institutions accept only fixed asset collaterals, in particular, permanent land title, savings account, or gold which farm households and agribusiness normally lack.

- Low financial literacy: The lack of experience in dealing with financial institutions is a major obstacle to the promotion and improvement of financial education. Therefore, the promotion of financial education must go hand in hand with efforts to increase the supply of appropriate financial products and services.

- No record keeping: Agribusiness and farm households do not maintain written records of the business transactions or income and expenses of their agricultural production activities. This practice increases the difficulties, when they apply for a loan from the financial institutions, as they are not able to provide evidence of their previous business and/or production and profitability

The obstacles of access to credits for farm households are from both demand and supply sides and exits in a vicious cycle. The strategy to exit from this vicious circle shall be addressed through linking actors in production value chains which will support sustainable operation of all related parties.

Farm households or producers and agribusiness are the two mains direct actors in the agricultural value chain. While the agribusiness is the main driver in the value chain by playing many roles such input supplier, collector, trader, processor, and seller/exporter as demonstrated in below.

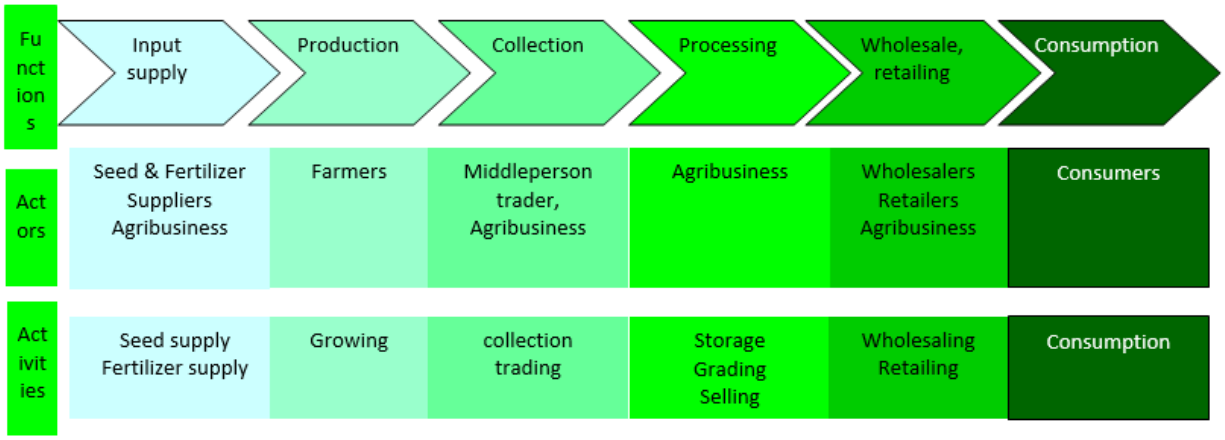


Figure 2. Agricultural value chain.

The main purpose of access to credit is to obtains the necessary funds to finance farmers production activities (seeds, fertilizers, less hazards agricultural chemical, hiring additional labors). However, the ultimate goal is to access to better market to earn more net income for improving farmers? living

condition. The agribusiness can secure farmers agricultural products while also play the role of input supply supplier.

As the agribusiness is in a better position to able access to finance from financial institutions, the access to finance of producers can be channeled through agribusiness. While the agribusiness also plays important role on the dissemination of the impact of using of hazardous agrochemicals. The offer of incentive price for farmers who adopt Good Agriculture Practices (GAP) will encourage farmers to adopt less hazardous agrochemicals. This is expected to be the sustainable market-based solution for farmers to access credit, better market and adopt less hazardous agrochemicals.

Agrochemicals ? Baseline Scenario

Since a large proportion of farm households in Lao PDR still engage in traditional subsistence agriculture, the use of purchased inputs, especially chemical fertilizers and pesticides, has been limited. The adoption of these inputs had largely been confined to the farmlands along the Mekong River corridor. However, with the gradual move towards the commercialization of agriculture in the country, the use of pesticides has increased significantly. However, Lao PDR does not produce active ingredients or pesticide formulations. So, while, to some extent, pesticides are officially imported, most, including some highly hazardous pesticides (HHPs) banned in the country are illegally brought in across porous borders mainly from neighboring pesticide-manufacturing countries. Nearly all pesticides sold and used in Lao PDR originate from Thailand and China, and to some extent from Vietnam.

Based on estimations developed by the PPG team together with the Department of Agriculture (DOA), the following quantities of pesticides are being used in the country:

TABLE 5: PESTICIDES USE IN LAO PDR.

Year	**2017**	**2018**	**2019**	**2020**
Area of pesticide used	524,616	480,974	489,079	483,590
Average of pesticides used (Tons/ha)	11.10	12.69	16.63	27.10
Total of pesticide used (Tons) =	**5,821**	**6,106**	**8,131**	**13,104**
Active ingredient (Tons) =	1,596	1,519	1,832	3,380
Legal import (Tons)=	2,649	2,766	3,838	5,739
Active ingredient (Tons) =	726	688	865	1,480
% of legal import	45.50	45.30	47.20	43.80
Illegal import (Tons)=	3,172	3,340	4,293	7,364
Active ingredient (Tons) =	870	831	967	1,899
% of illegal import =	54.50	54.70	52.80	56.20

Source: PPG Team.

This figure shows that the use of pesticides within the country has increased by 144% during the past five years. This estimation is based on legal imports data, information provided by provinces, crop

production and dosage for application surveyed by the Agricultural Census 2010/2011 (pesticide application for crop protection 17.4% of plantation area and 100% of plantation area for banana, maize, and rubber tree crops which belong to foreign investors). This analysis makes possible to demonstrate the country's problems regarding the illegal importation of pesticides. On average more than 50% of the pesticides used in the country are illegally imported and this amount keeps increasing year after year.

These illegal pesticides are freely sold in the local markets by retailers most of whom have no license nor knowledge of the products. Furthermore, used inappropriately and without precautions and protective measures by farmers who are unaware of their ill-effects, resulting in health problems and environmental contamination. These practices, particularly the use of illegal HHPs, have raised concerns among civil society organizations as well as the governments. As a result, some efforts have been made to regulate cross- border trade and the sale and use of pesticides in these countries but these efforts have not seen much success because of lack of enforcement. Even confiscation of banned pesticides is a problem as the countries lack the technological means to safely dispose of or destroy the hazardous chemicals.

As per information analyzed by PPG team (during the past 3 years, from 2019 to 2021) in the country there are 239 products registered for pesticide formulation (Insecticide 82, herbicide 63, fungicide 81, rodenticide 1, molluscicide 1, plant growth regulator 11). In terms of companies 16 are registered and according to latest information available there are 193 pesticides retailer shops registered.

Among the total quantities of pesticide use in the country Chlorpyrifos can be highlighted, being a substance that is currently proposed to be listed as POP pesticides within the framework of the Stockholm Convention. The following table shows the detail of the amounts used of this substance based on legal imports:

Table 6: Chlorpyrifos use in Lao PDR

	2017	2018	2019	2020	2021
Chlorpirifos by product (tons)	183	211	217	158	156
Active Ingredient (tons)	119.02	84.52	86.92	102.42	62.49

Source: PPG Team.

Likewise, among the total quantities the use of HHP can be underscored. The following table shows the detail based on legal imports data:

Table 7: Highly Hazardous Pesticides use in Lao PDR

Highly Hazardous Pesticides (HHP)		2017	2018	2019	2020	2021
Paraquat	by product (tons)	995	1,034	1,044	258	525
	Active ingredient (tons)	239	248	251	62	126
Diazinon	by product (tons)	12	5	-	-	-
	Active ingredient (tons)	1.25	0.51	-	-	-
Lambda cyhalothrin	by product (tons)	183	1,093	1,112	1,191	1,662
	Active ingredient (tons)	119	240	89	179	188
Glufosinate ammonium	by product (tons)	-	-	1	53	48
	Active ingredient (tons)	-	-	0.24	9.45	8.64
TOTAL		**1,190**	**2,132**	**2,157**	**1,502**	**2,235**

Source: PPG Team.

As per the National Implementation Plan under Stockholm Convention (2016), the preliminary survey of the 9 initial banned pesticides under the Convention was conducted in retail shops and one farm in selected ten provinces that are most likely to have boarders with neighboring countries. The survey did not find any of the initial nine POP pesticides that are listed in the Stockholm Convention but found the banned pesticides Paraquat Dichloride (herbicide), Methomyl (insecticide) and Chlorobenzilate (rodenticide) that are listed in the Rotterdam Convention.

Hatxayfong District Agriculture and Forestry Office (HDAFO) currently keeps the obsolete pesticides liquid of methyl parathion (initially reported as dichlorvosor 2,2-dichlorovinyl dimethyl phosphate (DDV.P)) packed in 20 containers with each container containing 20 liters of the liquid pesticides (400 L total). These pesticides were provided by the government of Russia long time ago. The HDAFO is looking for support and technical assistance from the MAF to properly dispose those pesticides.

Health problems related to pesticides are common. Farmers in Lao PDR reported, besides common symptoms such as rashes and headaches, several deaths following the use of pesticides. Environmental problems, mainly contamination of water, soil and of traditional foods such as wild mushrooms and fish in Lao PDR, were also reported. Significantly, several people in Lao PDR had been hospitalized after eating pesticide-contaminated mushrooms collected from forests close to corn fields. Referring to the repot of MONRE No. 5604/MONRE dated October 2016 the following pesticides were detected in soil.

TABLE 8: PESTICIDE RESIDUE IN SOIL.

Location	Pesticide detected	mg/Kg
Point 1: Sibounheung village Tonpheuang District	Carbendazim	0.02
	Glyphosate	0.10
	AMPA	0.59
	Paraquat	29.41
Point 2: Donsavanh village Tonpheuang District	Carbendazim	0.52
	Glyphosate	0.03
	Paraquat	18.94
	Dicofol	0.21
	Chlorpyrifos	0.78
	Cypermethrin	0.10
Point 3: Sidonyeang village Tonpheuang District	Carbendazim	0.02
	Paraquat	3.23
Point 4: Donsavanh village Houaixai District	Carbendazim	0.01
	Paraquat	0.04
Point 5: Viengkham village Phaoudom District	Carbendazim	0.04
	Paraquat	15.72
Point 6 : Homsouk village Phaoudom District	Carbendazim	0.03
	Paraquat	3.66

Source: Department of Agriculture (DOA), MAF.

MAF released the Agreement on Good Agricultural Practices for Product Safety Standards (No. 0115/MAF, 2011) to establish requirements that producers and entrepreneurs must follow in order to produce vegetables and fruits safe for consumers, following ASEAN?s Good Agricultural Practices (GAP) standards. The Agreement on Good Agricultural Practices for Product Quality Standards (No. 0539/MAF, 2011) sets requirements for producers and entrepreneurs to follow to produce agriculture products that are high-quality and meet market demands. Both these agreements set forth standards for using pesticides; properly applying and storing chemicals; tracking the use of pesticides, fertilizers, and chemicals; ensuring safe storage and transport of harvested produce: and using suitable water in operations. Investors can apply for certification of their products following Lao standards, including GAP and organic agriculture certification, from the DOA, MAF. The following table summarizes current certifications in the country, main crops involved include vegetables, fruits, tea, coffee, sugarcane, rice, bamboo shoot, melon, watermelon, and cashews.

Table 9: Summary of certification of Good Agriculture Practices (GAP) and Organic Agriculture (OA) in Lao PDR

Certification	Companies	Farms	Farmer groups	Centers	Number of families involved	Area (ha)	Production (Tons)
GAP: 11	6	2	2	1	41	120	1,433
OA: 56	19	6	29	2	2107	13,081	81,750

Source: DOA, 2021

Agricultural Plastics ? Baseline Scenario

The following table shows the estimated amount of plastic pesticide containers generated based on the use of pesticides (from legal and illegal imports) as detailed in Table 4 ?Pesticides use in Lao PDR?. The calculation was based on the invoices and packing list of goods provided by the importers which include the chemical names of the goods and packing size of each pesticide?s containers[16][16] imported.

As per an FAO report in 2021[17][17] on the assessment of plastics for agricultural use, the pesticides containers only represent 3% of the total amount of plastic waste generated by agricultural activity. Besides the containers, agricultural practices employ a wide range of plastics products such as: silage films, greenhouse films, fruit, and plant protectors, etc.

Table 10: Estimation of empty plastic pesticide containers in Lao PDR.

	2017	2018	2019	2020	2021
Total Plastic Pesticide Containers (ton)	665	716	1,700	2,233	2,345

Source: PPG Team

Currently there is no specific legal framework for the management of agricultural-use plastic (pesticide containers, films, greenhouse films, and etc.) management within the territory. There is no detailed record in terms of generated plastic waste in agricultural activity in Lao PDR. Furthermore, there is no available data on specific collection, management, and disposal of empty containers. Due to lack of awareness, unsafe disposal of used pesticide containers is another source of contamination of natural resources. In Lao PDR, farmers threw pesticide containers in farms, rivers or near their houses, contaminating the soil, water and food sources and creating health risks for communities. Thus, rural communities faced a ?double exposure? risk from poor pesticide use practices and unsafe disposal of used containers.

In terms of installed capacity for treatment and disposal of pesticides and waste, the PPG team found that SAVAN EMC Co., Ltd (Environmental Management and Pollution Control Service) is the only company which received the certification from the Department of Environment. It cores services are: i) Consulting on Industrial Waste Management; ii) Hazardous Waste Treatment and Disposal; iii) Industrial Waste

Transportation Service; iv) Environmental Laboratory Service; v) Non-hazardous Industrial waste Recycle Service; vi) Secure Paper Shredding Service; vii) Consultancy in Planning, Reporting, Monitoring of Environmental Management and Pollution Control. It is located in Nake Village, Kaysone Phomvihanh district, Savannakhet Province. The capacity of the machine operating is 120 tons per year.

3) The proposed alternative scenario with a brief description of expected outcomes and components of the project.

Based on the baseline information and the Problem Tree Analysis, the main challenges to be addressed by this project, which are directly linked to the root causes identified, are the following:

a) Enable conditions for the sound management of chemicals and waste through policy and enforcement.

The country has been experiencing a significant increase in the use of agrochemicals in the past years, as a consequence of shifting production from subsistence agriculture to production with commercial purposes largely due to the drive for export. In the same way, it brought about the growth of the illegal entry of these products, most of which are banned. The Government of Lao PDR has long been tackling illegal pesticides trade across its porous borders particularly in the immediate years after being banned. Pesticides rules were also strengthened by the Ministry of Agriculture and Forestry (MAF) addressing, among others, imports, exports and selling licenses, pesticide registration requirements, pesticide management, packaging, labelling, storage, distribution, transport, pesticide application and disposal.

While several efforts have been conducted, there is a need to improve policy and regulatory frameworks to include life cycle approaches and promotion of sustainable of agricultural practices by introducing and scaling up agroecological approaches such as integrated farming and IPM, which will dampen the demand of harmful agrochemicals and at the same time reduce the risk and uncertainties for public and private investment in the sector. Framing pest control within an IPM approach is the best way to achieve sustainable production. It is a proven technology and an efficient means of responding to consumer demands of good quality products whilst at the same time addressing environmental, food safety and security, health, and socio-economic issues.

Government institutions and relevant authorities involved lack the necessary capacity, staff, and resources to enforce the pesticide legislation and ensure complete compliance with the multilateral environmental agreements. Likewise, a major coordination among them and cooperation with bordering countries should be encouraged to effectively evidence a transition to a low/non-chemical sustainable agriculture and enhanced agricultural plastics end of life management.

b) Establish sustainable resources for the transition to low/no-chemical agriculture through finance and investment.

As described in previous section, access to financial institutions by rural populations is in general low. In addition to the lack of income to open saving accounts, there is also a lack of awareness on the use of financial products including bank loans. In addition, although the Government of Lao PDR has been working with multilateral and bilateral partners on the adoption of sustainable practices, as well as supporting microfinancing in rural areas, the investment flows into the agriculture sector have not been focused on shifting to low/non-chemical pest control alternatives.

On the supply side, there is a limited number of credit providers, and they perceive agricultural sector as a high-risk activity. On the demand side, borrowers are unwilling to take on debt rightfully due to the uncertainties from agricultural revenue, lengthy and complicated procedures.There is a need to promote and build capacity in the development of agricultural tailored sustainable financing options where criteria and targets for use of no/low-chemical alternatives are included into eligibility for investment and loans, as well as in the identification and evaluation of the environmental and social risks that their beneficiaries incur in carrying out their activities. For this purpose, it is also essential to work on the knowledge gap both in financial institutions, extension units and farmers themselves to build the essential capacity for the design, dissemination, access, and application of sustainable financing sources in agricultural activity.

Additionally, to boost financing and investment for the transition to low/no-chemical agriculture it is needed to build experience and knowledge by demonstrating how farmers can increase income, demonstrate outputs and provide warranties to financial mechanisms while adopting sustainable production practices in priority crops through integrated pest management (IPM) including non-chemical alternatives.

c) Build capacity and make knowledge accessible through the sound management of chemicals and waste.

This is one of the main pillars on which the project should work to achieve a structural change. Frequently, farmers decision-making on pest management is driven by profitability and risk-aversion, therefore the perceived efficacy is important. It is difficult for farmers to change these risk-averse and engrained practices without compelling incentives. General awareness about available alternatives and sustainable agricultural practices remains low among farmers, regulators, and investors. Consequently, it is essential to build the necessary capacity and disseminate knowledge on effective alternatives to HHP, POPs and plastics of agricultural use at all levels, particularly farmers and regulators.

Finally, to address the use of harmful agricultural chemicals, the project?s strategy will require the involvement of key stakeholders, such as regulatory authorities (including customs officers to ensure illegal trade of obsolete or banned chemicals is averted), agricultural extension services and public health advisory services and poison control centres, farmers? organizations and networks, trade unions and agricultural producers organizations, and the private sector (including pesticide manufacturers, importers, distributors and users), civil society, academics, scientists and researchers).

THEORY OF CHANGE

The Project?s vision is to proceed with direct interventions on the immediate, intermmediate and root causes previously identified; recognizing the multi-dimensional impacts of agriculture on the environment, health, biodviersity and poverty. The objective of this FSP is reduce the use of harmful agrochemicals by incentivizing farmers to adopt sustainable crop management practices, improving access to low/non-chemical pest control alternatives, and improving access to financing environmentally sound management of hazardous pesticides and agricultural wastes including plastics in Lao PDR.

The following figure shows the alternative pathway and solutions to address the three categories of immediate, intermediate, and root causes described in problem tree.

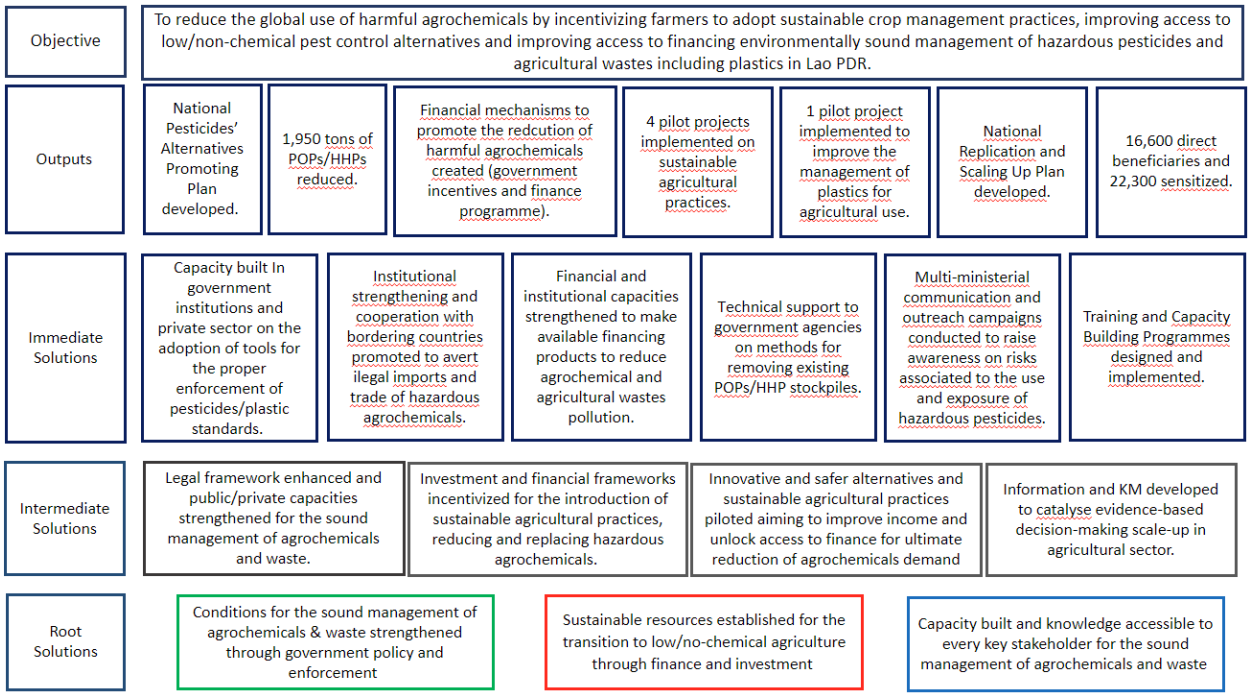


Figure 4. Theory of Change Diagram.

The project?s approach is implemented through 4 project components, leading to 5 specific outcomes and 13 outputs.

In summary, the strategy selected to address the overall development challenge is the following:

Component 1 ?Strengthen Regulatory, Policy and Investment Frameworks? aims to enhance regulatory frameworks for sound agricultural chemicals and waste (including plastics) management, promoting the reduction of harmful pesticides use.

Through this component, the project will support the Government by improving its coordination capacities to properly uptake, utilize, and adapt tools such as the FAO Pesticide Registration Toolkit. Government?s baseline on policy, regulatory, institutional, investment, policy enforcement, and risk management associated with the use of pesticides will be assessed, gaps will be identified and updated in order to improve frameworks on the registration, labelling, use, management and trade of pesticides, as well as proper storage, handling and disposal.

This component also envisions the strengthening of Customs and enforcement authorities to prevent illegal imports and trade of hazardous agrochemicals within Lao PDR territory, as well as building capacities in key governement institutions and promote collaboration with bordering countries as part of the regionally harmonized approach.

The project will develop a National Pesticides Alternative Plan for the reduction of harmful agrochemicals which will include the review of harmful pesticides being used in the country and promote it?s gradual substitution by identifying less hazardous/non-chemical alternatives. As a result, an expansion of restricted or banned use list of agrochemicals will be carried out. The plan will also include the strengthening of more efficient registration methods of low/non-chemical pest control alternatives (including emergency pest control).

Moreover, the project will contribute to the definition of a legal roadmap to support the draft/update of policies and regulations for the sound management of agrochemicals (including plastics for agricultural use) throughout their life cycle and recommend strong enforcement mechanisms. Fiscal and financial incentives will be also assessed to encourage the use of less toxic options.

Component 2 ?Improve access to finance aligned with the demonstration and promotion for sustainable alternatives and agricultural practices for income raising? aims to incentivize investments and financial frameworks to encourage finance flows towards sustainable agricultural production and reduction of harmful agrochemicals use. For this reason, this project aims to deploy a double-prone approach in order to reach the most stakeholders possible: on the one hand, working with individual farm-holders (or smallholders associations) to support on the ground demonstration of alternative techniques and access to finance; and on the other hand, working with formal institutions to support access and upscale of finance to the sector.

The Project will establish partnership with finance entities and strengthen their capacity and understanding to develop financial products to promote the adoption of good agricultural practices (such as IPM) in priority crops for export and domestic consumption. Strengthening capacities in environmental and social safeguards, collateral policies, crop insurance, financial training, creating innovative financing products will be also provided.

In addition, the project will work with individual farmers (or small holders associations) to build their capacity in developing bankable projects and loan/investment applications and subsequently apply for access to credit (special attention will be paid to engage with women farmers). Correspondingly, capacities of national extension units and private associations will be strengthened to support the dissemination and promotion of the financial product acquisition from farmers with the consequent result of reducing agrochemicals and increasing farmers incomes.

The project will design and implement pilot projects for demonstrating outputs and provide warranties to financial mechanisms by the use of IPM and other GAPs in priority crops for export and domestic consumption, including less toxic options, non-chemical alternatives. Finally, a National Replication and Scaling-up Plan along with analysis of financing options will be developed to be implemented in the medium to long term for the scale up of piloted farming methods and deployment of financial mechanisms aiming to reduce the dependence on agrochemicals.

Component 3 ?Effective knowledge management platforms and capacities built in agrochemical waste management and disposal methods? aims to build capacity and make knowledge accessible for the environmentally sound management (ESM) of hazardous waste, including unwanted pesticides and agricultural plastics among main stakeholders in agriculture value chain.

This component will focus on expanding the existing farmers? and regulators? networks and mechanisms for training and awareness raising on pest and crop management and agricultural plastics.

Aligned to the purpose of building national capacity, the project will technically assist the government for removing existing HHP/POPs stockpiles and wastes. The analysis will undertake a technical and economic feasibility study and design a financial scheme that will optimize the disposal of existing POPs/HHPs stockpiles for treatment and/or export, owned by holders nationwide. The project will also work on an effective, efficient and business-friendly model to collect and dispose of empty pesticide

containers. Thus, while assistance from the GEF to assess disposal methods and financing schemes will be requested, disposal activities themselves will not be a part of the child project.

Lastly, Component 4 ?Monitoring and Evaluation? will periodically monitor the project?s activities to ensure results achievement. Through this component evaluations and lessons learned will be captured and integrated through adaptive feedback management.

A gender action plan has also been developed, which aims to mainstream the gender approach in the life cycle of the Project "Financing Agrochemical Management and Reduction in Lao PDR" contributing to a sustainable and inclusive development in the population that inhabit the areas and that work in the intervention sectors of the project.

Key assumptions

The project strategy is based on a few assumptions that will be of great importance for achieving expected changes and results. These assumptions can be found in detail in Section VI ?Monitoring and Evaluation Plan?, and the main ones can be summarized as follows:

- Government of Lao PDR commits to encouraging coordination among competent authorities in sound management of agrochemicals and to making available the adequate human resources for the duration of the project and beyond.

- Key Stakeholders provide reliable and accurate information about the agrochemicals and plastic for agricultural use within the scope of this FSP and are willing to participate in their environmental sound management process.

- Key Stakeholders are willing to participate and receive training and capacity built in the reduction of harmful agrochemicals and in the adoption of sustainable production practices in the agricultural sector.

- A collaborative approach to policy making that is sustained and continuously improved, integrating gender related issues across the implementation of the proposed activities.

- The impacts due to the pandemic context in Lao PDR, especially in rural areas and agricultural sector, will be timely mitigated to guarantee successful implementation of proposed activities and achievement of expected results.

- Collecting the lessons learnt would foster continuous improvement during the implementation phase and assisting in the development of innovative demonstration approaches and testing for other similar implementations elsewhere after the project?s completion.

Expected Outcomes and components of the Project

PROJECT COMPONENT 1: STRENGTHEN REGULATORY, POLICY AND INVESTMENT FRAMEWORKS.

OUTCOME 1.1: REGULATORY FRAMEWORKS ENHANCED FOR SOUND AGRICULTURAL CHEMICALS MANAGEMENT, AGROCHEMICAL WASTE IDENTIFIED, AND USE OF HARMFUL AGROCHEMICALS REDUCED.

Output 1.1.1: Regulations on agrochemicals and agricultural wastes (including plastics) management strengthened to include life cycle approaches. New government incentives that favor reduction and/or substitution of hazardous agrochemicals considered.

Through this Output the Project will promote and enhance institutional coordination between different competent authorities for agrochemicals and plastics Life Cycle Management (LCM). It will also contribute to identifying gaps in current regulatory frameworks and national policies and developing a national road map for strengthening regulations on agrochemicals and agricultural wastes (including plastics) management with a life cycle approach.

In addition, different options of fiscal and financial incentives will be assessed for promoting investment in the agricultural sector favoring the transition to a low/non-chemical crop production in the country. In the same way, existing incentives will be analyzed and those ones unfavorable will be discouraged or eliminated. The assessment will conclude on feasible incentives to be applied according to country context and the project will promote the implementation of at least 1 of them.

The following activities will be developed to achieve Output 1.1.1:

Institutional Coordination and Regulation Strengthening:

a) National Committee on Pesticides management and control: based on the ad hoc committee created by MAF?s Guideline No 278/MAF dated 19 February 2020, the project will support its constitution as a standing committee to improve agrochemicals and plastic for agricultural use management and control within the territory. The Committee will be comprised of competent public bodies, such as the Ministry of Agriculture and Forestry through the Department of Agriculture (DOA), the Ministry of Natural Resources and Environment, Ministry of Industry and Commerce, Ministry of Public Health, Environmental Police of Ministry of Public Security, Ministry of Justice, Ministry of Planning and Investment, Ministry of Finance, and Ministry of Public Works and Transport, Ministry of Labor and Social Welfare. The project will ensure that the Committee is chaired by the proper authorities enabling the multisectoral coordination decisions[18][18].

A working group, supported by its secretariats, will be established with representatives at technical level from Ministries members for frequent interactions and for developing proper inputs to support the decision making at Committee level. This working groups will be established at national, provincial and district levels. Its focal persons at each level will be based at MAF, PAFO and DAFO to coordinate multi-sectoral involvement in the management and control of pesticides.

This Committee aims to improve cooperation and coordination among national and local key stakeholders enabling policy making and the execution of actions in pursuit of the improvement of LCM of agrochemicals and waste (including plastics). It will serve as a mechanism for the exchange, collection, and analysis of information related to the management and control of POPs/HHP and plastics for agricultural use. In addition will contribute to the implementation Stockholm National Implementation Plans as well as any other international Chemicals and Waste Agreements.

The Committee eventually would be the advisory body for the development of national legislation related to agrochemicals and plastic for agricultural use management drafted under this Output (activity c). The Committee will consider gender perspective within the framework of its activities, by ensuring women participation in design and decision-making processes and analyzing differentiated effects on men and women.

b) Overall policies and regulations assessment (national, provincial and district): the project will conduct an initial assessment of existing regulations and enforcement policies on life cycle management of agrochemicals and related wastes (including plastics for agricultural use) and identify gaps. The assessment will involve the identification of gaps for importing, formulation, registration, labelling, use, management, and trade of pesticides, as well as proper storage, handling, and disposal. Plastic for agricultural use waste management (including recycling) will also be considered.

c) Legal Framework Roadmap: based on the assessment, the project will propose a roadmap including the national approach to draft/update policies, regulation, guidelines, execution, and regulation bodies, for the sound management of agrochemicals (including plastics for agricultural use) throughout their life cycle and recommend strong enforcement mechanisms. The roadmap will address required regulations for every actor involved in the value chain of agrochemicals and waste in the country. This roadmap will be validated by the MAF in coordination with the MONRE and any other relevant Ministries, and if appropriate will be shared within the National Committee members. By implementing an agreed roadmap, the project will ensure that the legal drafting during the project is done in a coherent and integrated approach, defining clear roles and responsibilities for each institution. This roadmap will strengthen country?s compliance in accordance with the treaties (Stockholm and Rotterdam) to which is a party and the international chemicals and waste agenda.

d) Legal Framework and Policies Dissemination: the project will undertake the necessary dissemination activities to inform regulations drafted according to the established legal roadmap, involving relevant actors throughout the agriculture value chain: agrochemicals and plastic companies (importers/producers); distributors, and pesticides users.

New Government Incentives:

a) Baseline and New Fiscal and Financial Incentives Assessment: as a first activity, the project will identify existing fiscal and financial incentives in the country that are related to the agricultural activity and will evaluate the environmental performance of each of them.

Based on the national context analysis and the scope of the activity to be target, different options of fiscal and financial incentives will be evaluated (for example: temporary tax exemption/tax exemption; tax rate reduction; investment tax credit; etc.). Cost and benefits of different options will be considered and properly analyzed. Furthermore, issues related to the implementation will be introduced: initial fulfillment of conditions; reporting and ongoing compliance monitoring; review and termination provisions; minimize the possibility of exploitation in its granting and increase transparency and improve governance.

The assessment of incentives will undertake options for the following activities:

- Incentives for promoting the adoption of less hazardous chemical alternatives or non-chemical alternatives identified in the National Plan in support to its implementation (in line with Output 1.1.2).

- Incentives to microfinance institutions for developing green financial products for farmers (in line with Output 2.1.1).

b) Reform regulations: the project will support the draft of regulations reform to limit or put safeguards on tax incentives that do not have environmental validations and that today would be unfavorable or that could encourage the use of harmful agrochemicals. This regulation will be shared and discussed within the National Committee on Pesticides (Output 1.1.1 ? activity a).

c) Fiscal and Financial Incentives Recommendation: previous analysis will deliver at options of feasible incentives to be implemented in the country with the main target of reducing the use of harmful pesticides, promoting its substitution and the adoption of identified alternatives (Output 1.1.2). The project will promote the partnership with key stakeholders in order to implement at least 1 of the recommended incentives.

d) Lessons Learned Capture: lessons learned on analysis and implementation will be documented and disseminated among key stakeholders.

Output 1.1.2: Expansion of restricted or banned use list of agrochemicals through specific regulations supported as per FAO/WHO guidance on Highly Hazardous Pesticides (HHPs); more efficient registration of low/non- chemical pest control alternatives (including emergency pest control) considered.

This Output aims at establishing a national plan for gradually substitute harmful agrochemicals that are currently being used in the country and transit towards low/non- chemical pest control alternatives. The plan will provide an orderly transition in order to guarantee the availability of alternatives and their appropriate adoption for crop production, enabling farmers to maintain the efficiency of their productivity during the process of abandoning the use of these substances. As a result, the list of restricted or banned agrochemicals will be expanded through drafted specific regulations.

Through this Output the project will evidence the avoidance of 150 MT of POPs and 570 MT of HHP identified in baseline information and enable the environment to continue this reduction after project implementation.

As identified in Risk 2 ?Loss of income to small and medium sized farms due to banning of import or restricting the use of certain hazardous pesticides?, a Strategic Environmental and and Social Asssessment (SESA) will be adopted during preparation of the national plan to address the potential for loss of income for various groups if agricultural production is affected and propose alternatives to POPs/HHPs.

The following activities will be developed to achieve Output 1.1.2:

a) Alternatives identification: The project will support the reduction of hazardous agrochemicals with high environmental impacts by introducing safer alternatives options. Availability and cost of alternatives is essential before a toxic agrochemical product can be phased out or substituted. For this purpose, this activity will at first enlist pesticides with high environmental impact through the review of registered agrochemical products and import quantities against the WHO recommended classification of pesticides by hazards. This will prioritize pesticides of national concern to ease the availability of less hazardous alternatives. This list will specially consider Chlorpyrifos which is proposed to be listed as a POP in the Stockholm Convention and Highly Hazardous Pesticides currently being used in the country (Paraquat,

Diazinon, Lambda cyhalothrin and Glufosinate ammonium) as well as any other hazardous pesticides that are illegally entering to the country.

b) National Pesticides? Alternatives Promoting Plan: The project will develop a National Plan to gradually replace identified HHP of national relevance with low/non toxicity alternatives. The plan will include justification for their ban, restriction and/or replacement, and the assessment of available alternatives both in the Southeast Asia region and other regions. Where alternatives to identified HHPs are not available in the region, or have not been tested in similar local conditions, the project will support limited field testing and demonstration of these alternatives. The development of a national plan for the production and use of biological control agents will be supported with emphasis on those with potential to replace HHPs, so that their reduction and ultimately their prohibition is possible.

For the plan development the Regulatory Division from DOA will be involved and the Plant Protection Center involvement will be encouraged to support the identification of feasible alternatives. A public consultation will be carried out with the Civil Society Organizations that represents farmers and/or the agricultural activity.

The plan will include the draft of specific regulation for the expansion of restricted or banned use list of agrochemicals. In addition, the review and update of existing registration and procurement procedures will be also encompassed in order to promote more agile processes and facilitate the use of alternatives found. The drafting/updating of the necessary documents (manuals, procedures, etc.) linked to the registration and procurement processes will be developed by the project. The project will ensure the training of the personnel involved in their application.

c) Outreach communication: the project will design and implement a communication strategy to disseminate to key stakeholders (targeting agriculture related CSO, agrochemical companies, extension units, financial institutions) the national plan and promote the adoption of found alternatives, as well as promoting the adoption of IPM as sustainable production practices evidencing the achievement of the same levels of productivity during the process of abandoning the use of harmful substances.

Output 1.1.3: Conduct trainings for relevant authorities and strengthen cooperation with bordering countries as part of the regionally harmonized approach to avert illegal imports and trade of hazardous agrochemicals.

Through this activity the project will strengthen national capacity to avert illegal imports and trade of hazardous chemicals among main competent authorities and key stakeholders by implementing a capacity building programme and an outreach communication strategy. In particular, due to the large amount of pesticides entering illegally, the project will boost cooperation with bordering countries and will mainly target the following border provinces Bokeo, Oudomxay, Xiengkhuang, Sayabouly, Vientiane Capital, Vientiane Province, Bolikhamxay, Savannakhet, Champasak and Attapeu.

This activity will evidence the training of 518 officers (250 women and 268 men) and 2,000 people (600 women and 1,400 men) aware.

The following activities will be developed to achieve Output 1.1.3:

a) Institutional Coordination: Promote collaboration and coordination between the MAF, DOA (pesticides inspectors), MONRE and National Customs Department, Ministry of Industry and Commerce, Environmental Police and provincial authorities to boost compliance on legal import and

trade of pesticides within the country, considering the harmonization of procedures and processes as well as minimizing the overlap of tasks. This activity will strengthen the identification of relevant stakeholders at national and local level, with focus on the following authorities: DOA (pesticides inspectors), MONRE (Department of natural resources and environmental inspection), Customs, Ministry of Industry and Commerce (due to its presence at check borders) and Environmental Police. They will be involved in the training process to avert illegal imports and trade of hazardous chemicals.

This activity will also seek to promote dialogue and cooperation with border countries Vietnam, Thailand, Cambodia and China, especially in the area of ??the Mekong River, promoting the involvement of their national customs authorities and border personnel. For this purpose, the project will support Cross Border Workshops/Forums attended by customs officers from international border checkpoint, provincial checkpoint, traditional (belongs to district) border checkpoint. The purpose is to share information on Lao PDR regulatory framework, illegal pesticides entrance and sharing experience for the improvement on border controls. Further assumptions concerning arrangements for training will be agreed upon. Additionally, this activity will assess any existing platform or regional initiatives that carry out relevant conversations on illegal trade and use of pesticides and support government participation within them.

b) Training Programme: design and implement a training programme at national and local level, with emphasis on border areas. The main objective of this training programme is to provide the skills necessary to monitor and control the imports and exports of hazardous chemicals, with focus on pesticides (POPs/HHP) including the detection and prevention of illegal trade. The training programme will include contents of international commitments, forbidden pesticides in the country, safe storage and sound management of pesticides, Globally Harmonized System of Classification and Labelling of Chemicals (GHS), International Chemical Safety Card, health, and environmental associated risks.

The programme will be designed with a three-phase approach: i) Train-the-Customs ? trainers: key personnel of Customs will be selected to be trained as trainers, to promote a learning process by taking into account the challenges faced at their workplaces; ii) Training Customs, Enforcement Officers and previously identified stakeholders; iii) Phase III: Performance evaluation. Specific and measurable performance indicators of the training programme will be defined to monitor its effectiveness in regular basis and take corrective measures if needed.

The training will be deployed using effective e-learning tools. To minimize the impact of staff turnover and sustain the training the project will promote the integration of the training programme within authorities training curricula and ensure the availability of the training in government platforms/websites.

Through this activity it is estimated a group of 518 officers (250 women and 268 men) will be trained at national, provincial, and district level.

As identified in Risk 1, training needs assessment will be undertaken (guided by the SES), and a post-training assessment will be conducted to ensure that the information has been delivered to the participants as required and will have a meaningful impact on their job performance.

c) Outreach communication strategy: this activity will design and implement a communication strategy, allowing the dissemination of the problems related to illegal trade of hazardous chemicals and raise awareness of the compliance importance of the regulatory framework. The strategy should include as target audiences: importers, wholesalers, traders, distributors, farmers, and the public. The strategy will

cover the introduction of clear communication messages at border points such as posters showing banned agrochemicals.

Through the communication strategy the project will raise awareness of 2,000 people (600 women, 1,400 men).

Output 1.1.4: Capacity of government institutions and the private sector to properly uptake, utilize, and adapt tools such as the FAO Pesticide Registration Toolkit strengthened.

Through this activity the Project will strengthen national government institutions and private sector in addressing main elements for the environmental sound management of pesticides throughout the life cycle. This activity will be mainly coordinated with MAF, DOA, MONRE, Ministry of Health (MOH), Ministry of Finance, Ministry of Industry and Commerce as government institutions. As for the private sector, agrochemical companies will be involved as representative associations of agrochemical companies. The project will make efforts reaching out to small-sized agrochemical importers who are more likely to have weaker capacity in compliance with government regulations.

The following activities will be developed to achieve Output 1.1.4:

a) Capacity Strengthening Programme: The project will design and implement a capacity strengthening programme for enhancing the enforcement of pesticides and plastics standards within the territory. The programme will aim at strengthening key institutions in the agrochemicals value chain and government institutions at national and local level. The Programme will include:

i) Pesticide Registration Process Strengthened: This activity will be coordinated with the DOA as responsible authority for the registration of pesticides for agricultural use, in close coordination with the Ministry of Public Health and the Ministry of Environment.

Based on the national gaps and needs assessment, a specific training programme on FAO Pesticide Registration Toolkit will be designed and implemented targeting involved personnel. The training will consist of building capacity in general processes and procedures for pesticide registration, and focus on more specialized technical or scientific aspects, such as risk assessment, efficacy evaluation, risk reduction and management, classification, and labelling, etc. As a result, the staff will be able to use the toolkit to support a number of their usual tasks, including: finding data requirements, evaluating the technical aspects of the registration dossier, choosing an appropriate pesticide registration strategy and procedures, review of risk mitigation measures and obtain advice on decision making. Additionally, the trained staff will be linked to many pesticide-specific information sources, such as registrations from other countries, scientific reviews, hazard classification, labels, MRLs, and pesticide properties.

A least 60 staff at national level (35 women, 25 men) will be trained in the FAO Pesticide Registration Toolkit adapted to Lao PDR current needs. A Training Manual will be developed to ensure knowledge is available for new officers. The project will promote the integration of the training programme within authorities training curricula.

ii) International Code of Conduct on the distribution and use of pesticides promoted: In line with the provisions of the international code of conduct, the project will carry out an analysis of the existing gap on the provisions that emerge from the code and the national key stakeholders, with identified staff at appropriate levels, involved in its application. This gap analysis will be connected to the assessment

under Output 1.1.1 ? b. Based on the analysis, the project will design and implement an action plan that promotes the application of the ethical principles and guidelines set forth in the code so that government authorities, the pesticide industry, international institutions, pesticide user organizations, industries of agricultural products and groups in the food industry (eg supermarkets) that are in a position to influence good agricultural practices, are aware of their responsibility in working together to ensure that the objectives of the Code are achieved.

This activity will raise awareness of at least 500 people (200 women, 300 men) from different key stakeholders? groups on the International Code of Conduct provisions and involve them in their application.

As identified in Risk 1, training needs assessment will be undertaken (guided by the SES), and a post-training assessment will be conducted to ensure that the information has been delivered to the participants as required and will have a meaningful impact on their job performance.

PROJECT COMPONENT 2: IMPROVE ACCESS TO FINANCE ALIGNED WITH THE DEMONSTRATION AND PROMOTION OF SUSTAINABLE ALTERNATIVES AND AGRICULTURAL PRACTICES FOR INCOME RAISING.

OUTCOME 2.1: INVESTMENT/FINANCIAL FRAMEWORKS INCENTIVIZED.

Output 2.1.1: Partnership with financial institutions including commercial banks promoted; capacities in safeguards and responsible investment strengthened; creation/extension of innovative financing products to reduce agrochemical and agricultural wastes pollution and encourage uptake of alternatives to POPS/HHP.

Through this Output the Project will establish partnership with finance entities (including commercial banks and micro finance institutions (MFIs), VDF and public banks) and strengthen their capacity and understanding in responsible investment and in developing financial products that would be tailored to the agricultural sector as well as better assess the loans applications from farmers who implement good practices. Likewise, this activity will work with legally established small organizations (such as cooperatives), individual farmers/farmer groups, and agribusiness person/middleperson to build their capacity in developing bankable projects and loan/investment applications and build win-win business through better links and cooperation among agrochemicals value chain actors.

As a result, at least 5 financial entities, 500 farm households of priority crops (50 female led farm households and 450 male led farm households), and 10 agribusiness/middlemen will be trained through the implementation of this Output.

The following activities will be developed to reach Output 2.1.1:

a) Financial Capacities Strengthened: This activity aims at engaging potential/innovative lending sources of green/environmental financing through education and collaboration to provide financial products suited to the agricultural sector willing to operate or facilitate in the territories of intervention. This includes training of staff of the financial entities in the assessment of agricultural investments (including concepts of green growth, considering environmental quality criteria, adaptation and mitigation of climate change, risk assessment and management of value chains, evaluation of legal and technical requirements, and etc.) as well as the appraisal of loan guarantees to evaluate the economic case for loans, leases or even, equity participation with proper attention given to gender equality issues.

Furthermore, trainings in Environmental and Social Risk Analysis (ESRA) system will be delivered, which aims at financial institutions easily and conveniently identifying and evaluating the environmental and social risks that their clients incur in carrying out their activities. The ESRA will be promoted as part of the general credit risk management of the Intermediary Financial Institutions to ensure its application. The procedures for ESRA implementation needs to cover the entire credit cycle, having as a minimum basis compliance with local regulations and international conventions/treaties signed by Lao PDR. The ESRA procedure should give general guidelines for at least the following processes: i) Identification and categorization of risk; ii) Risk assessment; iii) Risk mitigation; iv) Risk monitoring and control; v) Mechanisms for participation and complaints; vi) Disclosure policies.

b) Farmers' capacity building for accessing funds: Training farmers on business and operations management will provide farmers with the tools to not only access the finance but also to successfully execute their investment plans ?adapted to the local context- to create a sustainable and more profitable agriculture, with the aim of improving income for farmers through the attainment of better crop prices facilitated by transparent and responsible supply chains.

It includes workshops/awareness raising events conducted to increase farmers awareness (including women farmers) of due diligence, compliance with regulations and access to different types of finance sources. This activity includes creating a guidebook for the farmers in a user-friendly manner to help them with their loan applications.

c) Agribusiness person/Middleperson business capacities strengthened: This activity targets a key stakeholder of the agrochemical value chain within the country. The purpose of this activity is to strengthen capacities of middleperson on business management development skills to improve their profit through sustainable agriculture practices adoption (such as recordkeeping, project development, financial management, marketing, help them to access to better market - from low-end market to middle to high-end market). Links with farmers/farmers groups will also be improved for promoting cooperation and win-win solutions. This will also help middlepersons to sustainable expand their business and become bankable (accessing commercial banks options).

Therefore, middlepersons are expected to play a key role on the dissemination of the impact of using of hazardous agrochemicals and offer incentive price for farmers to adopt GAP. The project will additionally promote that middlepersons provide production input supplies such as seeds, fertilizers, and less hazardous agrochemicals to farmers as an advance credit. Producers will repay their credit by deducting from the amount of products (crops) sold to them. Additionally, agribusiness will be market guarantee and certify producers to borrow from financial institutions.

For conducting this activity, the project will at first recruit these middlepersons through local communication media for identifying those ones willing/interested to participate. At least 10 middlepersons (2 per targeted district in Output 2.2.1) will be selected and trained.

d) Finance Programme Created: In coordination with financial entit(ies) this activity will establish a tailored financial product and in affordable financial conditions for farmers who implement good agricultural practices (such as Integrated Pest Management (IPM), agroecological practices, organic production, and encourage uptake of alternatives to POPS/HHP) that enables the reduction of hazardous pesticides in priority crops. It may involve several complementary elements such as:

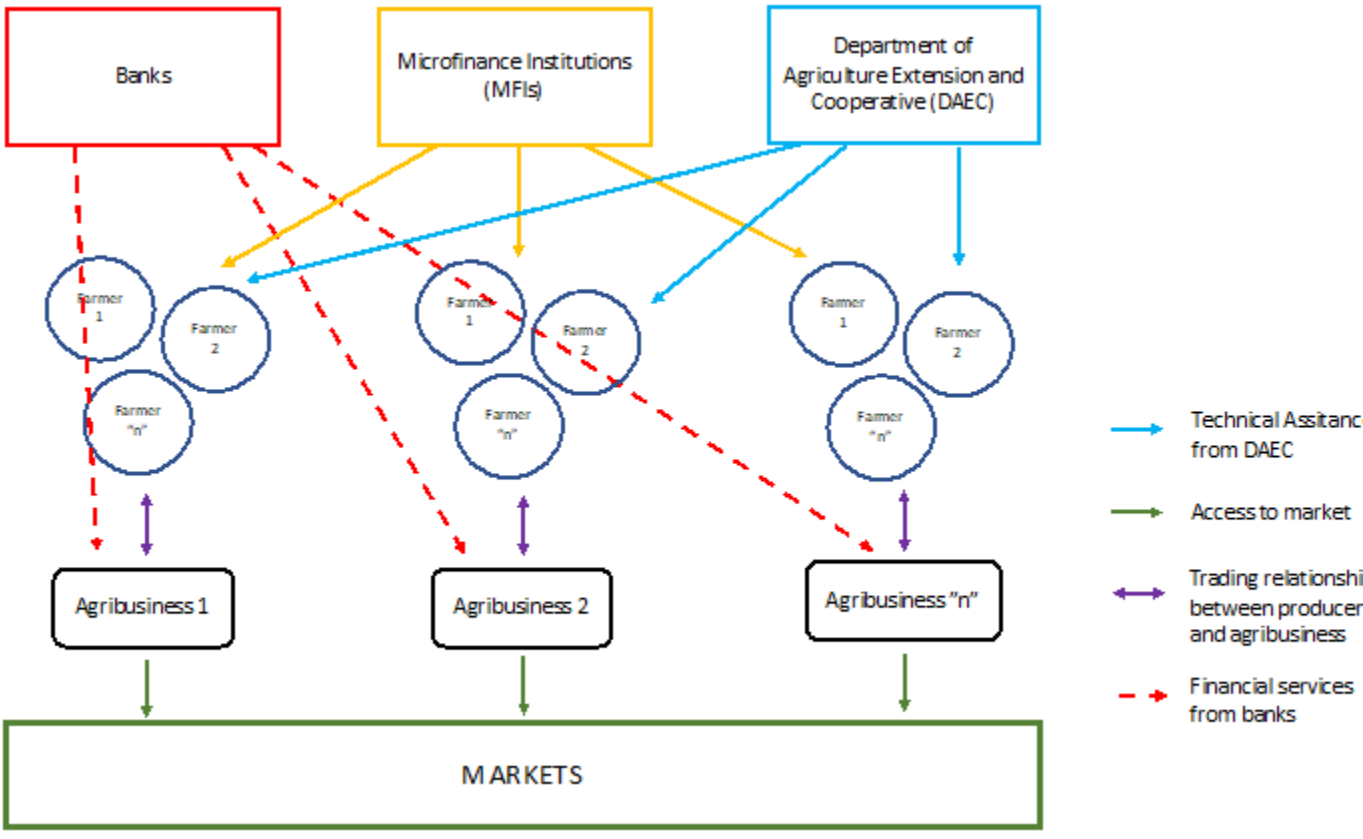
i. An adequate regulatory environment for financial institutions to guide the management of environmental and social risks, as well as to promote the offer of this type of financial products.

ii. Expand the supply of financial products and services for sustainable agricultural production (credit).

iii. Promotion of financial education, especially in the productive sectors related to agricultural production chains.

iv. This activity will also technically assist at least 5 farmers (at least three female farmer) from different crops who implement good agriculture practices in applying and obtaining soft credit available through the programme created by the project. These farmers will be selected among the 500 trained Farmer Groups/Cooperatives which in turn will serve as guarantee.

The following figure outlines agrochemicals value chain stakeholders and proposed interactions through the previously described activities under Output 2.1.1.



Output 2.1.2: Capacities among national and sub-national extension agents, commercial banks, technical advisors, farmers, civil society organizations (CSOs) and other key stakeholders involved in agricultural production strengthened regarding the risks of agrochemical use, the benefits of sustainable alternatives, and the availability of financing options.

Through this Output the project will seek to strengthen DOA, the Department of Agriculture Extension and Cooperative (attached to MAF) and sub national extension agents (PAFO and DAFO) in different financing options (including those to be developed by the project), the benefits of sustainable agricultural practices, the risks of agrochemicals use and available alternatives. Through this, they will be able to spread and replicate the knowledge to farmers. Additionally, agricultural products traders/agribusiness, farmers, Agricultural Technical Working Group from Lao PDR CSO Coordination Committee, Agriculture Service Providers (ASP) and other key stakeholders will be involved. Through this activity at least 800 people (400 women and 400 men) from mentioned stakeholders will be trained.

The following activities will be developed to reach Output 2.1.2:

a) Capacity Strengthening Programme: design and implement a training programme at national and local level to strengthen institutional capacities of sub national extension agents, financial institutions, Agriculture Service Providers (ASP), technical advisors, agricultural products traders/agribusiness, farmers, civil society organizations (CSOs) and other identified key stakeholders involved in agricultural production. The training programme will include:

i) Sustainable Agricultural Practices: This activity seeks to strengthen each of the identified stakeholders? capacities and knowledge of existing sustainable agriculture practices which result in the reduction of harmful pesticides use. Also favoring the impact on the environment, biodiversity and on public health (both farmers and consumers of different crops.). It will include at least the following:

- Training on risks and safe ways to use pesticides: prevention measures, personal protection equipment (PPE), waiting period between applications. Labelling, Management, Safe Storage and Disposal. Risks on health and the environment.

- Available site-specific alternatives for chemical pesticides (especially POPs/HHP): less hazardous alternatives, biopesticides (microbials and biochemicals). These alternatives will be linked to the National Plan under Output 1.1.2.

- Existing technologies driving precision agriculture for small holders?, and its implementation feasibility at local level.[19][19]

- Integrated Pest Management (IPM): Benefits (health, environment, costs, and effectiveness); Disease and pest control measures for IPM: chemical, mechanical, biological, crop control; Pest diagnostic Tools; IPM Tentative Tailored Strategy for Relevant Crops based on local needs. Agroecological and Organic Production approach (in line with Output 2.2.1).

- Plastic Management: empty containers and other plastics of agricultural use management. Segregation, Triple wash procedure, collection, transport, and disposal/recycling.

- Good Agricultural Practices Certification and Organic Production Certification processes: scope, benefits, guidelines, and promotion.

ii) Financial mechanisms and incentives developed by the project: the focus of this activity is to generate demand from the different financial mechanisms by farmers. The Extension units will be trained in the different requirements of the incentives, loans or any other financial mechanisms created by the project to disseminate and promote their acquisition with the consequent result of reducing agrochemicals and increasing the income of farmers. This activity will also seek to promote the generation of financial mechanisms focused on sustainable agricultural practices beyond the useful life of the project. As part of the programme, representatives of the different extension units will be involved in the application process that will support the project for their effective learning.

b) The project will encourage the training to be deployed with effective e-learning tools and make the content available for future trainings and accessible at different extension points at the national, provincial, and municipal levels. The content of the training will be designed considering the adoption of an appropriate language that enables effective communication between the wide variety of identified actors and audiences to be reached.

OUTCOME 2.2: INNOVATIVE AND SAFER ALTERNATIVES AND SUSTAINABLE AGRICULTURAL PRACTICES PILOTED AIMING TO IMPROVE INCOME AND UNLOCK ACCESS TO FINANCE FOR ULTIMATE REDUCTION OF DEMAND FOR AGROCHEMICALS.

Output 2.2.1: Pilot activities implemented for demonstrating how farmers can increase income, demonstrate outputs and provide warranties to financial mechanisms, as well as reducing the use of harmful agrochemicals in priority crops for export and domestic consumption through farming practices that encourage an agroecological approach through integrated farming and IPM, including less toxic options, non-chemical alternatives and cultural procedures conducted.

Through this Output the project will promote placing producer groups at the center of the transition process through the introduction of the participatory research and action in farming practices that encourage an agroecological approach through integrated farming and integrated pest management (IPM). This approach has two main benefits: i) manages to make a holistic diagnosis of the starting situation that concerns both the farm and the local and larger society, and the definition of a realistic situation with criteria of sustainability; ii) the farmers are mobilized to achieve the proposed goals and establish relationships with constituting networks or associations that manage to facilitate change in different environments, laying solid foundations of rural development sustainable. Additional stakeholders to be involved in these activities will be local government authorities, financial institutions at local level (e.g Micro Finance Association), national universities, regional vocational schools, Agricultural Technical Working Group from Lao PDR CSO Coordination Committee, and any other relevant stakeholder.

The activities under this Output will be implemented in the following selected sites: Kham (maize) in Xiengkhouang Province; Viengphoukha (watermelon) in Luang Namtha Province; Houn (maize) in Oudomxay Province, and Hadsayphong in Ventiane Capital (vegetables).

As per identified in Risk 5 ?Accidental release of POPs pesticides and HHPs into the environment due to improper handling, storage, transport and treatment/disposal containers, exposing the workers, local communities and natural ecosystems?, a targeted assessment will be conducted for each of the pilot demonstrations that will promote the use of IPM and other GAPs as well as actions for improvement plastic waste management on risks related to accidental spills and occupational health and safety. The

assessment will identify environmentally sensitive receptors that may be affected by accidental releases such that mitigation measures will be developed and included in standalone ESMPs through a Pollution Prevention and Management Plan, Occupational Health and Safety Plan and Waste Management Plan.

The following activities will be developed to reach Output 2.2.1:

a) Stakeholder Engagement agreement: prior to implementation, an agreement between the involved parties will be signed, documenting the responsibilities and commitments assumed by each of them within the project?s framework.

b) Initial Diagnosis and Participatory Observation: The objective of this phase is to estimate ex-ante the ?local agroecological potential? as well as the existing waste management (including plastics for agricultural use). That is, the social, ecological, economic, and cultural resources present in the territory that can be mobilized for an eventual agroecological transition. In this phase, mutual understanding between researchers and the social agents involved in the process is key. In this phase, formal spaces for participation and monitoring of the process are built.

c) Participatory Research: After the initial diagnosis, involved farmers of selected sites will be trained so that they can learn about IPM, organic production and agroecological assessment approach to pest and disease management at the farm level. In addition, information will be shared on pesticides hazards, pesticides and plastics waste management, recognition of the important organisms (pests and beneficials) in their fields, the biology and ecology of the organisms, how to determine pest population levels, how to choose the best method and product for control, available alternatives to hazardous chemical pesticides, existing accessible technologies for precision agriculture and how to make decisions in the fields according to their new understanding and simple cost-benefit analysis. Provide information with clear evidence that implementing sustainable agricultural practices not only generates savings but also creates value for their crops and that the market is willing to pay a differential price for it.

A participatory diagnosis of the problems present in the local agricultural production will be carried out, including environmental, economic aspects among others. The analysis will include the establishment of the relationships between the problems (cause-effect, synergies...), categorize them in order of importance, identify solutions, establish an order of priority to implement the solutions, assign tasks and establish a process for monitoring the transition process. The analysis will also include current practices addressing plastic management (empty containers, mulch films, etc.) and problems/barriers to adopt sound management practices.

This activity converts the diagnosis into an action plan, involving all the local actors in its elaboration and setting up work groups. This Plan includes activities to generate information that reinforces the agroecological transition process, including the use of IPM and other Good Agricultural Practices, and must have the greatest possible legitimacy. This plan will also include actions for the improvement of plastic waste management and will engage proper stakeholders at site specific level for the sustainability of the results under this activity. Participatory research with farmers is essential.

d) Participatory Action: this activity entails the development of the actions included in the action plan, which are structured in working groups. In this phase, dissemination activities are fundamental. The creation of joint work networks between social groups with similar interests (farmers, consumers, technicians, etc.) will be promoted. The objectives of these networks are to generate synergies by launching joint actions, optimizing the use of available resources, mobilizing economic resources,

facilitating the exchange of information, supporting initiatives and actions decided within the networks, and serving as a discussion forum. These networks will also contribute to the sustainability of the activities and the expected results, as well as connecting sustainable crop production with sustainable consumers and markets at local level.

e) Assessment and Dissemination: this activity involves the verification of the knowledge produced and the evaluation of the effectiveness of the changes achieved as a result of the action through the monitoring of the proposed indicators. This evaluation phase allows both to assess the process itself and to generate continuous information to redirect it if necessary. In addition, the knowledge produced, and lessons learned will be documented in a research report that accounts for the actions, reflections and transformations fostered throughout the investigation. The project will disseminate this information among key stakeholders and beneficiaries.

Output 2.2.2: National Replication and Scaling-up Plan along with analysis of financing options to be implemented during GEF-8 and beyond designed for the scale up of piloted farming methods deployment and the access to financial mechanisms aiming to reduce the dependence on agrochemicals.

Within this Output the Project will ensure the design of an accurate National Plan to replicate and scale up beyond the useful life of the project the lessons learned from piloted farming methods deployment and the access to financial mechanisms developed.

As identified in Risk 6, the National Replication and Scaling-up Plan will undergo a SESA to ensure that the described risk is addressed in line with the SES.

The following activities will be developed to reach Output 2.2.2:

a) Baseline scenario: this activity will take into consideration the results obtained in different pilot projects implemented, considering crops and agricultural practices deployed at site level. Based on this, associated farm households and crops at national level will be geographically identified and quantified to determine the full scope to be addressed by the national plan.

b) National Plan design: based on previous analysis the project will design a National Replication and Scaling-Up plan to be implemented beyond the useful life of the project and that enables the scaling up at the national level of the results, experiences and good practices developed on a pilot scale. The plan will include key stakeholders to be involved, a detailed schedule and required resources for its proper implementation.

The project will also undertake an analysis of feasible financing alternatives at national, regional, and global levels to support the implementation of the designed plan for reducing the dependence of agrochemicals within Lao PDR agricultural sector. The plan will include recommendations on different financing alternatives as well as the development of policies/regulations necessary for its sustainability.

Lastly, the plan will also include performance indicators for monitoring its effective compliance.

c) Plan Dissemination: the plan will be communicated to the National Committee on Pesticides Management (Output 1.1.1) for review and consideration as input for policy making in developing the following National Government policies: Five (5) years National Social Economic Development Plan (2026-2030) and the Agricultural Development Strategy. The dissemination of this plan will be part of the overarching Communication Strategy of the project.

PROJECT COMPONENT 3: EFFECTIVE KNOWLEDGE MANAGEMENT PLATFORMS AND CAPACITIES BUILT IN AGROCHEMICAL WASTE MANAGEMENT AND DISPOSAL METHODS.

OUTCOME 3.1: INFORMATION & KM PLATFORMS DEVELOPED TO CATALYSE EVIDENCE-BASED DECISION-MAKING SCALE-UP.

Output 3.1.1: Multi-ministerial communication and outreach campaigns conducted to raise awareness on risks associated with the use and exposure of hazardous pesticides, especially for women, youth, and other vulnerable groups.

This FSP envisages the development of a strategy for communication and dissemination at district, provincial and national level through different means for raising awareness on general public, with special focus on women, youth, and other vulnerable groups.

This activity will raise awareness of 2,000 people (1,000 women, 1,000 men).

The following activities will be developed to reach Output 3.1.1:

a) National Communication Strategy: this FSP will design and implement a national communication campaign for risks and damages to health and the environment due to exposure to hazardous pesticides which includes specific activities and communicational resources for mass dissemination. This campaign will be deployed with a multi-ministerial (MAF, MONRE, MOH, Ministry of Industry and Commerce, Customs Department, Environmental Police) communication strategy for greater consistency and impact in the message. This campaign aims to raise awareness on stakeholders, project beneficiaries, general public and especially women, youth, and other vulnerable groups. Gender considerations will be taken into account in the design and implementation of this strategy, to guarantee awareness of targeted audience in terms of gender mainstreaming in chemicals management within the scope of this project.

The design of this National Communication Strategy will include the different Communication activities identified within Outputs in previous Components.

b) Implement the Stakeholder Engagement Plan detailed in Annex 8 and briefly described in following section ?Stakeholder Engagement?, including youth and other vulnerable groups.

c) Implement the Gender Action Plan detailed in Annex 10 and briefly described in following section ?Gender Equality and Women?s Empowerment? for gender mainstreaming and raising awareness at different levels of related key targeted groups.

Output 3.1.2: Training and capacity building provided, information sources strengthened or created, and experiences and lessons learned shared with other child projects, regional, and national stakeholders.

Through this Output the project will support the Global Programme Strategy based upon the generation and dissemination of knowledge required to scale up the adoption of agricultural practices that reduce the use of harmful agricultural inputs. Knowledge and information generated in each of the Components of this child project will be captured and shared with other child projects, and with stakeholders at national and regional level.

The following activities will be developed to reach Output 3.1.2:

Information strengthened and Lessons learned shared: Close coordination and exchange of information and sharing of best practices will be ensured with the Global FARM Programme and with the FARM

child projects in Uruguay, Kenya, India, Vietnam, Ecuador, and Philippines, fostering an environment of south-south cooperation. Knowledge products, lessons learned and dissemination activities at local and national level will be shared with the Global Programme, which will capture, store, package and disseminate this knowledge to a global network, including the Stockholm Convention Secretariat and SAICM, in line with the accepted Global FARM Knowledge Management, Communications, Stakeholder Engagement and Gender strategies. The global project will make these experiences available through the global platform envisioned under FARM and outreach strategies.

The child project will participate actively in international meetings and events and in the same way, the child project will ensure the flow of information (including best practices and lessons learned) from Global Programme, other FARM child projects, international conventions and donor agencies to critical stakeholders and decision-makers at regional, national, and local levels. For this purpose, forums at regular basis will be organized to share information and keep them updated and engaged.

This will create a foundation to limit the use of existing harmful agrochemicals and de-incentivize the import and use of emerging harmful agrochemicals. The result will be that producers and regulatory agencies will have the robust evidence and facts necessary to make more fully informed decisions.

The child project will also make use of existing knowledge platforms in agricultural, financial inclusion, and other relevant areas to share findings on improving small holder farmers access to low/non-chemicals alternatives. These platforms include the Green Growth Knowledge Platform (GGKP), Centre for Agriculture and Biosciences International, the GEF?s Global Knowledge to Action Platform, and UNDP Green Commodities Program.

Output 3.1.3: Technical support delivered to government agencies on methods and business cases for removing existing stockpiles and wastes of agricultural POPs/HHPs.

Through this Output the project will technically assist the Government to design a plan that allows the elimination of existing stockpiles and wastes of POPs pesticides and/or HHP stored in different regions of the country in an optimal and effective way beyond project completion. As detailed in the baseline information, existing identified POPs/HHPs stockpiles are: 400 L of methyl parathion (initially reported as DDV.P as detailed in baseline) owned by HPAFO.

In addition, the project will design and support the implementation of a business model in Pak Ngum district (Vientiane) to collect and dispose of pesticide containers, in an effective and efficient way. This business model will also consider the minimization of plastic waste generation in agricultural activity, the assessment of alternatives for different crops and a feasibility analysis for recycling them.

As per identified in Risk 5 ?Accidental release of POPs pesticides and HHPs into the environment due to improper handling, storage, transport and treatment/disposal containers, exposing the workers, local communities and natural ecosystems?, a targeted assessment will be conducted on risks related to accidental spills and occupational health and safety. The assessment will identify environmentally sensitive receptors that may be affected by accidental releases such that mitigation measures will be developed and included in standalone ESMPs through a Pollution Prevention and Management Plan, Occupational Health and Safety Plan and Waste Management Plan.

The following activities will be developed to reach Output 3.1.3:

<u>Technical support for removing existing stockpiles</u>

a) Stockpiles validation and National Capacity Assessment: As a first activity, existing obsolete and POPs/HHP pesticides stockpiles will be validated in order to confirm location, volumes, active ingredients, packaging conditions, etc. This activity will be linked and based on the results of the NIP updated being conducted by UNEP in Lao PDR. Subsequently, the project will analyze national/international treatment and disposal capacities for obsolete and POPs/HHP pesticides in accordance to existing international guidelines on Best Available Technologies (BAT) and Best Environmental Practices (BEP) to treat/manage these pesticides in an environmentally sound manner.

b) Optimize elimination process: This analysis will undertake a technical and economic feasibility study and design a financial scheme that will optimize the disposal of existing POPs/HHPs stockpiles for treatment and/or export, owned by holders nationwide. It will include a compilation of viable and competitive commercial options and viable international experiences, including a full cost analysis when selecting the technologies and their maintenance and operating costs; supported by technical specifications defining the required environmental performance and due diligence and international social and environmental safeguards requirements to be applied. The mobilizitation of resources from government budgets and private sources of funding for the disposal will be explored (Polluters? Pay Principle).

c) Hazardous Substances Avoidance: this activity will develop/update procedures of public entities in order to avoid the acquirement of hazardous substances and staff involved in public procurement will be properly trained on these procedures. Especially, the procurement units of the following institutions will be reached by this activity: MAF, Ministry of Health and local governments authorities.

Additionally, to prevent and minimize the expiration of these products, this activity includes raising awareness of main actors in the agriculture value chain (production, distributions, commercialization, and usage) by introducing best practices such as sustainable purchases procedures.

Plastic Business Model

A business model will be designed, implemented, tested, and refined to conduct to an economically sustainable operation for integral management of agrochemical?s related plastic waste (empty containers, plastic sleeves used to cover and protect fruit during maturation, plastic film used to cover greenhouses, mulch films and other) with POPs or HHP. A Civil Society Organization (CSO) will be selected and supported with technical assistance and Business Model training to implement the pilot. This will be implemented in Pak Ngum district (Vientiane) for banana crop under conduction of the Project Coordination Unit (PCU) and participation of the crop growers. The banana crop was selected because it is one of the national crops with the highest volume of plastic used for its production.

The pilot will focus on the application of BAT/BEP for the management of agricultural waste plastics and will look into proper handling: collecting, storage, rinsing, shredding, compacting and recycling into semi-finished products. In particular, potential recovery of materials through recycling will be sought. In addition, the pilot will include activities for minimization of plastic use and waste generation as well as the assessment and adoption of alternatives for plastic of agricultural use. Results of pilot will be used to identify the best technologies/practices that can be projected and deployed at national level in a further stage.

Crop growers will be selected as partners depending on their interest of participation, women participation will be encouraged. Amount and type of plastic waste will be identified and quantified. And from that, management system designed, implemented, tested, and adjusted. At the end, replicability and scalability will be developed and guidelines elaborated, and training implemented for replication among key stakeholders. This activity has the potential for job creation through its implementation and replicability.

The sequence of the activity implementation is: a) Preparation of CSO to implement pilot: i) Selection of CSO, ii) Training of CSO, iii) Business model development; b) Pilot implementation: i) Agreements developed with CSO, ii) Identification of Agrochemical enterprises and Plastics and hazardous waste treatment/management enterprises.

Further guidelines on the pilot project implementation can be found at Annex 13 of the Project Document.

PROJECT COMPONENT 4: MONITORING AND EVALUATION.

OUTCOME 4.1: MONITORING AND EVALUATION TOOLS AND PRODUCTS DELIVERED THROUGHOUT PROJECT?S LIFECYCLE.

Output 4.1.1: M&E and adaptive management applied to assess project performance and GEB impact.

The project results as outlined in the Project Results Framework (Section V), will be monitored periodically during implementation to ensure that the project effectively achieves its results. The results of the monitoring will be reported in an intermediate and final evaluation and the lessons learned captured will be integrated in the project through adaptive feedback management. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy.

As a standard practice for every UNDP project, continuous monitoring of FSP results and achievements will be ensured, while the application of adaptive management of the project after conclusion of the Mid-Term Review (MTR) will be warranted. The Project Management Unit (see Section VII on Governance and Management arrangements for detailed information) will design the project?s M&E system and be responsible for implementing the project?s M&E Plan (see Section VI below), including the Project?s Inception Workshop, annual planning workshops and Project Implementation Reports (PIRs).

The following activities will be implemented to achieve Output 4.1.1:

1. Development of Project's Inception Workshop.

2. Monitoring:

- Project Results Framework (outcome indicators, GEF Core Indicators, baseline and annual target indicators).

- Project Risk Matrix, Environmental and Social Framework/Social Environmental Screening Procedures (ESMF/SESP), SESA, the Gender Analysis and Action Plan, and the Stakeholder Engagement Plan.

3. Holding Project Steering Meetings.

4. Carrying out ?Mid-Term Review? (MTR): The MTR will be carried out after the second submission of the PIR; it will assess the progress of each project activity and attainment of the project?s indicators presented in the Project Results Framework (Section V of the ProDoc) and Multiyear Work Plan (Annex 4). This review will also consider one Gender Assessment of project impact completed as part of MTR and the disbursement of financial resources and co-financing provided by project partners, and it will monitor and assess administrative aspects for the execution of the project. The MTR will also inform the adaptive management of the project and improve its implementation as a remainder of the project?s duration.

5. Carrying out Terminal Evaluation (TE): The TE aims to evaluate whether all planned project activities have been developed, resources granted by the GEF have been disbursed and spent in line with GEF and UNDP policies and rules, following activities as set out in this Project Document. The TE will also extract and identify lessons learned, how to disseminate them most efficiently and make recommendations to ensure that project results are sustainable.

Output 4.1.2: M&E tools provided to evaluate progress, challenges and lessons learned; and for ensuring future sustainability of achievements made through the project in reducing/ replacing HHPs and waste.

Through this Output, the project will support the FARM Programmatic M&E approach which aims to access and compile all child projects? data, make it available (pull) and present it regularly (push) to project stakeholders. The objective of this output will be to ensure overall coordination, monitoring and evaluation of the Global FARM Program as a whole.

Global FARM 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 program-level results. GGKP will prepare a FARM Annual Progress Report documenting progress towards program level outcomes, major milestones achieved in the FARM program 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.

i) To promote accountability by tracking progress towards achieving:

- The Global Environmental Benefits (Core Indicators)
- The sum of progress towards child project outputs and outcomes as described in the child projects? results frameworks (FARM Common Indicators)

ii) To promote learning through knowledge generation and sharing program experience and best practices with internal and external stakeholders.

GGKP will develop program 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 Programme Indicators will be developed during the first year of implementation but be strongly based on the child projects? log frames.

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:

a) 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 focussing 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.

a) **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.
b) **Bi-annual FARM Partners Forum.** This meeting provides the opportunity for a wider group of stakeholders (e.g. child projects Executing Agencies and delivery partners) to share lessons, knowledge and communications, in order to inform annual planning for the next year. 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 (Date: October)
c) 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. UNEP will compile a summary of lessons learnt and recommendations for corrective actions to present and discuss at the Programme Coordination Group.

Following the independent TE of each child project, the Lead Agency will also conduct a Programmatic TE in accordance with GEF evaluation guidelines (REF). The TE of FARM Program 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.

4) Alignment with GEF focal area and/or Impact Program strategies.

The alignment with GEF focal area strategies is the same as presented at the PIF stage.

The project is aligned to the following Focal Area objectives:

CW-1-2 Sound management of chemicals and waste addressed through strengthening the capacity of sub-national, national and regional institutions and strengthening the enabling policy and regulatory framework in these countries.

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

Component 1.

Contributions from the baseline:

The agricultural sector is an essential sector for national development, is the main occupation and source of food for Lao PDR population. With the objective of establishing an environmental sound management of hazardous pesticides within its lifecycle, Lao PDR has made significant efforts in the implementation of different international environmental agreements and guidelines. The Government indicates strong willingness to further pursue actions in the same direction.

To address the threats posed by POPs and HHP and related wastes, the Government of Lao PDR ratified the Stockholm Convention on Persistent Organic Pollutants in 2006, being the national focal point is the Ministry of Natural Resources and Environment (MONRE) and acceded to the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal in 2010. Regarding the Stockholm Convention, the country published its first National Implementation Plan (NIP) in 2010 and updated it in 2016, in which the management of POPs pesticides is listed as a priority. The country, up to date, has so far banned 09 out of the 18 listed POPs pesticides in the Convention.

Additionally, acceded to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Pesticides and Industrial Chemicals in International Trade in 2010. As per the pesticides listed in Annex III of the Rotterdam Convention, 23 of 44 have been banned in Lao PDR. Lao PDR is also a signatory of the Strategic Approach to International Chemicals Management (SAICM), and as such, has undertaken efforts to ensure the effective implementation of the objectives of the Global Plan of Action in the country.

Additionally, the country counts with an Agricultural Development Strategy to 2025 and Vision to 2030 aims to ensure national food security through sustainable agriculture that contributes to national economic growth, industrialization, and modernization. The strategy?s overall targets include (i) increasing agricultural production, (ii) improving competitiveness in terms of quality, (iii) enforcing standards and regulations, and (iv) guaranteeing food security and safety through compliance with basic SPS standards. Agricultural production will thus contribute to (i) creating employment, (ii) generating income, (iii) decreasing disparities between urban and rural areas, and (iv) integrating rural development. New infrastructure will preserve culture, protect the environment, facilitate trade, utilize water resources efficiently, and contribute to stable ecosystems.

Despite taking steps towards addressing the use of harmful agricultural chemicals, pesticide use in farming practices remains a major issue of concern in the country. Between 2017 and 2021, total agrochemicals imported and used has been increasing reaching in 2021 an estimated amount of pesticide

use of 14,211 MT. Added to this situation is the problematic of illegal imports in the country which represents more than 50% of pesticides used.

Among the total quantities of pesticide use in the country Chlorpyrifos can be highlighted, being a substance that is currently proposed to be listed as POP pesticides within the framework of the Stockholm Convention. Likewise, among the total quantities the use of Highly Hazardous Pesticides can be underscored such as Paraquat, Diazinon, Lambda cyhalothrin and Glufosinate ammonium.

Contributions from Co-financing:

The Ministry of Agriculture and Forestry at national level and through the Provincial Agriculture and Forestry Department of Luang Namtha, Oudomaxy, Bokeo, Xiengkhuang and Vientiane Capital will contribute with human resources to improve and strengthen cooperation and coordination between government authorities with competence in the area and for a smooth exchange in the information required for the management of agrochemicals and agriplastics in the country. It will also support the project by sustaining existing legal frameworks application, monitoring and enforcement activities, trainings under their competencies that ensure and contribute to the lifecycle management of agrochemicals and agriplastics within the country.

Contributions from GEFTF:

The funding will be used to support the development of a National Pesticides? Alternatives Promoting Plan which will enable the identification of less harmful alternatives and promote the reduction of POPs, HHP and other hazardous agrochemicals of national concern identified in use within the country (Output 1.1.2).

In addition, strengthening the pesticides registration process through building capacity of the Department of Agriculture as responsible authority of this process, in coordination with the Ministry of Public Health and the Ministry of Environment. The project will support the adoption of the FAO pesticide registration Toolkit. Fundings will be also destined to design and implement an action plan targeting key stakeholders that promotes the application of the ethical principles and guidelines set forth in International Code of Conduct on the distribution and use of pesticides (Output 1.1.4)

Trainings to relevant government authorities to enforce the application of existing regulations for the LCM of agrochemicals and agriplastics as well as minimizing the illegal trade of harmful agrochemicals will be also funded by the project, in close coordination and cooperation with bordering countries (Output 1.1.3).

Lastly, the project will support the establishment of a National Committee on Pesticides management and control to improve agrochemicals and plastic for agricultural use management and control within the territory. Funds will be also destined to support the development of a legal roadmap to improve LCM of agrochemicals and agriplastics and support the drafting of the identified required legal instruments. Additionally, conduct an assessment of financial and fiscal incentives to support policy making by introducing feasible recommendations to implement in the country in the process of reducing the use of harmful agrochemicals with focus on POPs and HHP (Output 1.1.1)

Component 2.

Contributions from the baseline:

The use of credit for various farming operations is becoming more important, particularly with the increasing use of purchased inputs and the commercialization of farming.

Data from the LAC 2019/21 show that credit use was still limited in Lao PDR; about 26% of farm households reported using credit for various farming operations. This proportion was slightly higher in the Northern region (37%) compared with the Central (18%) and Southern regions (24%). Around 54% of farm households using credit obtained it from public banks. Nayobank bank shared the main proportion on provide credit for the agriculture sector, by the end of June 2022, the bank has loan portfolio of 2,651.67 billion kip (equivalent to USD176.74 million). The loans provided to agriculture sector share 89% of the total loan portfolio.

Another major source of credit was the Village Development Fund (VDF), which provided credit around 17% of farm households using credit. The village funds are the primary semi-formal organizations offering financial services, which are community-based operations that accept deposits from, and issue loans to, their members. Village funds provide a rapidly growing, mostly savings-driven capital base for investment in local agriculture production and trade. Microfinance institutions were utilized by about 4% of farm households using credit. Registered microfinance institutions (MFIs) in the Lao PDR are in the larger towns and do not yet adequately service rural areas.

About half the farm households nationally used credit for buying farm inputs, such as fertilizer, pesticides, and fuel, and for purchase of livestock (47% of households), livestock inputs (9% of households) and farm equipment (6% of households).

Extending financial inclusion is essential in poverty alleviation. Access to a wider range of financial products and services is needed by a broad range of households and micro, small, and medium-sized enterprises. The rural credit system in the Lao PDR is still underdeveloped in comparison with the demand, with limited lending for agriculture by commercial banks. Portfolio growth is restrained by cumbersome procedures that are not well adapted to agricultural activities and cause excessive delays in releasing funds.

Contributions from Co-financing:

The IFAD Projects ?Agriculture for Nutrition II? Project (AFN II) and ?Partnerships for Irrigation and Commercialization for Smallholder Agriculture? (PICSA) will contribute through enabling vulnerable farm households to improve and diversify nutritional and socio-economic outcomes, build resilience to climate conditions and improve productive & marketing capacities.

Bounhieng Rice Mill will support with the following activities: Improve milling efficiency through upgrading the milling machines; improve paddy quality through promoting high quality paddy production using less chemicals pesticides and fertilizers in 376 farming households (867 women); improve management capacity through staff training on business management skills and milling techniques; reduce post-harvest losses through proper drying of paddy, apply good paddy storing practices and mice and insect control. Southad Rice Mill will support with the following activities: Improve paddy quantity and quality through working with 429 farming households to promote high

quality paddy production by using bio-fertilizers and pesticides; Reduce post harvest losses through the purchase of new grain dryers to increase paddy drying capacity, improve storage and mice and insect control; enhance management capacity through staff training on business management skills and milling technique. Even though the project team has secured private sector cofinancing from two companies and cofinancing letters are available, the amount can only be reflected in the co-financing table after completing UNDP Due Diligence procedure for Private Sector Partnerships, expected before CEO ER date.

The Korea-MAFRA Project ?Support Scaling-Up Sustainable and Low-Carbon Agriculture Practices and Improving Food Security in Lao PDR? will contribute with activities supporting smallholders farmer?s access to finance to promote green recovery and low-carbon solutions in the agricultural sector. In addition, piloting innovative digital solutions to promote sustainable farming and improve farm productivity and profitability.

The World Bank Project ?Lao Agriculture Competitiveness? will support with activities focused on Good Agriculture Practices (GAP) and farmers capacity building on Integrated Pest Management.

Contributions from GEFTF:

Under this component the project will contribute to the capacity building of financial institutions for them to be able to develop suitable financial mechanisms for farmers who adopt sustainable agricultural practices as well as the capacity building of farmers (with focus on women farmers) for them to access and apply these financial products within their farms and crop production systems. In addition, middlepersons will be strengthened in their capacities on business management development skills to improve their profit through sustainable agriculture practices adoption (Output 2.2.1)

In addition, the support of GEFT will be given to build capacity in Department of Agriculture Extension and Cooperative (attached to MAF), sub national extension agents (PAFO, DAFO), technical advisors, agricultural products traders and key stakeholders to access financial mechanisms and incentives created by the project and on better sustainable agricultural practices. (Output 2.1.2)

The project will subsidize the implementation of four pilot projects promoting the participatory research and action in farming practices that encourage an agroecological approach through integrated farming and IPM. This approach has two main benefits: i) manages to make a holistic diagnosis of the starting situation that concerns both the farm and the local and larger society, and the definition of a realistic situation with criteria of sustainability; ii) the farmers are mobilized to achieve the proposed goals and establish relationships with constituting networks or associations that manage to facilitate change in different environments, laying solid foundations of rural development sustainable. (Output 2.2.1)

Lastly, under this Component the project will contribute with the development of a National Replication and Scaling-up Plan up beyond the useful life of the project to ensure sustainability of results obtained and that they are properly scaled up. (Output 2.2.2)

Component 3.

Contributions from the baseline:

In the context of Lao PDR, where coordination among competent authorities on agrochemicals management is required, not only public authorities at national and local level should be targeted.

Engaging private sector, CSO, responsible markets, universities, research institutes, and mainly crop producers for shifting agriculture sector to a low/non chemical production needs to be addressed.

Additionally specific training, experiences exchange, communication strategies and awareness-raising programmes to farmers and general public needs to be developed for improving results sustainability.

Contributions from Co-financing:

The Ministry of Agriculture and Forestry at national level and through the Provincial Agriculture and Forestry Department of Luang Namtha, Oudomaxy, Bokeo, Xiengkhuang and Vientiane Capital will contribute with technical staff to support knowledge dissemination and raising awareness activities.

The Korea-MAFRA Project ?Support Scaling-Up Sustainable and Low-Carbon Agriculture Practices and Improving Food Security in Lao PDR? will contribute with piloting innovative digital solutions that reduce greenhouse gas emissions and other forms of pollution.

Under this Component, the IFAD Projects ?Agriculture for Nutrition II? Project (AFN II) and ?Partnerships for Irrigation and Commercialization for Smallholder Agriculture? (PICSA) will contribute through the adoption of gender-transformative practices within agricultural sector.

Lastly, the KOREA-MAFRA, the IFAD and the World Bank Projects will contribute with communication and awareness raising activities targeting key stakeholders throughout the agricultural sector.

Contributions from GEFTF:

The project will fund a national communication strategy on risks and damages to health and the environment due to exposure to hazardous pesticides to raise awareness on different targeted groups of stakeholders. (Output 3.1.1)

The project will support the capturing of lessons learned and knowledge generated by the project and ensure its dissemination among national stakeholders as well as Global Programme and other Child Projects, aligned to Global Programme Knowledge Management and Communications Strategies. (Output 3.1.2)

Finally, one pilot project will be subsidized for the improvement of agriplastic waste management sharing cost with the private sector and building national capacity through the implementation by CSO. (Output 3.1.3).

Component 4.

Contributions from the baseline:

The Department of Agriculture (DOA) to ensure the project?s objective of reducing the use of harmful agrochemicals by supporting farmers to access finance, innovative and sustainable production practices and competitively access consumer markets in the country, will require multiple coordination of key stakeholders and proper tools in place to guarantee effective implementation and the adoption of adaptative management if required.

Contributions from Co-financing:

The government as well as proactive participation of stakeholders at every level will contribute to the effective implementation of the project. The MAF will provide in-kind contributions in the form of human resources and/or facilities for holding events, forums, workshops, trainings, courses and awareness-raisings.

Contributions from GEFTF:

The project will support a project monitoring and evaluation system with its mid-term and final evaluation reports to assess project performance and GEB impact (Output 4.1.1), as well as the support of the Global FARM Programmatic Monitoring and Evaluation approach to ensure future sustainability of achievements (output 4.1.2).

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

The Global environmental benefits (GEB) of the project at the CEO endorsement stage are the same as presented at the PIF stage.
The project?s GEBs include the following:

- 16,600 direct project beneficiaries (2,800 women and 13,800 men)
- 161 MT of Greenhouse Gas Emissions Mitigated (metric tons of CO2e).
- 720 MT (150 MT of POPs and 570 MT of HHP) of pesticides avoided.
- 7 gTEQ avoided of emissions of POPs to air from.

As agreed during the FARM design phase the GEBs are measured 5 years after project implementation. The accrued GHG mitigated will arise to 564 MT in Lao PDR five (5) years after project implementation. The total amount of POPs/HHPs pesticides avoided will arise to 1,950 MT (450 MT of POPs and 1,500 of HHP) in Lao PDR five (5) years after project implementation. The accrued avoidance of POPs emissions to air will arise to 31.3 gTEQ in Lao PDR five (5) years after project implementation.

7) Innovativeness, sustainability and potential for scaling up. ?

Innovation

This programme is one of the first concerted efforts to reduce the use of harmful agrochemicals on a global scale using an integrated approach linking international conventions, Financial Institutions, national agriculture and environment agencies, commodity groups, agrochemical and agroplastic manufacturers, and farmers. The programme will assist to link and improve the efficiency and effectiveness of information flow between each of these stakeholder groups and generate improved approaches and templates for addressing the perverse incentives that drive the use of harmful agrochemicals, while leveraging finance towards the broader adoption of low and non-chemical alternatives. This will include regulatory frameworks, financial incentives and access to knowledge

required to uptake improved approaches. The programme will target and engage the private sector along with investors to make sure impacts are sustained.

The Lao PDR child project level adopts the innovative integrated approach by enabling a systematic change at policy, technology, and financing levels to promote the reduction in the use of harmful agrochemicals and agroplastics within the agricultural sector.

Under Component 1 the project will put in place a National Pesticides Alternatives Promotion Plan for fostering the reduction of HHP through the gradual substitution/restriction/prohibition of toxic agrochemicals by ensuring the availability of less hazardous alternatives with effective results for agricultural production in the national context. The project will also support the assessment of current government incentives and recommend new ones for the reduction/substitution of harmful agrochemicals.

In addition, through this Component the project stimulates the institutional strengthening, the design, and the implementation of regulatory frameworks, and enabling environments for the agriculture sector that fully integrate and address the issue of harmful agrochemical use.

Under Component 2, the innovative approach is related to the following aspects:

- Partner with various financial institutions including commercial banks in strengthening their capacity on environmental and social safeguards and responsible investment in the agriculture sector and create innovative financial products. Efforts will be further conducted to technically support farmers for its application in targeted crops.

- Demonstrate through the implementation of four (4) pilot activities the reduction of harmful agrochemicals simultaneously with farmers increase income. By the implementing these pilots, the project support and generate research and information related to the improvement of agriculture practices designed to assist farmers with evidence-based results, proving that sustainable agriculture that reduces reliance upon chemicals can deliver productivity that results in global environmental benefits, healthier communities, and strong investment returns.

- Design a National Plan for Replication and Scale-Up results beyond project implementation.

Throughout these activities the FSP will also strengthen different types of financial institutions (including commercial banks), national and sub national extension agents, technical advisors, farmers, CSOs as well as other key stakeholders on risks of agrochemical use, the benefits of sustainable alternatives, and availability of financing options. This is important for the long-term sustainability of the project as it institutionalizes access to finance for farmers at the local level and recognizes that GEF donor funds can only go so far.

Under Component 3, the innovative aspect introduced by the project is building capacity in plastic management for agriculture use through the implementation of one (1) project demonstrating a business model aiming at reducing, reusing and/or recycling plastic waste. Furthermore, efforts will be implemented for technically assisting the government in environmentally sound disposal of pesticides stockpiles. Lastly, this component aims to raise awareness on risks associated to hazardous pesticides use and exposure, mainly targeting vulnerable groups.

Sustainability

The programme?s sustainability will be ensured through integration and embedding of results with global and national decision-making frameworks. Globally, the close involvement of the Stockholm Convention Secretariat and linkages with international private sector (agrochemicals, biocontrol, and crop certification and commodity schemes) will provide opportunities to consult with and provide solutions for a much wider range of stakeholders than those directly involved in the programme.

The sustainability of the project interventions beyond its completion will be mainly guaranteed as follows:

Under Component 1, the development of a National Pesticides Alternatives Promotion Plan for reducing the use of harmful agrochemicals which includes the development of necessary methodologies and procedures for identifying, evaluating, registering, and effectively adopting safer alternatives in the context of the agricultural activity in Lao PDR. This plan establishes a systematic approach for the country to address not only the agrochemicals of current concern but also upcoming ones in line with international commitments and international trade agreements.

Additionally, after the project implementation Lao PDR will have a strengthened policy and regulatory framework, new government incentives, and an enhanced institutional capacity for the life cycle management of agrochemicals and their wastes (including plastics for agricultural use). Engagement and strengthened cooperation with bordering countries will also contribute to a ensure results lasting as part of a regionally harmonized approach to avert illegal imports and trade of hazardous chemicals.

Under Component 2, the project will promote the development of financial product that will be available beyond the lifetime of the project. To strengthen sustainability in terms of the availability of financing for farmers who implement sustainable agricultural practices with the consequent reduction in the use of agrochemicals, the project will build technical capacity among the main actors involved in the value chain. These actors, who are responsible for the gradual transition in following years after project implementation, are: i) financial entities in order to continue developing financial mechanisms tailored to sustainable agriculture; ii) national/sub national extension agents in order to disseminate and promote the adoption of sustainable agriculture practices and access to financial mechanisms and iii) farmers to be able to apply to these mechanisms for adopting sustainable practices.

The foregoing, in conjunction with the financial and fiscal incentives? recommendations under Component 1, will help to increase the flow of local and international capital investment and impact-oriented lenders to sustain the transition to a low/non-chemical agriculture over time once this FSP is completed.

Finally, under this Component the development of a National Replication and Scaling Up plan beyond project implementation will undoubtedly contribute to the sustainability of the results achieved by the project

Under Component 3, the project will guarantee and improve the increased capacity and awareness of key stakeholders in the agricultural sector which will enable farmers continuing implementing sustainable practices beyond the life of the project as there is a proper national framework, and their products are being properly demanded. Additionally, the project will document in a systematic way lessons learned and experiences and make them available through the Global FARM Knowledge Management Platform as well as receiving those ones from other child projects within the Global FARM Programme. Documentation and systematization of lessons learned will also apply to Components 1 and 2.

Potential for Scaling Up

It is estimated that over 2 billion people worldwide work in agriculture and the sector generates more than US$ 3.4 trillion annually[1]. In LDCs, agriculture employs more people than any other industry. The potential for scaling up is vast. 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. The child project in Lao PDR will aim to connect local and global practitioners and decision makers from governments, civil society, and business of other countries. The child project will use the global component to connect international buyers and local producers, to ensure the buyer motivates the producers in using best environmental practices and best available techniques to provide responsible products. Component activities will aim to strengthen practitioners? capacity ? virtually and through inspiring face to face encounters and events ? on issues relevant across multiple crop supply chains and landscapes. This will foster a community of practice among participating countries and will allow for the sharing of successful models with a wide range of global actors and stakeholders.

The capacity building approach mainstreamed in all components is to ensure knowledge and experiences stay in country within relevant institutions. Under Component 1, the project will increase the capacity of government institutions at national and local level to assess, plan and implement sustainable agricultural practices as well as the introduction and availability of safer alternatives. The adoption of international standards and tools will be adapted and implemented in accordance with national context involving main stakeholders in the agrochemicals value chain. Policies and the regulatory framework will be improved as well for creating an enabling environment for the reduction of harmful agrochemicals in agriculture. When the project comes to an end the increased capacity of national entities and local authorities (including the engagement of bordering countries) and the improved policy and regulatory enabling environment for sustainable agriculture production will continue to serve the agriculture sector and encourage continued phase-out harmful agrochemicals together with the rapid identification of safer alternatives within the agriculture sector.

Lastly under Component 2, the project will also assess feasible fiscal incentives for the reduction of harmful agrochemicals and support the implementation of at least one of them. This fiscal incentive is expected to continue after the project lifetime and enable the benefits for scaling.

The project will partner with financial entit(ies) this activity to establish tailored financial products and with affordable financial conditions for farmers who implement good agricultural practices (such as Integrated Pest Management (IPM), agroecological practices, organic production, etc.) that enables the reduction of hazardous pesticides in priority crops. The project will do this by supporting these entities to develop financial products for the agriculture sector and build their capacity to undertake financial risk assessments, with the purpose of eventually increasing the amount of financing made available through these new or improved financial mechanisms. These financial products will continue to exist after the project comes to an end; banking farmers is a private sector sustainability proposition that goes beyond donor funds.

As part of the project, selected farmers of targeted crops will also be trained in how to develop these financial products applications and how to apply for loans. Results of this support will be captured so that information can be easily disseminated and replicated by other farmers. National and Sub National

Extensions Agents will be properly involved during this process for building their capacity and further contribute to the replication in different crops and regions in the country.

Furthermore, the project will support the implementation of: i) four (4) demonstration projects for reducing the use of harmful agrochemicals through the implementation of sustainable farming practices that encourage an agroecological approach, and one (1) pilot project for evidencing environmentally and economically viable solutions for minimizing, substituting and/or recycling plastics currently being used in targeted crops. The results from these experiences will be scaled up through the development of a National Plan for Replicating and Scaling-Up of piloted farming methods deployment and the access to financial mechanisms aiming to reduce the dependence on agrochemicals. Dissemination among key stakeholders for building capacity nationwide will be properly guaranteed.

Under Component 3, throughout the project?s implementation, project results, experiences, lessons-learned, knowledge products, dissemination activities will be shared with the Global Programme, which will capture, store, package and disseminate this knowledge to a global network, including the Stockholm Convention Secretariat and SAICM, in line with the approved FARM KM, communications, stakeholder engagement and gender strategies. The global project will make these experiences available through the global platform envisioned under FARM and outreach strategies. The child project will participate actively in international meetings and events and ensure the flow of information between international conventions, donor agencies and critical stakeholders and decision-makers at regional, national, and local levels.

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[1] FAO (2018) *World Food and Agriculture ? Statistical Pocketbook* https://doi.org/10.4060/CA1796EN

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[1] LAO PDR Census

[2] https://www.iwgia.org/en/laos.html

[3] https://policy.asiapacificenergy.org/node/476

[4] Aldrin, Alpha hexachlorocyclohexane, Chlordane, Dieldrin, Endrin, Heptachlor, Lindane, Toxaphene, DDT.

[5] Methyl parathion and Phosphamidon (referred to the list of HHP annex III of Rotterdam Convention)

[6] Lao PDR Agricultural Census 2019-2021

[7] https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=LA

[8] https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=LA

[9] Agricultural holding definition (LCAIII): Agricultural holding is account with 0.1 ha, 5 and above of cow/buffalo, pig, goat 10 and above and 50 of poultry and above.

[10] https://data.worldbank.org/indicator/AG.LND.ARBL.ZS?locations=LA

[11] Lao PDR Census of Agriculture 2010/2011.

[12] Microfinance baseline survey, Sep 20219, USAID, ACDI/VOCA, https://pdf.usaid.gov/pdf_docs/PA00X78W.pdf

[13] Nayoby Bank is a specialize bank established by the Central Bank of Laos in 2006 to provide credits in poor districts, government focus areas for development of the government. https://www.nbb.com.la/?page_id=59

[14] Assessing Financial Literacy in Rural Laos, Survey results from the provinces Champasak, Salavan, and Savannaketh, page 16, https://www.giz.de/en/downloads/giz2015-en-assessing-financial-literacy-rural-areas-laos.pdf

[15] Lao Microfinance survey, 2012. https://www.researchgate.net/publication/256095526_MICROFINANCE_IN_THE_LAO_PDR_2012/link/0deec521b7e32030f0000000/download

[16] Pesticide containers volume and associated weight: i) bottle 250ml = 6.42g; ii) bottle 330ml = 14.03g; iii) bottle 600ml = 19.7g; iv) bottle 300ml = 21g; v) bottle = 500ml = 32-34g; vi) bottle 1L = 100g; vii) bottle 3L = 220g; viii) bottle 5L = 260-550g.

[17] ?Assessment of agricultural plastics and their sustainability? - https://www.fao.org/3/cb7856en/cb7856en.pdf

[18] Chaired by the Vice Prime Minister and the Minister of Agriculture and Forestry as the Deputy-Chair of the Committee.

[19] https://www.undp.org/publications/precision-agriculture-smallholder-farmers

1b. Project Map and Coordinates

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

Please, refer to Annex D, file name "GEFID_10904_FARM_Lao Anx D Map and geospatial coordinates" uploaded.

Note: picture files cannot be uploaded in this section as they look incomplete in the printout.

1c. Child Project?

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

The integrated approach proposed for the Lao PDR Child Project fully responds to and reflects the FARM Programme?s ToC as can be deducted from the child project?s results framework, around the following components:

•Enabling conditions for the sound management of chemicals & waste through policy and enforcement (Component 1 ? Policy and Enforcement)

Establishing sustainable resources for the transition to low/no-chemical agriculture through finance and investment (Component 2 ? Finance and investment)

Building capacity and making knowledge accessible through the sound management of chemicals and waste (SMCW) (Component 3 ? Capacity and knowledge)

All Lao PDR?s project components fully align with the programme components, and the child project outputs directly contribute to the PFD and child project outcomes as described in the project?s results framework (Section V of the ProDoc).

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

During the PPG phase, a Stakeholder Analysis and Stakeholder Engagement Plan, detailed in Annex 8, was developed in order to identify key stakeholders and relevant beneficiaries to be involved in project implementation process.

This plan seeks to strengthen UNDP institutional partner capacities for managing social and environmental risks and ensuring full and effective stakeholder engagement, including appropriate mechanisms to respond to complaints from project-affected people. This Plan follows the Guidance Note UNDP Social and Environmental Standards (SES).

The Annex lists in detail different stakeholders that have been identified to be strongly linked to and interested in project activities. During PPG several activities were conducted, detailed in Table 4-1 ?Stakeholder Engagement Log? of Annex 8, for engaging the wide universe of stakeholders relevant to the expected results of this FSP, allowing not only to communicate project?s objectives and activities but also to identify their concerns and expectations.

As a result, a stakeholder engagement plan was developed. This plan describes the different activities and engagement strategies to be conducted during the implementation period through which the project aims to engage the key stakeholders, addressing their concerns and meet and/or manage their expectations and proposed means of communication to be used.

The grievances will be geared directly to the Ministry of Agriculture and Forestry through the institutional mechanisms by which people concerned with or potentially affected by the project can express their grievances to the Department of Agriculture. Ultimately, grievances and complaints can be lodged to the following address:

Deparmemt of Agriculture (DOA),

Ministry of Agricuture and Forestry (MAF)

Lane Xang avenue, Phonexay village, Chanthabouly district, Vientiane capital

Tel : (021) 412350

Fax : (021) 412349

This FSP needs to engage a variety of stakeholders not only from the public sector but also from the private sector in order to achieve the planed outputs and outcomes. The following table summarizes the actors that the project will need to involve and describes their responsibilities in project?s implementation as well as their contributions to addressing the development challenge:

GROUP	STAKEHOLDER	ROLE
PUBLIC ENTITIES		
National Government	Ministry of Agriculture and Forestry (MAF) Department of Agriculture (DOA)	Lead institution for the agricultural sector, promotes productivity and agricultural public policies, with emphasis on small, medium, and family farming, contributing to food sovereignty. Offer to producer's assistance and technological solutions (agrochemicals, fertilizers, seeds) to guarantee high productivity and profitability in their crops. DoA of MAF is the implementing partner of the project, it is responsible for the design, coordination, implementation, and monitoring of the project and as such is part of the Steering Committee of the project.
	Ministry of Natural Resources and Environment (MONRE) Department of Environment.	Is the national authority for environmental policies and regulations. The Ministry hosts GEF Operational Focal Point and is focal point for Stockholm, Minamata, Basel and Rotterdam Conventions and leads their implementation. Is responsible for the control of the proper sound management and disposal of agrochemicals and plastics for agricultural use waste. MONRE will: Contribute to the fulfillment of the activities within component 1 of the project. Support the implementation of activities under Component 3, Output 3.1.3 of the project. Disseminate information and participate in raising awareness education programs regarding POPs/HHP and plastic waste. (GAP, financing options, alternatives to HHP, management and disposal of related waste including plastic)
	Ministry of Industry and Commerce (MIC) Department of Internal Trade.	Responsible for governing and developing industrial activity and commercial activity. Is responsible for regulating and promoting manufacturing, trade, import, and export activity including the control of foreign and domestic trade that promotes fair competition in economic sectors, grants import permits for all merchandises that enter to the country, including pesticides and other supplies for agricultural and livestock use. Department of Internal Trade is responsible for regulating and promoting internal trade. It grants operation permits and control internal trading of goods including agrochemicals for the agricultural and livestock use. Department of Internal Trade will be mainly involved in activities under Component 1.

	Ministry of Finance (MoF) Customs Department.	It is one of the mechanisms of the government that plays a role to protect sectors related to financial work and public budget, and protects work fields such as tax, revenue department, and national finance nationwide. Customs Department is responsible of governing and overseeing the flow of goods including agrochemicals for agricultural and livestock use, people and vehicles into and out of Lao PDR; operating customs offices; and collecting import and export duty fees. Customs Department will be mainly involved in activities under Component 1.
	Ministry of Public Security (MPS) Environmental Police	Lead institution for public security, it comprises of several branch offices including the environment police, local police, traffic police, immigration police, economic police, security police (including border police), and other armed police units. Environment Police is responsible for inspection, controlling crimes against the protection of the environment and law enforcement Environmental Police will be involved in activities under Component 1
	Ministry of Justice Center for Resolution of Economic Conflict (CREC)	Government institution for the creation and operation of the judiciary, court system, drafting of legal frameworks and the implementation of equal rights and the decisions of the Court. CREC is the center responsible for provision of advice for economic conflict including conflicts between suppliers of agrochemicals and the pesticides inspectors CREC will be involved in activities under component 1.
	Ministry of Health (MOH) Department of Hygiene and Health Promotion (DHHP)	Lead institution for the health sector, promotes the stewardship, regulation, planning, coordination, control, and management of Public Health. DHHP is the agency under MoH which is responsible for the regulation, monitoring, and control of the population health, through risk management of products for human use and consumption. DHHP will be involved in activities under Component 1 and Component 3, Output 3.1.1 and Output 3.1.3. It will participate in implementing a national communication campaign for risks and damages to health and the environment due to exposure to hazardous pesticides which includes specific activities and communicational resources for mass dissemination.
	Ministry of Planning and Investment (MPI)	The MPI is the government agency and responsible for the government and regional administration of Planning and Investment, researching strategies, Master plans, Planning for National Socio-Economic Development Plan (NSEDP), Mechanisms and Policies related to economic management, statistics, the promotion and management of domestic and foreign private investment of Lao PDR, to attract and seek assistance (Official Development Assistance: ODA) and international cooperation. It will perform as beneficiary representative within the Project Board/Steering Committee.
Other Public Institutions	Division for the Advancement of Women and Mother & Child (DAWM) - MAF	DAWM is the agency under MAF responsible for the development of strategy and action plan for gender equality within the agricultural and forestry sector and monitoring the gender action plan implementation. It will be mainly involved in the implementation of the developed Gender Action Plan for the project.
	Plant Protection Center (PPC) - MAF	The plant protection center is under the MAF. It is responsible for the control, monitor, protection and improvement of animal health, plant health and food safety. PPC will: Support the development of the National Reduction Plan of Harmful Agrochemicals. Contribute to the fulfillment of the activities within component 2, Output 2.2.1 of the project. Disseminate information and participate in raising awareness education programs regarding POPs/HHP and plastic waste. (GAP, financing options, alternatives to HHP, management and disposal of related waste including plastic)
	Department of Agriculture Extension and Cooperative (DAEC) - MAF	DAEC is the agency under MAF responsible for the extension services and cooperatives. DTEAP will mainly contribute to the fulfillment of the activities within Component 2, Output 2.1.1, Output 2.1.2 and Output 2.2.1 of the project.

	Urban Development and Administration Authority (UDAA)	This institution is responsible for the management disposal of solid waste from domestic use in the urban areas. This identity can be considered to: Participate in the execution of activities under Component 3. Provide technical capacity for treatment and disposal of hazardous wastes (pesticides and plastics for agricultural use).
	Lao PDR Front for National Development (LFND)	LFND has the role, rights, and obligations to provide educational training and promote solidarity for the Lao PDR multi-ethnic people of all gender, religion, caste and social organizations, as well as promoting the sense of ownership to the people. The LFND also has the role of monitoring the executive branches of the government, the National Assembly, the court of justice, attorneys' association, to protect the interests of the ethnic people and the elderly. It can be considered to support awareness raising activities for behavior change at the village level under Component 2 and Component 3.
Public research and analytical institutions	National Agriculture and Forestry Research Institute (NAFRI) - MAF	Is a public research institute attached to the MAF, which primary purposes are to promote scientific research, generation, innovation, validation, and dissemination of technologies in the agricultural and forestry production sector. NAFRI carries out its research in agriculture and forestry sectors, development, and technological innovation processes. The NAFRI will: i) Participate in the National Reduction Plan of Harmful Agrochemicals. ii) Participate in the participatory research and action in agroecology under Component 2, Output 2.2.1 Disseminate information and participate in raising awareness education programs regarding POPs/HHP and plastic waste.
	National Center for Food and Drug Analysis (NCFDA) - MOH	Is the agency under MoH responsible for monitoring chemical residues in food and registration of food products supplied in the market. NCFDA will contribute to participatory research under Component 2, Output 2.2.1
Local Government	Province Agriculture and Forestry Office (PAFO)	Local institution representing MAF at provincial level in promoting productivity and agricultural public policies, with emphasis on small, medium, and family farming, contributing to food sovereignty. Offer to producer's assistance and technological solutions (agrochemicals, fertilizers, seeds) to guarantee high productivity and profitability in their crops. PAFO will be the provincial implementing partner of the project, it is responsible for the coordination, implementation, and monitoring of the project at the provincial level.
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BILATERAL AND MULTILATERAP AGENCIES		
UN Agencies	United Nations Development Programme (UNDP)	UNDP is accountable to the GEF for the implementation of this project. This includes oversight of project execution to ensure that the project is carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services, and for the Project Assurance role of the Project Board/Steering Committee. UNDP and its Lao PDR Country Office have extensive experience working with the private sector, governmental institutions, and civil society.
	United Nations Environment Programme (UNEP)	UNEP is the lead implementing agency for the Global Programme as well as several child concepts, including a Global Project for Coordination, Knowledge Management and Common Finance Tools.
	Food and Agricultural Organization of the United Nations (FAO)	FAO is responsible party for the implementation of the project. International partner of the project for provision of guidelines and tools for pesticides management as well as support in the implementation of the following Component 1 Outputs: 1.1.2, 1.1.3 and 1.1.4.

Development Banks	World Bank (WB)	The WB Enhances the competitiveness and sustainability of Lao PDR's agriculture sector through technical and financial support to increase in agricultural productivity and commercialization in selected strategic value chains. WB will mainly support activities under component 2.
	ADB	The ADB is currently supporting the country on: • capacity building on soil fertility improvement and inspection for Plant Protection Center (PPC) for plant heath protection center. • Capacity strengthening to detect pesticide residue aiming at building capacity in laboratory works. ADB will mainly support activities under component 2.
Bilateral Agencies	JICA	Promote Clean Agriculture (CA) in Lao PDR by enabling farmers/farmers groups to respond to the market needs for CA products and expand their sales opportunities JICA will be mainly involved in pilot activities to promote sustainable agricultural practices under component 2 and 3.
	GIZ	Support Land Use Planning and agro-forestry practice in the control use zone (buffer zone) of national park areas GIZ will be mainly involved in pilot activities to promote sustainable agricultural practices under component 2 and 3.
FINANCING ENTITIES		
Public Entities	Navoby Bank (NB)	A special bank established by the Central Bank of Lao PDR in 2006 to provide credits in poor districts, government focus areas for development and the 3 built villages of the government. About 88.42% of its credits are allocated for the agriculture and forestry sector. It has 11 branches and 72 service units all over the country. The credit ceiling is 30 million Kip per household. Provide loan with group guarantee. The female credit customers represent about 20%. NB will mainly support activities under Component 2.
Private Entities	Lao PDR Development Bank (LDB)	Lao PDR Development Bank (LDB) is a state-owned commercial bank wholly owned by Ministry of Finance, established on 9 April 2003 by merging two previous state-owned commercial banks – namely Lane Xang Bank and Lao May Bank. In 01/09/2021, Chaleun Sekong Energy Co., Ltd joint venture with LDB that would hold 70% of shares while 30% remaining held by the Ministry of Finance. LDB Hired about 2,000 staff, operates 18 branches, 77 service offices. The bank provided financial services such as deposits, withdrawals, loan collection or foreign exchange. In 2000, the bank has loan portfolio of USD 373 million, which is 7,46 million for agriculture and forestry sectors. LDB will mainly support activities under component 2.
	Agricultural Promotion Bank (APB)	It was state owned bank but in 2021 70% of its shareholder is a private entity. 70% of its loan has been allocated for the agricultural production. 38% of its credit customers are the women. In Vientiane Capital provided credits for rice, maize, and vegetable cultivation, in Xiengkhouang for maize and sweet potatoes cultivation while in Bokeo and Luang Namtha in maize cultivation. APB will mainly support activities under component 2.
	Lao PDR Micro Finance Association	It is a local CSO with about 101 members from micro credit institutions all over the country. Act as intermediary to support farmers to have access to micro credits from its members. 70% of the credit schemes of its members are for the agriculture. The association provides training in business plan development and basic financial management for the access and management of credit fund to small scale business operators. It can be considered to support activities under component 2.

PRIVATE SECTOR		
Agrochemical Supply Companies	Considering the project scope these are companies dedicated to the import, sales, and distribution of phytosanitary supplies, seeds, and equipment for agricultural production.	Agrochemical companies will be involved in activities under Component 1 and 2. Additionally support the activities of dissemination and raising awareness.
Waste and Management Disposal Companies	Considering the project scope, this group is made of the companies licensed to perform treatment and disposal of agrochemicals waste.	These companies will be engaged to participate in the execution of activities under Component 3.
Plastic Management Company	Considering the project scope, this group is made of the companies licensed to perform treatment and disposal of plastics of agricultural use.	The companies licensed to perform treatment and disposal management activities of plastic waste within the scope of the project (POPs pesticides/HHP pesticides and plastics of agricultural use be engaged to: Participate in the execution of activities under Component 3. Provide technical capacity for treatment and disposal of hazardous wastes (pesticides and plastics for agricultural use).
CIVIL SOCIETY ORGANIZATIONS (CSO)		
Crop Producer Associations	Lao PDR Farmer Network (LFN)	Lao PDR Farmer Network (LFN) is a national farmer organization involving 58 farmer organizations from 13 provinces with over 4,000 individual farmers. The network has been established since 2014 with a vision for a rich and sustainable future for farming families in Lao PDR. This association will: Support the implementation of pilot projects under Component 2 and Component 3. Support the implementation of GAP under the application of financial mechanisms. Participate in raising awareness, knowledge dissemination, training, and communications activities within the scope of the project.
CSO Association	Sustainable Agriculture and Environment Development Association (SAEDA)	Is a nonprofit organization that promotes sustainable agriculture, through good agricultural practices. Its objective is to: j) Establish programs for the benefit of the environment and health of farmers; and j) Educate to protect the health of farmers and the environment. SAEDA will be a strategic partner for the implementation of activities under Component 2 and Component 3. Additionally support the activities of dissemination and raising awareness.

CSO	Lao PDR CSO Coordination Office	Is the coordinating body of Lao's CSO. It's committee's members have been approved by Ministry of Home and Affairs. The Lao Civil Society Coordination Committee (LCCC) members were selected by Lao CSOs themselves and given the mandate to represent and them coordinate their participation in various national and international forums, such as the ASEAN People's Forum (APF) and the national Round Table Meeting (RTM) process. The LCCC is mandated with increasing cooperation, solidarity, and capacity among its members in order to contribute to socio-economic development of Lao PDR. The LCCC establishment and members were acknowledged by the Government on 19 March 2019. LCCC consists of 9 focal points, representing the 9 Sector-Based CSO Teams (SBCT) of Lao CSOs. The LCCC is supported logistically and administratively by the Lao CSO Coordination Office (LCCO). Among CSO can be found associations linked to agriculture, agro ecology, micro finance institutions, pesticide risk reduction, etc. The Lao CSO Coordination Office will be a strategic partner for implementing activities mainly under Component 2 and 3.
NGO	Helvitas	Is a Swiss NGO which works to promote sustainable and safe agriculture. It will be a strategic partner in implementing pilot project activities under Component 2 and Component 3.
Indigenous people	Comité de Coopération avec Lao PDR (CCL)	A French NGO working in the field of integrated rural development and agriculture in the remote areas in northern provinces. Currently the organization is implementing a project in Oudomxay province to promote reduction of the application of agrochemicals in the agriculture production. It can be a strategic partner for implementing activities under Component 2.
Women and children	Namjai Community Association	A local NGO working in the field of education, gender equality, child rights and the right of the elderly in the remote districts of Bokeo and Luang Namtha provinces. It can be the strategic partner for implementing activities on awareness raising activities under component 2

ACADEMY		
Universities	Considering the project scope, this group is made of: National University of Lao PDR University of Luang Prabang	Education institutions which conduct development of research on environmental issues, whose substantive axes are teaching, research and connection with the community; as well as ethical, supportive, honest professional performance and permanent social and environment responsibility. Universities will: i) Participate in the participatory research and action in agroecology under Component 2 ii) Disseminate information and participate in raise awareness education programs regarding POPs/HHP and plastic waste. iii) Share research and technological advances. According to the project coverage, especially regarding the selected locations to develop the demonstration projects, other relevant academic institutions will be further engaged in the project implementation.
Universities	Considering the project scope, this group is made of: National University of Lao PDR University of Luang Prabang	Education institutions which conduct development of research on environmental issues, whose substantive axes are teaching, research and connection with the community; as well as ethical, supportive, honest professional performance and permanent social and environment responsibility. Universities will: iv) Participate in the participatory research and action in agroecology under Component 2 v) Disseminate information and participate in raise awareness education programs regarding POPs/HHP and plastic waste. vi) Share research and technological advances. According to the project coverage, especially regarding the selected locations to develop the demonstration projects, other relevant academic institutions will be further engaged in the project implementation.

OTHERS		
	Small-medium farmers	This sector is of great relevance within the scope of the project. Consequently, the activities to be implemented will have a positive impact on their standard of living, their health, and the environment. Farmers will be a key stakeholder throughout the lifecycle of the project. They will participate in raising awareness, knowledge dissemination, training, and communications activities within the scope of the project. They will be mainly involved in activities under Component 2 and Component 3.
GROUP	STAKEHOLDER	ROLE
PUBLIC ENTITIES		
National Government	Ministry of Agriculture and Forestry (MAF) Department of Agriculture (DOA)	Lead institution for the agricultural sector, promotes productivity and agricultural public policies, with emphasis on small, medium, and family farming, contributing to food sovereignty. Offer to producer's assistance and technological solutions (agrochemicals, fertilizers, seeds) to guarantee high productivity and profitability in their crops. DOA of MAF is the implementing partner of the project, it is responsible for the design, coordination, implementation, and monitoring of the project and as such is part of the Steering Committee of the project.
	Ministry of Natural Resources and Environment (MONRE) Department of Environment.	Is the national authority for environmental policies and regulations. The Ministry hosts GEF Operational Focal Point and is focal point for Stockholm, Minamata, Basel and Rotterdam Conventions and leads their implementation. Is responsible for the control of the proper sound management and disposal of agrochemicals and plastics for agricultural use waste. MONRE will: Contribute to the fulfillment of the activities within component 1 of the project. Support the implementation of activities under Component 3, Output 3.1.3 of the project. Disseminate information and participate in raising awareness education programs regarding POPs/HHP and plastic waste. (GAP, financing options, alternatives to HHP, management and disposal of related waste including plastic)
	Ministry of Industry and Commerce (MIC) Department of Internal Trade.	Responsible for governing and developing industrial activity and commercial activity. Is responsible for regulating and promoting manufacturing, trade, import, and export activity including the control of foreign and domestic trade that promotes fair competition in economic sectors, grants import permits for all merchandises that enter to the country, including pesticides and other supplies for agricultural and livestock use. Department of Internal Trade is responsible for regulating and promoting internal trade. It grants operation permits and control internal trading of goods including agrochemicals for the agricultural and livestock use. Department of Internal Trade will be mainly involved in activities under Component 1.
	Ministry of Finance (MoF) Customs Department.	It is one of the mechanisms of the government that plays a role to protect sectors related to financial work and public budget, and protects work fields such as tax, revenue department, and national finance nationwide. Customs Department is responsible of governing and overseeing the flow of goods including agrochemicals for agricultural and livestock use, people and vehicles into and out of Lao PDR; operating customs offices; and collecting import and export duty fees. Customs Department will be mainly involved in activities under Component 1.
	Ministry of Public Security (MPS) Environmental Police	Lead institution for public security, it comprises of several branch offices including the environment police, local police, traffic police, immigration police, economic police, security police (including border police), and other armed police units. Environment Police is responsible for inspection, controlling crimes against the protection of the environment and law enforcement Environmental Police will be involved in activities under Component 1
	Ministry of Justice Center for Resolution of Economic Conflict (CREC)	Government institution for the creation and operation of the judiciary, court system, drafting of legal frameworks and the implementation of equal rights and the decisions of the Court. CREC is the center responsible for provision of advice for economic conflict including conflicts between suppliers of agrochemicals and the pesticides inspectors CREC will be involved in activities under component 1.

	Ministry of Health (MOH) Department of Hygiene and Health Promotion (DHHP)	Lead institution for the health sector, promotes the stewardship, regulation, planning, coordination, control, and management of Public Health. DHHP is the agency under MoH which is responsible for the regulation, monitoring, and control of the population health, through risk management of products for human use and consumption. DHHP will be involved in activities under Component 1 and Component 3, Output 3.1.1 and Output 3.1.3. It will participate in implementing a national communication campaign for risks and damages to health and the environment due to exposure to hazardous pesticides which includes specific activities and communicational resources for mass dissemination.
	Ministry of Planning and Investment (MPI)	The MPI is the government agency and responsible for the government and regional administration of Planning and Investment, researching strategies, Master plans, Planning for National Socio-Economic Development Plan (NSEDP), Mechanisms and Policies related to economic management, statistics, the promotion and management of domestic and foreign private investment of Lao PDR, to attract and seek assistance (Official Development Assistance: ODA) and international cooperation. It will perform as beneficiary representative within the Project Board/Steering Committee.
Other Public Institutions	Division for the Advancement of Women and Mother & Child (DAWM) - MAF	DAWM is the agency under MAF responsible for the development of strategy and action plan for gender equality within the agricultural and forestry sector and monitoring the gender action plan implementation. It will be mainly involved in the implementation of the developed Gender Action Plan for the project.
	Plant Protection Center (PPC) - MAF	The plant protection center is under the MAF. It is responsible for the control, monitor, protection and improvement of animal health, plant health and food safety. PPC will: Support the development of the National Reduction Plan of Harmful Agrochemicals. Contribute to the fulfillment of the activities within component 2, Output 2.2.1 of the project. Disseminate information and participate in raising awareness education programs regarding POPs/HHP and plastic waste. (GAP, financing options, alternatives to HHP, management and disposal of related waste including plastic)

	Department of Agriculture Extension and Cooperative (DAEC) - MAF	DAEC is the agency under MAF responsible for the extension services and cooperatives. DTEAP will mainly contribute to the fulfillment of the activities within Component 2, Output 2.1.1, Output 2.1.2 and Output 2.2.1 of the project.
	Urban Development and Administration Authority (UDAA)	This institution is responsible for the management disposal of solid waste from domestic use in the urban areas. This identity can be considered to: Participate in the execution of activities under Component 3. Provide technical capacity for treatment and disposal of hazardous wastes (pesticides and plastics for agricultural use).
	Lao PDR Front for National Development (LFND)	LFND has the role, rights, and obligations to provide educational training and promote solidarity for the Lao PDR multi-ethnic people of all gender, religion, caste and social organizations, as well as promoting the sense of ownership to the people. The LFND also has the role of monitoring the executive branches of the government, the National Assembly, the court of justice, attorneys' association, to protect the interests of the ethnic people and the elderly. It can be considered to support awareness raising activities for behavior change at the village level under Component 2 and Component 3.
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	National Center for Food and Drug Analysis (NCFDA) - MOH	Is the agency under MoH responsible for monitoring chemical residues in food and registration of food products supplied in the market. NCFDA will contribute to participatory research under Component 2, Output 2.2.1
Local Government	Province Agriculture and Forestry Office (PAFO)	Local institution representing MAF at provincial level in promoting productivity and agricultural public policies, with emphasis on small, medium, and family farming, contributing to food sovereignty. Offer to producer's assistance and technological solutions (agrochemicals, fertilizers, seeds) to guarantee high productivity and profitability in their crops. PAFO will be the provincial implementing partner of the project, it is responsible for the coordination, implementation, and monitoring of the project at the provincial level.
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BILATERAL AND MULTILATERAP AGENCIES		
UN Agencies	United Nations Development Programme (UNDP)	UNDP is accountable to the GEF for the implementation of this project. This includes oversight of project execution to ensure that the project is carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services, and for the Project Assurance role of the Project Board/Steering Committee. UNDP and its Lao PDR Country Office have extensive experience working with the private sector, governmental institutions, and civil society.
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FINANCING ENTITIES		
Public Entities	Navoby Bank (NB)	A special bank established by the Central Bank of Lao PDR in 2006 to provide credits in poor districts, government focus areas for development and the 3 built villages of the government. About 88.42% of its credits are allocated for the agriculture and forestry sector. It has 11 branches and 72 service units all over the country. The credit ceiling is 30 million Kip per household. Provide loan with group guarantee. The female credit customers represent about 20%. NB will mainly support activities under Component 2.
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PRIVATE SECTOR		
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Waste and Management Disposal Companies	Considering the project scope, this group is made of the companies licensed to perform treatment and disposal of agrochemicals waste.	These companies will be engaged to participate in the execution of activities under Component 3.
Plastic Management Company	Considering the project scope, this group is made of the companies licensed to perform treatment and disposal of plastics of agricultural use.	The companies licensed to perform treatment and disposal management activities of plastic waste within the scope of the project (POPs pesticides/HHP pesticides and plastics of agricultural use be engaged to: Participate in the execution of activities under Component 3. Provide technical capacity for treatment and disposal of hazardous wastes (pesticides and plastics for agricultural use).

CIVIL SOCIETY ORGANIZATIONS (CSO)		
Crop Producer Associations	Lao PDR Farmer Network (LFN)	Lao PDR Farmer Network (LFN) is a national farmer organization involving 58 farmer organizations from 13 provinces with over 4,000 individual farmers. The network has been established since 2014 with a vision for a rich and sustainable future for farming families in Lao PDR. This association will: Support the implementation of pilot projects under Component 2 and Component 3. Support the implementation of GAP under the application of financial mechanisms. Participate in raising awareness, knowledge dissemination, training, and communications activities within the scope of the project.
CSO Association	Sustainable Agriculture and Environment Development Association (SAEDA)	Is a nonprofit organization that promotes sustainable agriculture, through good agricultural practices. Its objective is to: i) Establish programs for the benefit of the environment and health of farmers; and i) Educate to protect the health of farmers and the environment. SAEDA will be a strategic partner for the implementation of activities under Component 2 and Component 3. Additionally support the activities of dissemination and raising awareness.
CSO	Lao PDR CSO Coordination Office	Is the coordinating body of Lao´s CSO. It´s committee´s members have been approved by Ministry of Home and Affairs. The Lao Civil Society Coordination Committee (LCCC) members were selected by Lao CSOs themselves and given the mandate to represent and them coordinate their participation in various national and international forums, such as the ASEAN People's Forum (APF) and the national Round Table Meeting (RTM) process. The LCCC is mandated with increasing cooperation, solidarity, and capacity among its members in order to contribute to socio-economic development of Lao PDR. The LCCC establishment and members were acknowledged by the Government on 19 March 2019. LCCC consists of 9 focal points, representing the 9 Sector-Based CSO Teams (SBCT) of Lao CSOs. The LCCC is supported logistically and administratively by the Lao CSO Coordination Office (LCCO). Among CSO can be found associations linked to agriculture, agro ecology, micro finance institutions, pesticide risk reduction, etc. The Lao CSO Coordination Office will be a strategic partner for implementing activities mainly under Component 2 and 3.

NGO	Helvitas	Is a Swiss NGO which works to promote sustainable and safe agriculture. It will be a strategic partner in implementing pilot project activities under Component 2 and Component 3.
Indigenous people	Comité de Coopération avec Lao PDR (CCL)	A French NGO working in the field of integrated rural development and agriculture in the remote areas in northern provinces. Currently the organization is implementing a project in Oudomxay province to promote reduction of the application of agrochemicals in the agriculture production. It can be a strategic partner for implementing activities under Component 2.
Women and children	Namjai Community Association	A local NGO working in the field of education, gender equality, child rights and the right of the elderly in the remote districts of Bokeo and Luang Namtha provinces. It can be the strategic partner for implementing activities on awareness raising activities under component 2
ACADEMY		
Universities	Considering the project scope, this group is made of: National University of Lao PDR University of Luang Prabang	Education institutions which conduct development of research on environmental issues, whose substantive axes are teaching, research and connection with the community; as well as ethical, supportive, honest professional performance and permanent social and environment responsibility. Universities will: i) Participate in the participatory research and action in agroecology under Component 2 ii) Disseminate information and participate in raise awareness education programs regarding POPs/HHP and plastic waste. iii) Share research and technological advances. According to the project coverage, especially regarding the selected locations to develop the demonstration projects, other relevant academic institutions will be further engaged in the project implementation.

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OTHERS		
	Small-medium farmers	This sector is of great relevance within the scope of the project. Consequently, the activities to be implemented will have a positive impact on their standard of living, their health, and the environment. Farmers will be a key stakeholder throughout the lifecycle of the project. They will participate in raising awareness, knowledge dissemination, training, and communications activities within the scope of the project. They will be mainly involved in activities under Component 2 and Component 3.

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

STAKEHOLDER TYPE	STAKEHOLDER GROUP	INVOLVEMENT		
		INFORMATION	METHODS	ACTIVITIES
Government Departments at the central level	- DoA, MAF: - DoE, MONRE - Customs Department, MoF - Environmental/Economic Policy. MoPS - Department of Internal Trade, MoIC - Department of Urban Planning, MPWT - Department of Hygiene and Health Promotion, MoH - Department of Law Enforcement, MoJ	✓ Project implementación status. ✓ Risk monitoring, safeguards and gender strategy. ✓ Socio-environmental impacts and plan for their management. ✓ Current status of the legal framework, annual operating plans, programs and activities aimed at hazardous chemical management, POPs, HHPs carried out by public sector entities. ✓ Lessons learned and successful experiences throughout the project. ✓ Mid-term evaluation results. ✓ Final evaluation results.	✓ Project National Steering meetings ✓ Work groups. ✓ Official communications ✓ Training / awareness workshops.	- Activities in Outputs 1.1.1 to 1.1.4 - Participate in overall policies and re legal framework road map and in lega dissemination (Output 1.1.2) - Participate in baseline incentive and r reform of secondary regulations, prov Recommendations and lessons learne - Participate in development of Natio design of outreach communication (O - Participate in the development of a Tra and Enforcement Officers and in trai national and provincial levels. (Output - Participate in capacity building pro enforcement of pesticides and plasti country. (Output 1.1.4) - Design of an accurate National Plan o scale up of piloted farming methods (- Design and implement a national com risks and damage to health and th exposure to hazardous pesticides. (Ou - Sharing of lessons learned with GI (Output 3.1.2) - Participate in the design, implementa of business model to conduct to an

STAKEHOLDER TYPE	STAKEHOLDER GROUP	INVOLVEMENT		
		INFORMATION	METHODS	ACTIVITIES
				- operation for integral management o plastic waste (empty containers, plast and protect fruit during maturation, p greenhouses, mulch films and othe hazardous pesticides. (Output 3.1.3)
Government Departments at the provincial and district levels	Provincial level: - PAFO, PONRE, PoIC, Provincial Customs, PPWT, PoH, PoJ, Provincial Environment/ Economic Police District level: - DAFO, DONRE, DoIC, DPWT, DoH, DoJ, environment/economic Police	✓ Project implementation status. ✓ Risk monitoring, safeguards and gender strategy. ✓ Socio-environmental impacts and plan for their management. ✓ Current status of the legal framework, annual operating plans, programs and activities aimed at hazardous chemical management, POPs, HHPs carried out by public sector entities. ✓ Lessons learned and successful experiences throughout the project. ✓ Mid-term evaluation results. ✓ Final evaluation results.	✓ Project National Steering meetings ✓ Work groups. ✓ Official communications ✓ Training / awareness workshops.	- Participate in the training on sustaina risks and safe ways to use pesticid specific alternatives for chemical pe Good agricultural practice, organic p plastic Management (Output 2.1.2) - Participation in participatory researc practices that encourage an agroecol integrated farming and integrated P (Output 2.2.1) - Participate in the survey to identify PO the territory and análysis of national capacities (Output 3.1.3) - Paricipate in carrying out feasibilit financial scheme to optimize the PoPs/HHP stockplies for treatment a holders nationwide. (Output 3.1.3) - Participate in the development/upd public entities in order to avoid the a substances and staff involved in pub properly trained on these procedures - Participate in the training for mon imports and exports of hazardous c

STAKEHOLDER TYPE	STAKEHOLDER GROUP	INVOLVEMENT		
		INFORMATION	METHODS	ACTIVITIES
				pesticides (POPs/HHP) including the c of illegal trade (Output 1.1.3)
	Specialized technical bodies linked to the public sector • Plant Protection Center • Department of Agriculture Extension and Cooperatives (DAEC) • NAFRI	✓ Project implementation status. ✓ Risk monitoring, safeguards and gender strategy. ✓ Socio-environmental impacts and plan for their management. ✓ Current status of the legal framework, annual operating plans, programs and activities aimed at hazardous chemical management, POPs, HHPs carried out by public sector entities. ✓ Lessons learned and successful experiences throughout the project. ✓ Mid-term evaluation results. ✓ Final evaluation results.	✓ Work group meetings. ✓ Training and workshops ✓ Official communications	- Participation in participatory researc practices that encourage an agroecol intercerated farming and intergerated and dissemination of the results. (Out - Design and training programe on practices (Output 2.2.1)
Financing entities	Navabai Bank Agriculture Promotion Bank EMI Micro Credit Association	✓ Project implementation status. ✓ Risk monitoring, safeguards and gender strategy. ✓ Socio-environmental impacts and plan for their management. ✓	✓ Work group meetings. ✓ Training and workshops ✓ Official communications ✓	- Participate in training in the assessi investments and training in Enviror Analysis (Output 2.1.1)

STAKEHOLDER TYPE	STAKEHOLDER GROUP	INVOLVEMENT		
		INFORMATION	METHODS	ACTIVITIES
Community level	Farmers Local suppliers of agrochemicals	✓ Current status of the legal framework, annual operating plans, programs and activities aimed at hazardous chemical management, POPs, HHPs carried out by public sector entities. ✓ Lessons learned and successful experiences throughout the project. ✓ Mid-term evaluation results. ✓ Final evaluation results.	✓ Work group meetings. ✓ Training and workshops ✓ Official communications	- Participate in the awareness raising a related to illegal trade of hazardous compliance importance of the regula 1.1.3) - Paricipate in training on business and (Output 2.1.1)
Private sector	Considering the project scope, this group is made of: Zhengbang biochemical (Lao) Sole Co., Ltd (VTC) Zhongxun Agri-science (Lao) Co., Ltd (VTC) Binnong Technology Lao Sole Co., Ltd (VTC) Quangxing Agricultural Promotion and Trade Sole Co., Ltd (VTC)Lao Agro-science Sole Co., Ltd (VTC) Kexai Fuyi science lao Sole Co., Ltd (VTC) Oudomxay Agriculture Development Import-Export Sole Co., Ltd (ODX) Oudomxay Yenong Agriculture import-export Sole Co., Ltd (ODX)	✓ Project implementation status. ✓ Socio-environmental impacts and plan for their management. ✓	✓ Work group meetings. ✓ Training and workshops ✓ Official communications ✓	Participate in the awareness raising activity to illegal trade of hazardous chemicals importance of the regulatory framework. (O

STAKEHOLDER TYPE	STAKEHOLDER GROUP	INVOLVEMENT		
		INFORMATION	METHODS	ACTIVITIES
NGO/CSOr	SEADA HELVITAS CCL SAPLAS	✓ Project implementation status. ✓ Risk monitoring, safeguards and gender strategy. ✓ Socio-environmental impacts and plan for their management. ✓ Project implementation status. ✓ Risk monitoring, safeguards and gender strategy. ✓ Socio-environmental impacts and plan for their management.	✓ Work group meetings. ✓ Training and workshops ✓ Official communications	Participate in the training on Business Mod
Other Relevant Groups	**Women in agricultural activity**	➢ Project implementation status ➢ Lessons-learned, best practices and project experiences ➢ FARM communication materials ➢ FARM Criteria for Environmentally and Socially Responsible Operations.	➢ Project Reports ➢ Digital Media ➢ Articles in Newspaper and Magazines ➢ Brochures ➢ Leaflets	→ Encourage stakeholder representative and Focus Group. → Training program and workshops for g → Register, analyse and address grievanc submitted. → Raise awareness of sustainable agricul impact of harmful agrochemicals use c environment. → Collect and follow up opinions ar during meetings and other conta
	Indigenous Peoples, and their communities	➢ Project implementation status ➢ Lessons-learned, best practices and project experiences ➢ FARM communication materials	➢ Meetings ➢ Workshops ➢ Project Reports ➢ Digital Media ➢ Articles in Newspaper and Magazines ➢ Brochures	→ Encourage stakeholder representative Focus Group. → Training program and workshops for g → Register, analyse and address grievanc submitted.

STAKEHOLDER TYPE	STAKEHOLDER GROUP	INVOLVEMENT		
		INFORMATION	METHODS	ACTIVITIES
		➢ FARM Criteria for Environmentally and Socially Responsible Operations	➢ Leaflets	→ Raise awareness of sustainable agricul impact of harmful agrochemicals use c environment. • Collect and follow up opinions and meetings and other contacts.

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier;

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

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

During the PPG phase a gender analysis was conducted, and a gender action plan was developed for addressing gender equality in project outcomes. The Annex 10 ?Gender Analysis and Action Plan? includes the detail of this work but it can be highlighted that main objective of this plan is to ensure that gender considerations are integrated into all actions promoted by the project "Financing Agrochemicals Management and Reduction in Lao PDR? promoting the equal and fair participation of women and men in the design of innovative alternatives, benefits and opportunities in each of its components. Likewise, the following specific targets were established: 1. Raising awareness of the concept of gender approach to achieve sustainable and inclusive development in the management and disposal of agrochemicals and agricultural waste including plastic; 2. Promoting actions that protect the health of men and women, taking into account their differentiated exposure to agrochemicals in the project; 3. Improving the spaces for women's participation and empowerment as agents of change for the management and disposal of agrochemicals and agricultural waste including plastic; 4. Generating gender-disaggregated information that will be the basis for strengthening the project's monitoring, communication and evaluation mechanisms on the management and disposal of agrochemicals and agricultural waste including plastic.

The gender plan includes a strategy for mainstreaming a gender approach in the environmentally sound management of harmful chemicals and plastic waste in agricultural sector, which guides this process in all actions to be developed by the project, and in addition to the activities proposed for each component will ensure that gender considerations are taken into account for the complete framework of results.

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

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

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

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

Yes
4. Private sector engagement

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

The project has a significant number of private sector partners (please, refer also to Section 2 ?Stakeholders?). In addition private sector engagement in the project?s implementation was evidenced through project?s co-financing (USD651,139 being provided by the private sector). Even though the project team has secured private sector cofinancing from two companies and cofinancing letters are available, the amount can only be reflected in the co-financing table after completing UNDP Due Diligence procedure for Private Sector Partnerships, expected before CEO ER date.

The involvement of the private sector in the project will be: a) Regulatory, enforcement and awareness raising activities supported by the project will have as one of the main target the private sector as they are one of the key stakeholders within the agrochemical value chain for the reduction of harmful agorchemicals use, the availability of alternatives, and the management of related waste (including the plastics for agricultural use); b) Capacities strengthened for the development of financial mechanisms suitable for farmers who adopt sustainable agricultural practices since they can support and ecourage farmers for the transition to a low/non chemical agricultural production; c) Capacities strengthened for environmental management of agri pastics waste.

The private sector partners who are engaged in the project?s implementation are: Lao PDR Micro Finance Association. Lao PDR Development Bank (LDB); Agricultural Promotion Bank (APB); ACLEDA Bank Lao; Agrochemical Companies; Recycling Companies; Waste management and disposal companies.

5. Risks to Achieving Project Objectives

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

A group of risks has been identified and need to be considered during the execution of the project. As per standard UNDP requirements, the National Project Coordinator will monitor risks quarterly and report on the status of risks to the UNDP Country Office (CO) in Lao PDR. The UNDP CO will record progress in the UNDP ATLAS risk log (UNDP Risk Register). Risks will be reported as critical when the impact and probability are HIGH (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual Project Implementation Report (PIR).

The social and environmental risks identified in the SESP during PPG phase (Annex 5) are included in the UNDP Risk Register in Annex 6. The description of how the project risks will be mitigated is shown in Annex 6 (UNDP Risk Register) and in Annex 9 (ESMF).

Risk Class	Risk and Description	Risk Management Response
Social and Environmental	**Risk 1:** Duty bearers, such as customs officials, inspectors and other government officials, may not have the capacity to meet their obligations in the Project	The project is designed to provide targeted trainings to customs officers and inspectors and will address th needs of the participants (Outputs 1.1.3 and 1.1.4) and training for various other stakeholders. Training need assessment will be undertaken (guided by the SES, as noted in the ProDoc), and a post-training assessment w be conducted to ensure that the information has been delivered to the participants as required and will hav a meaningful impact on their job performance. In line with the Environmental and Social Managemer Framework (ESMF) that has been prepared for the Project, additional capacity building will be done as neede per the developed Environmental and Social Management Plans (ESMPs).
	Risk 2: Loss of income to small and medium sized farms due to banning of import or restricting the use of certain hazardous pesticides	In line with the ESMF, a Strategic Environmental and and Social Asssessment (SESA) will be adopted durir preparation of the National Pesticides' Alternatives Promoting Plan (Output 1.1.2) to address the potential fo loss of income for various groups if agricultural production is affected and propose alternatives to POPs/HHP The project has also developed a Stakeholder Engagement Plan (Annex 8 of the ProDoc) to engage relevar stakeholders, especially farmers and identifying win-win solutions aimed at reducing the need for pesticide and finding affordable and effective alternatives for the ones that will be phased out.
	Risk 3: Marginalization of vulnerable groups, including indigenous peoples, by not giving them the opportunity to participate in the project and benefiting from its outcomes	To ensure the creation of an inclusive Finance Programme (Activity 2.1.1-c), the project has developed Stakeholder Engagement Plan that ensures participation of all stakeholders in project activities. The plan w ensure effective engagement between various stakeholders by creating and disseminating informatio fostering cooperation, and enhancing capacities. Stakeholders identified include representatives from centr and local government, private sector, NGOs and civil society organizations (CSOs), academia and researc institutions, vulnerable population groups including indigenous peoples and the general public. It will also pu in place a project-level and/or site-level Grievance Redress Mechanism (GRM) to provide meaningful mear for local communities and affected populations to raise concerns and/or grievances when activities ma adversely impact them. Output 2.1.2 will raise capacities among national and sub-national extension agents, commercial bank technical advisors, farmers, CSOs and other key stakeholders involved in agricultural production strengthene regarding the risks of agrochemical use, the benefits of sustainable alternatives, and the availability of financir options.
	Risk 4: Gender discrimination reproduced through limiting women's ability to contribute to decision-making and to benefit from the project	A *Gender Action Plan* (Annex 10 of the ProDoc) has been prepared to mitigate the identified risk and propos measures that ensure that women are represented in decision-making on project activities and are included capacity building activities. In addition, this risk will be further assessed in the SESAs that will be undertake during project implementation as described in the ESMF.
	Risk 5: Accidental release of POPs pesticides and HHPs into the environment at pilot sites due to existing practices related to handling, storage, transport and treatment/disposal containers, exposing the workers, local communities and natural ecosystems.	In line with the ESMF that has been prepared for the project, a targeted assessment will be conducted for eac of the pilot demonstrations that will promote the use of IPM and other Good Agricultural Practices as well a actions for improvement plastic waste management (Output 2.2.1) and the business model to collect an dispose of pesticide containers (Output 3.1.3) on risks related to accidental spills and occupational health an safety. The assessment will identify environmentally sensitive receptors that may be affected by accident releases such that mitigation measures will be developed and included in standalone ESMPs through a Pollutio Prevention and Management Plan, Occupational Health and Safety Plan and Waste Management Plan. Th ESMP will describe how the project will handle, transport and store hazardous material in accordance with IF Health and Safety Guidelines.
	Risk 6: Pollution affecting sites of cultural heritage, biodiversity or socioeconomic value to the local community from implementation of the National Replication and Scaling-up Plan	The Nation Replication and Scaling-up Plan (Output 2.2.2) will undergo a SESA to ensure that this risk addressed in line with SES. While FPIC is not anticipated, if this is determined to be needed through th consultations and assessment processes, then an IPPF will be developed as part of the SESA and consistent wit SES Standard 6.

	Risk 7: Increase in consumption of water and natural resources	Pilot demonstrations that will promote the use of IPM and other Good Agricultural Practices (Output 2.2.1) w be assessed for their potential water consumption to ensure that efficient use of these resources is done. Whi the risk is anticipated to be Low, it will be further assessed as part of the targeted assessment and efficienc measures will be included in the site-specific ESMPs. This risk will also be addressed through the SESA for th Nation Replication and Scaling-up Plan (Output 2.2.2). As part of the targeted assessments/ESMPs that will be undertaken for the business model to collect an dispose of pesticide containers (Output 3.1.3), this risk will be assessed, and mitigation measures incorporate in the site-specific ESMP.
	Risk 8: Flooding or other damage to interim storage facilities for stockpiles during the demonstration activities due to natural disasters	As part of the targeted assessment that will be prepared for the business model to collect and dispose o pesticide containers (Output 3.1.3), the vulnerability of proposed storage facilities (if any) will be assessed, an mitigation measures put in place in the ESMP to safeguard these facilities.
	Risk 9: Working conditions within project demonstration activities in contravention to principles and standards of ILO fundamental conventions	A Labour Management Procedure will be developed for the project to clarify the terms and conditions relate to project labour. The targeted assessments for the pilot demonstrations that will promote the use of IPM and other Goo Agricultural Practices (Output 2.2.1) and collect and dispose of pesticide containers (Output 3.1.3) and th resulting standalone ESMPs will include an Occupational Health and Safety Plan and Labour Managemer Procedures to ensure SES compliance measures are in place prior to commencement of the works.
Financial	**Risk 10:** Fluctuations in credit rate, market and currency due to a stressful economic national context may affect project total budget.	UNDP monitors expenditure on a daily basis. Further UNDP HQ provides global oversight of project deliver minimizing the risk of operational risk due to currency risks.
Operational	**Risk 11:** Slow-down in implementing project activities due to turnover of staff may delay the expected schedule.	Ensure proper onboarding of all new staff by introducing their job responsibilities and providing necessa coaching and training.
	Risk 12: Insufficient government understanding of the project implementation modality, rules, policies and procedures due to lack of information may slow-down implementation and may increase the risk of mistakes.	Training (and refresher) to be provided to staff and stakeholders by the Ministry of Planning and Investment t all government ministries and departments. Ensure that there is full understanding and buy-in by all stakeholder regarding the proposed implementatio modality, rules, policies, and procedures UNDP POPP, NIM SOP Training will be provided prior commencing project implementation to ensure that a procedures will be followed strictly.
	Risk 13: Deficiencies in communication and relationship with stakeholders may generate conflict of interest and risk foreseen project results.	During PPG phase main concerns and interests of the stakeholders interested in the project were compile allowing the formulation of actions that allow eliminating these barriers and emphasizing on the benefits being part of the project. Within the Stakeholder Engagement Plan these activities are planned to continu during the project implementation. Furthermore, an effective communication strategy will be developed to raise awareness among th stakeholders and the community in general aware of the project's activities.
	Risk 14: Lack of interest at national and local level to actively participate in the development and implementation of project activities due to not considering it a priority may delay project shceduled activities.	The PMU and the Project Steering Committee will provide continuous feedback and monitor the project resul on a regular basis. Furthermore, consultations will be held with decision makers from other governmer organizations to communicate the relevance of their participation in the project
	Risk 15: Limited capacity of national stakeholders to adopt sustainable agricultural practices as well as sound management of related wastes (including agri plastics) may compromise project results.	During the implementation of the FSP, awareness-raising, training and technical training programs will b developed and implemented, as well as capacity building in national authorities, public officials and othe interested parties who are related to agrochemicals and waste LCM to ensure the knowledge and experienc needed to carry out their tasks properly.

	Risk 16: Limited capacity in project monitoring from PMU may threaten effectiveness of project planned interventions.	The project foresees in its Component 4 a series of activities aimed at a periodic monitoring and follow-up c the development of the project and a comprehensive reporting during the MTR, where possible deviation from the programmed actions can be identified early, as well as compliance with the proposed objectives. addition, the project will recruit M&E Officer to support monitoring processes and reporting.
Strategic	**Risk 17:** Limited capacity in the Ministry of Agriculture and Forestry (MAF), the DOA and other key stakeholders that can generate conflicts, misinformation, and misunderstandings of the overall objective of the project and lead to delay of project implementation.	During the implementation of the FSP, technical training programs will be developed and implemented, as we as capacity building in national authorities, public officials and other interested parties who are working c issues related to the management of chemicals and hazardous waste, to ensure the knowledge and experienc needed to carry out their tasks properly. Furthermore, an effective communication strategy and an awareness raising campaign will be develope during the implementation of the FSP to raise awareness among the stakeholders and the community general of the project's scope and activities.
Safety	**Risk 18:** Political instability might result in new management and technical appointees within entities that are project partner, requiring additional efforts to ensure timely project implementation.	In the situation that this would happen, technical personnel from UNDP CO staff and the UNDP AP RTA will d their utmost to inform and convince new decision makers on the importance of the project, the reasons why was developed and the positive impact it will have on human health and the environment in Lao PDR.

6. Institutional Arrangement and Coordination

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

Section 1: General roles and responsibilities in the projects? governance mechanism

Implementing Partner: The Implementing Partner for this project is Department of Agriculture (DOA) of the Ministry of Agriculture and Forestry (MAF).

The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

The Implementing Partner is responsible for executing this project. Specific tasks include:

•Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
•Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
•Procurement of goods and services, including human resources.
•Financial management, including overseeing financial expenditures against project budgets.
•Approving and signing the multiyear workplan.
•Approving and signing the combined delivery report at the end of the year; and,
•Signing the financial report or the funding authorization and certificate of expenditures.

Responsible Parties: Food and Agriculture Organization (FAO). Execution services to be provided by the responsible party are guided by UN to UN Transfer Agreement Letter in Annex.

Specifically, FAO will implement the following activities under Component 1:

Output 1.1.2: Expansion of restricted or banned use list of agrochemicals through specific regulations supported as per FAO/WHO guidance on Highly Hazardous Pesticides (HHPs); more efficient registration of low/non-chemical pest control alternatives (including emergency pest control) considered.

Output 1.1.3: Conduct trainings for relevant authorities and strengthen cooperation with bordering countries as part of the regionally harmonized approach to avert illegal imports and trade of hazardous agrochemical.

Output 1.1.4: Capacity of government institutions and the private sector to properly uptake, utilize, adapt tools such as the FAO Pesticide Registration Toolkit strengthened.

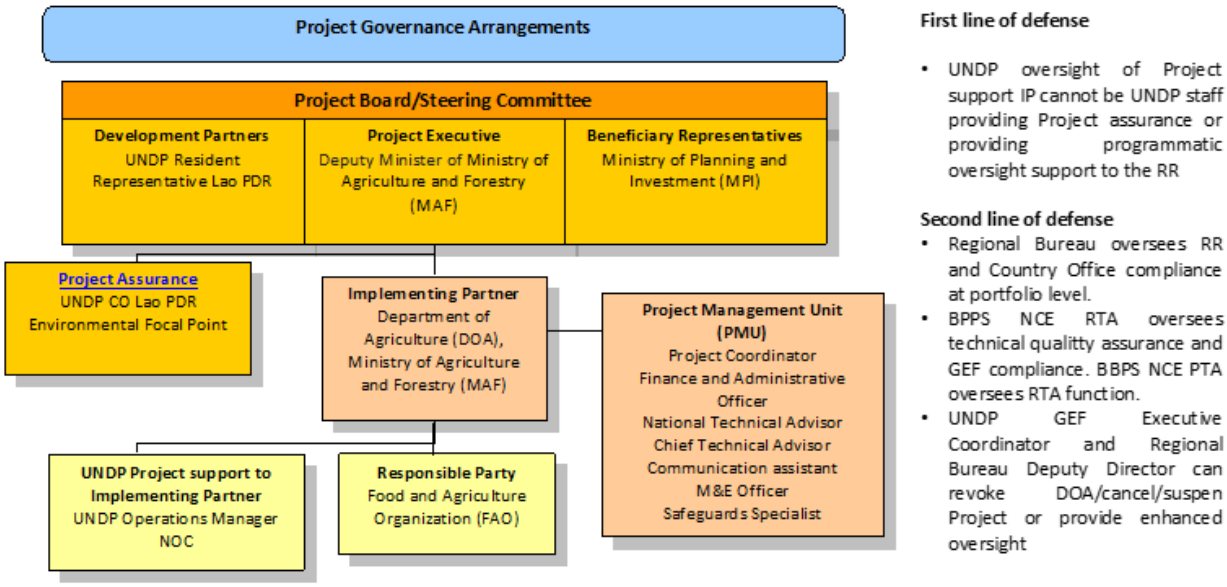
Project stakeholders and target groups: The stakeholders of the project correspond to a diversity of entities of the Government, local stakeholders, private sector and CSOs, as indicated in Table 9 ?Partnerships of the FSP?, such as: the Ministry of Agriculture and Forestry (MAF), universities, crops producer?s, agrochemical companies, public and private finance groups, research centers, etc. These stakeholders can engage having similar approach and goals for the reduction of harmful agrochemicals and promote a sustainable agriculture production, community health, sustainability, and financing.

UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in

accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project. UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.

A firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP and charged to the GEF Fee and any support to project execution performed by UNDP (as requested by and agreed to by both the Implementing Partner and GEF) and may be charged to the GEF project management costs (only if approved by GEF). The segregation of functions and firewall provisions for UNDP in this case is described in the next section.

Section 2: Project governance structure



UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP?s Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

UNDP project support: The Implementing Partner and GEF OFP have requested UNDP to provide support services in the amount of USD$ 53,000 for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support services and for the cost of these services to be charged to the project budget. The execution support services ? whether financed from the project budget or other sources - have been set out in detail and agreed between UNDP Country Office and the Implementing Partner in a Letter of Agreement (LOA). This LOA is attached to this Project Document.

To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services.

Section 3: Segregation of duties and firewalls vis-?-vis UNDP representation on the project board:

As noted in the Minimum Fiduciary Standards for GEF Partner Agencies, in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document a: 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and execution functions.

In this case, UNDP?s implementation oversight role in the project ? as represented in the project board and via the project assurance function ? is performed by Ricarda Rieger Lao PDR UNDP Resident Representative. UNDP?s execution role in the project (as requested by the implementing partner and approved by the GEF) is performed by Kiettissack Senephansiri UNDP Operations Manager NOC who will report to Catherine Phuong Deputy Resident Representative.

Section 4: Roles and Responsiblities of the Project Organization Strucutre:

a) Project Board: All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

The two main (mandatory) roles of the project board are as follows:

1) High-level oversight of the execution of the project by the Implementing Partner (as explained in the ?Provide Oversight? section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.

2) Approval of strategic project execution decisions of the Implementing Partner with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the ?Manage Change? section of the POPP).

Requirements to serve on the Project Board:

? Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.

? Meet annually; at least once.

? Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.

? Discharge the functions of the Project Board in accordance with UNDP policies and procedures.

? Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

Responsibilities of the Project Board:

? Consensus decision making:

o The project board provides overall overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.

o Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report;

o The project board is responsible for making management decisions by consensus.

o In order to ensure UNDP?s ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.

o In case consensus cannot be reached within the Board, the UNDP representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

? Oversee project execution:

o Agree on project manager?s tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager?s tolerances are exceeded.

o Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.

o Address any high-level project issues as raised by the project manager and project assurance;

o Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy Executive Coordinator (and the GEF, as required by GEF policies);

o Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.

o Track and monitor co-financed activities and realisation of co-financing amounts of this project.

o Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.

o Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.

? Risk Management:

o Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.

o Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project?s area of influence that have implications for the project.

o Address project-level grievances.

? Coordination:

o Ensure coordination between various donor and government-funded projects and programmes.

o Ensure coordination with various government agencies and their participation in project activities.

Composition of the Project Board: The composition of the Project Board must include individuals assigned to the following three roles:

1. Project Executive: This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Project Executive is: Department of Agriculture (DOA), Ministry of Agriculture and Forestry (MAF)
2. Beneficiary Representative(s): Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting

from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representative (s) is/are: Ministry of Planning and Investment (MPI).

3. Development Partner(s): Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is/are: UNDP Lao PDR Country Office Resident Representative.

b) Project Assurance: Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP?s project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is/are: Abduvakkos Abdurahmanov UNDP Lao PDR CO Environmental Focal Point.

c) Project Management ? Execution of the Project: The Project Manager (PM) (also called project coordinator) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

The PMU will provide tracking data on co-financing, which will be quality assured by the UNDP country office, as part of its oversight function and reported during Project Board meetings as part of the annual reporting. All partners will participate in annual planning meetings where co-financers, including from the government and non-government, will confirm their co-financing. The PMU will be responsible for providing detailed figures and monitoring the realization of the co-financing commitment, which will be documented in annual reports. The PIRs, MTR, and TE, will be used by UNDP CO, PMU and IP to verify and report back on co-financing mobilized during implementation. The data will be updated annually in the PIRs. A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative.

The primary PMU representative attending board meetings is: Project Manager/Coordinator.

Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

In Lao PDR there is a group of GEF-financed projects and other initiatives currently under implementation related to the development challenge that this project is also addressing, which could provide some additional support to strengthening this institutional partnership approach. Thanks to the involvement of the institutional partners in some of them, it seems of mutual benefit the achievement of the outcomes of this project. Specifically, this FSP will ensure coordination and count on the capacity built and knowledge gathered from the concurrent projects that are already in progress, as shown in table below:

Project	Agency	Main relevance for this FSP
Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Lao PDR and Maldives.	GEF-UNEP Executed by Stockholm and Basel Convention Regional Centre, China	The main objective is to facilitate the implementation of the Stockholm Convention in participatin through the development, review and update of the NIPs and submission to the Conference of the Pa of the Convention. Areas of coordination include: the development of a plan (including financing) to dispose of obsolete as well as development of technical and economic feasibility studies.
Climate Smart Agriculture alternatives for upland production systems in Lao PDR.	GEF-FAO Executed by Ministry of Agriculture and Forestry (MAF)	To enhance resilience of vulnerable upland communities to climate change impacts through cli agricultural practices in upland production systems.
Strengthening Agro-climatic Monitoring and Information Systems to Improve Adaptation to Climate Change and Food Security in Lao PDR	GEF-FAO Executed by Department of Meteorology and Hydrology (DMH), MONRE; Department of Planning and Cooperation (DPC), MAF.	This project has just reached closure. Considering the relevance of the project to the agriculture project team will coordinate closely with FAO to make sure that lessons learned from this recently clo are taken into account during implementation.
Clean Agriculture Development Project	JICA	The project aims to promote Clean Agriculture (CA) in Lao PDR by enabling farmers/farmers groups to the market needs for CA products and expand their sales opportunities. The project has the followi 1. Farmers/farmers groups in Pilot Provinces are strengthened for production and sales of C corresponding to market needs. 2. Function of DOA (Department of Agriculture) as promoter of CA is strengthened. 3. Function of PAFO (Provincial Agriculture and Forestry Office) /DAFO (District Agriculture a Office) in Pilot Provinces as facilitator of CA promotion is strengthened."
BioTrade development In Lao PDR.	Pro Found/Helvetas	The project intends to create business models for sustainably sourced, traceable, and value-ad ingredients. Contributes to develop sustainable value chains for natural ingredients for food, cos health. We support sustainable sourcing and link natural ingredients producers to the market.
Lao PDR Agriculture Commercialization Project (LACP	World Bank	The proposed Lao PDR Agriculture Commercialization Project (LACP) seeks to enhance the comp and sustainability of Lao PDR's agriculture sector through technical and financial support to agricultural productivity and commercialization in selected strategic value chains.
Climate-Friendly Agribusiness Value Chains Sector in Lao PDR.	ADB	The proposed project supports the implementation of the government's Agriculture Development 2025 (ADS) by boosting the competitiveness of rice value chains in Khammouane, Saravan, and S provinces, and vegetable value chains in Vientiane Capital, Champasak, and Sekong provinces. The improve the climate resilience of agricultural infrastructure, and enhance crop productivity, diversif commercialization. It will help improve the capacity for storage, processing, quality, and safety promote the use of biofertilizers and organic farming. It will strengthen the capacity of f agribusinesses for climate-smart agriculture (CSA) and create an enabling environment for clim agribusinesses to promote sustainability along the value chain.
Project Systematic Mechanism for Safer Trade (SYMST)	European Union	The Project aims to improve food safety through better governance in Lao PDR. The Project has th to strengthen the regulatory framework for control of plant health and pesticides in the fruits an sector and other plant products (i.e. rice) through the application of norms and standards and impro and European (EU) market access.
Production capacity of silk and oranges project in Lao PDR	FAO	FAO Country Offices, headed by an FAO Representative, is to assist governments to develo programmes, and projects to achieve food security and to reduce hunger and malnutrition, to help agricultural, fisheries and forestry sectors, and to use their environmental and natural resources in a manner.

7. Consistency with National Priorities

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

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

This Project is aligned and consistency with the following National Priorities:

- Vision towards 2030 and Ten-year Socio-Economic Development Strategy (2016-2025)?. The Strategy aims at developing the country to overcome the least developed country in 2020 and continue to strive to pass this status by 2025. One of the 8 priority areas under Output 2 of the government?s strategy is the agriculture sector development, food security and rural development.

- IXth Five Year National Socio-Economic Development Plan (2021-2025). The Plan has the objective to fully focus on socio-economic development based on the existing potentials of the country and to continue the implementation of the Vision towards 2030 and Ten-year Socio-Economic Development Strategy (2016-2025. Good Agriculture Practices (GAP) and organic farming for domestic consumption and tourism attraction is 1 amongst the 9 priority activities of the agriculture sector under Outcome 1: ?Continuous quality, stable and sustainable economic growth achieved?. In addition, through its Outcome 3 ?Enhanced well-being of the people? promotes and creates opportunities for women and children.

- IVth Five Year National Plan of Action for Gender Equality (2021-2025). The Plan of Action has the overall goal to guarantee the rights and development of gender equality, including the ending of all forms of violence against women in all areas, ensuring that women can fully participate in activities, economics, socio-cultural aspects and family affairs

- Agriculture Development Strategy to 2025 and vision to the year 2030: aims to ensure national food security through sustainable agriculture that contributes to national economic growth, industrialization, and modernization. The strategy?s overall targets include (i) increasing agricultural production, (ii) improving competitiveness in terms of quality, (iii) enforcing standards and regulations, and (iv) guaranteeing food security and safety through compliance with basic Sanitary and phytosanitary Standards (SPS). Agricultural production will thus contribute to (i) creating employment, (ii) generating income, (iii) decreasing disparities between urban and rural areas, and (iv) integrating rural development. New infrastructure will preserve culture, protect the environment, facilitate trade, utilize water resources efficiently, and contribute to stable ecosystems.

- National Implementation Plan (NIP) of Stockholm Convention.

- UNDP Strategic Plan Output 2.1. State authorities develop policies and guidelines that improve natural resources management, disaster risk management and resilience to climate change; Output 2.2. Local authorities have enhanced capacities to implement integrated natural resources management and DRR systems; and Output 2.3. Vulnerable rural communities participate in protected area management and conservation of ecosystems and wildlife and increase resilience to natural hazards-induced disasters and climate change.

This FSP by reducing the global use of harmful agrochemicals, supporting the farmers to access finance, innovative and sustainable production practices, and competitively access consumer markets in Ecuador will

help the government to work towards the achievement of the Sustainable Development Goals (SDGs). The SDGs most relevant to this project are:

SDG 1 ?No Poverty? by increasing income of farmers by enabling access to finance and adoption of sustainable agricultural practices.

SDG 2 ?No Hanger? by improving agricultural productivity and incomes of small-scale food producers, in particular family farmers, women, indigenous people.

SDG 3 ?Good Health and Well-being? by supporting farmers produce better quality and healthier food using fewer chemical inputs and improving sound management of agricultural wastes.

SDG 5 ?Gender Equality? by promoting gender perspective throughout agricultural activity, fostering women farmers empowerment, and enhancing their productivity.

SDG 6 ?Clean Water and Sanitation? by protecting water resources from contamination reducing agrochemicals and plastic runoff from agricultural activity by minimizing/eliminating the need of chemical inputs.

SDG 9 ?Industry, Innovation and Infrastructure? by enhancing the integration of farmers into value chains through access to finance, innovative and sustainable production practices, and competitively access consumer markets.

SDG 10 ?Reduced Inequalities? by increasing incomes of smallholder?s farmers.

SDG 12 ?Responsible Consumption and Production? by phasing out products containing harmful substances and improving the environmentally sound management of chemicals and wastes (including plastics) throughout their life cycle in agricultural activity.

SDG 14 ?Life below Water? by safeguarding marine life from exposure to hazardous chemicals and wastes.

SDG 15 ?Life on Lands? by promoting the introduction of sustainable agricultural production practices and the reduction of harmful chemical use in crops.

8. Knowledge Management

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

Component 3 is related to ?EFFECTIVE KNOWLEDGE MANAGEMENT PLATFORMS AND CAPACITIES BUILT IN AGROCHEMICAL WASTE MANAGEMENT AND DISPOSAL METHODS? aiming at disseminating project results and experiences on best practices for the reduction and eventual elimination of harmful agrochemicals (POPs/HHPs) as well as the environmental sound management of plastics for agricultural use with a budget allocation of USD 610,000 and co-financing of USD 4,811,549.

Under Component 3 the project aims to design and implement a national communication campaign for risks and damages to health and the environment due to exposure to hazardous pesticides which includes specific activities and communicational resources for mass dissemination. This campaign will be deployed with a multi-ministerial (MAF, MONRE, MOH, Ministry of Industry and Commerce, Customs Department, Environmental Police) communication strategy for greater consistency and impact in the message. This campaign aims to raise awareness on stakeholders, project beneficiaries, general public and especially

women, youth, and other vulnerable groups. Gender considerations will be taken into account in the design and implementation of this strategy, to guarantee awareness of targeted audience in terms of gender mainstreaming in chemicals management within the scope of this project.

In addition, close coordination and exchange of information and sharing of best practices will be ensured with the Global FARM Programme and with the FARM child projects in Uruguay, Kenya, India, Vietnam, Ecuador, and Philippines, fostering an environment of south-south cooperation. Knowledge products, lessons learned and dissemination activities at local and national level will be shared with the Global Programme, which will capture, store, package and disseminate this knowledge to a global network, including the Stockholm Convention Secretariat and SAICM, in line with the approved FARM Knowledge Management, Communications, Stakeholder engagement and gender strategies. The global project will make these experiences available through the global platform envisioned under FARM and outreach strategies.

The child project will participate actively in international meetings and events and in the same way, the child project will ensure the flow of information (including best practices and lessons learned) from Global Programme, other FARM child projects, international conventions and donor agencies to critical stakeholders and decision-makers at regional, national, and local levels. For this purpose, forums at regular basis will be organized to share information and keep them updated and engaged.

This will create a foundation to limit the use of existing harmful agrochemicals and de-incentivize the import and use of emerging harmful agrochemicals. The result will be that producers and regulatory agencies will have the robust evidence and facts necessary to make more fully informed decisions.

The child project will also make use of existing knowledge platforms in agricultural, financial inclusion, and other relevant areas to share findings on improving small holder farmers access to low/non-chemicals alternatives. These platforms include the Green Growth Knowledge Platform (GGKP), Centre for Agriculture and Biosciences International, the GEF?s Global Knowledge to Action Platform, and UNDP Green Commodities Program.

Within every activity under this Component the project is aligned and will contribute to the Global FARM Programme Knowledge Management Strategy.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The budgeted M&E plan has been summarized in the table below:

GEF M&E requirements to be undertaken by Project Management Unit (PMU)	Indicative costs (US$)	Time frame
Inception Workshop and Report	10,000	**Inception Workshop within 2 months of the First Disbursement**

GEF M&E requirements to be undertaken by Project Management Unit (PMU)	Indicative costs (US$)	Time frame
M&E required to report on progress made in reaching GEF core indicators and project results included in the project results framework	5,000	**Annually and at mid-point and closure.**
Preparation of the annual GEF Project Implementation Report (PIR)	5,000	**Annually typically between June-August**
Monitoring of Stakeholder Engagement Plan and Gender Action Plan	35,000	**Continuous.**
Monitoring of Environmental and Social Safeguards	55,000	**Continuous.**
Supervision missions	10,000	**Annually ***
Learning missions	10,000	**As needed**
Independent Mid-term Review (MTR):	35,000	June 1, 2026
Independent Terminal Evaluation (TE):	35,000	August 1, 2028
TOTAL indicative COST	**200,000**	

* Budget is for PMU staff only

For additional details kindly refer to Chapter VI ?Monitoring and Evaluation (M&E) Plan? of the UNDP Project Document.

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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)?

The project?s goal is to reduce the use of harmful agrochemicals by incentivizing farmers to adopt sustainable crop management practices, improving access to low/non- chemical pest control alternatives, and improving access to financing environmentally sound management of hazardous pesticides and agricultural wastes including plastics in Lao PDR.

At the local level, the implementation of coordinated demonstration actions with the private sector in the field will show the opportunities of institutional integration and coordination, private-driven investments, will demonstrate that the positive results of these pilot interventions would serve to improve and enforce current regulation and promote the reduction of harmful agrochemicals and the adoption of sustainable agriculture practices, including the environmental sound management of agriplastics.

Additional economic and social benefits that will be brought on by the project:

Reduced health impact from the exposure to hazardous chemicals, particularly the use of harmful agrochemicals (POPs and HHPs) in agriculture production. The project estimates to increase awareness of 22,338 people, of which 4,979 are women and 17,359 are men.

Job creation through opportunities enhanced in the deployment of alternatives as well as downcycling agri plastics waste.

Improved policy, regulatory, monitoring and analysis frameworks, to safeguard human health and the environment.

The Global Environmental Benefits (GEB) of the project at the CEO endorsement stage, are the same as presented at the PIF stage. The positive impacts of the project will include the following:

- 16,600 direct project beneficiaries (2,800 women and 13,800 men)
- 161 MT of Greenhouse Gas Emissions Mitigated (metric tons of CO2e).
- 720 MT (150 MT of POPs and 570 MT of HHP) of pesticides avoided.
- 7 gTEQ avoided of emissions of POPs to air from.

As agreed during the FARM design phase the GEBs are measured 5 years after project implementation: the total amount of POPs/HHPs pesticides avoided will arise to 1,950 MT (450 MT of POPs and 1,500 MT of HHP) in Lao PDR five (5) years after project implementation; the accrued GHG mitigated will arise to 564 MT and the accrued avoidance of POPs emissions to air will arise to 31.3 gTEQ.

11. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
	High or Substantial		

Measures to address identified risks and impacts

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

Please refer to the SESP for details in terms risks and management measures.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
GEFID_10904_FARM_Lao Anx 9 ESMF	**CEO Endorsement ESS**	
GEFID_10904_FARM_Lao Anx 5 SESP	**CEO Endorsement ESS**	

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

PROJECT RESULTS FRAMEWORK[23]

This project will contribute to the following Sustainable Development Goal (s): SDG 1 "No Poverty"; SDG 2 "No Hanger"; SDG 3 "Good Health and Well-being"; SD SDG 6 "Clean Water and Sanitation"; SDG 9 "Industry, Innovation and Infrastructure"; SDG 10 "Reduced Inequalities" by increasing incomes of smallho "Responsible Consumption and Production"; SDG 14 "Life below Water"; SDG 15 "Life on Lands".				
This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD): United Nations Sustainable Development Cooperation Framework (2026, people, especially the most vulnerable and marginalized, and institutions will be better able to sustainably access, manage, preserve and benefit and promote green growth that is risks informed and disaster and climate-resilient. / CPD Output 2.1. State authorities develop policies and guideline resources management, disaster risk management and resilience to climate change. Output 2.2. Local authorities have enhanced capacities to implen resources management and DRR systems. Output 2.3. Vulnerable rural communities participate in protected area management and conservation of e and increase resilience to natural hazards-induced disasters and climate change.				
	Objective and Outcome Indicators (no more than a total of 20 indicators)	**Baseline[24]**	**Mid-term Target[25]**	**End**
Project Objective	To reduce the use of harmful agrochemicals by incentivizing farmers to adopt sustainable crop management practices, improving ac pest control alternatives, and improving access to financing environmentally sound management of hazardous pesticides and agr plastics in Lao PDR.			
	Indicator 1: **Mandatory** GEF Core Indicators 11: # direct project beneficiaries disaggregated by gender (individual people)	During PPG phase 642 direct project beneficiaries have participated in bilateral/roundtable meetings: Female: 264 Male: 378	6,640 Female: 1,120 Male: 5,520	
	Indicator 2: **Mandatory** GEF Core Indicators 6: Greenhouse Gas Emissions Mitigated (metric tons of CO2e).	-	0 MT of GHG emissions mitigated.	161 M
	Indicator 3: **Mandatory** GEF Core Indicators 9: Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in	0 MT of POPs/HHP pesticides avoided.	200 MT (40 MT of candidate POP: Chlorpyrifos and 160 MT of HHP) of pesticides avoided.	720 MT (1 and 570 M

[23] It is important to bear in mind that for this Child FSP, there is no relevant co-financing activities to be included under the results narrative of this Section.

[24] Baseline, mid-term and end of project target levels must be expressed in the same neutral unit of analysis as the corresponding indicator. Baseline is the current/origi needs to be quantified. The baseline can be zero when appropriate given the project has not started. The baseline must be established before the project document is sub approval. The baseline values will be used to measure the success of the project through implementation monitoring and evaluation.

[25] Target is the change in the baseline value that will be achieved by the mid-term review and then again by the terminal evaluation.

[26] As agreed during the FARM design phase the GEBs are measured 5 years after project implementation: the accrued GHG mitigated will arise to 564 MT in Lao PDR five (5 implementation.

[27] As agreed during the FARM design phase the GEBs are measured 5 years after project implementation: the total amount of POPs/HHPs pesticides avoided will arise to 1 candidate POPs and 1,500 of HHP) in Lao PDR five (5) years after project implementation.

	processes, materials, and products (metric tons of toxic chemicals reduced).			
	Indicator 4: **Mandatory** GEF Core Indicators 10: Reduction, avoidance of emissions of POPs to air from point and non-point sources (grams of toxic equivalent gTEQ)	0 gTeq of emissions avoided.	0.4 gTeq of emissions avoided.	7 gTeq
Project Component 1	**Strengthen Regulatory, Policy and Investment Frameworks.**			
Outcome[29] 1.1 Regulatory frameworks enhanced for sound agricultural chemicals management, agrochemical waste identified, and use of harmful agrochemicals reduced.	Indicator 5: National Pesticides Alternatives Promotion Plan and Legal Framework Roadmap developed.	-	Legal Framework Roadmap developed.	One (1 Alterna
	Indicator 6: Capacity built in government institutions measured by: - National Committee on Pesticide Management established. - Number of Customs and Enforcement officers trained on illegal trade prevention. - Number of government officers trained on FAO Pesticide Registration Toolkit - National Action Plan developed for International Code of Conduct application.	The MAF through the Guideline No 278/MAF dated 19 February 2020 establishes an adhoc committee for supervision and enforcement of measures against violation of Lao PDR legal frame works on pesticides.	a) National Committee on Pesticide Management established. b) 200 Customs and Enforcement officers trained on illegal trade prevention. (96 women and 104 men). c) 25 government officers trained on FAO Pesticide Registration Toolkit. (15 women and 10 men). d) National Action Plan developed for International Code of Conduct application.	a) National Manageme b) 518 Cu officers t prevention men) c) 60 gover FAO Pesti (35 women d) Nationa for Interna application
Outputs to achieve Outcome 1.1	Output 1.1.1. Regulations on agrochemicals and agricultural wastes (including plastics) management strengthened to include lif government incentives that favor reduction and/or substitution of hazardous agrochemicals considered. Output 1.1.2. Expansion of restricted or banned use list of agrochemicals through specific regulations supported as per FAO/WHO guid Pesticides (HHPs); more efficient registration of low/non- chemical pest control alternatives (including emergency pest control) consi Output 1.1.3. Conduct trainings for relevant authorities and strengthen cooperation with bordering countries as part of the regionall avert illegal imports and trade of hazardous agrochemicals. Output 1.1.4. Capacity of government institutions and the private sector to properly uptake, utilize, and adapt tools such as the F Toolkit strengthened.			

[28] As agreed during the FARM design phase the GEBs are measured 5 years after project implementation: the accrued avoidance of POPs emissions to air will arise to 31.3 years after project implementation

[29]Outcomes are medium term results that the project makes a contribution towards, and that are designed to help achieve the longer-term objective. Achievement of o both by project outputs and additional factors that may be outside the direct control of the project.

Project Component 2	**Improve access to finance aligned with the demonstration and promotion of sustainable alternatives and agricultural practices for**			
Outcome 2.1 Investment/Financial frameworks incentivized.	Indicator 7: Finance programme tailored for farmers to adopt sustainable agriculture practices created.	No financial products tailored for adopting sustainable agriculture practices available.	One (1) Financial programme created.	One (1) Five (5) applying to
	Indicator 8: Capacity strengthening programme developed, and number of people trained.	-	Capacity strengthening programme developed, and 320 people (160 women and 160 men) trained.	Capacity st implemen women
Outputs to achieve Outcome 2.1	Output 2.1.1. Partnership with financial institutions including commercial banks promoted; capacities in safeguards and responsible i creation / extension of innovative financing products to reduce agrochemical and agricultural wastes pollution and encourage POPS/HHP. Output 2.1.2. Capacities among national and sub-national extension agents, commercial banks, technical advisors, farmers, civil soc and other key stakeholders involved in agricultural production strengthened regarding the risks of agrochemical use, the benefits o and the availability of financing options.			
Outcome 2.2 Innovative and safer alternatives and sustainable agricultural practices piloted aiming to improve income and unlock access to finance for ultimate reduction of demand for agrochemicals.	Indicator 9: Number of pilot projects implemented for reducing the use of harmful agrochemicals.	No pilot projects implemented	No pilot projects implemented	Four (4) pi
	Indicator 10: National Replication and Scaling-Up Plan developed.	-	-	National R P
Outputs to achieve Outcome 2.2	Output 2.2.1. Pilot activities implemented for demonstrating how farmers can increase income, demonstrate outputs and provic mechanisms, as well as reducing the use of harmful agrochemicals in priority crops for export and domestic consumption throu encourage an agroecological approach through integrated farming and integrated pest management (IPM), including less tox alternatives and cultural procedures conducted. Output 2.2.2. National Replication and Scaling-up Plan along with analysis of financing options to be implemented during GEF-8 and scale up of piloted farming methods deployment and the access to financial mechanisms aiming to reduce the dependence on agroch			
Project Component 3	**Effective Knowledge Management Platforms and capacities built in agrochemical waste management and disposal methods.**			
Outcome 3.1 Information & KM platforms developed to catalyse evidence-based decision-making scale-up.	Indicator 11: Number of pilot projects implemented for building capacity in management of plastics for agricultural use in rural areas.	No pilot projects implemented	No pilot projects implemented	One (1) pi
	Indicator 12: Number of people reached with communication campaigns and awareness raising activities.	-	800 people reached (400 women and 400 men)	2,000 peop a
Outputs to achieve Outcome 3	Output 3.1.1. Multi-ministerial communication and outreach campaigns conducted to raise awareness on risks associated with the us hazardous pesticides, especially for women, youth, and other vulnerable groups.			

	Output 3.1.2. Training and capacity building provided, information sources strengthened or created, and experiences and lessons lear child projects, regional, and national stakeholders. Output 3.1.3. Technical support delivered to government agencies on methods and business cases for removing existing stockpiles an POPs/HHPs.			
Project Component 4	**Monitoring & Evaluation**			
Outcome 4.1 Monitoring and Evaluation tools and products delivered throughout project´s lifecycle.	Indicator 13: Percentage of project expenditure spent on the FSP planned activities.	0%	40%	
Outputs to achieve Outcome 4.1	Output 4.1.1. M&E and adaptive management applied to assess project performance and GEB impact. Output 4.1.2. M&E tools provided to evaluate progress, challenges and lessons learned; and for ensuring future sustainability of ach the project in reducing/ replacing HHPs and waste.			

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

? Council Comments

1. Global (India, Viet Nam, Ecuador, Kenya, Lao PDR, Philippines, Uruguay). Financing Agrochemical Reduction and Management (FARM) (GEF ID 10872). Agency: UNEP, ADB, UNDP, UNIDO; GEF Project Financing: $37,441,500; Co-financing: $341,789,200.

? Canada Comments

? Canada supports this project, which would help to address the issue of persistent organic pollutants (POPS) pesticides in these countries, including the Philippines, where previous studies note that the increase in pesticide use has translated to poor rice yield, leading to increase in pesticide imports that contributes to the poverty of Filipino farmers.

? We appreciate that the relevant Philippine government agencies have been consulted and are now part of the forward planning for the GEF project addressing POPs pesticide issues in the Philippines. For example, we are aware that the Department of the Environment and Natural Resources (DENR), specifically the Environment Management Bureau, is working with the UNDP to address this issue, including under this proposed GEF project.

? Norway and Denmark Comments

? The limited presence and capacity at country of lead agency, e.g. UNEP, in the child project in Vietnam should be well taken into account. There may be limitations and challenges linked to regional back-up from UNEP.

? ADB?s role as implementing agency of this child project seems a bit challenging as they normally work as investor/donor of the project. FAO seems more relevant and experienced in this area in Vietnam.

? Synergy/leverage across related projects in Vietnam as well as across child projects is important. Earlier recommendations made by a number of projects on pesticides supported by FAO, AusAid and others in Vietnam need to be followed up accordingly.

? Sustainability needs to be more clearly spelled out in the document with stronger ownership of the government, local authority that goes beyond the project?s life.

? Private sector?s role and investment mobilization in green agricultural production should be further improved.

? Implementation capacity, cross-agency cooperation gaps should be assessed and addressed properly. The complex global project structure with many middle agencies will make the project costly and challenging in implementation process.

? We note the STAP Review comment on the potential inclusion of fertilizers. As a starting point we see a benefit in an integrated approach to all pollution within a sector where there are synergies to be made. From our perspective it is however difficult to assess project.

UNDP Response:

For UNDP projects (Ecuador and Lao PDR) synergies across other ongoing projects are identified as well as periodic interaction activities across child projects with Global FARM Programme to share experiences and improve results. In addition, project sustainability and private sector?s role and investment mobilization was further detailed within stakeholder analysis and co-financing details.

As per fertilizers, UNDP projects are aligned to Global FARM Programme which addresses pesticides and agricultural plastics.

? United Kingdom Comments

? The proposal is in line with current thinking on food, environment and health. Our only concern is linked to balance. A transition to a low (targeted and efficient use) chemical agriculture makes sense. The proposal promotes this through Integrated Pest Management. However, unless the areas targeted are biodiversity hot spots, a transition to a ?no-chemical? agriculture does not make sense. For example, Sri Lanka has just abandoned its no-chemical approach to agriculture due to reduced farm-level production, reduced supplies of staple foods and increased food prices.

UNDP Response: Noted. In UNDP projects promotes largely the adoption of sustainable agricultural practices such as IPM. When feasible no chemical alternatives will be also testes and promoted.

? Comment for all UNDP projects

The Council, having considered Document GEF/C.61/04, UNDP Third Party Review of Compliance with GEF Minimum Fiduciary Standards, takes note of the Independent Third-Party Review of UNDP and decides to:

? Require that all projects included in the Work Program implemented by UNDP be circulated by e-mail for Council review at least four weeks prior to CEO endorsement / approval. This shall take place until this requirement is reconsidered by the Council at its 65th meeting in December 2023. Project reviews will take into consideration the relevant findings of the UNDP audits and the management responses and note them in the endorsement review sheet that will be made available to Council during the 4-week review period.

UNDP Response: Noted.

STAP comments for FARM Programme (Parent)

STAP guidelines for screening GEF projects

PIF	What STAP looks for	Response
GEF ID: **10872** Project Title: **Financing Agrochemical Reduction and Management (FARM)** Date of Screening: November 11, 2021 STAP member screener: Saleem Ali STAP secretariat screener: Sunday Leonard STAP's overall assessment: Concur This FARM program is a global effort to coordinate projects that facilitate the reduction of agrochemical usage and their accompan streams. The project builds on a range of past GEF projects and presents a good problem analysis and a theory of change. The theo diagram could be further improved by including the underlying assumption that will lead to achieving the desired objectives and im The project also links chemical and waste areas of work with biodiversity loss (considering that the CBD has set a 2/3 reduction in target to mitigate harm to threatened and endangered species), land degradation, and water pollution. Overall, the project is well-considered and has a variety of partnerships noted in the public and private sectors. The nexus with trad practices as well as the leveraging of the organic farming industry's growth is also well-considered. The risk analysis is presented collectively, including climate change risks. The PIF highlights the potential impact of climate chang plastic use and has proposed mitigation measures. Given that this is an agricultural project seeking to promote new practices that ca climate change impacts, we encourage the proponent to conduct a more detailed climate risk assessment following STAP guidance screening (https://stapgef.org/resources/advisory-documents/stap-guidance-climate-risk-screening and https://stapgef.org/resources documents/stap-chairs-report-gef-agency-retreat-1-april-2020). There is also a recognition that pesticides plastic containers are also an additional waste challenge. Thus, there is a linkage offered approaches for managing the full material flow of impacts. The project's title as "Agrochemical" reductions is perhaps more expansive than the core operational work presented. The term "ag encompasses fertilizers as well. However, the project is largely focused on pesticides, and there is only a passing reference to fertili proponent may consider incorporating fertilizer management into the activities as this is a significant aspect of agroecology, which promote. More so, incorporating fertilizer management could deliver further GEBs related to international waters (reduced pollutio land degradation (landscapes under sustainable land management in production systems). Fertilizer usage presents a separate set of ecological challenges which are more linked to energy delivery and eutrophication. Futur fertilizer usage reduction could also consider climate change mitigation benefits since the Haber process for nitrate production is or carbon-intensive industrial processes. Refer to Rosa, L., Rulli, M. C., Ali, S., Chiarelli, D. D., Dell'Angelo, J., Mueller, N. D., Sche		

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G., & D'Odorico, P. (2021). Energy implications of the 21st-century agrarian transition. *Nature Communications*, *12*(1), 2319. https://doi.org/10.1038/s41467-021-22581-7 The PIF cited an alarming fact that a significant proportion of development disbursement and climate finance earmarked for agricul projects focused on conventional agriculture. However, the project activities related to this issue mainly focus on addressing the pu (government subsidies), private sector (chemical industry Extended Producer Responsibility, commodity certification schemes), an sector (investment, banking, and insurance). We think some form of activities directly focused on addressing this concern should b project. This could be stakeholder meetings to address this concern, awareness-raising campaigns, knowledge creation and dissemir We commend the proponent for including agricultural plastics (mulch film, hothouse film, seed trays, irrigation drip tape, etc.) in th an aspect that is largely less studied or addressed but with significant impact on soil quality, food quality and safety (Steinmetz et a mulching in agriculture. Trading short-term agronomic benefits for long-term soil degradation? https://doi.org/10.1016/j.scitotenv.2 Grossman 2015: https://ensia.com/features/the-biggest-source-of-plastic-trash-youve-never-heard-of/; Browne, https://www.bbc.com/future/bespoke/follow-the-food/why-foods-plastic-problem-is-bigger-than-we-realise.html). We would like t proponent to articles related to alternatives to agricultural plastics: • University of Minnesota Extension, 2021. Exploring alternatives to plastic mulch. https://blog-fruit-vegetable-ipm.extension.umn.edu/2021/01/exploring-alternatives-to-plastic-mulch.html • Miles et al., 2015. Alternatives to Plastic Mulch in Vegetable Production Systems. https://www.researchgate.net/publication/296111767_Alternatives_to_Plastic_Mulch_in_Vegetable_Production_Systems		
Part I: Project Information **B. Indicative Project Description Summary**		
Project Objective	Is the objective clearly defined, and consistently related to the problem diagnosis?	Yes – these are clearly defined acro countries.
Project components	A brief description of the planned activities. Do these support the project's objectives?	Yes
Outcomes	A description of the expected short-term and medium-term effects of an intervention. Do the planned outcomes encompass important global environmental benefits? Are the global environmental benefits likely to be generated?	Yes – clear metrics of GEB calculat reduction benefits and methods are would be helpful to have some foot of how they were calculated.

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Outputs	A description of the products and services which are expected to result from the project. Is the sum of the outputs likely to contribute to the outcomes?	Yes, there are a series of outputs list outcome
Part II: Project justification	A simple narrative explaining the project's logic, i.e. a theory of change.	
1. Project description. Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)	Is the problem statement well-defined? Are the barriers and threats well described, and substantiated by data and references? For multiple focal area projects: does the problem statement and analysis identify the drivers of environmental degradation which need to be addressed through multiple focal areas; and is the objective well-defined, and can it only be supported by integrating two, or more focal areas objectives or programs?	Very good – provides rationale and The multiple focal areas and the link are also presented.
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly? Does it provide a feasible basis for quantifying the project's benefits? Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project? For multiple focal area projects: are the multiple baseline analyses presented (supported by data and references), and the multiple benefits specified, including the proposed indicators; are the lessons learned from similar or related past GEF and non-GEF interventions described; and how did these lessons inform the design of this project?	Yes, and the outcomes are benchma baseline very well.

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3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change? What is the sequence of events (required or expected) that will lead to the desired outcomes? • What is the set of linked activities, outputs, and outcomes to address the project's objectives? • Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions? • Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	Theory of change document is prov with suggested STAP guidelines. A diagram is also provided before the helpful. The theory of change can b by including underlying assumption expected outcomes and impacts.
5) incremental/additional cost reasoning and expected contributions from the baseline, the GEF trust fund, LDCF, SCCF, and co-financing	GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits? LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	Noted
6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits, and are they measurable? Is the scale of projected benefits both plausible and compelling in relation to the proposed investment? Are the global environmental benefits explicitly defined? Are indicators, or methodologies, provided to demonstrate how the global environmental benefits will be measured and monitored during project implementation?	Yes,

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	What activities will be implemented to increase the project's resilience to climate change?	
7) innovative, sustainability and potential for scaling-up	Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning? Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors? Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	Yes,
1b. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		Provided
2. Stakeholders. Select the stakeholders that have participated in consultations during the project identification phase: Indigenous people and local communities; Civil society organizations; 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 project preparation, and their respective roles and means of engagement.	Have all the key relevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers? What are the stakeholders' roles, and how will their combined roles contribute to robust project design, to achieving global environmental outcomes, and to lessons learned and knowledge?	Stakeholder mapping is included in stakeholder satisfaction also in outc formal map is not presented since th project. Each case will have differer maps.
3. Gender Equality and Women's Empowerment. Please briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis). Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes/no/ tbd.	Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences? Do gender considerations hinder full participation of an important	Gender equity plan with clear set of addressed and linkages with policie

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If possible, indicate in which results area(s) the project is expected to contribute to gender equality: access to and control over resources; participation and decision-making; and/or economic benefits or services. Will the project's results framework or logical framework include gender-sensitive indicators? yes/no /tbd	stakeholder group (or groups)? If so, how will these obstacles be addressed?	
5. Risks. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design	Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control? Are there social and environmental risks which could affect the project? For climate risk, and climate resilience measures: • How will the project's objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately? • Has the sensitivity to climate change, and its impacts, been assessed? • Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with? • What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?	Risk management table is also inclu Climate risk screening provided. M risk assessment is encouraged.
6. Coordination. Outline the coordination with other relevant GEF-financed and other related initiatives	Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?	Yes – there is listing of coordinatio provided with public and private se

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	Is there adequate recognition of previous projects and the learning derived from them? Have specific lessons learned from previous projects been cited? How have these lessons informed the project's formulation? Is there an adequate mechanism to feed the lessons learned from earlier projects into this project, and to share lessons learned from it into future projects?	
8. Knowledge management. Outline the "Knowledge Management Approach" for the project, and how it will contribute to the project's overall impact, including plans to learn from relevant projects, initiatives and evaluations.	What overall approach will be taken, and what knowledge management indicators and metrics will be used? What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	Yes adequately provided

STAP's advisory response

STAP advisory response	*Brief explanation of advisory response and action proposed*
1. Concur	STAP acknowledges that on scientific or technical grounds the concept has merit. The proponent is invited to for advice at any time during the development of the project brief prior to submission for CEO endorsement. * In cases where the STAP acknowledges the project has merit on scientific and technical grounds, the STAP in the screen by stating that ***"STAP is satisfied with the scientific and technical quality of the proposal and proponent to develop it with same rigor. At any time during the development of the project, the proponent is approach STAP to consult on the design."***
2. Minor issues to be considered during project design	STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with th as early as possible during development of the project brief. The proponent may wish to: (i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at an early stage during project development, and possibly agreeing to terms of referenc independent expert to be appointed to conduct this review. The proponent should provide a report of the action agreed and taken, at the time of submission of the full pro endorsement.
3. Major issues to be considered during project design	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technic issues, barriers, or omissions in the project concept. If STAP provides this advisory response, a full explanatio provided. The proponent is strongly encouraged to: (i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at during project development including an independent expert as required. The proponent should provide a repo agreed and taken, at the time of submission of the full project brief for CEO endorsement.

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

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PPG Grant Approved at PIF: 140,000			
Project Preparation Activities Implemented	***GETF/LDCF/SCCF Amount ($)***		
	Budgeted Amount	***Amount Spent Todate***	***Balance Amount***
International consultants	*55,000*	*32,141*	3,766
Local consultants	*61,600*	*57,834*	20,556
Travel	*15,000*	*18,892*	-
Audio Visual&Printing Product Costs	*2,000*	*1,239*	-
Workshops and Conference	*6,400*	*5,572*	-
Total	**140,000**	**115,678**	**24,322**

If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of CEO Endorsement/approval date. No later than one year from CEO endorsement/approval date. Agencies should report closing of PPG to Trustee in its Quarterly Report.

ANNEX D: Project Map(s) and Coordinates

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

Please note that the geo-referenced location of the project area has been attached as a separate file named "GEFID_10904_FARM_Lao Anx D Map and geospatial coordinates". We have attempted to copy and paste it in the portal main entry at different times, yet the picture looks distorted or incomplete in the printout.

GEO LOCATION INFORMATION

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate. Web mapping applications such as OpenStreetMap or GeoNames use this format. Consider using a conversion tool as needed, such as:https://coordinates-converter.com Please see the Geocoding User Guide by clicking here

Location Name	Latitude	Longitude	Geo Name ID	Location & Activity Description

ANNEX E: Project Budget Table

Please attach a project budget table.

Indicative Project Budget Template

Expenditure Category	Detailed Description	Component (USDeq.)						Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1 *Outcome 1*	*Component 2* *Outcome 2*	*Component 3* *Outcome 3*	*Sub-Total*	*M&E (Component 4)* *Outcome 4*	*PMC*		
Contractual Services – Individual (71400)	Project Coordinator	47,850	58,000	29,000	134,850		10,150	145,000	UNDP
	Finance and administrative officer				-		55,000	55,000	UNDP
	National Technical Advisor	37,500	50,000	37,500	125,000			125,000	UNDP
	Communication assistant			50,000	50,000			50,000	UNDP
	M&E Officer				-	50,000		50,000	UNDP
	Safeguards Specialist				-	50,000		50,000	UNDP
	International Chief Technical Advisor	60,000	60,000	30,000	150,000			150,000	UNDP
Contractual Services – Company (72100)	Contractual services to support implememtation of Outputs under Component 1: i) Development and implementation of effective e-learning tools to support the trainings defined in Outputs 1.1.3 and 1.1.4 estimated at USD20,400/year (USD 102,000); ii) Conduct field tests for the effectiveness evaluation of identified alternatives to harmful agrochemicals and support related production methodologies development. These services are estimated during 4 years at a rate of 12 tests/year at 2,500 USD/test. (USD 120,000 USD)	222,000			222,000			222,000	UNDP
	One Environment and Social Impact Assessment Consulting Firm to develop SESAs, targeted assessments and ESMPs.	40,000			40,000			40,000	UNDP
	Services to support the implementation of Outputs under Compoenent 2: i)Conduct research baseline activities on field such as lab anlysis and/or testing activities in selected sites and crops for the 4 pilot projects (Output 2.2.1) estimated at USD 90,000 per pilot site. (USD 360,000); ii)Technical guidance on the development and implementation of the participatory research and action methodoly in the 4 selected pilot sites (Output 2.2.1)estimated at USD 90,000 per pilot site. (USD 360,000); iii) Design and implementation of monitoring plans in each of the 4 selected pilot sites (Output 2.2.1) estimated at USD 76,250 per pilot project. (USD305,000); iv) Support development of e-learning tools and implementation methodologies (Output 2.1.2) for the capacity building programme on financial mechanisms and sustainable production estimated at USD29,000/y (USD145,000); v) Technical assitance for 5 farmers on the application of financial mechanisms (Output 2.1.1) estimated at USD 30,000/farmer. Total USD 150,000		1,320,000		1,320,000			1,320,000	UNDP
	Contractual services to support the implementation of Outputs under Compoenent 3: i)Services for 1,200 tons plastic waste management under the pilot project estimated at USD 200,000. Pilot Guidelines Annex 13.; ii) Consulting firm for provision of business model training and technical assitance to CSO for implementing plastics management pilot estmated at USD 100,000			300,000	300,000			300,000	UNDP
International Consultants (71200)	One International specialist to support the identification of alternatives and the development National Pesticides Alternatives Plan	110,000			110,000			110,000	UNDP
	One International consultant specialist in financial institutions strengthening and sustainable/green finance products development		88,000		88,000			88,000	UNDP
	One International Consultant for the MTR				-	25,000		25,000	UNDP
	One International Consultant for the TE				-	25,000		25,000	UNDP

Expenditure Category	Detailed Description	Component (USDeq.)						Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1 Outcome 1	Component 2 Outcome 2	Component 3 Outcome 3	Sub-Total	M&E (Component 4) Outcome 4	PMC		
Local Consultants (71300)	One local consultant to support Output 1.1.1	75,000			75,000			75,000	UNDP
	One local consultant to support Output 1.1.3	75,000			75,000			75,000	UNDP
	One local consultant to support Output 1.1.4	50,000			50,000			50,000	UNDP
	One local consultant to support Output 2.1.2		75,000		75,000			75,000	UNDP
	One local consultant to support Output 2.2.1		50,000		50,000			50,000	UNDP
	One local consultant to support Output 2.2.2		75,000		75,000			75,000	UNDP
	One local consultant to support Output 3.1.1			40,000	40,000			40,000	UNDP
	Local consultant for MTR				-	10,000		10,000	UNDP
	Local Consultant for TE				-	10,000		10,000	UNDP
Equipment and Furniture (72200)	Materials for the implementation of field activities within Outputs 2.2.1 and 2.1.1.		79,000		79,000			79,000	UNDP
Trainings, Workshops, Meetings (75700)	Trainings under Component1 for institutional strengthening in agrocehmicals management (including agriplastics) and to avert illegal imports trade.	92,650			92,650			92,650	Department of Agriculture (DOA)
	Trainings for Output 2.2.1, 2.1. to build capacity in government extension units, financial institutuion and farmers for the creation/adoption of sustainble financial mechanisms.		105,000		105,000			105,000	Department of Agriculture (DOA)
	Training and workshops on sustainable agricultural practices in rural sector to support the reduction of harmful agrochemicals in crop production.			53,500	53,500			53,500	Department of Agriculture (DOA)
	Inception workshop				-	10,000		10,000	Department of Agriculture (DOA)
	Training workshops, seminars and meetings to strengthen project management capabilities				-		2,000	2,000	Department of Agriculture (DOA)
Travel (71600)	Travel to support Output 1.1.3 and Output 1.1.4 in the involvement and capacity strengthened of different stakeholders.	50,000			50,000			50,000	UNDP
	Travel to support the implementation of the activities for Component 2, mainly under Outputs 2.1.1, 2.1.2 and 2.2.1		100,000		100,000			100,000	UNDP
	Travel to support Knowledge sharing, communication and local capacity building support in rural sector, including participation at Global FARM activities			45,000	45,000			45,000	UNDP
	Supervision and learning missions.				-	10,000		10,000	UNDP
Office Supplies	Equipment and Furniture				-		3,514	3,514	UNDP
	Supplies				-		2,250	2,250	UNDP
	Information Technology Equipment				-		7,000	7,000	UNDP
Other Operating Costs	Audio Visual & Printing Production Costs forComponent 1	40,000			40,000			40,000	UNDP
	Audio Visual & Printing Production Costs for Component 2		40,000		40,000			40,000	UNDP
	Audio Visual & Printing Production Costs for Component 3			25,000	25,000			25,000	UNDP
	Services to projects GOE for CO				-		100,086	100,086	UNDP
	Mandatory Audit Services				-		10,000	10,000	UNDP
	Translation of MTR and TE					10,000		10,000	UNDP
Grand Total		900,000	2,100,000	610,000	3,610,000	200,000	190,000	4,000,000	

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

n/a

ANNEX G: (For NGI only) Reflows

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

n/a

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

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required

clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

n/a