



Environmentally sound management of PCBs, Mercury and other toxic chemicals in Peru

Part I: Project Information

GEF ID

10419

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT **No**

NGI **No**

Project Title

Environmentally sound management of PCBs, Mercury and other toxic chemicals in Peru

Countries

Peru

Agency(ies)

UNDP

Other Executing Partner(s)

Ministry of Environment of Peru

Executing Partner Type

Government

GEF Focal Area

Chemicals and Waste

Taxonomy

Chemicals and Waste, Focal Areas, Sound Management of chemicals and waste, Persistent Organic Pollutants, Unintentional Persistent Organic Pollutants, Polychlorinated Biphenyls, Disposal, Pesticides, DDT - Vector

Management, Mercury, Emissions, Hazardous Waste Management, Waste Management, Influencing models, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Demonstrate innovative approach, Transform policy and regulatory environments, Local Communities, Stakeholders, Beneficiaries, Private Sector, SMEs, Capital providers, Large corporations, Type of Engagement, Information Dissemination, Consultation, Participation, Partnership, Civil Society, Trade Unions and Workers Unions, Academia, Non-Governmental Organization, Communications, Awareness Raising, Behavior change, Public Campaigns, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Gender results areas, Knowledge Generation and Exchange, Participation and leadership, Capacity Development, Access to benefits and services, Capacity, Knowledge and Research, Knowledge Generation, Innovation, Learning, Adaptive management, Theory of change, Indicators to measure change, Knowledge Exchange, South-South

Sector

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 0

Submission Date

10/11/2019

Expected Implementation Start

8/1/2022

Expected Completion Date

4/30/2027

Duration

60In Months

Agency Fee(\$)

448,875.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CW-1-1	Strengthen the sound management of industrial chemicals and their waste through better control, and reduction and/or elimination	GET	3,525,000.00	25,379,414.00
CW-1-2	Strengthen the sound management of agricultural chemicals and their wastes, through better control, and reduction and/or elimination	GET	1,200,000.00	8,639,801.00
Total Project Cost(\$)				4,725,000.00 34,019,215.00

B. Project description summary

Project Objective

To minimize the risk of Polychlorinated Byphenyl (PCBs), mercury and other toxic chemicals exposure of human beings and environment to advance the Minamata and Stockholm Conventions, through environmentally sound management in Peru.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1: Improve the management of hazardous chemicals in Peru	Technical Assistance	A. Government institutions and other stakeholders, regarding POPs, mercury and toxic chemicals management and elimination strengthened	<p>A1. Regulatory and institutional framework strengthened for environmentally sound management of POPs, mercury and other toxic chemicals.</p> <p>A2. National system for environmentally sound management and elimination of POPs, mercury and other toxic chemicals established.</p> <p>A3. Coordination platform for regulatory compliance enforcement, for information and report of POPs control established.</p>	GET	450,000.00	3,239,925.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Environmentally sound management and disposal of legacy POPs.	Technical Assistance	<p>B. Pesticides management systems strengthened</p> <p>C. Environmentally sound disposal of PCBs, POPs pesticides and other toxic chemicals.</p>	<p>B1. Pilot for pesticides management communication developed for rural population (family agriculture) in 9 regions of the country.</p> <p>B2. Pilot for POPs pesticides and highly toxic pesticides prevention in the main Lima market of greengrocers.</p> <p>B3. Pilot/Business model for management and elimination of POPs pesticides and other toxic chemicals: used pesticides containers and agricultural plastics in rural areas.</p> <p>C1. 600 ton of PCBs contaminated equipment and materials from sensitive sites and industry eliminated.</p> <p>C2. 100 ton of POPs pesticides and other toxic chemicals eliminated.</p>	GET	2,000,000.00	14,399,668.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Prevention of emissions (UPOPs and mercury) from health care waste.	Technical Assistance	D. Main sources of emissions (UPOPs and mercury) of hospital waste management addressed.	<p>D1. Pilot project to reduce mercury use, to eliminate mercury waste management, and prevent emissions from healthcare waste.</p> <p>D2. Five (5) demonstration project for the introduction of BAT and BEP for hospital waste management for UPOPs emissions reduction from healthcare waste</p>	GET	1,850,000.00	13,319,693.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 4: Lessons learned identified, monitored and assessed.	Technical Assistance	E. Lessons learned and knowledge managed	<p>E1. Knowledge management system for best practices and communication platform at national level established.</p> <p>E2. M&E and adaptive management in response to necessities and results from the intermediate evaluation and final findings with lessons learned applied</p>	GET	200,000.00	1,439,967.00
Sub Total (\$)					4,500,000.00	32,399,253.00
Project Management Cost (PMC)						
GET			225,000.00	1,619,962.00		
Sub Total(\$)			225,000.00	1,619,962.00		
Total Project Cost(\$)			4,725,000.00	34,019,215.00		

Please provide justification

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	UNDP	In-kind	Recurrent expenditures	200,000.00
Recipient Country Government	Ministry of Environment	In-kind	Recurrent expenditures	180,003.00
Recipient Country Government	Ministry of Mines and Energy	In-kind	Recurrent expenditures	881,554.00
Recipient Country Government	Ministry of Health	Grant	Investment mobilized	5,677,100.00
Recipient Country Government	Ministry of Health	In-kind	Recurrent expenditures	955,121.00
Recipient Country Government	National Agrarian Health Service (SENASA)	In-kind	Recurrent expenditures	1,980,000.00
Private Sector	National Society of Industries (SNI)	Grant	Investment mobilized	1,000,000.00
Private Sector	National Society of Industries (SNI)	In-kind	Recurrent expenditures	1,920,000.00
Recipient Country Government	National Superintendency of Customs and Tax Administration (SUNAT)	Grant	Investment mobilized	474,654.00
Recipient Country Government	National Superintendency of Customs and Tax Administration (SUNAT)	In-kind	Recurrent expenditures	12,382,345.00
Private Sector	CAMPO LIMPIO	Grant	Investment mobilized	1,069,877.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Private Sector	CAMPO LIMPIO	In-kind	Recurrent expenditures	2,036,076.00
Private Sector	Agriterra del Per?	Grant	Investment mobilized	90,649.00
Private Sector	Agriterra del Per?	In-kind	Recurrent expenditures	680,973.00
Private Sector	Sech? Group Per?	Grant	Investment mobilized	1,101,568.00
Private Sector	Sech? Group Per?	In-kind	Recurrent expenditures	247,158.00
Private Sector	Kioshi Per?	Grant	Investment mobilized	168,000.00
Private Sector	Kioshi Per?	In-kind	Recurrent expenditures	577,200.00
Private Sector	Veolia Servicios Per? S.A.C.	Grant	Investment mobilized	2,124,578.00
Private Sector	Veolia Servicios Per? S.A.C.	In-kind	Recurrent expenditures	272,359.00
Total Co-Financing(\$)				34,019,215.00

Describe how any "Investment Mobilized" was identified

The investment mobilized refers to investments that will be done in the future and does not include any past investments. Activities involve the reduction of releases of industrial POPs and other Hazardous Chemicals that are aimed to be eliminated during the Project's implementation Period.

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	Peru	Chemicals and Waste	POPs	3,525,000	334,875	3,859,875.00
UNDP	GET	Peru	Chemicals and Waste	Mercury	1,200,000	114,000	1,314,000.00
Total Grant Resources(\$)					4,725,000.00	448,875.00	5,173,875.00

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 (\$)
150,000

PPG Agency Fee (\$)
14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Peru	Chemicals and Waste	POPs	100,000	9,500	109,500.00
UNDP	GET	Peru	Chemicals and Waste	Mercury	50,000	4,750	54,750.00
Total Project Costs(\$)					150,000.00	14,250.00	164,250.00

Core Indicators

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)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
700.00	700.00	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)
SelectAldrin	100.00	100.00		<input type="checkbox"/>
SelectPolychlorinated biphenyls (PCB)	600.00	600.00		<input type="checkbox"/>

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)
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Indicator 9.3 Hydrochlorofluorocarbons (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)
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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)
1	1		

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 Quantity of 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)
3.00	3.00		

Indicator 10 Reduction, avoidance of emissions of POP to air from point and non-point sources
(grams of toxic equivalent gTEQ)

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)
10.00	10.00		

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

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
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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)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	5,000,000	5,000,000		
Male	5,000,000	5,000,000		
Total	10000000	10000000	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

For the estimation of Project Beneficiaries, the following was considered: a) For Outputs B1 and B3, the beneficiaries of these activities can be grouped and would be the agricultural producers (which develop family farming) of the 9 regions where the pilots will be developed = 1.4 million people. b) For Output B2: beneficiaries of this activity would be people who assist to the Big Market in Lima (buyers) = 9 million people. c) For Output C1: beneficiaries of this activity would be people living nearby and/or working in industries or sensitive sites where electrical equipment contaminated with PCBs are located. = 100,000 people. d) For Output C2: beneficiaries of this activity would be people who work in DIRESAs/GERESAs and in SENASAs who are exposed to stockpiles. = 16,300 e) For Output D1 and D2: the beneficiaries of these activities can be grouped and would be attendees to health establishments-EESS and people who work in hospitals who are exposed to mercury and UPOPs emissions = 38,000 people. Aprox 10.5 million people.

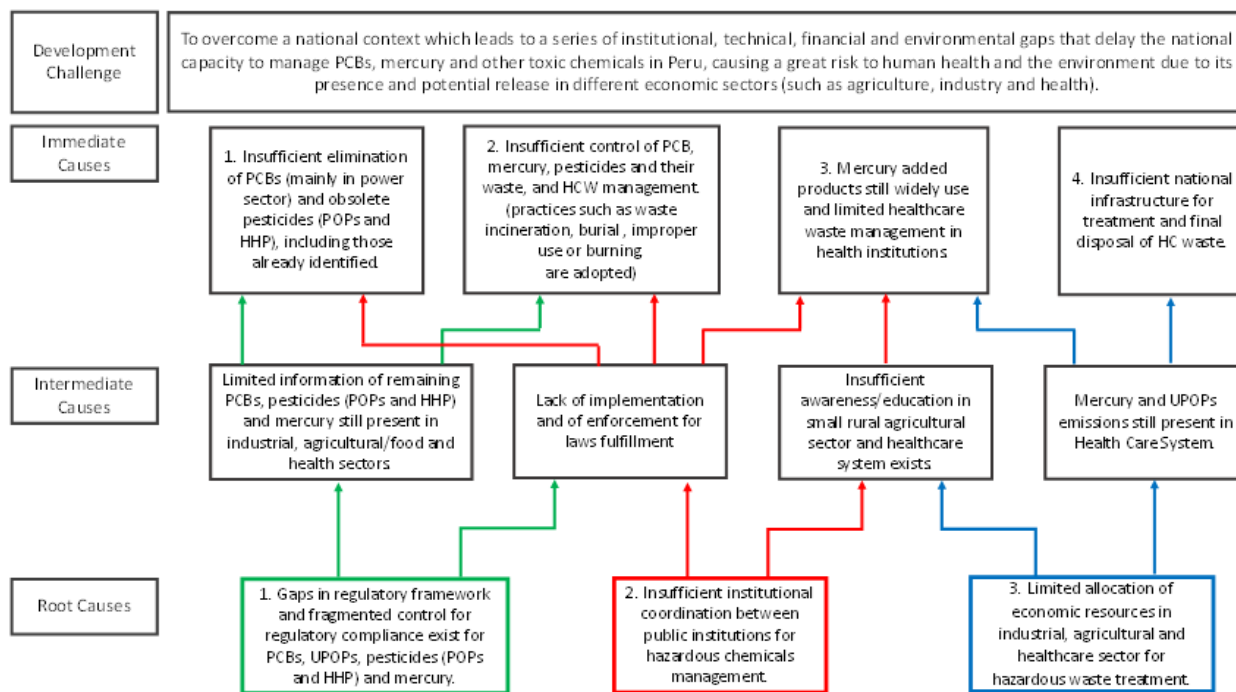
Part II. Project Justification

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 which leads to a series of institutional, technical, financial, and environmental gaps that delay the national capacity to manage PCBs, mercury and other toxic chemicals in Peru, causing a great risk to human health and the environment due to its presence and potential release in different economic sectors (such as agriculture, industry and healthcare).

The analysis of the development challenge during PPG phase has identified three levels of causes for managing POPs and mercury within the national framework and international commitments. The problem tree with immediate, underlying and structural/root causes is detailed below:



2) The baseline scenario and any associated baseline projects.

Baseline Scenario

PCBs ? Baseline Scenario

Peru made various efforts to improve and strengthen PCB management within its territory. These efforts included the implementation of two (2) projects funded by the Global Environment Facility (GEF). The first one "Best Practices for PCB Management in the Mining Sector in South America", was a UNEP-GEF project led by the MINAM and its implementation period was between 2010 and 2014. This project contributed mainly to the development of technical guidelines for the evaluation of PCB management in the mining sector and the development of measures that allowed the control, mitigation, or elimination of associated risks. In addition, enabled recording and monitoring of PCB inventories in the mines, and helped to develop PCB management plans in mining facilities. As a result of the implementation of this project, 50 ton of materials contaminated with PCBs in the mining sector through a dichlorination process of PCB were eliminated.

Secondly, in 2011 the MINSA through the General Directorate of Environmental Health and Food Safety (DIGESA) implemented the UNIDO-GEF project "Environmentally Sound Management and Disposition of Polychlorinated Biphenyls". This project aimed to establish environmentally sound management practices for PCBs and to increase the phase-out and disposal of PCBs-containing equipment and wastes, particularly focusing on the electrical utilities and main users of electricity in Peru. During this project, a more comprehensive analysis of the preliminary inventory developed by the NIP 2007 was conducted. As a result of the implementation of this project, 101.3 ton of PCB-contaminated oils were dechlorinated and 41.1 ton of PCBs were exported.

Regarding, the existing regulatory framework for PCB management, progress has been evidenced in the inclusion of PCB as a parameter in the National Quality Standards of soil and water, approved by Supreme Decree No. 011-2017-MINAM and Supreme Decree No. 004-2017-MINAM respectively. Major advances were evidenced in the electricity and mining sectors' normative. The mining sector through the Supreme Decree No. 040-2014-EM "Environmental Protection and Management Regulations for Mining Exploitation, Benefit, General Labor, Transportation and Storage Activities" establishes that owners of dielectric oils containing PCB must declare existence, volume, and a proper elimination plan to the authorities. As for the electricity sector, PCB management with specific guidelines is controlled by the Supreme Decree No. 014-2019-EM "Regulation for Environmental Protection in Electrical Activities". There are also technical standards that specifically regulate the management, storage, and collection for used oils: NTP 900.051:2008 (revised in 2019) y NTP 900.052:2008 (revised in 2019).

Recently the Ministry of Energy and Mines has made significant progress in regulatory matters by approving through Ministerial Resolution No. 002-2021-MINEM/DM the "Methodological guideline for the inventory of stocks and residues for the identification of polychlorinated biphenyls (PCB)" and "Methodological guideline for the preparation of the environmental management plan for polychlorinated biphenyls applicable to electrical activity". Both guidelines encourage companies in the electricity sector to present their PCB inventories during 2021 together with an associated management and elimination plan.

Although progress has been made in PCB management, especially in mining and electric sector, a considerable amount of PCB containing equipment are still left in the country and require a sound

management and disposal. In this sense, the industrial sector and sensitive sites become more relevant where no clear efforts have been evidenced for the identification and environmentally sound disposal of PCB contaminated waste.

It is important to highlight that the Ministry of Health in recent years has developed a Technical Regulation draft for the Sanitary and Environmental Management of Polychlorinated Biphenyls. Its purpose is to establish the necessary conditions for the sanitary and environmental management of existence and wastes that are, contain or are contaminated with PCBs in the national territory. This Regulation is applicable to any natural or legal person, public or that carry out activities and have stocks or residues that are, contain or are contaminated with PCBs, in the national territory. This drafted normative of great importance for the promotion of PCB management in the country aligned with Stockholm Convention guidelines has not been approved to date. However, the approval of said legal instrument is contemplated as part of the activities provided in the National Plan for the Updated Application of the Stockholm Convention (PNAA) approved by Supreme Decree No. 010-2021-MINAM.

In terms of national capacity for treatment and elimination of equipment and oils contaminated with PCBs, currently in Peru there are installed capacity through the following companies:

? Sech? Group Peru, located in Chilca - Lima, which provides dechlorination in-situ and ex-situ and has capacity to manage final disposal through its subsidiary in France.

? Kioshi Peru, located in Lima, which provides a mobile plant for PCB decontamination by the dechlorination method.

As it was stated in the Project Identification Form (PIF), there are approximately 100,000 transformers in the country, from which approximately half of them, belong to the electricity sector, made up by private and public companies. The rest is owned by the industry and individuals. In the UNIDO PCB project's Terminal Evaluation, it was established that from near 45,000 transformers in the electricity sector, 15,912 were analyzed (equivalent to 12,500 tons) and 309 of them (equivalent to 300 tons) were found to be contaminated with PCBs. This is 1.4% in number and 2.4% in weight of the total (40% with more than 5,000 ppm of PCBs) with a high statistical certainty. When extrapolating this figure to the 100,000 existing transformers in Peru, it can be determined that there were at one point 1,920 tons of PCBs contaminated materials. Between 2003 and 2010 Peru exported 152.97 ton of PCB contaminated waste oil. From 2010, based on the results documented by previous mentioned projects, 192.4 ton of stocks contaminated with PCBs were eliminated (151.3 by dichlorination and 41.4 incinerated). In total 345.37 ton were environmentally sound managed in Peru, remaining almost the 80% of estimated inventory to be eliminated by 2028.

During the PPG phase, a survey of electrical equipment contaminated or potentially contaminated with PCBs was carried out in different industrial sectors and sensitive sites within the country. The following key actors were contacted:

? **Ministry of Energy and Mines (MINEM)**, to its General Directorates of Environmental Affairs for Mining, Hydrocarbons and Electricity.

? **Ministry of Production (PRODUCE)**, to its General Directorate of Environmental Affairs for Industry.

- ? **National Environmental Certification Service for Sustainable Investments (SENACE)**, to its Directorates of Environmental Assessment for Natural and Productive Resources Projects and for Infrastructure Projects.
- ? **Ministry of Health (MINSA)**, to its General Directorates of Health Operations and Equipment and Maintenance.
- ? **Ministry of Education (MINEDU)**, to its General Directorate of Educational Infrastructure.
- ? **National Program of Educational Infrastructure.**
- ? **Association of Municipalities of Peru**, public body in charge of coordination between provincial and district municipalities throughout the country.
- ? **National Fund for the Financing of State Business Activity (FONAFE)**, largest business conglomerate belonging to the Peruvian state.
- ? **National Penitentiary Institute**, governing and administrative public institution of the National Penitentiary System in Peru.
- ? **National Society of Industries (SNI)**, largest business association in the country that includes associated companies in its Chemical Industry and Agrochemical Industry Committees.

Based on the obtained answers, the PPG team coordinated to conduct a preliminary sampling of electrical equipment with the use of sampling kits in different sites both in the industrial sector and in sensitive. This activity was developed and is being implemented in close coordination with the MINAM, which provides technical personnel for sampling in identified sites. The following schedule was defined:

Table 1. PCB sampling in Peru

Type	Sampling Site	# of Equipment to be sampled	Sampling Date	Location
Industrial	Helatonys	2	13.09.2021	Lima
Industrial	Quimpac ? Callao	9	16.09.2021	Callao
Industrial	Quimpac - Paramonga	7	30.09.2021	Barranca
Industrial	Mixercon	3	To be confirmed	Lima
Industrial	Molitalia	6	17.10.2021	Lima
Industrial	Cogorno	5	October	Lima
Industrial	Fundicion Ferrosa	5	18.10.2021	Lima

Sensitive Sites	Jockey Plaza (commercial center)	7	October	Lima
Sensitive Sites	ESSALUD Hospitals	20	To be confirmed	Lima
Sensitive Sites	LAP (airport)	16	September: 18,21,22,24,25	Callao
Sensitive Sites	Universidad Nacional Agraria La Molina	16	October	Lima
Sensitive Sites	Universidad Nacional del Callao	3	27.09.2021	Callao
Sensitive Sites	Universidad Nacional de Ingenier?a	To be confirmed	To be confirmed	Lima
TOTAL		99		

The obtained results up to the submission of this Project Document are detailed in Annex 18. It is important to highlight that this sampling schedule will continue to be implemented until the beginning of the implementation of this FSP. Additionally results and trends will be analyzed in order to provide the MINAM with a strengthened baseline of PCBs in industrial sector and sensitive sites.

POPs Pesticides ? Baseline Scenario

The agricultural sector plays an important role in Peru's economic activity. The natural environmental conditions of country's geographic regions constitute an advantage for the development of this activity. Furthermore, agricultural activity is one of the oldest economic practices in Peru. According to the National Agricultural Census (2012)[1]¹, the agricultural area is equivalent to 30.1% of the total area of the country.

In Peru there are different regulations that prohibit the importation and use of POPs pesticides in agricultural activity. On the other hand, there is no prohibition of its use in public health, industrial, domestic, and other applications. Likewise, according to the reports of the competent authorities and Customs, its importation and commercialization has not been authorized for more than 10 years.

During PPG phase, different key institutions were contacted in order to update the information of existing stocks of POP and obsolete pesticides in the country. As a result, the following information was obtained:

Table 2. POPs and HHP obsolete pesticides stocks reported in 2021.

Institution	Region[2] ²	Type	Stocks reported
Ministry of Health ? Regional Health Departments	Oxapampa (Pasco)	DDT	75 kg
		K-Orthine	120 kg
	Moquegua	BHC (Hexachlorobenzene)	20 kg
	Apurimac	DDT	210 kg
	Arequipa	DDT	100 kg
SENASA ? Regional Directorates	Ucayali	Methamidophos	574.75 L (equivalent to 753 kg)
	Ayacucho	DDT	20 kg of DDT
	Tumbes	Paraquat dichloride	4 L (equivalent to 5 kg)
		Triazophos	1 L (equivalent to 1.3 kg)
		Carbenzamin	1 L (equivalent to 1.5 kg)
	Jun?n	Methamidophos	57.25 L (equivalent to 75 kg)
	Puno	Methamidophos	05 products (weight not specified)
	Lambayeque	Methamidophos	29 L (equivalent to 38 kg)
	Lima Callao	Methamidophos	1,037 kgs
SUNAT - Warehouses	Lambayeque	Seized and obsolete pesticides.	4,316.68
	Piura	Seized and obsolete pesticides.	2,859.70
	Ina	Seized and obsolete pesticides.	1,765.85
	Chimbote	Seized and obsolete pesticides.	1,364.00
	Puno	Seized and obsolete pesticides.	1,151.40

	Arequipa	Seized and obsolete pesticides.	954.85
	Mollendo	Seized and obsolete pesticides.	764.00
	Tumbes	Seized and obsolete pesticides.	569.60
	Madre de Dios	Seized and obsolete pesticides.	202.80
	Ilo	Seized and obsolete pesticides.	154.98
	Cusco	Seized and obsolete pesticides.	79.00
	Tacna	Seized and obsolete pesticides.	76.70
	San Martin	Seized and obsolete pesticides.	37.80
TOTAL			16,753.16 Kgs

Source: PPG Team

It is equally relevant to highlight as a national priority the environmental sound use of pesticides as well as the environmental sound management and disposal of empty pesticide containers.

The SENASA, ascribed to the Ministry of Agrarian Development and Irrigation, within the framework of its competence, regulates the management of pesticides and their residues (including containers) in agricultural activity through the Supreme Decree DS 01-2015-MINAGRI "National System of Pesticides for Agricultural Use". As well as the Andean Norm (Decision 804 and its amendments) for the Registration and Control of Chemical Pesticides for Agricultural Use and the Andean Technical Manual (Resolution 2075) as supranational regulations within the framework of the Andean Community (CAN). In addition, the Regulation of the National System of Pesticides for Agricultural Use, introduces in its article 46 the procedure of triple washing of containers, to avoid risks of contamination, this criterion could be applied in case of be notified of any obsolete existence.

However, it should be noted that there is a significant illegal trade^[3] in all types of non-POP pesticides, as a result of smuggling, ambulatory sales, counterfeits, and adulterations. This illegal trade occurs mainly in two zones of Peru: in the northern border of Peru and in the border with Bolivia. Besides that, the storage of agricultural pesticides is another problem in Decentralized Executive Directorates of SENASA, especially in those regions where smuggling and adulteration are greater, since the volume of pesticides seized is large and these institutions do not have warehouses, nor appropriate infrastructure for this purpose.

According to the latest National Agricultural Census[4]⁴, family farming represents 97% of the total agricultural units (2.2 million agricultural units). In the same way, more than 83% of agricultural workers carry out family farming and it is the basis of the population's food security. Usually, small farmers use pesticides because they cause rapid mortality, easy to use, cheap, well known, and because applying them requires little physical effort. Due to limited economic resources, they buy the cheapest pesticide, which is purchased in small quantities (repackaged) and which is useful for various crops or various pests. For this reason, most of the time they use highly toxic, wide-ranging and even adulterated insecticides. Faced with this situation, even illegal trade and, consequently, the introduction of prohibited pollutants cannot be dismissed. Considering that scenario, SENASA has recently started implementing Field Schools promoting best agricultural practices[5]⁵; nevertheless, the great need for rural workers to incorporate best practices for pesticides and their used containers requires enhancement in the country.

Based on the Integrated Agricultural Input Management System (SIGIA) administered by SENASA, in the country there are 34 agrochemical pesticides manufacturers, 56 agrochemical pesticides formulators, 374 agrochemical pesticides importing companies, 260 agrochemical pesticides distribution companies, 56 agrochemical pesticides packers, and 64 agrochemical pesticides exporting companies[6]⁶. It should be noted that some companies are registered for more than one of the activities mentioned. During 2020, Peru imported 74,112.94 ton of chemical pesticides for agricultural use (PQUA)[7]⁷. Besides that, from the pesticides registered in the SIGIA and approved to be used in Peru, there are around 13 types which are cataloged by the WHO as highly hazardous, such as Carbofuran, Methomyl, Oxamyl, Zeta-cypermethrin, Dicrotophos, among others.

Regarding pesticides containers, Campo Limpio, an association that gathers around 29 agrochemical companies in Peru and develops actions around empty containers management at national level, reported that of 2,251.34 ton of distributed containers during 2020, only 467 ton were collected through 44 reception centers and managed in an environmentally sound manner. The main intervened areas were Ica, Lima, La Libertad, Piura, Ancash, Arequipa, Lambayeque, San Martin, and Ucayali. Additionally, the NGO Agritierra reported that in 2020 collected and managed 5 ton of pesticides containers through its reception center in Lima. Although recovery rates in Peru have been improving in recent years, this confirms that a large number of pesticides containers are disposed of incorrectly and, in many cases, are reused for other inappropriate uses, such as food and water containers. These bad practices cause great negative impacts to the environment and to the farmers and their families health as well.

The SENASA also establishes an annual National Monitoring Program for Contaminants that affect primary agricultural food and that may put people's health at risk. The 2019 Report on the Monitoring of chemical residues and other pollutants in primary agricultural food evidenced that 1,779 samples of food of plant origin (yellow pepper, artichoke, broccoli, sweet potato, asparagus, lettuce, mango, peach, avocado, paprika, pickle, pepper, coffee, large lima bean, soy and wheat) were analyzed, of which 79%

did not exceed the maximum permissible limits of agricultural pesticides residues and 21% did exceed those limits. The food of plant origin with the highest percentage of samples that exceeded the maximum permissible limits of chemical residues were paprika (71%), yellow pepper (64%), pepper (61%) and broccoli (51%); and the pesticides that exceeded the maximum residue limits with the highest frequency were Fipronil and Methamidophos. From the pesticides found in the food that exceeded the maximum residue limits, there are 3 considered as highly hazardous: Carbofuran, Methomyl, and Methamidophos. It is worth mentioning that through Directorial Resolutions 0022-2020-MINAGRI-SENASA-DIAIA and 0057-2020-MINAGRI-SENASA-DIAIA, SENASA banned the import and registration of Methamidophos and Paraquat respectively in 2020.

Table 3. Results of the 2019 Report on the Monitoring of chemical residues and other pollutants in primary agricultural food.

Food of plant origin	Total of samples	% of samples that exceeded the maximum permissible limits	Regions with the most chemical residues found	Pesticides that exceeded the maximum residue limits
Paprika	112	71%	Lima, Lambayeque, La Libertad and Tacna	Methamidophos, Carbofuran and Procimidona
Yellow pepper	86	64%	Jun?n, Lambayeque and La Libertad	Fipronil and Methamidophos
Pepper	61	54%	Lima and Tacna	Methamidophos, Propiconazol and Profenof?s
Broccoli	77	51%	Ayacucho, Arequipa and La Libertad	Methamidophos, Methomyl and Pyrimetamil
Lettuce	79	41%	Lima, Arequipa and Tacna	Methamidophos, Clorotalonil and Thiabendazol
Avocado	145	30%	Lambayeque, Ica, and La Libertad	Tebuconazol, Pirimetamil and Procimidona
Pickle	63	25%	Lima and La Libertad	Metomhyl and Procimidona
Peach	74	16%	Apur?mac and Ancash	Procloraz, Deltametrin and Dimetoate
Sweet potato	85	11%	Ica	Carbofuran

Pallar	169	10%	Ayacucho	Clorfenapir, Permetrina and Iprodione
Coffee	155	8%	Lima, San Martin and Piura	Azoxystrobin and Difenconazole
Artichoke	197	7%	Lima, Arequipa and La Libertad.	Iprodione and Lufenuron
Asparagus	229	7%	Ica and La Libertad	Clorpirifos and Profenofos
Soy	61	5%	Amazonas	Acetamiprid
Mango	83	2%	La Libertad	Imidacloprid
Wheat	103	2%	Huancavelica	Metomhyl and Carbofuran

Source: SENASA

UPOPs ? Baseline Scenario

In Peru there are no regulations regarding the emissions of polychlorinated dibenzodioxins and dibenzofurans (PCDD/PCDF), as well as for the emission of hexachlorobenzene, pentachlorobenzene, polychlorinated biphenyls and polychlorinated naphthalene that could be generated from the various economic activities in the country.

Latest inventories, developed for the NIP update, show that total annual of polychlorinated dibenzodioxins and dibenzofurans (PCDD/PCDF) releases is 655,406 g EQT, where Disposal/Landfill and Open Burning represent 46% and 32,2% respectively. Within these categories and waste incineration, healthcare waste management is an activity of relevance.

A series of legal instruments to be considered for healthcare waste management in Peru are detailed below:

? Solid Waste Sound Management Law (LGIRS) approved by legislative decree N° 1278 during 2016. The purpose is the prevention and minimization of solid waste generated from the source, as well as the recovery and material and energy recovery of these waste through the promotion of practices such as recycling. This normative was modified in 2020 through legislative decree N° 1501, taking into account the context of the pandemic of COVID-19 and establishing provisions for the management of waste during emergency situations.

? The LGIRS regulation approved by Supreme Decree No. 014-2017-MINAM establishes a series of provisions for infectious medical waste, among them, that in places where there are no operating companies that carry out the final disposal of this type of waste, these can be disposed of in municipal landfills as long as they are treated prior to their final disposal, following directives from the Ministry of Health. On the other hand, it is established that the Ministry of Health must regulate their treatment and it is stipulated that they cannot be co-processed in cement kilns, in accordance with the provisions of the Basel Convention.

? DIGESA approved in 2018 by Ministerial Resolution No. 1295-2018/MINSA, the Technical Health Standard No. 144-MINSA/2018/DIGESA for the ?Comprehensive Management and Solid Waste Management in Health Establishments, Support Medical Services and Research Centers? (NTS 144). This standard includes sub-classifications of this type of waste, a series of protocols and procedures for the segregation of solid hospital waste, as well as its subsequent storage and final disposal in order to avoid possible contagions and/or effects on both the health of the people and the environment, and also a procedure for the cleaning and gathering of small mercury spills in health facilities. Regarding waste treatment, it indicates that this is optional prior to final disposal, as long as it does not imply a risk to public health and the environment, in accordance with the provisions of Legislative Decree N? 1278.

Currently, the health sector in Peru is made up of approximately 21,000 establishments located throughout the country. These establishments are mainly classified as follows[8]⁸: 57% Private, 1,9% Ministry of Health, 1,8% Social Health Insurance of Peru (ESSALUD), 37% of Regional and Municipal authorities, 1% health of the armed forces, 0,2% National Penitentiary Institute of Peru (INPE) and others. More than half of the establishments are located in the departments of Lima (36%), Cajamarca (5%), Piura (5%), Arequipa (5%) and Junin (5%).

In 2018, the General Directorate of Environmental Health (DIGESA)[9]⁹, reported that 13,830 tons of hazardous waste were generated in health facilities in Lima province. The highest volumes correspond to the health care establishments of the Social Health Insurance - EsSalud (43%), the Ministry of Health (28%) and private clinics (20.4%). It can be estimated that Health Care Waste (HCW) from Lima Province represents 75% of the total health care waste generated in the country.

Since 2020, in Peru as in many other countries, the context of the global pandemic of coronavirus disease (COVID-19) has meant an increase in the generation of HCW that requires environmentally sound treatment and disposal. Although there are not official numbers about the increase of HCW in Peru as a consequence of the pandemic, the increase of HCW from healthcare facilities associated with COVID-19 can be estimated in 3.4kg/person/day[10]¹⁰; thus, considering that according to the Ministry of Health since the beginning of the pandemic in Peru (March 5th, 2020) to October 4th, 2020 there have been in total 36,500 persons hospitalized with COVID-19[11]¹¹, the increase of HWC from healthcare facilities in Peru during 2020 is estimated in not less than 26,433 ton (which would represent around the double of the HCW reported in 2018). Therefore, the impact of unintentional emissions has been increased. It is important to identify and quantify these possible emissions, as well as to establish the necessary regulations for their control and to promote the application of BAT (Best Available Techniques) and BEP (Best Environmental Practices).

About 85%[12]¹² of the waste produced by health-care providers is comparable to domestic waste and usually called ?non-hazardous? or ?general health-care waste?. It comes mostly from the administrative, kitchen and housekeeping functions of health-care facilities and may also include

packaging waste and waste generated during construction and maintenance of health-care buildings. The remaining 15% of health-care waste is regarded as 'hazardous' and can pose several health and environmental risks.

The infrastructure available in the country for the treatment and final disposal of sanitary waste is limited. There are few health establishments that have autoclaving treatment, others give private treatment through incineration and generally go to final disposal where there is also limited infrastructure: 6 security landfills and 7 landfills with security cells.

Table 4. Healthcare Waste management in Peru.

Healthcare waste management	Technology	Main Locations
Treatment[13] ¹³	Autoclaves	Veolia (1): Lima
		Tower and Tower (1): Chinchá, Ica.
		QUIMIR: La Libertad.
		G.R.I. Peru S.A.C.: Lima
		MINSA Hospitals (7): - Lima (5): Hospital Nacional Hipólito Unzué; Hospital de Emergencias Villa Salvador; Instituto Nacional de Salud del Niño San Borja; Hospital Lima Este Vitarte; Hospital Nacional Sergio Bernales. - Trujillo (1): Hospital Regional Docente de Trujillo. - Cusco (1): Hospital Regional de Cusco. - Loreto (1): Hospital Regional de Loreto "Felipe Santiago Arriola Iglesias".
	Incinerators	Sech? Group (1): Lima.
		Veolia (1): Lima.
		Arpe E.I.R.L.: Piura.
		Incineragas E.I.R.L.: Lima.
		Tower and Tower (1): Chinchá, Ica.

		ESSALUD Hospitals (31): Amazonas (1); Ancash (1); Apurimac (2); Arequipa (2); Ayacucho (1); Cusco (2); Ica (3); Junin (3); Lima (4); Loreto (1); Pasco (2); Moquega (2); Piura (2); Puno (2); Tacna (1); San Mart?n (1); Ucayali (1).
Final Disposal[14] ¹⁴	Security Landfill (6)	Tower and Tower: Chinch, Ica.
		ARPE E.I.R.L.: La Brea, Tallara, Piura.
		Servicios y Relleno sanitario Beraca EIRL: Talara, Piura.
		BA Servicios ambientales SAC, Pari?as: Talara Piura.
		Are Yaku Pacha S.A.C: Piura, Piura.
		TARIS S.A. (antes Befesa Per? S.A.) Chilca: Ca?ete, Lima.
	Landfills with security cells (7)	Sanitary Landfill El Zapalla: Lima, Lima.
		Sanitary Landfill Portillo Grande: Lima, Lima.
		Sanitary Landfill Huaycoloro: Huarochir?, Lima.
		Sanitary Landfill with security cells: Ascope, La Libertad.
		Sanitary Landfills ?El Treinta?: Maynas, Loreto.
		Municipal and Non-Municipal Solid Waste Final Disposal Infrastructure Yacucatina: San Mart?n, San Mart?n.
		Solid waste treatment and final disposal infrastructure "Campo Verde?: Coronel Portillo, Ucayali.

Source: PPG Team

The existence of a regulatory framework that allows optionality in the healthcare waste treatment and the absence of an adequate and sufficient treatment and final disposal infrastructure throughout the

territory, together with the lack of awareness in healthcare system constitute factors of great challenge for improving healthcare waste management.

Mercury ? Baseline Scenario

To address the risks posed by mercury, the Government of Peru signed the Minamata Convention on October 2013 and ratified the Convention on November 2015 by Supreme Decree No. 061-2015-RE. Likewise, for its early implementation, a Multisectoral Action Plan was approved, through Supreme Decree No. 010-2016-MINAM, which included activities for the fulfillment of the obligations established by the agreement through a multisectoral coordination work led by the Ministry of the Environment.

In addition, Peru developed and published its Minamata Initial Assessment (MIA) during 2019 and approved by DS N° 004-2019-MINAM a National Implementation Plan for the correct implementation of said Convention. Among the priority actions for the application of the Convention in the country, were listed: a) Adoption of measures to control products with added mercury included in Annex A, b) Implementation of measures to control and, where feasible, reduce emissions and releases of mercury and mercury compounds and c) Management of mercury waste in an environmentally sound manner. As of June 2021, the degree of execution of the plan was: 32% of the activities were completed, 34% partially implemented and 34% pending implementation.

According to article 4, mercury-added products, the country must prevent the manufacture, import and export of the products listed in Part I of Annex A, after their elimination date; as well as reducing and/or eliminating the use of dental amalgam. In this regard, the country has advanced in regulations associated with the prohibition of agricultural pesticides with mercury compounds (Chief Resolution No. 036-99-AG-SENASA), provisions for the management of waste from electrical and electronic equipment (Supreme Decree No. 009-2019-MINAM), and the prohibition of the manufacture, import, distribution, and commercialization of toxic or dangerous toys and desk tools (Supreme Decree No. 008-2007-SA).

One of the main uses of mercury added products is in health establishments, through mercury thermometers, manometers, sphygmomanometers, and even dental amalgams. The use of such products still persists in the national system, and this demands an arduous effort from the Health Authority for the progressive replacement towards mercury-free medical devices, as well as for the development of a strategy for the adequate final disposal after the withdrawal of said products from the national market.

It is important to note that the country requested an exemption for 5 years for the import/export/manufacture of thermometers and sphygmomanometers, extending the term to December 2025. Thus, it is necessary to support the health sector for the proper identification and management of mercury added products in order to meet the expected deadlines.

According to the National Institute of Statistics and Informatics (INEI)^[15], in Peru there are 21,272 health establishments of which 604 are hospitals, 2,550 are health centers, 8,710 are health posts, 18 are health institutes, 8,584 are doctors and other health professional offices (including private ones), and 806 are Private dental centers and others. Besides that, the main departments with the greatest number of health establishments are Lima, Cajamarca, Piura, Arequipa, Jun?n, Cusco, and Callao.

In 2018, the faculty of human medicine of the Ricardo Palma University, conducted research on practices on reduction of mercury added to medical devices in health workers in a public hospital classified Category III-1[16]¹⁶. Within the framework of the research, mercury added thermometers and sphygmomanometers in different areas of the hospital (outpatient clinic, hospitalization, pharmacy, general services, odonto-stomatology) were surveyed. As a result, it was evidenced that on average there were 6,2 kgs of mercury (5,6 kgs in sphygmomanometers and 0,6 kg thermometers). If we consider that in Peru there are 57 health establishments classified as third level[17]¹⁷; then, it can be extrapolated that only in those types of health establishments there could be around 356.8 kg of mercury stock from thermometers and sphygmomanometers. Furthermore, if we consider the 604 hospitals that exist in total in Peru according to INEI, it could be estimated that at least 3 tons of pure mercury can be found in hospitals due to thermometers and sphygmomanometers.

As identified in the National Inventory of Mercury Releases in Peru, the following table shows emissions and releases are from mercury added products in health establishments considering 2014 as the baseline year. In order to get updated information regarding emissions and releases in the health establishments, the tariff codes of medical thermometers, sphygmomanometers and dental amalgams were identified in the Peruvian Customs Tariff, the quantity of those mercury added products imported was also identified and consequently, the minimum and maximum mercury emissions and releases during 2020 were calculated.

Table 5. Hg emissions and releases in healthcare sector.

Mercury added products in health establishments	Tariff code	Minimum emissions and releases (ton Hg/year)	Maximum emissions and releases (ton Hg/year)	Minimum emissions and releases (ton Hg/year)	Maximum emissions and releases (ton Hg/year)
Year		2014		2020	
Medical thermometers	9025111000	1.26	3.79	0.36	1.07
Sphygmomanometers	9018909000	4.00	4.86	3.23	3.92
Amalgams	2843900000	0.33	1.33	-	-
Total		5.59	9.98	3.59	4.99

Regarding the import of medical thermometers using the tariff code 9025111000, during 2020 there were 711,039 units imported. It is worth mentioning that it was necessary to analyze the total of products imported under the corresponding tariff code in order to eliminate imports regarding digital

and infrared thermometers. In the National Inventory of Mercury Releases, with 2014 as the baseline year, the average of units imported used for the calculation was 2,528,938. This may suggest that the importation of medical thermometers with mercury added has been reduced in Peru; nevertheless, their entrance to the country still remains a factor to be considered in the reduction of mercury emissions and releases.

Regarding the import of sphygmomanometers using the tariff code 9018909000 applied in the National Inventory of Mercury Releases of Peru, during 2020 there were 46,138 units imported. It is worth mentioning that since the tariff code 9018909000 includes different type of medical devices and does not have detailed information about mercury content, the units identified are the result of an analysis of the imports made under that code and represent an estimation. In the National Inventory of Mercury Releases, with 2014 as the baseline year, the average of units imported used for the calculation was 57,182. This may suggest that the import values of that product have been reduced.

Regarding the import of amalgams using the tariff code 2843900000, from the years 2015 to 2020 there has only been an import registered for the amount of 30 kg in 2016. However, since Peru does not have an explicit ban on the use of dental amalgams, the emissions and releases from that product may be larger.

These results show that only in the year 2020, the mercury added products imported for the use of health establishments represented approximately 3.59 and 4.99 minimum and maximum tons of mercury emissions and releases respectively. Such a scenario shows that Peru still needs to strengthen activities around the elimination of mercury added products.

It is of high relevance that currently in the country there are 2 companies developing the technology for mercury local treatment and disposal. One of them, Tower and Tower S.A., has developed a Mercury Stabilization Treatment Pilot Plant located in Chincha ? Ica with an installed capacity of 7 batches/day (200 kg of mercury waste by batch). That initiative was developed with the support of Innovate Peru Program of the Ministry of Production and with the cooperation of the National Agrarian University La Molina, and its process consists in a manual feed of the wastes in the hopper, a reduction in size of waste to 1/16-inch diameter in a ball mill, mercury extraction through vacuum suction and gas condensation processes, and the reception of metallic mercury through a condensate reception tank with a capacity of 600 gallons at 15 ? C. On the other hand, the second initiative is developed by Sech? Group Peru who patented a method in 2016 for the stabilization of metallic mercury and its process consists in using sodium polysulfides to ease the interaction between mercury and sulfur and in using cement to solidify the mixture. This initiative has been tested at laboratory level and currently has the projection to be converted in a pilot plant.

Associated Baseline Projects

Also related to institutional partnerships, there is a group of GEF-financed projects and other initiatives in Peru 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
POPs - Stockholm Convention -		
Strengthening of National Initiatives and Enhancement of Regional Cooperation for the Environmentally Sound Management of POPs in Waste of Electronic or Electrical Equipment (WEEE)	UNIDO	<p>The project seeks to improve the management of POPs present in WEEE, including the WEEE dismantling facilities so that they operate efficiently and sustainably.</p> <p>Thanks to both GEF projects POP risks for health and environment will be reduced and Peru will strengthen the implementation of the Stockholm Convention.</p>
Global Development, Review and Update of National Implementation Plans (NIPs) under the Stockholm Convention (SC) on Persistent Organic Pollutants (POPs)	UNEP	<p>The project seeks to facilitate implementation of the Stockholm Convention in participating countries through the development, review and update of their respective NIPs and submission to the SC COP.</p> <p>Thanks to both GEF projects Peru will strengthen information related to POPs inventories and updated action plans enabling Stockholm Convention compliance.</p>
Mercury ?The Minamata Convention-		
Specific International Programme - Strengthening capacities to control emissions and releases of mercury in Peru	Specific Trust Fund Minamata Convention	<p>The objective of this project is to enhance institutional capacity and develop a national plan to control and, when feasible, reduce national emissions and releases of mercury in Peru.</p> <p>Awareness raised in stakeholders about mercury emissions and releases and the information gathered during the project implementation will enhance this FSP implementation.</p>
GEF GOLD Peru - Integrated Sound Management of Mercury in Peru's Artisanal and Small-scale Gold Mining (ASGM)	UNDP	<p>The objective of this project is to reduce/eliminate mercury releases from the Peruvian Artisanal and Small-scale Gold Mining (ASGM) sector.</p> <p>Thanks to both GEF projects mercury emissions and releases in Peru will potentially be reduced, contributing to the implementation of the Minamata Convention and the reduction of mercury risks to health and environment.</p>
Chemical Management		
Strengthening national capacities for the integral management of chemicals in Peru	Special Programme UNEP	<p>The project seeks to implement the regulatory framework for the sound management of chemicals, beginning with a gap analysis and a legal technical evaluation, strengthening the capacities for GHS implementation; identifying, designing, and implementing a National Registry of Chemical Substances; and providing specific measures for the reduction and management of risks to health and the environment from hazardous chemical substances.</p> <p>Thanks to both projects the government institutions and other stakeholders regarding toxic chemicals management and elimination will be efficiently strengthened.</p>

The Global Greenchem Innovation and Network Programme	UNIDO	<p>The objective of this pre-approved global GEF project where Peru participates is to scale up green chemistry for POPs, mercury and microplastics replacement through capacity building and innovation, and creation of a global unifying green chemistry network for implementation and uptake.</p> <p>Both projects will make synergies in reducing the risks of toxic chemicals such as POPs and mercury and consequently will enhance the national implementation of Stockholm and Minamata Conventions.</p>
Others		
Agricultural Health and Agrifood Safety Development Program - Phase II	IDB	<p>The objective of this conditional credit line for investment project is to make agricultural products more competitive as a way of increasing farmers' incomes and enhancing quality of life for consumers, and to enhance agri-food safety, by improving the country's sanitary and phytosanitary levels.</p> <p>Through that objective this project enhances the FSP objective regarding the strengthening of pesticides management system.</p>

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

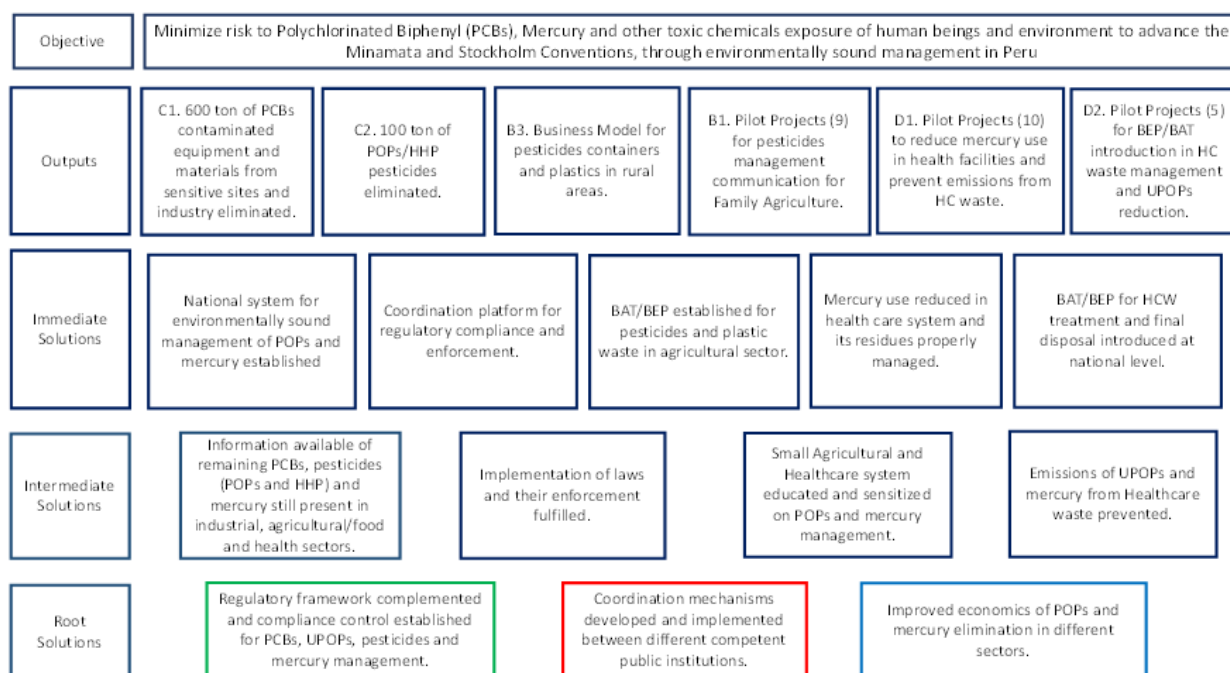
The main challenges to be addressed by this project are the following:

- i) Promote coordination among competent authorities in chemicals life cycle management in the country. Currently Peru has a vast regulatory framework for hazardous chemicals management, but its law enforcement and control is fragmented in different entities that lack fluid coordination. Optimizing compliance with national and international commitments in relation to POPs, mercury and other toxic chemicals requires greater involvement and interaction of sectorial authorities.
- ii) Phase-out, by 2025, all PCB-containing equipment and PCB disposal and waste in an environmentally sound manner by 2028, as per the Stockholm Convention. This Project will build upon the ongoing efforts of the Government to identify and promote the environmentally sound management of PCB equipment and waste in power sector and specifically, will foster and articulate results in both industrial sector and sensitive sites. It will be critical to sensitize and assist both, in order to improve the existing lack of information and thus advance in the coordination of necessary activities for an adequate environmentally sound management of PCBs.
- iii) Strengthening the environmentally sound management use of pesticides and their residues within agricultural activity. The country has a wide agricultural land area characterized mainly by family farming. Consequently, large amounts of pesticides are used that could potentially be harmful to human health and the environment if not effectively managed. The project seeks to support and enhance on

going Government efforts and promote the participation and empowerment of family farmers as sustainable development managers of their communities and food security.

iv) The adoption of BAT/BEP in healthcare sector to identify, reduce or eliminate releases of UPOPs and mercury derived from the use of mercury added products still present in health establishments and the inadequate healthcare waste management. In particular, strengthening of healthcare waste management, aims to support the country in addressing the challenges resulting from pandemic COVID-19.

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



Expected Outcomes and components of the Project

PROJECT COMPONENT 1: IMPROVE THE MANAGEMENT OF HAZARDOUS CHEMICALS IN PERU

OUTCOME A: Government institutions and other stakeholders, regarding pops, mercury and toxic chemicals management and elimination strengthened.

Output A1. Regulatory and Institutional framework strengthened for environmentally sound management of POPs, Mercury and other toxic chemicals.

This output aims to strengthen regulatory and institutional framework through the development of legal instruments and the articulation of different authorities involved in chemicals management, control, and law enforcement. Based on existing legal mandates and obligations, enforce the necessary institutional coordination, both horizontal and vertical, to improve Peru's policy and chemicals environmental

sound management towards sustainable development. This will be achieved through two key elements: coordination and communication.

The following activities will be carried out to achieve Output A.1:

1. Creation of a Coordination Unit: The Project will create a Coordination Unit led by the Ministry of Environment and made up of government agencies with competence in chemicals life cycle management with focus on those regulated by the Stockholm and Minamata Conventions. Additionally, a moderator entity of hierarchical rank will be defined to ease the functionality. The coordination unit will be constituted by

- MINAM, through its General Directorate of Environmental Quality, as leading institution.
- MINSA, through its General Directorate of Environmental Health and Food Safety.
- MIDAGRI, through its General Directorate of Agricultural Environmental Affairs.
- SENASA, through its Directorate of Agricultural Inputs and Food Safety.
- OEFA, through its Directorates of Evaluation, Supervision, and Inspection.
- SUNAT, through its Customs and Chemical inputs and taxable goods Offices.
- PRODUCE, through its General Directorate of Environmental Affairs for Industry.
- MINEM, through its General Directorates of Environmental Affairs of hydrocarbons, mining, and electricity.
- VIVIENDA, through its General Directorate of Environmental Affairs.
- MTC, through its General Directorate of Socio-Environmental Affairs.
- National Center for Epidemiology, Prevention, and Disease Control.
- National Institute of Health, through its National Center for Occupational Health and Environmental Protection for Health.
- EsSalud, through its Environmental Health, Safety and Health at Work Office.
- Regional and municipal environmental commissions.
- Any other relevant government agency linked to chemicals management.

Based on the institutional and regulatory survey developed in Annex 14, the competencies of each government entity will be specified, and the interaction and coordination needs among them will be identified for effective compliance with current legal framework on chemicals management. Likewise, proposals for inter-agency coordination mechanisms will be prepared and their implementation will be facilitated.

Additionally, the analysis of the existing regulatory gap developed in PPG phase for an adequate management and control of hazardous substances will be revised and updated if needed. Based on this and with the project support, the Coordination Unit in conjunction with the Technical Group of Chemical Substances will promote the development of identified required legal instruments.

2. Design of an Official Information Exchange Platform: A platform for the exchange and dissemination of information will be created to speed up decision-making on the management of chemical substances in the country. The interaction of the competent bodies will also be promoted and facilitated by this platform, based on the required interactions detected. In this sense, already existing

official entities that make use of information and make decisions regarding POPs, mercury and toxic chemicals management will be connected through this platform.

The project will also provide training to each of the official agencies in platform different functionalities for its proper use and updating.

This officially-based permanent information system will include a reporting system that allows aligning the Minamata and Stockholm National Implementation Plans and the activities developed within this FSP (with the potential to include other international funded projects. Likewise, the platform will produce an annual report and will also encompass the core to report to the secretariats of the Stockholm and Minamata Conventions and to OECD.

Output A2. National system for environmentally sound management and elimination of POPs, Mercury and other toxic chemicals established.

This Output aims to develop a systematic approach for strengthening chemicals environmental sound management within the country following international commitments guidelines and national framework consideration.

The following activities will be carried out to achieve Output A.2:

1. Design of National Chemicals Strategy: A National Hazardous Chemicals Management Strategy will be designed as a technical document/guideline. During its development a Strategic Environmental and Social Assessment (SESA) process will be undertaken.

This strategy will be based on Chemicals and Waste Conventions; the Strategic Approach to International Chemicals Management (SAICM) and its post-2020 vision; the chemicals and waste plan under the intergovernmental network for Latin America and the Caribbean; the OECD legal instruments on chemicals management; and the Global Harmonized System of Classification and Labelling of Chemicals (GHS). The strategy will include environmental, economic, social, health, labor and gender aspects related to the sound and safe management of agricultural and industrial chemicals (including those present in articles and products) throughout all stages of their life cycle, with a view to promote sustainable development. The strategy will also include aspects such as: measures to support risk reduction; effective and complete record of the different accidents, spills or any other type of incident in which POPs and mercury are involved; strengthening knowledge, information and risk communication; strengthening of institutions, law and policy; addressing illegal international traffic of POPs and highly hazardous pesticides; improving storage and stock management of chemicals; development of effective records in the management of POPs in terms of commercialization and use; development of best practices for hazardous chemicals waste; and improving general sound management chemicals practices.

2. Set the basis for the development of a National Inventory: The beginning of the development of a national chemicals inventory and registry will be supported including the legislation and the IT system to support all stakeholders involved in the chemicals lifecycle management.

3. Design of a PCB management system: a national PCB management system will be developed incorporating both industrial and electrical sectors and sensitive sites, together with service suppliers.

This system aims to embrace every stakeholder involved in PCB management and elimination chain in order to promote a coordination mechanism that favors economies of scale for PCBs disposal, as compared to individually led treatment/disposal initiatives. The implementation of the system will be developed with a national vision in a coordinated manner, with particular focus into servicing the industrial sector and sensitive sites.

A Strategic Environmental and Social Assessment (SESA) process will be undertaken during development of the PCB management system.

In addition to this activity, the project will promote the approval of the existing Technical Regulation draft for the Sanitary and Environmental Management of Polychlorinated Biphenyls developed by the Ministry of Health. Otherwise, the project will promote an agreement with MINSA for promoting environmental sound management of PCBs contaminated equipment and waste beyond the sector that currently have regulation in this matter (mining and electricity subsector).

Through this activity the project will support the implementation of any task that derives from regulation as the responsibility of the MINAM.

4. Raise awareness: The activities designed and implemented under this Output will be linked to a strong awareness campaign among key partners within the government and private sector.

Output A3. Coordination platform for regulatory compliance enforcement, for Information and Report of POPs, Mercury and other toxic chemicals control established.

Hazardous chemicals life cycle management regulatory framework enforcement in Peru is segmented into different competent authorities: OEFA, SENASA, MINSA, SUNAT, Regional and Local Authorities. Based on this fragmentation, this output aims to consolidate and strengthen the inspection and control of activities with an impact on the environment and human health. The Project will financially and technically support an intensive inspection campaign as soon as implementation begins with focus on POPs, highly hazardous pesticides, and Mercury. This will be performed under an Inspection Model, which consists in this sequence of five actions: Promote-Inspect-Apply Law-Verify-Communicate and will result in a total of at least 1,500 inspections nationwide.

The following activities will be carried out to achieve Output A.3:

1. Definition of Coordination Arrangements (Promote): The Ministry of Environment will sign an agreement with different enforcement authorities to make public presentations on its behalf in every possible public environment and industry events. Presentations will be based on PCBs, POPs/HHP pesticide, mercury and healthcare waste management obligations resulting from national regulatory requirements and international Convention commitments. The aim of this activity is the promotion of regulatory compliance among key actors in the country.

2. Implementation of an inspection campaign (Inspect-Apply Law-Verify): The project will develop and implement an inspection program throughout the country. For this purpose, the project will finance the training of a group of at least 10 professionals. This group of professionals will support inspection activities under the supervision of their related enforcement agency. The program will also build capacity in the existing inspection bodies of different enforcement authorities, at national and local levels, for the environmentally sound management of hazardous chemicals with focus on those regulated by Stockholm and Minamata Conventions. Likewise, promoting the development of technical

focal points in the regions to establish a national network that can help for the implementation of Stockholm and Minamata NIP activities. 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.

3. Design of a Communication Strategy (Communicate): This activity will operate as part of the Communication Platform designed in Output A1, to properly follow up the supervision reports submitted of PCBs and pesticides (POPs and/or HHP) holders, in order to monitor their compliance under the Stockholm Convention. This strategy will also consider the dissemination of BAT/BEP to main key stakeholders by publishing success and/or failure stories of related hazardous substances management and providing recommendations for potential possessors. This activity foresees the design and implementation of a communication strategy to raise awareness about national and international commitments and their compliance, targeting key stakeholders involved in hazardous chemicals management and elimination chain.

PROJECT COMPONENT 2: ENVIRONMENTALLY SOUND MANAGEMENT AND DISPOSAL OF LEGACY POPs.

OUTCOME B: Pesticides management systems strengthened.

Output B1. Pilot for Pesticides management communication developed for rural population (Family agriculture) in 9 regions of country.

The Project, through this output, will contribute to improve pesticides and empty containers management through communication tools: awareness, training and education techniques of rural farmers, especially family agriculture. The main objective is to strengthen knowledge of family farming in 9 regions of the country by introducing Best Agricultural Practices, which also results in obtaining safe food. The regions will be selected as soon implementation begins in conjunction with MINAM and SENASA. During PPG phase the following criteria were defined for selecting regions of implementation:

? Presence of family agriculture units: according to the National Strategy for Family Agriculture 2015-2021 there are 2,156,833 family agriculture units distributed in all the regions of the country. For instance, the main regions with presence of family agriculture are Cajamarca, Puno, Ancash, Cusco, La Libertad, Jun?n, Piura, Ayacucho, and Hu?nuco.

? Intervention effectiveness: the intervention places must be preferably accessible and must be located where at least 15 persons of a same community or from close communities can be assured to participate in the activities programmed.

? Gender approach: equitable participation of men and women must be sought during the activities to be developed.

The following activities will be carried out to achieve Output B.1:

1. Specialized communication techniques will be designed and implemented through 3 selected Civil Society Organizations (CSO), since several attempts have been tried in this sense without a consistent success, as per opinion of SENASA. Therefore, a sociological diagnose and needs assessment for a better design and implementation will be first determined.

2. Communication strategy will be then developed based on the above and on previous similar experiences in Peru and other countries of the region. The communication strategy will be gradually implemented, starting from a first contact for awareness raising followed by training and coupled to the education programme. Developed in 9 regions, 10 communities per region, 15 people per community. At end of pilot, replicability and scalability will be developed and guidelines elaborated and training implemented for replication.

3. SENASA's Agricultural Health Development Program (PRODESA) will be reviewed, and likely collaboration may be sought, in particular regarding Field Schools activities that are implemented throughout the country. These Field Schools are developed through 12 participatory and experiential learning sessions, with the implementation of good practices in the farmers plots, as it seeks to validate and strengthen the knowledge and skills of the producers, to finally recognize them with the delivery of the Certificate of Graduation in the Training of Best Agricultural Practices. In these, technical assistance to complement will be provided by the Project, in order to assure a hazardous agrochemicals risk approach, facilitate the Field Schools team transfer to places of action and contribute to the mobilization of the equipment needed; coordinate the participation of local relevant governmental stakeholders such as Municipalities or DIRESAs in order to provide an integral intervention; and elaborate a national guideline for the development of Field Schools.

4. Communication materials will be developed for the implementation of the strategy: a communication model in groups of three regions, grouped with geographic criteria, will be then implemented, revised, and improved in a continuous manner, in order to be able to better manage pesticides and their waste and containers. The project will design and produce communication material such as brochures, posters, and bulletins, as well as banners. In addition, the project will develop audiovisual material and facilitate its dissemination through local radio stations and television channels, as well as will develop multimedia material to be broadcasted on institutional websites. As part of this activity, a communication product on the management of pesticides and their containers aimed at rural women dedicated to family farming will be produced.

5. Establishment of a solid network for follow up: The project will facilitate a communication platform for follow up, coordination between local and national government stakeholders such as Decentralized Executive Directorates of SENASA, DIRESAs/GERESAs, regional government, municipalities, and ministries. A contact platform will be established between the professionals assigned by each institution to facilitate direct coordination between people in the communities and government institutions.

Output B2. Pilot for POPs pesticides and Highly Toxic pesticides prevention in the main Lima market of greengrocers.

This output aims to prevent the introduction of POPs pesticides and HHP pesticides into food chain population by monitoring these chemicals in the main Lima Market of greengrocers located in the district Santa Anita in Lima, which receives approximately 2 million tons of food and 9 million buyers per year. For this purpose, this FSP will closely develop and coordinate activities under this Output with SENASA and the Municipal Market Company S.A. (EMMSA) and will seek to incrementally contribute to currently SENASA's ongoing efforts in food monitoring.

The following activities will be developed to achieve Output B.2:

1. Initial diagnosis of the SENASA's Chemicals Laboratory: as a first activity, a detailed diagnosis of technical capacities of SENASA's lab for pesticides analysis will be conducted. This diagnosis will collect information regarding the gaps in infrastructure, equipment, supplies and reagents, technical conditions, certifications, among others for the determination of POPs pesticides and/or Highly Hazardous Pesticides (HHPs) in food.

2. Laboratory habilitation and certification: the project will support the acquisition of necessary supplies and reagents and complementary equipment, as determined in the diagnose, required for the determination of POPs/HHP pesticides residues in food. Training and technical assistance will be provided by the project in order to take the laboratory up to accreditation by a certification agency. As part of this activity, lab samples containing hazardous chemicals will be properly identified and storage, handling and disposal will be defined and included as part of the standard operating procedures.

The laboratory will be certified by the government according to national regulations and if possible, to international standards.

3. Food Monitoring Program: The project will design and implement a Food Monitoring Program in Lima Market for pesticide dietary exposure assessment and possible health risk evaluations for a year, to cover all the crops produced in the different seasons and revised accordingly. Then a second year of tests will be carried out after revision of results. This FSP will ensure a report preparation with recommendations, with corrective and preventive actions to minimize risk, based on the analysis of results.

4. Participatory monitoring campaign with civil society: the development and execution of the program will include the involvement of suppliers, buyers, workers, and civil society attending the market for determination of POPs/HHP pesticides residues in food. The campaign will also include the development of activities to sensitize the participants regarding the prevention of risks from agricultural pesticides, including information about differentiated impact of pesticides on women and men.

This FSP will also support the development of strategies within the National Center for Epidemiology, Prevention, and Disease Control of the Ministry of Health to strengthen the surveillance of events related to hazardous chemicals exposure and intoxication, which takes into account the differentiated impact on women and men. As well as the promotion of coordination mechanisms among SENASA and MINSA for integral hazardous chemicals risk assessment.

Output B3. Pilot/Business model for management and elimination of POPs pesticides and other toxic chemicals: used pesticides containers and agricultural plastics in rural areas.

The objective will be to test a business model to demonstrate sound management and/or elimination of agrochemical related plastic waste: covers, containers and other, which contain POPs or other highly hazardous pesticides for an economically sustainable operation

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: covers, containers and other with POPs or Highly hazardous pesticides. This to be implemented in tropical agricultural areas (for instance banana, pineapple, and other crops growth) under conduction of the

Project Coordination Unit (PCU) and participation of the crop growers. A Small and Medium Enterprise (SME) or Civil Society Organization (CSO) will be selected and supported with technical assistance and Business Model training to implement the pilot.

The pilot will focus on the application of BAT/BEP for the management of agricultural waste plastics which will also include empty pesticide containers. The pilot project will look into proper handling: storage, rinsing, shredding, compacting and recycling into semi-finished products. In particular, a potential recovery of materials through recycling will be sought. 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 end of pilot, replicability and scalability will be developed and guidelines elaborated, and training implemented for replication. This activity has the potential for job creation through its implementation and replicability.

Within this Output, a site-specific environmental and social impact assessment (ESIA) will be conducted.

The sequence of the Output implementation is:

1. Preparation of SME/CSO to implement pilot: i) Selection of SME/CSO, ii) Training of CSO/SME, iii) Business model accompaniment.
2. Pilot implementation: i) Agreements developed with SME/CSO, ii) Identification of Agrochemical enterprises.

OUTCOME C: Environmentally sound disposal of pcbs, pops pesticides and other toxic chemicals.

Output C1. 600 ton of PCBs contaminated equipment and materials from sensitive sites and industry eliminated.

This Output will allow Peru to fully comply with the 2025 and 2028 targets on PCBs under the Stockholm Convention, by developing a comprehensive plan for the total elimination of PCB still remaining in the country.

Through this activity the project will also evidence the elimination of at least 600 ton of PCB contaminated oils and materials. 300 ton will be disposed by private sector coming mainly from industrial activities. And the project will support 300 ton coming from sensitive sites who do not have the technical and financial capacity to ensure environmentally sound PCB disposal.

The elimination of PCBs contaminated equipment will be achieved in the most cost-effective possible manner. For this purpose, two groups will be mainly targeted: sensitive sites and PCB private equipment holders. Larger portion of GEF contribution will be directed to sensitive sites, such as large hospitals and education institutions. The second group, focused mainly on industrial sector identified

through inspection campaign in Output A.3, will be benefited with technical assistance, logistic support and coordination.

Within this Output, a site-specific environmental and social impact assessment (ESIA) will be conducted.

The following activities will be developed to reach Output C.1:

1. Update National PCB Inventory: The project will assist in the activities to consolidate a national comprehensive inventory of electrical equipment and waste contaminated with PCBs in the country, relying on the existing efforts of the energy sector (through Ministerial Resolution No. 002-2021-MINEM/DM) and mining sector (through Supreme Decree No. 040-2014-EM) and promoting the identification of PCBs contaminated equipment existing throughout industrial sector and sensitive sites.

The project will assist mainly industrial sector and sensitive sites by developing specific technical guidelines for identification, treatment, and disposal of PCB contaminated equipment, adding an operational guide for maintenance practices based on Best Available Techniques/Best Environmental Practices (BAT/BEP), as established by the Stockholm Convention. Likewise, it will disseminate these guidelines so that they are adopted by key actors.

2. Complete a PCB disposal capacity assessment: The project will conduct a capacity assessment at a national level for PCB treatment as well as capacity for export, assess costs and identify which capacities would need to be created/improved at national level, focusing on large private industrial groups and sensitive sites but also integrating the power sector companies.

3. Develop a technical and economic feasibility analysis: This analysis will undertake a technical and economic feasibility study and design a financial scheme that will optimize the disposal of PCBs stockpiles for treatment and/or export, owned by PCBs holders nationwide, once there will be a dimension of the residual mass of PCBs remaining.

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 international social and environmental safeguards requirements to be applied.

4. National strategy for PCB management: Based on the feasibility study and disposal capacity assessment, the project will therefore develop the basis for a concrete and adapted national management and disposal plan during the implementation of this FSP (until 2026) and on to 2028. This plan will set the conditions for the destruction of the remaining PCBs stockpiles in Peru, ensuring sustainability of the expected results and the fulfillment of Stockholm Convention commitments. For this purpose, the project will also consider experiences from other projects in Latin America (for example Mexico, Brazil, Argentina).

An Environmental and Social Assessment (SESA) process will be undertaken during the National Strategy for PCB management development.

Output C2. 100 ton of POPs pesticides and other toxic chemicals eliminated.

This Output will evidence the elimination of at least 100 MT of POPs pesticides and/or Highly Hazardous Pesticides (HHPs) and obsolete pesticides stored in different regions of the country. For this purpose, activities will be developed in close coordination with SENASA and MINSA.

As detailed in Table 2, during PPG a total of 16,753.16 Kgs of pesticides were identified as per SENASA, MINSA and SUNAT information:

*DDT: 405 Kgs.

*Hexachlorobenzene: 20 Kgs.

*Methamidophos: 1,903 Kgs.

*Other obsolete and seized pesticides: 14,425.16 Kgs.

Within this Output, a site-specific environmental and social impact assessment (ESIA) will be conducted.

The following activities will be developed to reach Output C.2:

1. Develop/Update inventory: The activities will focus on obtaining in-depth knowledge on the type/quantities/locations of existing obsolete and POPs/HHP pesticides inventories/stockpiles within the country.
2. Assess installed national capacity: the project will analyze national treatment and disposal capacity for obsolete and POPs/HHP pesticides. The identification of Best Available Technologies (BAT) and Best Environmental Practices (BEP) at national level that are able to treat/manage these pesticides in an environmentally sound manner.
3. Optimize elimination process: the project will develop and implement a systematic process for the sound environmental elimination of identified stockpiles. Before disposal, a consolidation plan considering each type of waste will be developed and implemented to reduce costs for the two entities.
4. Minimize the generation of obsolete pesticides: Sensitize and assist main key actors in agrochemicals life cycle management (production, distributions, commercialization, and usage) to prevent and minimize the expiration of these products by introducing best practices such as sustainable purchases procedures.

PROJECT COMPONENT 3: PREVENTION OF EMISSIONS (UPOPs AND MERCURY) FROM HEALTH CARE WASTE.

OUTCOME D: Main sources of emissions (upops and mercury) of hospital waste management addressed.

Output D1. Pilot project to reduce mercury use, to eliminate mercury waste management, and prevent emissions from healthcare waste.

This activity will contribute to reduce mercury emissions from the health sector through the progressive replacement of those mercury added products that are still currently used in health facilities. In addition, it will allow the country to meet the deadline for the prohibition of the import, export and manufacture of mercury added products for the year 2025 based on the exemption requested to the

Minamata Convention. For this purpose, ten (10) pilot projects will be developed and implemented, four (4) with large hospitals and six (6) with small priority hospitals centers and will then promote a replication strategy on a national scale, based on results and lessons learned. Through this Output the project aims to manage and dispose of at least 3 TON of Mercury waste eliminated from mercury-added products in the health sector. This pilot will focus not only on pure mercury products in the health sector (medical thermometers, sphygmomanometers, and dental amalgams), but will also include other products identified as fluorescent lamps, batteries with mercury and thermostats according to the priorities of each facility. The target will be reached by replacement, treatment and disposal of mercury added products as well as the avoidance of mercury due to mercury added devices avoided by BEP introduction in health establishments.

The hospitals will be selected and agreed with MINSA, EsSalud, armed forces, police and MINAM as soon as implementation begins, based on the following prioritization criteria:

? Between the ten (10) pilot projects there must be at least one health establishment that belongs to each of the public health services that exist in Peru: MINSA, Social Health Insurance of Peru (ESSALUD), armed forces, and police.

? The four (4) projects in large hospitals must be in hospitals classified as third level of attention (categories III-1, III-E or III-2), and the six (6) small priority hospital centers must be in health establishments classified as first level of attention under categories I-3 or I-4.

? The health establishments should preferably have an office, a team or a professional designated for the health care waste management in the facility.

? Considering that the FSP wants to enhance the national progressive replacement of those mercury added products that are still currently used in health facilities, those establishments evidencing on going efforts in mercury replacement and management will be considered for assistance.

? Gender approach: equitable participation of men and women will be sought during the activities to be developed.

For each selected site a site specific environmental and social impact assessment (ESIA) will be conducted.

The following activities will be developed to reach Output D.1:

1. Signing an agreement: prior to implementation, an agreement will be signed, documenting the responsibilities and commitments assumed by each party within project's framework.

2. Consolidation of a working group: each of the selected establishments requires the definition of a working group. This group will be considered of reference as responsible and guarantee of the implementation of activities related to mercury added products replacement within the facility. The group will work under the leadership of the project team and must have the support of the hospital management. Ideally, the working group will be made up of representatives from different sectors (nursing, paramedics, purchase, health, and safety, etc.). For the consolidation of this group, it will be considered the "Solid Waste Management and Comprehensive Management Committee" (health establishments categorized II and III) or "Solid Waste Management and Comprehensive Management Responsible" (health establishments categorized I) required by Technical Standard NTS 144-MINSA/2018/DIGESA.

2. Mercury Inventory: as a first step, a comprehensive inventory of mercury added products in use or stored, as well as their related wastes will be carried out. The project will assist in the development of procedures for the identification of materials/equipment/devices that containing mercury, quantify them and determine their location within the health facility. It will be important not only to identify amount and location, but also existing practices for mercury spills and waste management, which must be aligned with the procedures established in NTS 144-MINSA/ 2018/DIGESA. The collected information will be considered as a baseline for the mercury added product replacement schedule.

3. Establishment of a mercury elimination program: based on the inventoried mercury, the project team will develop and implement a program for mercury added products replacement within the health facility. This program will mainly include: the evaluation of mercury-free alternatives that meet WHO technical specifications, are cost effective and preferably available in the country; the development of a mercury-free purchasing policy and a replacement schedule for existing mercury-added products.

4. Mercury segregation, labelling and storage: aligned to the mercury replacement schedule, a segregation program for waste containing mercury will be developed and implemented in accordance with current local regulations. Mercury-contaminated waste will be segregated and labelled as follows: mercury waste container; dental amalgam waste container; medical devices with mercury container; batteries and cells container; broken mercury lamps container. Each health facility will identify and condition a physical space for the temporary storage of mercury waste produced by the establishment.

Procedures and technical guidelines for mercury waste segregation, labelling and storage, as well as for mercury spills management, will be developed and disseminated within health facility workers. Likewise, technical specifications for physical temporary storage will be defined and documented.

5. Assess existing treatment/disposal options: the project will evaluate and list existing disposal and treatment options at national and international level for mercury added products and their wastes. This list will include treatment and disposal options for all mercury added products, with focus on mercury containing medical devices, and will made available to project partners.

6. Training plan for staff: a continuous training plan will be defined targeting all workers of the health institution. Emphasis will be placed on expanding knowledge about the toxicity of mercury, its impact on health (differentiated impact on men and women) and the environment, the correct management of small mercury spills, segregation, labelling and the temporary storage of waste with mercury. This training will also introduce Best Practices for Hospital Waste Management developed under Output D2 and women participation will be encouraged.

7. Guidelines for mercury added products replacement: The activities developed in the framework of the pilot projects and the resulting lessons learned will contribute to the development of Guidelines for the replacement of mercury added products in the health sector. These Guidelines will introduce the specific provisions for restorative treatment with dental amalgam, extraction, and management of its residues, based on scientific evidence and in compliance with Minamata Convention. It will be broadly diffused into the whole country health system.

8. National replication strategy: based on pilot projects results and experiences from other Latin American projects (for example Honduras and Colombia), a national strategy will be designed to promote gradual replacement of mercury added products at national level, to reach all health facilities

in both public and private sectors. The project will contribute to the awareness and dissemination of the manual among health establishments in the country.

Output D2. Five (5) Demonstration project for the introduction of BAT and BEP for Hospital waste management for UPOPs emissions reduction from healthcare waste.

This Output seeks to strengthen health-care waste management practices by promoting the implementation of environmentally sound management (ESM) of hazardous waste or other waste, best environmental practices (BEP) and best available techniques (BAT) in accordance with the Basel and Stockholm conventions and relevant national regulations and requirements, with the ultimate goal of reducing UPOPs emissions. For this purpose, 5 health establishments from those selected in Output D.1 will be elected as pilot sites for the implementation of the activities under this Output and will evidence the elimination of at least 10 gTEq of emissions from Health Care Waste. According to implemented activities and lessons learned, a national replication strategy will be defined. These activities assess opportunities where the project's initiatives and pilots will help reduce the risk of emerging infectious diseases such as COVID-19.

For each selected site a site specific environmental and social impact assessment (ESIA) will be conducted.

The following activities will be developed to reach Output D.2:

1. Signing an agreement: prior to implementation, an agreement will be signed, documenting the responsibilities and commitments assumed by each party within project's framework.
2. Consolidation of a Committee: each of the selected establishments, as per stated in Technical Standard, requires the definition of the "Solid Waste Management and Comprehensive Management Committee" (health establishments categorized II and III) or "Solid Waste Management and Comprehensive Management Responsible" (health establishments categorized I). This group/responsible will be considered of reference as responsible and guarantee of the implementation of activities related to healthcare waste management within the facility and will work under the leadership of the project team. Ideally, the working group will be made up of representatives from different sectors (nursing, paramedics, purchase, health, and safety, etc.) and the participation of women will be promoted.
3. Initial Diagnosis of Healthcare waste management: as a first activity and aligned to Technical Standard No. 144-MINSA/2018/DIGESA, an initial diagnosis will be conducted. This diagnosis includes: Identification of the main sources of generation and the types of waste (bio contaminated, special and common) generated by the facility; Determine on average the amount of waste generated in the different services, as well as their characterization; Obtaining information on the administrative and operational aspects of management of solid waste in the facility; Systematization and analysis of information and the history, as a reference, of the solid waste generated in the facility.
4. Segregation, Collection and Storage of Waste: the project will make sure that there is a suitable segregation within the health facility, including COVID waste segregation. Adequate segregation includes appropriate labelling and waste receptacle available in suitable areas at the point of generation. Additionally, on site transportation will be defined together with a storage location sized according to quantities and frequency of collection of each facility.

5. Technical and economic assessment of treatment/disposal alternatives: in order to minimize hazardous chemicals emissions, the project will evaluate healthcare waste treatment/disposal technologies, technical and economically viable for each facility to ensure that waste that cannot be avoided is treated and disposed of in a safe, economical and environmentally sustainable manner. These alternatives may include security cells, autoclaves, etc.

6. Training plan for staff: The activities implemented in the health establishments will be accompanied by the definition of adequate procedures and a training plan for all the personnel involved in the waste management chain.

Additionally, as a result of this Output, the following activities will be supported:

- Elaboration of a technical guideline for the diagnosis of waste in health establishments according to requirements of Technical Health Standard No. 144-MINSA/2018/DIGESA (approved by Ministerial Resolution N° 1295-2018/MINSA): "comprehensive management and management of solid waste in health establishments, support medical services and research centers". The guide will promote standardization and contain a simple and practical language for easy implementation by responsible personnel in health facilities. This guideline will also introduce BAT/BEP and recommendations of international standards for hospital waste management and reduction of UOPs.

- Development of an annual report on the incineration of waste from health establishments, medical support services and research centers.

PROJECT COMPONENT 4: LESSONS LEARNED IDENTIFIED, MONITORED AND ASSESSED.

OUTCOME E: lessons learned and knowledge managed.

Output E1. Knowledge management system for best practices and communication platform at national level established.

This FSP will develop and implement a national communication strategy for risks and damages to health and the environment due to exposure to POPs, mercury and other hazardous chemicals which includes specific activities and communicational resources for mass dissemination. This campaign aims to raise awareness on stakeholders, project beneficiaries and general public.

Additionally, a permanent dissemination knowledge and information exchange (KIE) platform for project and pilot knowledge products will be established. This project aims to collect lessons-learned, gender challenges and best practices related to POPs and mercury management within Peruvian territory. Project experiences will be gathered and captured in a way that allow their easy update and sharing with understandable communication materials to ensure that outreach of project's outputs are fully available for further replication.

As a result of project activities implementation, lessons learned and towards the end of the project, a financial feasibility study will be developed for the elimination of hazardous chemicals within the scope of the project at national level and its possible mechanisms. This study will serve as a national strategy for project scale-up, ensuring sustainability and durability of the obtained results.

The following activities will be developed to reach Output E1 based on the Gender Action Plan detailed in Annex 11 "Gender Analysis and Action Plan" and awareness raising activities detailed in

Annex 9 ?Stakeholder Engagement Plan? to raise awareness of 7,500 people, (3,750 women, 3,750 men):

1. National Communication Strategy: this FSP will develop and implement a national communication strategy for risks and damages to health and the environment due to exposure to POPs, mercury and other hazardous chemicals which includes specific activities and communicational resources for mass dissemination. This campaign aims to raise awareness on stakeholders, project beneficiaries and general public. Gender considerations will be taken into account in the design and implementation of this strategy, to guarantee a awareness of targeted audience in terms of gender mainstreaming in chemicals management within the scope of this project.

2. Implement the Stakeholder Engagement Plan detailed in Annex 9 and implement the Gender Action Plan detailed in Annex 11 for gender mainstreaming and raising awareness at different levels of related key targeted stakeholders groups.

Output E2. M&E and adaptive management in response to necessities and results from the intermediate evaluation and final findings with lessons learned applied.

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 evaluations 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 D.2:

1. Development of Project's Inception Workshop.

2. Monitoring:

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

b. Project Risk Matrix, Environmental and Social Framework/Social Environmental Screening Procedures (ESMF/SESP), 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) and Multiyear Work Plan (Annex 2). 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.

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-1-1 Strengthen the sound management of industrial chemicals and their waste through better control, and reduction and/or elimination (Component 1 and 3).

CW-1-2 Strengthen the sound management of agricultural chemicals and their wastes, through better control, and reduction and/or elimination (Component 1 and 2).

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

Component 1. Improve the management of hazardous chemicals in Peru.

Contributions from the baseline:

The Government of Peru signed the Stockholm Convention on May 2001 and ratified the Convention on August 2005, coming into force in December 2005 by means of Supreme Decree n° 067-2005-RE. The country developed its National Implementation Plan (NIP) in 2007 where activities were determined based on the first National Inventories of Polychlorinated Biphenyls (PCB), POP Pesticides, and Sources and Releases of Dioxins and Furans. The country has developed and recently approved its NIP update through Supreme Decree N° 010-2021-MINAM.

To address the risks posed by mercury, the Government of Peru signed the Minamata Convention on October 2013 and ratified the Convention on November 2015 by Supreme Decree No. 061-2015-RE. Likewise, for its early implementation, a Multisectoral Action Plan was approved, through Supreme Decree No. 010-2016-MINAM, which included activities for the fulfillment of the obligations

established by the agreement through a multisectoral coordination work led by the Ministry of the Environment. In addition, Peru developed and published its Minamata Initial Assessment (MIA) during 2019 and approved by DS N° 004-2019-MINAM a National Implementation Plan for the correct implementation of said Convention. As of June 2021, the degree of execution of the plan was: 32% of the activities were completed, 34% partially implemented and 34% pending implementation.

Since the signing and ratification of both Conventions, the country has conducted various activities aimed at improving the management and elimination of POPs and mercury in the country. However, Peru needs to overcome a national context which leads to a series of institutional, technical, financial and environmental gaps that delay the national capacity to manage PCBs, mercury and other toxic chemicals, causing a great risk to human health and the environment due to its presence and potential release in different economic sectors (such as agriculture, industry and health).

Contributions from Co-financing:

The MINAM and other government entities relevant for the sound management of chemicals within the scope of this FSP will contribute with capacity-building activities, including training and better information management through the promotion of inter-institutional coordination. This will allow to improve and strengthen cooperation and coordination between government authorities with competence in the area for decision making processes and development of regulatory and policy instruments.

Contributions from GEF/TF:

Create a coordination unit among relevant authorities for chemicals sound management and support the development of an Information Platform Exchange to speed up decision-making on the management of chemical substances in the country and encompass the core to report to the secretariats of the Stockholm and Minamata Conventions and to OECD. (Output A1)

Design a National Strategy for chemicals management throughout all stages of their life cycle, with a view to promote sustainable development, based on International Chemicals and Waste Conventions including environmental, economic, social, health, labor and gender aspects. In addition, the setting of the basis for a national chemicals inventory and register together with a National PCB management system. (Output A2)

Enhance the capacity building of enforcement authorities within the country and support the enforcement of hazardous chemicals regulations, providing the tools for environmental authorities to establish monitoring and control programmes of POPs and HHP holders. (Output A3)

Component 2. Environmentally sound management and disposal of legacy POPs.

Contributions from the baseline:

-

The agricultural sector plays an important role in Peru's economic activity. The natural environmental conditions of country's geographic regions constitute an advantage for the development of this activity. Furthermore, agricultural activity is one of the oldest economic practices in Peru, being the agricultural area equivalent to 30.1% of the total area of the country. According to the latest National Agricultural Census^[18], family farming represents 97% of the total agricultural units (2.2 million agricultural units). In the same way, more than 83% of agricultural workers carry out family farming and it is the basis of the population's food security. The 2019 Report on the Monitoring of chemical residues and other pollutants in primary agricultural food evidenced that 1,779 samples of food of plant origin were analyzed, of which 21% exceed the maximum permissible limits of agricultural pesticides residues.

In Peru there are different regulations that prohibit the importation and use of POPs pesticides in agricultural activity. On the other hand, there is no prohibition of its use in public health, industrial, domestic, and other applications. The SENASA, ascribed to the Ministry of Agrarian Development and Irrigation, within the framework of its competence, regulates the management of pesticides and their residues (including containers) in agricultural activity. During 2020, Peru imported 74,112.94 ton of chemical pesticides for agricultural use. Additionally, there is a significant illegal trade in all types of non-POP pesticides, as a result of smuggling, ambulatory sales, counterfeits, and adulterations. It is equally relevant to highlight that of 2,200 ton distributed pesticide containers during 2020 only the 20% was collected and environmentally sound managed.

Considering previous statements it is clear that there is a remarkable room for improvement in agricultural activity within the country by strengthening key stakeholders (public and private) in life cycle management of POPs pesticides and HHP.

In terms of PCB, although progress has been evidenced especially in mining and electric sector, a considerable amount of PCB containing equipment are still left in the country and require a sound management and disposal with relevance in the industrial sector and sensitive sites where no clear efforts have been evidenced.

Contributions from Co-financing:

As for pesticides and its residues: SENASA will support through its current on going programs for sound management of pesticides. In particular, trainings and workshops in Field Schools, Annual monitoring food program, Acquisition of Lab Equipment, ect.

Equally relevant, private sector through CAMPO LIMPIO, AGRITIERRA, agrochemicals companies as well as management and disposal hazardous waste companies will support with training, raising awareness, management and disposal activities for pesticides and empty containers.

As for PCBs, the industrial sector will contribute financial and human resources to the inventory and disposal of its own PCB equipment.

Contributions from GEFTF:

-

Through pilot projects in Component 2, the proposal will strengthen the sound management of pesticides (POPs/HHP) in the country by:

- Introducing BAT/BEP in family agriculture regions through the development and implementation of innovative communication tools to strengthen pesticides and its residues management. (Output B1)
- Conduct a food monitoring program in Lima Market while building capacity in SENASA's lab for measuring POPs/HHP pesticides. (Output B2)
- Develop a business model for introducing BAT/BEP alternatives for managing and disposal for plastics in agriculture activity. (Output B3)

The project will subsidize the pilot projects identified in Componente 2, sharing cost with the private sector. The GEF proposal will add value in many ways, but two important things are important to note. The project will help assuring that disposal activities are done in accordance with international standards, and secondly, the project will play a coordination role among possessors of PCBs, pesticides POPs/HHP, etc. which will lead to lower disposal costs for the country through an improved coordination among all the stakeholders.

The project will allocate resources for the management and disposal of identified POPs and HHP pesticides stocks. (Output C2)

Of the 600 tons of PCBs to be disposed of with project support, elimination and disposal costs will be allocated to support the disposal of 300 tons of PCBs owned by the sensitive sites who do not have sufficient capital to cover disposal costs. As such project resources will be used in the most cost-efficient way, while optimum effectiveness of the project is achieved in terms of high disposal rates by bundling project and private sector resources and efforts. (Output C1)

Component 3. Prevention of emissions (UPOPs and mercury) from healthcare waste.

Contributions from the baseline:

-

Latest inventories, developed for the NIP update, show that Disposal/Landfill and Open Burning represent 46% and 32,2% respectively of the total polychlorinated dibenzodioxins and dibenzofurans. Within these categories and waste incineration, healthcare waste management is an activity of relevance, which is increased even more in a pandemic context. The infrastructure available in the country for the treatment and final disposal of sanitary waste is limited. There are few health establishments that have autoclaving treatment, others give private treatment through incineration and generally go to final disposal where there is also limited infrastructure: 6 security landfills and 7 landfills with security cells.

The existence of a regulatory framework that allows optionality in the healthcare waste treatment and the absence of an adequate and sufficient treatment and final disposal infrastructure throughout the territory, together with the lack of awareness in healthcare system constitute factors of great challenge for improving healthcare waste management.

One of the main uses of mercury added products is in health establishments, through mercury thermometers, manometers, sphygmomanometers, and even dental amalgams. The use of such products still persists in the national system, and this demands an arduous effort from the Health Authority for the progressive replacement towards mercury-free medical devices, as well as for the development of a strategy for the adequate final disposal after the withdrawal of said products from the national market. The country requested an exemption for 5 years for the import/export/manufacture of thermometers and sphygmomanometers, extending the term to December 2025. Thus, it is necessary to support the health sector for the proper identification and management of mercury added products in order to meet the expected deadlines.

Contributions from Co-financing:

The co-financing comes from public health sector (MINSA, EsSalud, armed forces, police), in the form of investments (training, human resources, etc) for the implementation of mercury equipment/products replacement or the application of BAT/BEP for healthcare waste management.

Contributions from GEFTE:

The project will support the design and execution of pilot projects in Component 3 for:

- Identification and replacement of mercury containing equipment/products in 10 health establishment, as well as assess treatment and disposal alternatives. (Output D1)
- Introduction of BAT/BEP for healthcare waste management and disposal in 5 health establishments for reducing UPOPs emissions. (Output D2)

The project will subsidize the pilot projects assuring that disposal activities are done in accordance with international standards and playing a coordination role among all stakeholders for mercury and healthcare waste management.

Component 4. Lessons learned identified, monitored and assessed.

Contributions from the baseline:

In the context of Peru, where different government authorities are competent in hazardous chemicals management through its lifecycle and the needed coordination not only between public authorities but also with private sector, the flow of communication will help Federal and regional levels to identify complementarity and joint planning together with the execution of the planned activities. Additionally specific training and awareness-raising programmes for the private sector, civil society and the general population needs to be developed for improving results sustainability.

Contributions from Co-financing:

The MINAM and other public entities within the scope of this project, as well as private sector associations will provide in-kind contributions in the form of human resources and/or facilities for holding events, forums, workshops, trainings, courses and awareness-raising.

Contributions from GEFTF:

GEFTF resources will be applied for the establishment of a dissemination knowledge and information exchange (KIE) platform at national level for project and pilot knowledge products. (Output E1)

In addition, the project will finance the establishment of a project monitoring and evaluation system with its mid-term and final evaluation reports. (Output E2)

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:

- Elimination of 600 ton of PCB-contaminated materials.
- Elimination of 100 ton of POPs pesticides.
- Elimination of 3 ton of mercury waste from products for medical use.
- 10 gTEQ of unintentional POPs reduction.

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

The innovation of this project is based on the integrated approach for different wastes containing POPs, mercury, and other hazardous chemicals in various economic sectors. This will be the first time that a coordinated effort will be carried out at this scale in Peru for the management and disposal of hazardous waste. It is expected to generate awareness among stakeholders about their obligations regarding POPs and mercury management and will identify cost-effective options for their management.

Likewise, the approach is innovative since it requires close technical and financial collaboration from the private sector to achieve the project objectives. In particular, the support of the owners of equipment and materials contaminated with PCBs, users and producers of pesticides as well the medical sector will be essential.

The sustainability of the project beyond its completion will be guaranteed mainly by strengthening the capacity of existing institutions, with the support of policies and regulations that will continue to be improved and expanded with the support of the project. Sustainability will also be guaranteed by supporting key elements, such as improving compliance capacity and establishing a monitoring mechanism that will facilitate the collection of information on management and disposal activities in the country. Likewise, the creation of a Coordination Unit involving key competent institutions for chemicals life cycle sound management as well as the development of a National Strategy for Chemicals Management will constitute important pillars for the sustainability of project results.

Project sustainability is also ensured by the elimination and sound disposal of 703 ton of hazardous chemicals and empty pesticide containers; the reduction of 10 gTEQ of UPOPs emissions; strengthening capacities in family agricultural activities as well as the monitoring of pesticides residues in food; and the introduction of BAT/BEP for healthcare waste management with great relevance in the current context of COVID-19 pandemic.

Furthermore, the implementation of the stakeholder engagement strategy will also help the project to better engage the relevant stakeholders at key times, ensure commitment to project goals and instill a sense of ownership in the project's implementation and its results.

The potential for scale up is essential to this project, since results obtained in the pilots and business models implemented for different waste management must be replicated throughout the country in the relatively short period of time. To enable Peru to phase-out (by 2025) and dispose of (by 2028), all remaining PCB-containing equipment as per the Stockholm Convention within its large territory, the project will: update the national PCB inventory; complete a PCB disposal capacity assessment; undertake a feasibility study and prepare a financial plan for elimination of the entire national PCB inventory; and update/improve the National Management and Disposal Strategy for PCBs in line with the Stockholm Convention.

Additional scale up opportunities will arise from the pilot projects implemented in Component 2 and 3 in two relevant activities within national territory: agricultural and healthcare sector. Each of the demonstrative pilots will implement interventions to manage and dispose of challenging waste streams (such as pesticides, plastics containers, mercury and HCW) and experience from these pilots is expected to be scaled-up or replicated nationwide to other regions, other types of chemicals/wastes, larger volumes, as well as other countries among other possibilities.

[1] IV National Agricultural Census 2012 - <http://censos.inei.gob.pe/cenagro/tabulados/>

[2] The Regional Health Departments of San Martín, Cajamarca, Ayacucho, Callao, and Huánuco and the Regional SENASAs of Amazonas, Huancavelica, La Libertad, Apurímac, Arequipa, Ica, Cajamarca and Pasco reported zero stock of POPs pesticides and obsolete pesticides.

[3] Illegal Trade of 15%, based on agrochemical industry estimations.
[https://cultivida.org.pe/blog/?view=post&title=Agroqu%C3%ADmicos:%20Contrabando%20alcanza%20los%20US\\$%2010%20millones](https://cultivida.org.pe/blog/?view=post&title=Agroqu%C3%ADmicos:%20Contrabando%20alcanza%20los%20US$%2010%20millones)

[4] IV National Agricultural Census 2012 - <http://censos.inei.gob.pe/cenagro/tabulados/>

[5] In 2020 SENASA developed 379 Field Schools in best agricultural practices and for 2021 SENASA has projected to develop around 1,530 Field Schools in all over the country.

[6] https://servicios.senasa.gob.pe/SIGIAWeb/sigia_consulta_empresa.html , July 2021.

[7] SENASA 2020 ? ?biannual report on the importation of agricultural pesticides?

[8] Health Service Provider Institutions (IPRESS) ? Ministry of Health

- [9] Environmental Statistics Yearbook 2020 - https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1760/libro.pdf
- [10] Waste Management during the COVID-19 Pandemic (PNUMA, 2020).
- [11] Preparation Plan and Response to possible second pandemic wave by Covid-19 in Peru (MINSA, 2020).
- [12] World Health Organization (WHO).
- [13] Private companies are registered by the Ministry of Environment <https://www.gob.pe/institucion/minam/informes-publicaciones/279709-listado-de-rellenos-sanitarios-a-nivel-nacional> . Hospitals with treatment technology are informed by the Ministry of Health, there is no systematized registry.
- [14] Private companies are registered by the Ministry of Environment <https://www.gob.pe/institucion/minam/informes-publicaciones/279709-listado-de-rellenos-sanitarios-a-nivel-nacional> . Hospitals with autoclaves are informed by the Ministry of Health, there is no systematized registry.
- [15] Based on year 2019 data.
- [16] ?Knowledge and practices on reduction of mercury added to medical devices in health workers?. Alatriza-Gutiérrez, M.; Romero-Onofre, R.; Romero-Onofre, K.; Arias-Almaras, C. (2018). <https://revistas.urp.edu.pe/index.php/RFMH/article/download/1729/1643/>
- [17] According to the National Registry of Health Service Provider Institutions (RENIPRESS).
- [18] IV National Agricultural Census 2012 - <http://censos.inei.gob.pe/cenagro/tabulados/>

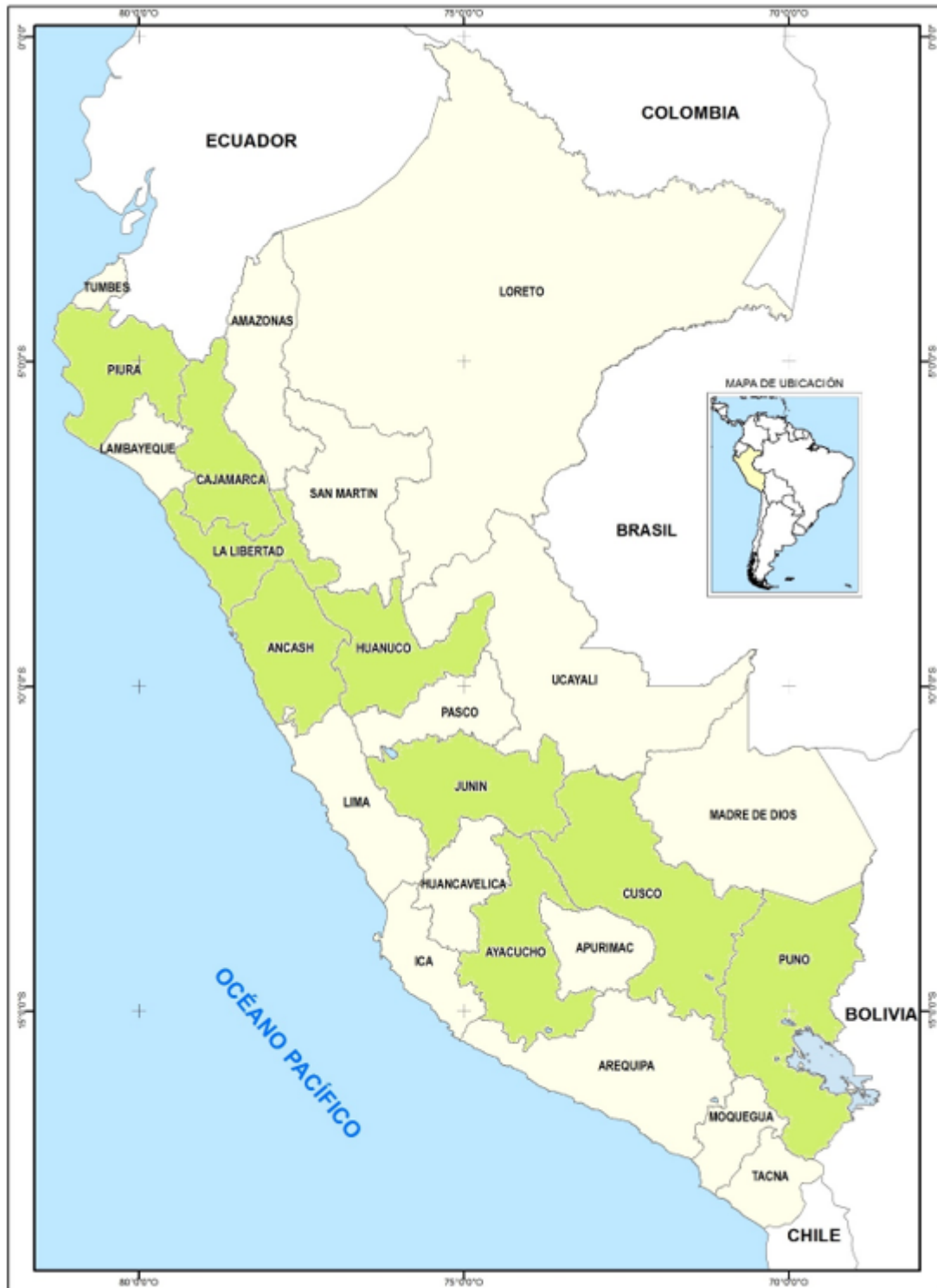
1b. Project Map and Coordinates

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

a. Geographic Regions of Peru



b. Preliminary regions for Output B1 and B3 implementation.



c. Location of Lima's Great Wholesale Market (Santa Anita) for Output B2 implementation.

**Great Wholesale
Market of Lima**

Coordinates:
18L
288131 m E
8668455.9 m S



d. Preliminary regions where obsolete POPs/HHP have been identified (Output C2)



e. Installed capacity for hazardous waste treatment and disposal.



Incinerators

- Seché Group Peru (Lima)
- Veolia (Lima)
- Arpe E.I.R.L. (Piura)
- Incineragas E.I.R.L. (Lima)
- Tower and Tower (Ica)



Regions with Security Landfills
or Landfills with security cells



Installed capacity for treatment and elimination of equipment and oils contaminated with PCBs:

- Seché Group Peru (Lima)
- Kioshi Peru (Lima)

1c. Child Project?

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

N/A

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

attached

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

During the PPG, a stakeholder analysis was undertaken and 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 detail of this analysis and plan can be found in Annex 9.

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 planned 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:

Type	Group	Stakeholder	Role
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Public Entities	National Government	Ministry of Environment (MINAM)	<p>MINAM is the governing body, which develops, directs, supervises, and executes the national environmental policy. This Ministry is also the national focal point for the Stockholm and Minamata Conventions and leads their implementation.</p> <p>MINAM will be the implementing partner for the project. Through its General Directorate of Environmental Quality, it is responsible for the design, coordination and implementation of the project and as such is part of the Steering Committee of the project.</p>
		Ministry of Agrarian Development and Irrigation (MIDAGRI) National Agrarian Health Service (SENASA)	<p>The MIDAGRI is the governing body that designs, establishes, executes and supervises national and sectoral policies on agrarian matters. The SENASA, as organism attached to MIDAGRI, regulates the management of pesticides and their residues (including packaging), including the management of the National System of Pesticides for Agricultural Use, and the monitoring at a national scale of chemical residues and other pollutants in food. The SENASA is also the national authority designated for the Rotterdam Convention. It has 24 Decentralized Executive Directorates. SENASA will:</p> <ul style="list-style-type: none"> ? Provide reliable information on obsolete pesticide stocks and pesticide residues in food. ? Support the implementation of activities under Output B1, B2 and B3 and C2. ? Contribute to the fulfillment of the activities within component 1 of the project.

		Ministry of Health (MINSA)	<p>MINSA is the governing body for health in Peru and formulator of public policies related to the population's public health. Through its General Directorates, has competence in hazardous chemicals management in the health sector, such as mercury, and in healthcare waste management at the national level. Through its General Directorate for Environmental Health and Food Safety (DIGESA) it is the competent authority for the Basel Convention, designated national authority for the Rotterdam Convention and national focal point for the Stockholm Convention. Likewise, DIGESA coordinates the activities carried out by the Regional Health Directorates and Managements, such as the identification of obsolete POP or highly hazardous pesticides, within the framework of its competence.</p> <p>MINSA will be directly involved in activities under Component 1 and Component 3. It will provide reliable information on POPs and HHP stocks within health sector. As well as mercury and healthcare waste management, fostering the introduction of BAT/BEP in health facilities.</p>
		Ministry of Energy and Mines (MINEM)	<p>The MINEM is the governing body whose competence is to promote the integral and sustainable development of mining and energy activities, including environmental management instruments of mining, hydrocarbon and electricity companies. Through the General Directorate of Environmental Affairs of Electricity, it is in charge of regulating the use of PCBs in the electricity subsector and has the role of collecting information on PCB stockpiles within power sector.</p> <p>MINEM will provide reliable information on PCB stocks in the electricity sector, as well as facilitate communication with the possessors to achieve an environmentally sound management of PCBs contaminated equipments.</p>

		<p>Ministry of Production (PRODUCE)</p>	<p>PRODUCE is the authority in charge of the management and regulation of the fishing, aquaculture, industrial and internal trade sectors. Through the General Directorate of Environmental Affairs for Industry (DGAAMI), the environmental management instruments of the industrial sector administrations are evaluated (those that involve measures for the management of chemical substances in a broad sense).</p> <p>PRODUCE will provide reliable information on potential sites with a presence of PCBs in the industrial sector, as well as facilitate communication with the possessors to achieve an environmentally sound management of PCBs through the project.</p>
		<p>Ministry of Labor and employment Promotion (MINTRA) Social Health Insurance (ESSALUD)</p>	<p>EsSalud it is a decentralized public body, with legal status of internal public law, attached to the Ministry of Labor and Employment Promotion. It is the institution of social health security, which takes care of the comprehensive care of the health needs of the insured population. It has a total of 400 establishments between general hospitals, polyclinics and specialized health establishments, strategically located throughout Peru.</p> <p>EsSalud will be a reliable source of information on mercury and HCW management, fostering the introduction of BAT/BEP in health facilities within the activities under Component 3. It will be also involved for PCB identification health establishments as sensitive site.</p>

		<p>Ministry of Economy and Finance (MEF)</p> <p>National Superintendence of Customs and Tax Administration (SUNAT)</p>	<p>SUNAT is a specialized technical body in Peru attached to the Ministry of Economy and Finance. In relation to the project, it has, among other functions, the implementation, inspection, and control of customs policy in the national territory and international merchandise traffic, and the control and inspection of chemical products that may be used in illegal mining (such as mercury), as well as the control and inspection of chemical products that can be used directly or indirectly in the manufacture of illicit drugs.</p> <p>SUNAT will provide reliable information on stocks of POP/HHP pesticides seized at the border, as well as contribute to the fulfillment of activities under Component 1.</p>
		<p>Environmental Assessment and Enforcement Agency (OEFA)</p>	<p>The OEFA is the specialized technical body attached to MINAM that exercises competence in the control of environmental management instruments for activities in the industry, energy, mining and agriculture sectors, among others, as well as its articulation at the regional level.</p> <p>This inspection activity is of great importance for the verification of regulatory compliance with regard to the management of hazardous chemical substances and their waste, as well as for the gathering of information on them.</p> <p>The OEFA will contribute to the activities of Component 1, such as institutional strengthening and the regulatory framework compliance, or strengthening the reporting of information on toxic chemicals; as well as contribute to the collection of information on stocks of toxic chemicals in the country, such as PCBs.</p>

	Local Government	Regional Governments (GORES)	<p>The GORES are 25 public institutions in charge of the superior administration of each department. They are considered legal persons of public law with political, economic, and administrative autonomy within their competence. The regional governments of Peru are made up of two bodies: a Regional Council and a Regional Governor.</p> <p>Due to its articulation capacity at regional level, the GORES will contribute to the coordination and divulgation of the activities to be developed in different states within the territory.</p>
International Organization	Cooperation Agency	UNDP	<p>UNDP and its Peru Country office have extensive experience working with governmental institutions, the private sector, and civil society.</p> <p>UNDP is accountable to the GEF for the implementation of this FSP. This includes oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and provisions.</p>
Civil Society Organizations	Industrial Associations	National Society of Industries (SNI)	<p>The National Society of Industries is a private organization that groups together the Peruvian business union of the manufacturing industry. It carries out its activities through technical committees, of which the Chemical Industry Committee and the Agrochemical Industry Committee are relevant to the project.</p> <p>The SNI will be a strategic partner for the identification of companies possessing equipment potentially contaminated with PCBs and promoting its environmentally sound management. In turn, it will provide information on stocks of highly hazardous obsolete pesticides. Additionally, it will promote and facilitate communication with the national private sector, optimizing the execution of project activities.</p>

		Campo Limpio	<p>It is an association that groups 29 agrochemical companies in Peru. It develops actions for the environmental sound management of empty containers at the national level. Its main areas of intervention are: Ica, Lima, La Libertad, Piura, Ancash, Arequipa, Lambayeque, San Martin and Ucayali</p> <p>Campo Limpio will be a strategic partner for the Output B.3.</p>
		Agriterra	<p>It is an association made up of 29 agrochemical registration companies that carry out training programs and technical assistance in the use of pesticides aimed at small family farmers nationwide: empty packaging programs and obsolete pesticides programs. Its field of action is the valley of Santa Rosa de Quives, Chancayllo, Valle del Chillón and Huaral and soon Cuzco and Tarma.</p> <p>Agriterra will support activities under Outcome B.</p>
Private Sector	Waste management and disposal companies	<p>Considering the project scope, this group is made of:</p> <ul style="list-style-type: none"> - Sech? Group - Kioshi - Tower and Tower - Veolia 	<p>These companies are licensed to perform treatment and disposal management activities of hazardous waste within the scope of the project (PCB, HCW, POPs/HHP pesticides and Hg). Consequently, these companies will:</p> <p>? Participate in the execution of pilot projects under Output C1, C2, D1 and D2.</p> <p>? Provide technical capacity for treatment and disposal of hazardous wastes.</p> <p>? Provide co-financing in the form of investment in the technologies to treat wastes containing POPs and Hg.</p>
	Food Market Company	municipal market company (EMMSA)	<p>EMMSA is a municipal company under private law whose objective is the administration, control, supervision, and direction of the existing public markets in Lima province.</p> <p>EMMSA will support the implementation of Output B.2.</p>

Academy	Universities	Universidad Agraria La Molina.	<p>This university is working together with Tower and Tower, technically validating the technological development for the treatment of mercury at the national level.</p> <p>Additionally, conducts research on POP and HHP pesticides in the agricultural sector and its presence in food.</p>
Other Beneficiaries	Sensitive Sites	Family Agricultural sector	<p>This sector is of great relevance for the agricultural activity of the country and consequently in its impact to human health and environment.</p> <p>Family Agricultural sector will:</p> <ul style="list-style-type: none"> ? be involved in awareness and training activities for pesticides sound management and its waste environmental treatment and disposal. ? support the implementation of activities under Output B1.
		Public Hospitals	<p>This sector represents the 43% of health establishments in the country. Public Hospitals will:</p> <ul style="list-style-type: none"> ? contribute with the project by providing updated and reliable data/information related to the current PCBs contaminated equipment in operation and PCBs wastes existing at public hospital; ? contribute with the project by providing updated and reliable data/information related to the mercury added products and mercury waste existing at public hospital; ? support the implementation of activities under Output C1 and Outcome D; and ? be involved with their technical personnel in awareness and training activities for Hg, HCW and PCBs environmental sound management and elimination of contaminated wastes.
		Other Sensitive Sites	<p>Sensitive sites will be involved in the development of FSP activities that could have direct impact on their facilities, particularly related with the disposal of PCBs containing equipment, mainly electrical transformers.</p>

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier; Yes

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

Executor or co-executor; Yes

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 11 "Gender Analysis and Action Plan" includes the detail of this work but it can be highlighted that main objective of this plan is to mainstream the gender approach in the life cycle of the project contributing to a sustainable and inclusive development in the population that inhabit the areas and that work in the intervention sectors of the project. Likewise, the specific objectives are:

1. Raise awareness on the concepts of gender approach to achieve sustainable and inclusive development in the management and elimination of PCBS, mercury and toxic chemicals.
2. Promote actions that protect the health of men and women, taking into account the differentiated exposure to PCBs, mercury and other toxic chemicals in the project.
3. Improve spaces for participation and empowerment of women as agents of change for the management and elimination of PCBS, mercury and toxic chemicals.
4. Generate information disaggregated by sex that will serve as a basis to strengthen the project's monitoring, communication, and evaluation mechanisms on the management and elimination of PCBS, mercury, and toxic chemicals.

As a result of the implementation of the gender action plan, it is expected to improve working conditions, health and information disaggregated by sex in the sectors and areas of priority intervention throughout the life cycle of the project, thus contributing to the strengthening of the processes of governance and sustainable and inclusive development in the management and proper disposal of PCBS, mercury and toxic chemicals.

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;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women

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?). A good sign of private sector engagement in the project's implementation is that 33% of the project's co-financing (USD11.3 million) is being provided by the private sector; as such it can be concluded that Private Sector Engagement for this project is substantial.

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 the owners of remaining electrical equipment with PCBs under the scope of this project. b) Another private stakeholder group is made up by the service suppliers for the management, elimination and treatment of wastes containing POPs and mercury, which has shown high interest in the implementation of the activities under Component 2 and 3.

The private sector partners who are engaged in the project's implementation can be grouped as follows:

Industrial associations:

National Society of Industries (SNI)

Campo Limpio

Agritierra

Private sector and sectors to intervene:

Waste management and disposal companies

Municipal Market Company (EMMSA)

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 Peru. 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 key risks that could threaten the achievement of project results have been summarized in the Table below. For further details of this analysis, please refer to the UNDP Risk Register in Annex 7, and an assessment of the social and environmental risks identified in the SESP (Annex 6).

Risk Class	Risk and Description	Risk Management Response
Social and Environmental	Risk 1: Duty bearers, such as inspectors under supervision of related enforcement agency and other government officials including customs agents, may not have the capacity to meet their obligations in the Project	The project will finance the training of a group of at least 10 professionals who will support inspection activities under the supervision of their related enforcement agency. The program will also build capacity in the existing inspection bodies of different enforcement authorities, at national and local levels, for the environmentally sound management of hazardous chemicals with focus on those regulated by Stockholm and Minamata Conventions (Output A3, Activity 2). Training needs assessment will be undertaken (guided by the SES, as noted in the ProDoc), 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. In line with the Environmental and Social Management Framework (ESMF) (Annex 10 of the ProDoc) that has been prepared for the Project, additional capacity building will be done as needed per the developed Environmental and Social Management Plans (ESMPs). The project will also place the Ministry of Environment Grievance Redress Mechanism (GRM) through its citizen services platform to provide meaningful means for local communities and affected populations to raise concerns and/or grievances when activities may adversely impact them.

	<p>Risk 2: Temporary suspension of power supply to sensitive sites (schools/hospitals), as well as rural and poor populations during implementation of the PCB management system during replacement of power transformers in the pilot activity.</p>	<p>As mentioned in the ESMF, an Environmental and Social Impact Assessment (ESIA) will be undertaken for the pilot activities under Output C1, in order to take the incorporate appropriate measures to avoid affecting any population, either at the nearby community level and with patients (hospitals), customers (commercial centers and students (academic centers) located in the sensitive sites. The resulting Environmental and Social Management Plan (ESMP) will thus develop and implement a replacement and maintenance schedule and procedure that ensures hospitals and health facilities are equipped with operating generators prior to suspension of power, and that schools are not in service during these periods. The schedule will also take into account stakeholder concerns and preferences to the extent possible.</p>
	<p>Risk 3: Increase in electricity tariff for the poor rural population due to replacement of transformers in the pilot activity.</p>	<p>In accordance with the ESMF for this project, the ESIA will assess whether any vulnerable communities may be affected by a rise in additional expense electricity tariffs as a result of the pilot activities under Output C1, and measures incorporated in the ESMP to address this risk.</p>

	<p>Risk 4: Farmers, including those from indigenous communities, who chose not to participate in project activities do not benefit from improved practices and reduced exposure to hazardous chemicals.</p>	<p>As part of Output B1, specialized communication techniques will be designed and implemented through 3 selected Civil Society Organizations (CSO). Based on this and on previous similar experiences, a communication strategy will be developed and gradually implemented, starting from a first contact for awareness raising followed by training and coupled to the education programme. Developed in 9 regions, 10 communities per region, 15 people per community. At the end of pilot, replicability and scalability will be developed and guidelines elaborated and training implemented for replication. This will ensure continuous dissemination of information</p> <p>In addition, the Stakeholder Engagement Plan (Annex 9 of the ProDoc) will ensure effective engagement of farmers by creating and disseminating information about benefits of participating in the project, fostering cooperation, and enhancing capacities. Should any issues arise during implementation requiring additional consultations with Indigenous Peoples, this will be done in line with SES6, as well as Ministry of Environment commitment to safeguarding the rights of Indigenous Peoples in Peru.</p>
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	<p>Risk 5: The project could reproduce existing discriminations against women through excluding them from decision-making on project activities, benefiting from project outputs and capacity building initiatives.</p>	<p>A Gender Action Plan (Annex 11 of the ProDoc) has been prepared to mitigate the identified risk and propose measures that ensure that women are represented in decision-making and are included in capacity building activities for the project. Specific objectives of the Action Plan include:</p> <ol style="list-style-type: none"> 1. Raise awareness of the concepts of gender approach to achieve sustainable and inclusive development in the management and elimination of PCBs, mercury and toxic chemicals. 2. Promote actions that protect the health of men and women taking into account the differentiated exposure to PCBs, mercury and other toxic chemicals in the project. 3. Improve spaces for participation and empowerment of women as agents of change for the management and elimination of PCBs, mercury and toxic chemicals. 4. Generated sex-disaggregated information that will serve as a basis for strengthening the project's monitoring, communication and evaluation mechanisms on management and elimination of PCBs, mercury and toxic chemicals. <p>This risk will be further assessed in the Strategic Environmental and Social Assessments (SESAs) and Environmental and Social Impact Assessments (ESIAs) that will be undertaken during project implementation as described in the ESMF.</p>
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	<p>Risk 6: Accidental release of PCBs, POPs, mercury or hazardous chemicals into the environment due to improper handling, storage, transport and treatment/disposal of these chemicals and exposing the workers as well as the local communities living nearby</p>	<p>In line with the ESMF that has been prepared for the project, an ESIA will be conducted for the elimination of PCB contaminated equipment and materials (Output C1), POPs pesticides, used pesticides containers and agricultural plastics in rural areas (Output B3), POPs pesticides and/or HHPs (Output C2) and pilots for mercury waste (Output D1 and D2), such that mitigation measures will be developed and included in the ESMP for each pilot, which will likely include a Spill Prevention and Management Plan and an Occupational Health and Safety Plan to be applied during implementation. This plan will describe how the project will handle, transport and store hazardous material in accordance with the Peruvian legal framework and IFC Health and Safety Guidelines.</p> <p>In addition, as part of the initial diagnosis and rehabilitation of the SENASA's Chemicals Laboratory as well as the food monitoring program under Output B2, lab samples containing hazardous chemicals will be identified and storage, handling and disposal will be defined and included as part of the standard operating procedures for these activities.</p>
	<p>Risk 7: Implementing the national strategies and PCB management system prepared by the project may lead to accidental release of PCBs, POPs pesticides, HHPs or mercury into the environment due to improper handling, storage, transport and treatment/disposal of these chemicals and exposing the workers as well as the local communities living nearby, as well as establishment of facilities for treatment or disposal of chemicals.</p>	<p>In line with the ESMF, a SESA process will be applied during preparation of the National Chemicals Strategy (Output A2, Activity 1), PCB Management System (Output A2, Activity 3) and National Strategy for PCB Management (Output C1, Activity 4) proposed by the project. The SESA will consider the risk of accidental release of chemicals and worker exposure that may result from implementing these strategies and system at the national level and incorporate measures to mitigation them. If any new disposal/treatment facilities are found to be needed, the SESA will address risks related to siting of the facilities, including developing guidelines to avoid proximity to residential or productive lands, biodiversity hotspots, cultural heritage sites and lands of value to Indigenous Peoples, such that an Indigenous Peoples Framework will be developed and FPIC will be conducted if found to be needed.</p>

	<p>Risk 8: Existing interim storage and waste treatment/disposal facilities for hazardous waste used during the demonstration activities are subject to natural disasters such as flooding or earthquakes.</p>	<p>During the ESIA for the for the disposal (Outputs C1 and C2) and pilot (Output B3, Output D1 and D2) activities, the risk of landslides, erosion, floods or extreme weather conditions will be assessed for the storage and disposal/treatment facility locations and appropriate mitigation measures included in the pursuant ESMP for each activity prior to its commencement.</p>
	<p>Risk 9: The project's demonstrative pilot for the elimination of PCBs may result in the increase of GHG or other air emissions.</p>	<p>As part of the ESIA and the feasibility study that will be prepared for Output C1, technologies that be used for PCB treatment/elimination will be evaluated in terms of their GHG emissions and potential chemical release, options compared and measures proposed to minimize GHG emissions and chemicals produced such that the alternative technologies must ensure compliance with Best Available Techniques/Best Environmental Practices (BAT/BEP) as per the Stockholm and Basel Conventions.</p>
	<p>Risk 10: Implementing the National Strategy for PCB Management prepared by the project may result in the increase of GHG or other air emissions depending on the technologies adopted.</p>	<p>As part of the SESA that will be conducted for the National Strategy for PCB Management (Output C1, Activity 4) and based on the findings of the ESIA and feasibility study for the elimination of 600 tons of PCB material in the same Output, further measures will be incorporated in the strategy to ensure reduction of GHG emissions and other chemical releases in compliance with BAT/BEP as per the Stockholm and Basel Conventions.</p>
	<p>Risk 11: As the project will lead to employment opportunities in hazardous conditions leading to occupational health and safety risks, risk of child labor, as well as other practices in contravention to principles and standards of ILO fundamental conventions.</p>	<p>During selection of the enterprises to be engaged and as part of the ESIA that will be undertaken for the disposal (Outputs C1 and C2) and pilots (Output B3, Output D1 and D2) activities, the project will assess these risks and ensure that as part of the ESMP, an Occupational Health and Safety Plan; Labour Assessment and Management Plan; and/or any other plan required for SES compliance are in place prior to commencement of the works.</p>
Financial	<p>Risk 12: Critical context of national economy: interest rates, exchange rate fluctuations or inflation.</p>	<p>UNDP monitors expenditure on a daily basis. Further UNDP HQ provides global oversight of project delivery minimizing the risk of operational risk due to currency risks.</p>

	<p>Risk 13: Private stakeholders are reluctant to play an active role during project execution.</p>	<p>During the PPG stage, the main concerns and interests of the stakeholders interested in the project, mainly industrial companies and associations were compiled, allowing the formulation of activities aiming at the elimination of the identified set of barriers and emphasizing on the benefits of being part of the project.</p> <p>Furthermore, an effective communication strategy will be developed during the implementation of the FSP to raise awareness among the stakeholders and the community in general aware of the project's characteristics</p>
Operational	<p>Risk 14: Limited capacity development of national partners which may lack the knowledge and skills necessary for the environmentally sound management of hazardous chemicals.</p>	<p>During the implementation of the FSP, awareness-raising, training and technical training programs will be developed and implemented, as well as capacity building in national authorities, public officials and other interested parties who are working on issues related to the management of chemical products and waste, to ensure the knowledge and experience needed to carry out their tasks properly.</p>
	<p>Risk 15: Difficulties in obtaining the information required to develop the Inventory of PCBs in industrial sector and POPs/HHP obsolete pesticides.</p>	<p>The project has ensured during its PPG stage, through the stakeholder engagement plan, an adequate awareness creation on the importance of this Inventory.</p> <p>A communication strategy will be developed during the implementation of the FSP, emphasizing on the benefits of the project to participating partners and will include briefings.</p> <p>Furthermore, the signing of agreements with the sectors /companies that will participate in the demonstration projects is foreseen, which will incorporate measures to protect confidential information.</p>
	<p>Risk 16: Deficiencies in communication and relationship with stakeholders.</p>	<p>During PPG phase main concerns and interests of the stakeholders interested in the project were compiled, allowing the formulation of actions that allow eliminating these barriers and emphasizing on the benefits of being part of the project. Within the Stakeholder Engagement Plan these activities are planned to continue during the project implementation.</p> <p>Furthermore, an effective communication strategy will be developed to raise awareness among the stakeholders and the community in general aware of the project's activities.</p>

Political	Risk 17: Change of Government, will might result in new management and technical appointees within entities that are a project partner, requiring additional efforts to ensure buy-in for project support, which might slow down the speed of project implementation at the start of the project.	Technical personnel from MINAM, UNDP CO staff and the UNDP Panama RTA will do their utmost to inform and convince new decision makers on the importance of the project, the reasons why it was developed and the positive impact it will have on human health and the environment in Peru.
	Risk 18: Lack of political will and Federal government's commitment, public authorities for the environment, health and agriculture do not actively participate in the development and implementation of project activities.	The PMU and the Project Steering Committee will provide continuous feedback and monitor the project results on a regular basis.
Strategic	Risk 19: A possible misinformation regarding the scope and benefits of the project could generate unfavorable opinions, ideas or concepts of the stakeholders or key actors about the project, which could hinder its development.	An effective communication strategy will be developed during the implementation of the FSP to raise awareness among the stakeholders and the community in general aware of the project's scope and activities.
COVID-19	Risk 20: COVID pandemic context may result in difficulties of activities execution due to several causes (involved people's health harmed, limited domestic travel, etc.). Additionally, co-financing partner commitments may be delayed.	During FSP implementation virtual and remote methods for working implementation will be developed if needed. Furthermore, PMU will regularly monitor the risks carry out period assessment of market context changes, both at the national and international levels, to ensure the project remains a relevant and trusted partner for the private sector stakeholders.

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.

Implementing Partner: The Implementing Partner for this project is the Ministry of Environment.

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.

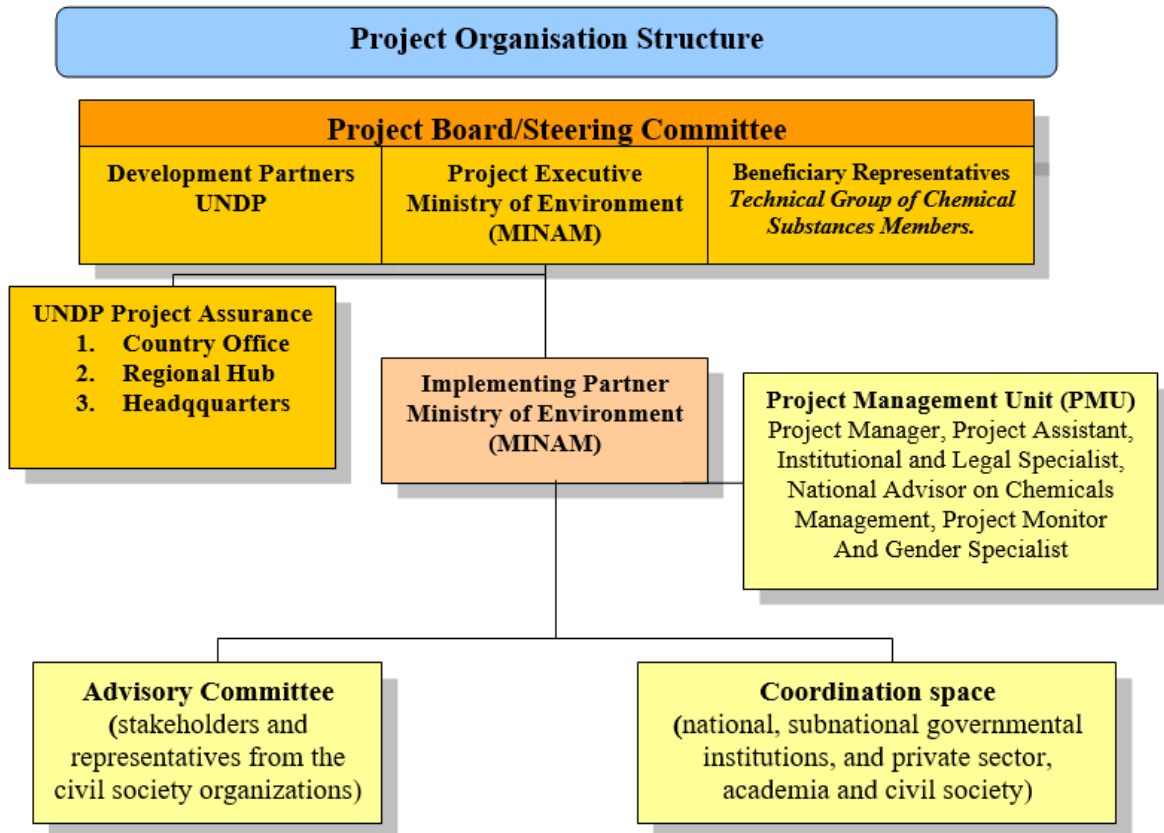
- ? Risk management as outlined in this Project Document;
- ? Procurement of goods and services, including human resources;
- ? Financial management, including overseeing financial expenditures against project budgets;
- ? Approving and signing the multiyear workplan;
- ? Approving and signing the combined delivery report at the end of the year; and,
- ? Signing the financial report or the funding authorization and certificate of expenditures.

Responsible Parties: N/A

Project stakeholders and target groups: All national stakeholders will be represented and actively participate in the implementation and supervision of the project activities and will be entitled to provide guidance to the project through their participation at the Advisory Committee. Key project stakeholders will be engaged in the project decision making processes through their participation as full members or observers in the Project Board (PB). Project consultants will be required to identify and involve the target groups and stakeholders relevant to their activity throughout their technical consultancy services.

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 being carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services comprising project approval and start-up, project supervision and oversight, and project completion and evaluation. UNDP is also responsible for the Project Assurance role of the Project Board/Steering Committee.

Project organisation structure:



The Project Board (also called Project Steering Committee) is responsible for taking corrective action as needed to ensure the project achieves the desired results. 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.

In case consensus cannot be reached within the Board, the UNDP Resident Representative (or their designate) will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

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Specific responsibilities of the Project Board include:

- ? Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- ? Address project issues as raised by the project manager;
- ? Provide guidance on new project risks, and agree on possible mitigation and management actions to address specific risks;

- ? Agree on project manager's tolerances as required, within the parameters set by UNDP-GEF, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded;
- ? Advise on major and minor amendments to the project within the parameters set by UNDP-GEF;
 - ? Ensure coordination between various donor and government-funded projects and programmes;
 - ? Ensure coordination with various government agencies and their participation in project activities;
 - ? Track and monitor co-financing for this project;
 - ? Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
 - ? Appraise the annual project implementation report, including the quality assessment rating report;
 - ? Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
- ? Review combined delivery reports prior to certification by the implementing partner;
- ? Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- ? Address project-level grievances;
- ? Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses;
- Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.
- Ensure highest levels of transparency and take all measures to avoid any real or perceived conflicts of interest.

The composition of the Project Board must include the following roles:

- a. Project Executive: Is an individual who represents ownership of the project and chairs the Project Board. The Executive is normally the national counterpart for nationally implemented projects. The Project Executive is: *General Director of Environmental Quality / MINAM*.
- b. Beneficiary Representative(s): Individuals or groups representing the interests of those 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 civil society representative(s) can fulfil this role. The Beneficiary representatives are: Technical Group of Chemical Substances Members.

c. Development Partner(s): Individuals or groups representing the interests of the parties concerned that provide funding and/or technical expertise to the project. The Development Partner is the UNDP Resident Representative.

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d. Project Assurance: UNDP performs the quality assurance and supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed, and conflict of interest issues are monitored and addressed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. UNDP provides a three ? tier oversight services involving the UNDP Country Offices and UNDP at regional and headquarters levels. Project assurance is totally independent of project execution.

Advisory Committee. If considered necessary by the PB, the project will also be advised by stakeholders and representatives from the civil society organizations related to the reduction of POPs, Hg and other Chemicals in Peru. A screening of suitable institutions for integrating the advisory committee has been made when requesting the co-financing support for this project. While the former is intended to play a role in the governance of the project, the latter is a flexible network to facilitate the interaction among any stakeholders in Peru in order to minimize the risk to Polychlorinated Biphenyl (PCBs), mercury and other toxic chemicals exposure to human beings and environment to advance the Minamata and Stockholm Convention, through environmentally sound management in Per?.

Coordination space. It will primarily include national, subnational governmental institutions, and private sector, academia and civil society. This coordination space will constitute a meeting point for the various ministries and public institutions involved the reduction of risks related to Polychlorinated Biphenyl (PCBs), mercury and other toxic chemicals exposure to human beings and environment to advance the Minamata and Stockholm Convention, through environmentally sound management in Per?. The coordination space will facilitate the approval of strategies, policies and regulations, and will also serve as an entry point for partnerships with non-governmental stakeholders. Two stages are envisaged: initially, the key stakeholders will be convened with support from the project to establish and agree upon a mandate and working plan for the coordination space. Once finalized, the joint working plan will be delivered to the various governmental institutions involved in the official ratification of the space, establishing the adequate structure within the government.

Project extensions: The UNDP Resident Representative and the UNDP-GEF Executive Coordinator must approve all project extension requests. Note that all extensions incur costs and the GEF project budget cannot be increased. A single extension may be granted on an exceptional basis and only if the following conditions are met: one extension only for a project for a maximum of six months; the project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs will be covered by non-GEF resources; the UNDP Country Office oversight costs in excess of

the CO's Agency fee specified in the DOA during the extension period must be covered by non-GEF resources.

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

In Peru 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
POPs - Stockholm Convention -		
Strengthening of National Initiatives and Enhancement of Regional Cooperation for the Environmentally Sound Management of POPs in Waste of Electronic or Electrical Equipment (WEEE)	UNIDO	The project seeks to improve the management of POPs present in WEEE, including the WEEE dismantling facilities so that they operate efficiently and sustainably. Thanks to both GEF projects POP risks for health and environment will be reduced and Peru will strengthen the implementation of the Stockholm Convention.
Global Development, Review and Update of National Implementation Plans (NIPs) under the Stockholm Convention (SC) on Persistent Organic Pollutants (POPs)	UNEP	The project seeks to facilitate implementation of the Stockholm Convention in participating countries through the development, review and update of their respective NIPs and submission to the SC COP. Thanks to both GEF projects Peru will strengthen information related to POPs inventories and updated action plans enabling Stockholm Convention compliance.
Mercury ?The Minamata Convention-		
Specific International Programme - Strengthening capacities to control emissions and releases of mercury in Peru	Specific Trust Fund Minamata Convention	The objective of this project is to enhance institutional capacity and develop a national plan to control and, when feasible, reduce national emissions and releases of mercury in Peru. Awareness raised in stakeholders about mercury emissions and releases and the information gathered during the project implementation will enhance this FSP implementation.
GEF GOLD Peru - Integrated Sound Management of Mercury in Peru's Artisanal and Small-scale Gold Mining (ASGM)	UNDP	The objective of this project is to reduce/eliminate mercury releases from the Peruvian Artisanal and Small-scale Gold Mining (ASGM) sector. Thanks to both GEF projects mercury emissions and releases in Peru will potentially be reduced, contributing to the implementation of the Minamata Convention and the reduction of mercury risks to health and environment.

Chemical Management		
Strengthening national capacities for the integral management of chemicals in Peru	Special Programme UNEP	<p>The project seeks to implement the regulatory framework for the sound management of chemicals, beginning with a gap analysis and a legal technical evaluation, strengthening the capacities for GHS implementation; identifying, designing, and implementing a National Registry of Chemical Substances; and providing specific measures for the reduction and management of risks to health and the environment from hazardous chemical substances.</p> <p>Thanks to both projects the government institutions and other stakeholders regarding toxic chemicals management and elimination will be efficiently strengthened.</p>
The Global Greenchem Innovation and Network Programme	UNIDO	<p>The objective of this pre-approved global GEF project where Peru participates is to scale up green chemistry for POPs, mercury and microplastics replacement through capacity building and innovation, and creation of a global unifying green chemistry network for implementation and uptake.</p> <p>Both projects will make synergies in reducing the risks of toxic chemicals such as POPs and mercury and consequently will enhance the national implementation of Stockholm and Minamata Conventions.</p>
Others		
Agricultural Health and Agrifood Safety Development Program - Phase II	IDB	<p>The objective of this conditional credit line for investment project is to make agricultural products more competitive as a way of increasing farmers' incomes and enhancing quality of life for consumers, and to enhance agri-food safety, by improving the country's sanitary and phytosanitary levels.</p> <p>Through that objective this project enhances the FSP objective regarding the strengthening of pesticides management system.</p>

7. Consistency with National Priorities

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

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

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

- National Implementation Plan (NIP) under Stockholm Convention on Persistent Organic Pollutants (POPs) published in 2007 where activities were determined based on the first National Inventories of

Polychlorinated Biphenyls (PCB), POP Pesticides, and Sources and Releases of Dioxins and Furans. The country has recently updated and published its NIP in 2021.

- Minamata Initial Assessment (MIA) under Minamata Convention. Peru developed and published its Minamata Initial Assessment (MIA) during 2019 and approved by DS N° 004-2019-MINAM a National Implementation Plan for the correct implementation of said Convention. Among the priority actions for the application of the Convention in the country, were listed: a) Adoption of measures to control products with added mercury included in Annex A, b) Implementation of measures to control and, where feasible, reduce emissions and releases of mercury and mercury compounds and c) Management of mercury waste in an environmentally sound manner.

This FSP by improving the sound management of hazardous chemicals in Peru will help the government to work towards the achievement of the Sustainable Development Goals (SDGs). The SDGs most relevant to this project are:

SDG 3 "Good Health and Well-being" by protecting local, regional, and global populations from the health impact of hazardous chemicals.

SDG 5 "Gender Equality" by promoting gender perspective.

SDG 6 "Clean Water and Sanitation" by protecting water resources from contamination.

SDG 9 "Industry, Innovation and Infrastructure" by supporting industry in reducing its harmful releases.

SDG 11 "Sustainable Cities and Communities" by making cities and human settlements inclusive, safe, resilient, and sustainable.

SDG 12 "Responsible Consumption and Production" by phasing out products containing harmful substances.

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

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 4 is related to "Lessons learned identified, monitored and assessed" aiming at disseminating project results and experiences on best practices for the LCM of POPs, mercury and other toxic chemicals in Peru with a budget allocation of USD200,000 and co-financing of USD1,438,666.

Under Output E1 the project plans to develop and implement a national communication strategy for risks and damages to health and the environment due to exposure to POPs, mercury and other hazardous chemicals which includes specific activities and communicational resources for mass dissemination. This campaign aims to raise awareness on stakeholders, project beneficiaries and general public (7,500 people: 3,750 women, 3,750 men).

Furthermore, a permanent dissemination knowledge and information exchange (KIE) platform for project and pilot knowledge products will be established. This project aims to collect lessons-learned, gender challenges and best practices related to POPs and mercury management within Peruvian territory. Project experiences will be gathered and captured in a way that allow their easy update and sharing with understandable communication materials to ensure that outreach of project's outputs are fully available for further replication.

In addition to that, it should be noted that UNDP annually organizes meetings for Government Officers and Project Coordinators of all the UNDP-GEF funded Chemicals and Waste Projects in Latin America and the Caribbean. In these meetings, lessons learned, and best practices are shared among the countries which has created a coordination mechanism among all the projects in the region.

Finally, UNDP will ensure that relevant information and lessons learned will be collected as input for the Mid-term Review and Terminal Evaluation.

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	Indicative costs (US\$)	Time frame
Inception Workshop	10,000	Within 60 days of CEO endorsement of this project.
Inception Report	None	Within 90 days of CEO endorsement of this project.
M&E of GEF core indicators and project results framework	10,000	Annually and at mid-point and closure.
GEF Project Implementation Report (PIR)	10,000	Annually typically between June-August
Monitoring of Stakeholder Engagement Plan, Gender Action Plan, Environmental and Social Safeguards	60,000	On-going.
Supervision missions	None	Annually
Independent Mid-term Review (MTR)	25,000	March, 2024
Independent Terminal Evaluation (TE)	25,000	January, 2027
TOTAL indicative COST	140,000	

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

Project Document.

10. Benefits

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

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:

- Elimination of 600 ton of PCB-contaminated materials.
- Elimination of 100 ton of POPs pesticides.
- Elimination of 3 ton of mercury waste from products for medical use.

In addition, the socioeconomic benefits to be delivered by the project at the national and local levels include:

- A general increase in awareness about the environmental impacts of POPs, mercury and toxic chemicals.
- Develop an incentive scheme for pesticide collection to introduce a component for collecting plastic containers and other contaminated implements.
- Improved economics in the country through job creation in the waste treatment industry.
- Contribute to greater management of other toxic chemicals in addition to POPs. Allow for better communication schemes regarding the management of pesticides for rural workers (family farming).
- Provide support in the development of guides and reporting processes for the International Conventions, as well as in aligning with the results of performance evaluations, specifically, regarding the specific analysis of the chemical issue through an action plan.
- Reduced health impact from the exposure to hazardous chemicals, in particular PCBs, pesticides POPs, Highly Hazardous Pesticides (HHP), Unintentional Persistent Organic Pollutants (UPOPs) and mercury.
- Support COVID-19 response and mitigation of future pandemics through the promotion of activities that minimize health risks while reducing pollution.

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

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
Medium/Moderate	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.

This ESMF has been prepared for the submission of the UNDP project proposal to the GEF for the purposes of assisting in the assessment of the project's potential environmental and social impacts. Preliminary analysis and screening conducted during the project development phase via UNDP's Social and Environmental Screening Procedure (SESP) identified potential social and environmental risks associated with project activities including, in particular, upstream activities such as national strategies and chemical management plans, pilots and disposal activities associated with PCBs, POPs pesticides, HHPs and mercury-containing products. This screening resulted in the identification of eleven risks, two of which was considered of 'Low' significance, six were considered 'Moderate' while three were considered 'Substantial', resulting in an overall social and environmental risk categorization of 'Substantial' for the Project.

This ESMF has been developed based on this project risk categorization to specify the processes that will be undertaken by the Project Management Unit for the additional assessment of potential impacts and identification and development of appropriate risk management measures, in line with UNDP's Social and Environmental Standards.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
PIMS_5932_GEFID_10419_POPs&HG_Peru_Annex 6 - SESP	CEO Endorsement ESS	
PIMS5932_Peru_Chemicals_PreSESP	Project PIF 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).

This project will contribute to the following Sustainable Development Goal (s): SDG 3 ?Good Health and Well-being?; SDG 5 ?Gender Equality?; SDG 6 ?Clean Water and Sanitation?; SDG 9 ?Industry, Innovation and Infrastructure?; SDG 11 ?Sustainable Cities and Communities?; SDG 12 ?Responsible Consumption and Production?; SDG 14 ?Life below water?.				
This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD): UNDAF Outcome 1: By 2021, people living in poverty and vulnerability improve access to decent livelihoods and productive employment by means of sustainable development that strengthens social and natural capital, integrating an adequate management of risk. CPD Outcome 1: Inclusive and sustainable growth and development; CPD Output 1.1: National and subnational capacities strengthened to implement policies, plans or other instruments of sustainable and inclusive development.				
	Objective and Outcome Indicators (no more than a total of 20 indicators)	Baseline	Mid-term Target	End of Project Target
Project Objective: To minimize risk to Polychlorinated Biphenyl (PCBs), Mercury and other toxic chemicals exposure of human beings and environment to advance the Minamata and Stockholm Conventions, through environmentally sound management in Per?.	Indicator 1: 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 processes, materials and products.	? 345 ton of PCB contaminated materials eliminated/exported from 2003 to 2018. ? 100 ton of obsolete pesticide eliminated/exported during 2015/2016 by SENASA.	? 180 ton of PCB contaminated materials eliminated (100 ton from power and industrial sector ? 80 ton from sensitive sites). ? 30 ton of POPs/HHP pesticides eliminated. ? 0 ton of mercury waste eliminated from health sector.	? 600 ton of PCB contaminated materials eliminated (300 ton from power and industrial sector ? 300 ton from sensitive sites). ? 100 ton of POPs/HHP pesticides eliminated. ? 3 ton of mercury waste eliminated from health sector.

	<u>Indicator 2:</u> Mandatory GEF Core Indicators 10: Reduction, avoidance of emissions of POPs to air from point and non-point sources.	-	0 gTEg of emissions from Health Care Waste avoided.	10 gTEg of emissions from Health Care Waste avoided.
	<u>Indicator 3:</u> Mandatory GEF Core Indicator 11 # direct project beneficiaries disaggregated by gender (individual people).	2,323 trained in the integral management of PCB under GEF/UNIDO Project Female: 946; Male: 1,377	3,000,000 Female: 1,500,000 Male: 1,500,000	10,000,000 Female: 5,000,000 Male: 5,000,000
Project component 1	Improve the management of hazardous chemicals in Peru.			
Project Outcome A Government institutions and other stakeholders, regarding POPs. Mercury and toxic chemicals management and elimination strengthened.	Indicator 4: National Coordination Unit created, and Official Information Exchange Platform designed for chemicals life cycle management.	-	-	One (1) National Coordination Unit created. One (1) Official Information Exchange Platform designed.
	Indicator 5: National Strategy and Management System developed.	-	-	One (1) National Strategy and One (1) Management System developed.
	Indicator 6: Number of Supervision Reports resulting from inspection activities within the scope of the FSP.	OEFA developed: 1,468 Supervision Reports (until 3rdQ 2020) 2,689 Supervision Reports (2019)	400 Supervision Reports	1,500 Supervision Reports

Outputs to achieve Outcome A	<p>Output A.1 Regulatory and institutional framework strengthened for environmentally sound management of POPs, mercury and other toxic chemicals.</p> <p>Output A.2: National system for environmentally sound management and elimination of POPs, mercury and other toxic chemicals established.</p> <p>Output A.3: Coordination platform for regulatory compliance, enforcement, for Information and Report of POPs, mercury and other toxic chemicals control established.</p>			
Project component 2	Environmentally sound management and disposal of legacy POPs.			
Outcome B Pesticides management systems strengthened	Indicator 7: Pilot projects for pesticides management communication for rural population developed in nine (9) regions.	No pilot projects implemented	Pilot project implemented in three (3) regions	Pilot project implemented in nine (9) regions.
	Indicator 8: Pilot project for pesticides and highly toxic pesticides in Lima market of greengrocers implemented.	No pilot projects implemented	-	One (1) pilot project implemented
	Indicator 9: Pilot project for management and elimination of used pesticides containers in rural areas implemented.	No pilot projects implemented.	-	One (1) pilot project implemented
Outputs to achieve Outcome B	<p>Output B.1 Pilot pesticides management communication developed for rural population (family agriculture) in 9 regions of country.</p> <p>Output B.2 Pilot for pesticides and highly toxic pesticides prevention in the main Lima market of greengrocers.</p> <p>Output B.3 Pilot/Business model for management and elimination of POPs pesticides and other toxic chemicals: used pesticides containers and agricultural plastics in rural areas.</p>			

Outcome C Environmentally sound disposal of PCBs, POPs pesticides and other toxic chemicals	Indicator 10: Capacity improved for disposal of remaining PCBs in the country aligned with Stockholm commitments, measured by progress:			
	1 - National PCB Inventory Updated	45,000 transformers inventoried in the electricity sector	National PCB Inventory Updated.	Feasibility study and financial scheme completed.
	2 - PCB Disposal Capacity Assessed	(GEF/UNIDO Project)	PCB Disposal Capacity Assessed.	National Management and Disposal Strategy developed.
	3 - Feasibility study and financial scheme completed			
	4 - National Management and Disposal Strategy developed.			
Outputs to achieve Outcome C	Output C.1 600 ton of PCB contaminated equipment and materials from sensitive sites and industry eliminated. Output C.2 100 ton of POPs pesticides and other toxic chemicals eliminated.			
Project component 3	Prevention of emissions (UPOPs and Mercury) from Health Care Waste.			
Outcome D Main sources of emissions (UPOPs and Mercury) of Hospital waste management addressed	Indicator 11: Number of pilot projects for mercury added products replacement and mercury waste eliminated in health institutions implemented.	No pilot projects implemented	Three (3) pilot projects implemented	Ten (10) pilot projects implemented
	Indicator 12: Number of pilot projects for the introduction of BAT and BEP for hospital waste management implemented.	No pilot projects implemented	One (1) pilot project implemented	Five (5) pilot projects implemented

Outputs to achieve Outcome D	Output D.1 Pilot project to reduce mercury use, to eliminate mercury waste and prevent emissions from healthcare waste. Output D.2 Five demonstration project for the introduction of BAT and BEP for hospital waste management for UPOPs emissions reduction from healthcare waste.			
Project component 4	Lessons learned identified, monitored and assessed.			
Outcome E Lessons learned and knowledge managed	Indicator 13: Number of people fully aware on the sound management, elimination and final disposal of PCBs, pesticides (POPs/HHP), mercury and wastes.	2,323 trained in the integral management of PCB under GEF/UNIDO Project Female: 946; Male: 1,377	2,500 (1,250 female and 1,250 male) Government, power, industry, agricultural, health sectors and sensitive sites	7,500 (3,750 female and 3,750 male) Government, power, industry, agricultural, health sectors and sensitive sites
	Indicator 14: Percentage (%) of project expenditure spent on the FSP planned activities.	0%	40%	100%
Outputs to achieve Outcome E	Output E.1 Knowledge management system for best practices and communication platform at national level established. Output E.2 M&E and adaptive management in response to necessities and results from intermediate evaluation and final findings with lessons learned applied.			

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

Canada Comments

Canada supports this project as it is in line with previously adopted Stockholm COP decisions and proposed actions to the GEF in the 2018-2022 priority areas. The project is in line with the Minamata Convention text and will assist Peru with its treaty implementation.

- ? There are however, some aspects of the proposal that would benefit from further elaboration/development. For example, the barriers identified in the project could be expanded, particularly with regard to mercury. Political/regulatory barriers should also be considered. Canada agrees with the findings and recommendations from the STAP review.

Answer: Further development can be found in the PRODOC, Section II "Development Challenge".

A detailed analysis of the barriers was conducted for Institutional and Legal Framework, for PCBs (in sensitive sites and private sector), mercury in health sector and pesticides (POPs/HHP) in agricultural sector. The main challenges to be addressed by this project are the following:

i) Promote coordination among competent authorities in chemicals life cycle management in the country. Currently Peru has a vast regulatory framework for hazardous chemicals management, but its law enforcement and control is fragmented in different entities that lack fluid coordination. Optimizing compliance with national and international commitments in relation to POPs, mercury and other toxic chemicals requires greater involvement and interaction of sectorial authorities.

ii) Phase-out, by 2025, all PCB-containing equipment and PCB disposal and waste in an environmentally sound manner by 2028, as per the Stockholm Convention. This Project will build upon the ongoing efforts of the Government to identify and promote the environmentally sound management of PCB equipment and waste in power sector and specifically, will foster and articulate results in both industrial sector and sensitive sites. It will be critical to sensitize and assist both, in order to improve the existing lack of information and thus advance in the coordination of necessary activities for an adequate environmentally sound management of PCBs.

iii) Strengthening the environmentally sound management use of pesticides and their residues within agricultural activity. The country has a wide agricultural land area characterized mainly by family farming. Consequently, large amounts of pesticides are used that could potentially be harmful to human health and the environment if not effectively managed. The project seeks to support and enhance on going Government efforts and promote the participation and empowerment of family farmers as sustainable development managers of their communities and food security.

iv) The adoption of BAT/BEP in healthcare sector to identify, reduce or eliminate releases of UPOPs and mercury derived from the use of mercury added products still present in health establishments and the inadequate healthcare waste management. In particular, strengthening of healthcare waste management, aims to support the country in addressing the challenges resulting from pandemic COVID-19.

? Projects 10721, 10682, and 10419 have many of the same objectives and are close in proximity. Canada suggests that there should be some degree of collaboration between these projects to share experiences and best practices. Additionally, there may be some knowledge or lessons learned gained under previous GEF projects in Argentina (10094) and Colombia (6928) that could be applicable to these projects.

Answer: noted.

During Project development close collaboration between other projects tackling Mercury and POPs reduction was conducted. Additionally, previous GEF projects in Argentina and

Colombia were considered and interviewed during PPG phase. Furthermore, on a yearly basis face-to-face South-South exchanges among all UNDP GEF Chemicals and Waste projects and programmes in the Latin American and the Caribbean region are considered during project implementation. These allow government counterparts, project coordinators and experts to exchange experiences and lead to long-term collaboration, exchanges and partnerships between projects and countries. Projects that participate in these exchanges include UNDP/GEF projects like those implemented in Colombia, Ecuador, Honduras, Argentina and Mexico (among others), which also focus on various POPs and Mercury issues.

Germany Comments

Germany welcomes this proposal, which supports the implementation of the Stockholm and Minamata conventions in Peru.

Suggestions for improvements to be made during the drafting of the final project proposal:

- ? Component 3 might be linked/might benefit from mutual knowledge exchange with GEF-Project 10716 which has a similar aim and collaborates with five pilot countries. **Answer: noted.**

Answer: Mutual knowledge exchange with GEF Project 10716 was considered during the drafting of the final project proposal.

- ? Please specify Output B1: What intervention is planned? What scale will the pilot communication have?

Answer: Further detail can be found in the PRODOC, Section IV ?Results and Partnerships? and Annex 8 ?Pilot Project Guidelines?.

A communication strategy will be developed based on a sociological diagnose and needs assessment (and on examination of the unsuccessful attempts that have previously been made in Peru and other countries of the region) for a better design and implementation; this will be designed and implemented through 3 selected CSOs which will be supported with technical assistance and training to implement the pilot. The communication strategy will be gradually implemented, starting from a first contact for awareness raising followed by training and coupled to the education programme. Developed in 9 regions, 10 communities per region, 15 people per community. At end of pilot, replicability and scalability will be developed and guidelines elaborated and training implemented for replication.

As part of the strategy, a collaborative interaction with SENASA's Agricultural Health Development Program (PRODESA) regarding the Field Schools activities presently established throughout the country will be implemented. This will be directed to develop participatory and experiential learning sessions, for Best Agricultural Practices in farmers plots. Complementary technical assistance will be provided by Project, to assure a sound hazardous agrochemicals risk approach, facilitate the Field Schools team transfer to places of action, contribute to the mobilization of the equipment and coordinate participation of local relevant governmental stakeholders, such as Municipalities or DIREAS; a national guideline for the development of Field Schools will be elaborated.

Communication materials will be developed (brochures, posters, bulletins and banners) for the implementation of the strategy for improved management of pesticides, their waste and their containers. A communication scheme will be implemented, making use of audiovisual material, local radio stations, television channels and multimedia material to be broadcasted on institutional websites. The project will facilitate a communication platform for follow up, coordination between local and

national government stakeholders such as regional SENASAs, DIRESAs/GERESAs, regional government, municipalities, and ministries. A contact platform will be established between the professionals assigned by each institution to facilitate direct coordination between people in the communities and government institutions.

? Concerning the mentioned risks:

- Risk 4: Please specify, what implications the mentioned development of ?innovative virtual and remote methods for working and implementation? would have for the project?s success. Could everything go rather unchanged? Or would outputs potentially need to be adjusted, timelines shifted, and budgets raised to meet the expected outcomes?
- Risk 4: Due to COVID-19, health care sector officials and hospitals might be absorbed by dealing with the effects of the crisis and less willing or capable to promote actions concerning the use of mercury. Does this pose an additional risk to your activities? If yes, how will it be addressed?

Answer: Further detail can be found in the PRODOC ?Results and Partnerships? Sub Section ?Risks? and Annex 7 ?UNDP Risk Register?.

During PPG phase further analysis of risks were developed, resulting in the following table. Details on Risk Management Response can be found in related Annex.

Risk Class	Risk and Description
Social and Environmental	Risk 1: Duty bearers, such as inspectors under supervision of related enforcement agency and other government officials, may not have the capacity to meet their obligations in the Project.
	Risk 2: Temporary suspension of power supply to sensitive sites (schools/hospitals) as well as rural and poor populations during implementation of the PCB management system.
	Risk 3: Increase in electricity tariff for the poor rural population due to replacement of transformers.
	Risk 4: Exclusion of marginalized farmers from participating in project activities that may benefit them.
	Risk 5: The project could reproduce existing discriminations against women through excluding them from decision-making on project activities, benefiting from project outputs and capacity building initiatives.
	Risk 6: Accidental release of PCBs, POPs, mercury or hazardous chemicals into the environment due to improper handling, storage, transport and treatment/disposal of these chemicals and exposing the workers as well as the local communities living nearby.

	Risk 7: Implementing the national strategies and PCB management system prepared by the project may lead to accidental release of PCBs, POPs pesticides, HHPs or mercury into the environment due to improper handling, storage, transport and treatment/disposal of these chemicals and exposing the workers as well as the local communities living nearby.
	Risk 8: Interim storage and waste treatment/disposal facilities for hazardous waste used during the demonstration activities are subject to natural disasters such as flooding or earthquakes.
	Risk 9: The project's demonstrative pilot for the elimination of PCBs may result in the increase of GHG or other air emissions.
	Risk 10: Implementing the National Strategy for PCB Management prepared by the project may result in the increase of GHG or other air emissions depending on the technologies adopted.
	Risk 11: As the project will lead to employment opportunities in hazardous conditions leading to occupational health and safety risks, risk of child labor, as well as other practices in contravention to principles and standards of ILO fundamental conventions.
Financial	Risk 12: Critical context of national economy: interest rates, exchange rate fluctuations or inflation.
	Risk 13: Private stakeholders are reluctant to play an active role during project execution.
Operational	Risk 14: Limited capacity development of national partners which may lack the knowledge and skills necessary for the environmentally sound management of hazardous chemicals.
	Risk 15: Difficulties in obtaining the information required to develop the Inventory of PCBs in industrial sector and POPs/HHP obsolete pesticides.
	Risk 16: Deficiencies in communication and relationship with stakeholders.
Political	Risk 17: Change of Government, will might result in new management and technical appointees within entities that are a project partner, requiring additional efforts to ensure buy-in for project support, which might slow down the speed of project implementation at the start of the project.
	Risk 18: Lack of political will and Federal government's commitment, public authorities for the environment, health and agriculture do not actively participate in the development and implementation of project activities.
Strategic	Risk 19: A possible misinformation regarding the scope and benefits of the project could generate unfavorable opinions, ideas or concepts of the stakeholders or key actors about the project, which could hinder its development.
COVID-19	Risk 20: COVID pandemic context may result in difficulties of activities execution due to several causes (involved people's health harmed, limited domestic travel, etc.). Additionally, co-financing partner commitments may be delayed.

United Kingdom Comments

For the United Kingdom comments below, an initial agency response has been provided and can be found in the list of documents specific to the project in the GEF Portal.

? 10721, 10682, and 10419 look very similar, but with 2 different implementing partners - what's the plan to coordinate?

Answer: Further detail can be found in the PRODOC 'Results and Partnerships' Sub Section 'South and South Cooperation'. Lessons learned and best practices will be shared during project implementation.

United States Comments

We welcome this project, particularly as there will likely be increasing pressure in the ASGM sector as the Peruvian economy reopens after the COVID-19 pandemic. We believe the project would benefit from enhanced coordination efforts with domestic, indigenous, and international organizations, including USAID.

Answer: UNDP notes with appreciation the US' comment regarding the pressure the COVID-19 pandemic is having on the ASGM sector. Although this project does not address issues related to ASGM, it's important to note that the Ministry of Environment of Peru, along with UNDP, are implementing a planetGOLD child project. The Per' planetGOLD project has developed cutting-COVID-19 protocols for ASGM. These protocols are documented on the planetGOLD website (<https://www.planetgold.org/peru>) and have been shared and used across all the GEF's planetGOLD projects. UNDP is convinced that through coordination with all relevant stakeholders in Peru, the planetGOLD project will achieve Hg reduction targets and improve access to finance for miners.

STAP Comments

Part I: Project Information		Response	Response at the PPG Stage	Reference in ProDoc
GEF ID	10419			
Project Title	Environmentally sound management of PCBs, mercury and other toxic chemicals in Peru			
Date of Screening	08-Nov-20			
STAP member Screener	Jamidu Katima			
STAP secretariat screener	Sunday Leonard			
STAP Overall Assessment	Minor issues to be considered during project design			

		<p>Paragraphs 1-12. This section does not adequately present the global environmental problems, root causes, and barriers. It only offers information on regulations related to POPs and mercury in Peru. There is no description of the issues of concern, the various factors leading to the problem, how they are connected, and the barriers to achieving the desired endpoint. Without an analysis of the problem, it is impossible to develop solutions that are holistic and achieve the desired change.</p>	<p>A deeper analysis of the problem was conducted during PPG phase, enabling a major detail of barriers and issues of concern in order to address the development challenge and design an holistic alternative pathway. A detailed baseline was conducted for PCBs in private sector and sensitive sites with sampling, mercury in health sector and pesticides (POPs/HHP) in agricultural sector and in food. Additionally, a legal and institutional framework gap analysis.</p>	<p>Please refer to Section II "Development Challenge"</p>
		<p>Paragraphs 13-21 present useful information on the current status and baseline of POPs management. But information on the status of mercury management (which is part of this project) is inadequate.</p>	<p>The baseline analysis of Mercury management in Peru within the scope of this project was updated and introduced in Project Document. Mercury in medical devices was estimated based on different studies and it was estimated that 3 ton of pure mercury can be found in approximately 600 hospitals in Peru.</p>	<p>Please for further detail refer to Section II "Development Challenge", sub section "Mercury - Baseline Scenario"</p>

			<p>A deeper analysis and detail of barriers to be addressed by this FSP were conducted during PPG phase. A detailed analysis of the barriers was conducted for Institutional and Legal Framework, for PCBs (in sensitive sites and private sector), mercury in health sector and pesticides (POPs/HHP) in agricultural sector. The main challenges to be addressed by this project are the following:</p> <p>i) Promote coordination among competent authorities in chemicals life cycle management in the country. Currently Peru has a vast regulatory framework for hazardous chemicals management, but its law enforcement and control is fragmented in different entities that lack fluid coordination. Optimizing compliance with national and international commitments in relation to POPs, mercury and other toxic chemicals requires greater involvement and interaction of sectorial authorities.</p> <p>ii) Phase-out, by 2025, all PCB-containing equipment and PCB disposal and waste in an environmentally</p>	
	<p>Paragraph 21 provides a list of barriers. However, some of the listed items are not barriers. More thought is needed on what constitutes a barrier and how they will be addressed.</p>		<p>Please refer to Development Challenge in Section II and Strategy in Section III</p>	

		<p>Regulatory concerns related to mercury and POPs-related management are stated, including the lack of legislation regarding exports and effective control for small productive activities. However, it is not explicit in the interventions related to regulatory and institutional strengthening (Component 1) how they will be addressed. The interventions seem to focus on communication and coordination. It is important to be clear about the specific activities that will be implemented to address the regulatory and institution issues related to POPs and mercury management.</p>	<p>The activities and interventions under Component I were further developed and detailed in order to address institutional and legal barriers for an improved POPs and mercury management in Peru. Additionally, a "Legal and Institutional Analysis" was conducted during PPG phase identifying gaps and initiatives to be further developed during implementation. It can be highlighted that the project will The Project will i) create a Coordination Unit led by the Ministry of Environment and made up of government agencies with competence in chemicals life cycle management with focus on those regulated by the Stockholm and Minamata Conventions. ii) Design a National Chemical Strategy iii) Conduct an inspection Campaign to strengthen enforcement.</p>	<p>Please refer to Section IV "Results and Partnerships", Expected Results under Component 1. Ouputs: A1, A2; A3 Annex 14 "Legal and Institutional Analysis"</p>
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		<p>Paragraph 25 indicates an intention to test motivational and economic incentive for pesticide management. It is, however, unclear what these incentives are or would entail. It would be useful to be more explicit. Examples of such incentives should be provided, including how they would be beneficial.</p>	<p>Further detail for Output B1 "Pilot for pesticide management communication developed for rural population in 9 regions of the country" was introduced in Project Document and in its Annex. The detail includes: Concept of pilot, Activities involved under the scope of the pilot, indicators and required budget for its implementation.</p>	<p>Please refer to Section IV "Results and Partnerships", Expected Results under Component 2-Output B1. Annex 8 "Pilot Projects Guidelines"</p>
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		<p>Paragraph 27 is related to a pilot business model for managing and eliminating POPs pesticides, and other toxic chemicals. However, it is unclear from the proposal what the business model entails. Does this refer to technology to be deployed or how the various actors will be brought together to deliver sustainable solutions? This needs to be made clearer in the proposal.</p>	<p>The proposal includes the detail for the development and implementation of Output B3. Additionally, guidelines for pilot project implementation were elaborated during PPG phase. The pilot will focus on the application of BAT/BEP for the management of agricultural waste plastics which will also include empty pesticide containers. The pilot project will look into proper handling: storage, rinsing, shredding, compacting and recycling into semi-finished products. In particular, a potential recovery of materials through recycling will be sought. 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.</p>	<p>Please refer to Section IV "Results and Partnerships", Expected Results under Component 2- Output B3. Annex 8 "Pilot Projects Guidelines"</p>
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		<p>Theory of Change (ToC). A theory of change was provided in appendix D. The ToC, however, lacks relevant components of a good ToC. The ToC that was presented is a diagrammatic expression of the project objective, components, and outputs. The underlying assumptions, pathways, alternative plans, and medium- and long-term impacts needed for a complete ToC were missing. We refer the project proponent to STAP's theory of change (https://stapgef.org/theory-change-primer) for more information on developing ToCs.</p>	<p>During PPG phase, a thorough analysis and development of the Theory of Change was conducted. For this purpose, a series of technical workshops were carried out virtually in order to validate the ToC with key stakeholders of this FSP.</p>	<p>Please refer to the Development Challenge in Section II and Theory of Change in Section III.</p>
		<p>Core indicators and GEBs: Some information on how the GEBs numbers were derived, including the assumptions, would be useful. For example, indicator 11 indicates that 10 million people will benefit directly from the project interventions. What is the basis for this estimate? Information on GEBs and assumptions are important to support effective monitoring and evaluation during and after project implementation.</p>	<p>During PPG phase, the estimation of aware people and beneficiaries was developed and annexed to project document.</p> <p>Beneficiaries due to the implementation of each Output was estimated and detailed.</p>	<p>Please refer to Annex 17 "Beneficiaries and aware people"</p>

			<p>Co benefits (such as job creation, food security, ect) were introduced in the detail of activities that will be implemented by the project.</p> <p>Additionally socioeconomic benefits were detailed in CEO Endorsement: - A general increase in awareness about the environmental impacts of POPs, mercury and toxic chemicals.</p> <p>- Develop an incentive scheme for pesticide collection to introduce a component for collecting plastic containers and other contaminated implements.</p> <p>- Improved economics in the country through job creation in the waste treatment industry.</p> <p>- Contribute to greater management of other toxic chemicals in addition to POPs. Allow for better communication schemes regarding the management of pesticides for rural workers (family farming).</p> <p>- Provide support in the development of guides and reporting processes for the International Conventions, as well as in aligning with the results of performance evaluations, specifically, regarding the specific analysis of the chemical issue through an action plan.</p>	
	<p>Paragraph 38: It is commendable that the expected socio-economic co-benefits from the project are included. The project will also provide health co-benefits. This should be considered as the project is developed further and during implementation. Narratives on how the elimination of these chemicals can benefit other areas of GEF's work, including biodiversity, land degradation, and international waters, should also be considered.</p>			<p>Please refer to Section IV "Results and Partnerships" of the PRODOC.</p>

		<p>The IEO Terminal Evaluation of Chemicals and Waste projects revealed that there is limited evidence that the GEF's chemical and waste projects successfully put in place sustainable strategies and financial mechanisms for project scale-up. The information presented in Paragraph 42 to 47 does not clearly show how the project activities will be sustained and scaled up, particularly on financing activities after the project. While capacity building and institutional strengthening would help ensure project sustainability (as indicated in Paragraph 43), a more detailed assessment of how to ensure continued delivery of global environmental and socio-economic benefits beyond its lifetime is needed. Actions to ensure that new hazardous chemicals are not introduced in the future is lacking. Also, no clear information on how financial resources to eliminate the remaining POPs and mercury beyond those targeted in the project will be achieved. While the introduction of business models was mentioned in one of the project components, the information on what such a business model would entail is not presented. With the lack of details, this project could fall into the same trap identified by the IEO. STAP recommends that more thought should be provided on the sustainability and durability of the project. We encourage the project proponents to review STAP's paper on achieving enduring outcomes from GEF investments (https://stapgef.org/achieving-outcomes-gef-investment) and innovation and the GEF</p>	<p>The detailed assessment for ensuring continued delivery of global environmental and socio-economic benefits beyond project lifetime was developed during PPG phase. The information presented in the PRODOC and in its annexes enable the project outputs sustainability. In particular, the purpose of pilot projects is to determine the most cost-effective way of implementation that allows its replication on a national scale. Additionally, the project foresee the development of a financial feasibility study at the end of the project for the elimination of hazardous chemicals within the scope of the project and its possible mechanisms as a national strategy for project scale-up, ensuring sustainability and durability.</p>	<p>Please refer to Section IV "Results and Partnerships" of the PRODOC.</p>
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		<p>Stakeholders: The proposal provided a list of stakeholders and their roles, but it is unclear what "other potential possessors of PCB containing transformers" means. We encourage the project proponents to present information on all relevant stakeholders and describe their roles. The project proponents should ensure Civil Society Organizations are consulted during PPG, as stated in the document.</p>	<p>During PPG phase, a stakeholder analysis and an Stakeholder Engagement Plan for project implementation was carried out, as a result Civil Society involvement is foreseen.</p> <p>Additionally expected roles from different stakeholders are detailed in PRODOC and in the Stakeholder Engagement Plan. Potential possessors of PCBs under the scope of the project are clarified.</p>	<p>Please refer to: Section IV, sub-section "Stakeholder Engagement and South-South Cooperation", of the ProDoc. Annex 9: Stakeholder Engagement Plan"</p>
		<p>Risk: Each risk needs to be rated as either low, medium, or high. More risk factors need to be considered, including environmental, technical, economic, financial, cultural, etc.</p>	<p>A comprehensive and thorough risk analysis was carried out at the PPG stage, considering all the risk categories following the "UNDP Enterprise Risk Management (ERM) Policy". In this analysis more risks than those identified at the PIF stage were considered: environmental, technical, economic, financial, cultural as well as Climate Risk and COVID risk. Every risk was rated properly.</p>	<p>Please refer to: Section IV "Results and Partnership", sub-section "Risks", of the ProDoc. Annex 7: UNDP Risk Atlas Register Annex 6: SESP Annex 4: Monitoring Plan"</p>
		<p>Climate risk: the proposal does not consider the potential risk of climate change impacting the success of the proposed interventions. How will projected climate change affect the proposed methodology for cleaning up and disposing of the chemicals? What are the associated risks, and what mitigating factor will be considered? A detailed analysis of climate risk and management strategy should be presented.</p>		

		<p>The PIF states that the knowledge management strategy will be developed during PPG. KM is key for project sustainability and scalability. The PIF states that KM "will also benefit from the pilots tested from Component 2 of the Brazil PCB project" without elaboration. We encourage the development of a clear knowledge management strategy.</p>	<p>During PPG phase, further detail on the Knowledge Management Strategy was developed according to the scope of this FSP. This was detailed under Output E1 "Knowledge management system for best practices and communication platform at national level established." where a National Strategy was defined.</p>	<p>Please refer to Section IV "Results and Partnership", Output E1 of "Knowledge management system for best practices and communication platform at national level established".</p>
Part I: Project Information	What STAP looks for	Response	Response at the PPG Stage	Reference in documents
B. Indicative Project Description Summary				
Project Objective	Is the objective clearly defined, and consistently related to the problem diagnosis?	No, please revised the objective to clearly indicate the project's goals	The objective is aligned to the diagnosis and project's goals.	Please refer to Section II "Development Challenge" of the PRODOC.
Project components	A brief description of the planned activities. Do these support the project's objectives?	Please refer to STAP overarching comments	The activities described in the proposal fully support project's objectives.	Please refer to Section IV "Results and Partnership", sub-section "Expected Results", of the ProDoc.

Outcomes	<p>A description of the expected short-term and medium-term effects of an intervention. Do the planned outcomes encompass important global environmental benefits/adaptation benefits?</p>	<p>The interventions are not divided into short and medium term, however the planned outcomes are stated. The expected GEB are provided.</p>	<p>Throughout the project document, the expected results during project implementation can be evidenced through the planning and details of the activities carried out for different Outcomes.</p>	<p>Please refer to Section IV "Results and Partnerships", Section V "Project Results Framework", Annex 2 "Multiyear Workplan" and Annex 4 "Monitoring Plan"</p>
	<p>Are the global environmental benefits/adaptation benefits likely to be generated?</p>	<p>Yes</p>		
Outputs	<p>A description of the products and services which are expected to result from the project.</p> <p>Is the sum of the outputs likely to contribute to the outcomes?</p>	<p>Yes</p>		

Part II: Project justification	A simple narrative explaining the project's logic, i.e. a theory of change.	Yes. Please see STAP overarching comments for specific advice on improving the theory of change	During PPG phase, a thorough analysis and development of the Theory of Change was conducted. For this purpose, a series of technical workshops were carried out virtually in order to validate the ToC with key stakeholders of this FSP.	Please refer to the Development Challenge in Section II and Theory of Change in Section III.
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?	Yes		
	Are the barriers and threats well described, and substantiated by data and references?	The document provides a list of barriers, although some do not sound like barriers e.g. ? Complement elimination of POPs- and other highly toxic pesticides. ? Mercury devices substitution in the Health Care Waste Management of Peru ? Avoidance of UPOPs emissions from Health Care Waste Management	During PPG phase, analysis and description of barriers were carried out in depth.	Please refer to the Development Challenge in Section II and Strategy in Section III.

	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?	NA		
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	Yes. See STAP overarching comment		
	Does it provide a feasible basis for quantifying the project's benefits?	Yes		
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Yes		

	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;	NA		
	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	Not shown	The lessons learned from similar or related past GEF and non-GEF interventions are mentioned in the proposal.	Please refer to Section IV "Results and Partnerships", sub-section "Partnership" and "South-South Cooperation"
	how did these lessons inform the design of this project?	Not shown	How the lessons learned from similar or related past GEF and non-GEF interventions will be introduced is described in the proposal.	Please refer to Section IV "Results and Partnerships", sub-section "Partnership" and "South-South Cooperation"
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	Environmentally sound management of PCB, mercury and other toxic chemicals		
	What is the sequence of events (required or expected) that will lead to the desired outcomes?	Strengthening of regulatory and institution framework and implementing pilot programmes		

	What is the set of linked activities, outputs, and outcomes to address the project's objectives?	Strengthening regulatory and institutional framework; establishment of national system for environmentally sound management and elimination of POPs, Mercury and other toxic chemicals; establishment of coordination platform; piloting of POPs Pesticides Management and business model; demonstration projects for mercury waste management; creation of knowledge exchange platform		
	Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	No assumptions are stated, but the stated activities are plausible	Key Assumptions were identified and stated in PRODOC and Annex during PPG phase.	Please refer to Section III "Strategy", Sub-section Theory of Change of the PRODOC and Annex 4 "Monitoring Plan"
	Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	NO	A comprehensive and thorough risk analysis was carried out at the PPG stage, considering all the risk categories following the ?UNDP Enterprise Risk Management (ERM) Policy?. This analysis include the measures to be adopted for reaching targeted outcomes if conditions change.	Please refer to: Section IV ""Results and Partnership"", sub-section ?Risks?, of the ProDoc. Annex 7: UNDP Risk Atlas Register Annex 6: SESP Annex 4: Monitoring Plan"

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?	Yes		
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	NA		
6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits, and are they measurable?	Yes		
	Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	Yes		
	Are the global environmental benefits explicitly defined?	Yes		

	Are indicators, or methodologies, provided to demonstrate how the global environmental benefits will be measured and monitored during project implementation?	Some indicators are just listed without justification on they were obtained e.g. 5,000,000 male and 5,000,000 females. Methodology of estimation is presented for other indicators	During PPG phase, the estimation of awared people and beneficieries was developed and annexed to project document.	Please refer to Annex 17 "Beneficieres and aware people"
	What activities will be implemented to increase the project's resilience to climate change?	Not discussed		
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?	The PIF states that the innovation lies in the integrated approach to manage POPs, Mercury and other toxic waste, however, these seem to be three project components executed by different players some overlapping activities e.g. coordination. In other words each component can be implemented independently		
	Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	Not elaborated	The articulated vision among institutional actors and across geographies was developed during PPG phase.	Please refer to Section IV "Results and Partnerships"

	Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	Involvement of private change will require	Indeed, this involvement was considered throughout PPG phase and is planned throughout the project implementation.	Please refer to: Section IV, sub-section ?Stakeholder Engagement and South-South Cooperation?, of the ProDoc.
1b. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		Not provided	During PPG phase, regions were project interventions will take place were defined. Additionally, selection criteria for remaining project sites were determined.	Please refer to: Annex 3 "Project Map and Geospatial coordinates"
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?	Stakeholders involved are government ministries and private sector. No Civil society involvement	During PPG phase, a stakeholder analysis and an Stakeholder Engagement Plan for project implementation was carried out, as a result Civil Society involvement is foreseen.	Please refer to: Section IV, sub-section ?Stakeholder Engagement and South-South Cooperation?, of the ProDoc. Annex 9: Stakeholder Engagement Plan

	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?	The roles are explained		
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. 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	Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?	To be done at PPG stage	A Gender Analysis and Action Plan was developed during PPG phase.	Section IV, sub-section ?Gender Analysys and Women?s empowerment ?, of the ProDoc. Annex 11: Gender Analysis and Action Plan

	Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?	NO		
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? For climate risk, and climate resilience measures: Are there social and environmental risks which could affect the project?	Some risks have been identified but they are not comprehensive, particularly climate risk and climate resilience are not discussed. See STAP overarching comments above	A comprehensive and thorough risk analysis was carried out at the PPG stage, considering all the risk categories following the 'UNDP Enterprise Risk Management (ERM) Policy'.	Please refer to: Section IV "Results and Partnership", sub-section 'Risks', of the ProDoc. Annex 7: UNDP Risk Atlas Register Annex 6: SESP Annex 4: Monitoring Plan
	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?			
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?	This is not adequately covered	During PPG phase, a group of GEF-financed projects and other initiatives in Peru currently under implementation related to the development challenge that this project is also addressing were identified. Additionally, similar current and past initiatives in other countries are identified.	Please refer to Section IV "Results and Partnership", sub-section ?Partnership?, of the ProDoc.
	Is there adequate recognition of previous projects and the learning derived from them?	NO	Through south-south cooperation the project recognise previous projects and the learning derived from them.	Please refer to Section IV "Results and Partnerships", sub-section "South-South Cooperation"

	Have specific lessons learned from previous projects been cited?	NO	National PCB Strategy and mercury management from previous projects are mentioned in related activities.	Please refer to Section IV "Results and Partnerships", Output C1 and Output D1.
	How have these lessons informed the project's formulation?	NO	Lessons learned from current and past initiatives informed the project's formulation in the design of activities to be implemented by this FSP.	Please refer to Section IV "Results and Partnerships", sub-section "Expected results".
	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?	NO	The related mechanisms: ?Inter-Governmental Network for Chemicals and Waste Management under the Forum of Ministers of Environment of Latin American and the Caribbean?; yearly basis UNDP face-to face exchange and any other opportunity explored during project implementation.	Please refer to Section IV "Results and Partnerships", sub-section "South-South Cooperation"
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?	The specific Knowledge Management Strategy will be developed during the PPG phase	During PPG phase, further detail on the Knowledge Management Strategy was developed according to the scope of this FSP.	Please refer to Section IV "Results and Partnership", Output E1 of "Knowledge management system for best practices and communication platform at national level established"

	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	Through knowledge exchange platform and social media		
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 approach STAP 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 will recognize this in the screen by stating that <i>?STAP is satisfied with the scientific and technical quality of the proposal and encourages the proponent to develop it with same rigor. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design.?</i>			
2. Minor issues to be considered during project design	STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with the project proponent 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 reference for an 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 project brief for CEO endorsement.			
3. Major issues to be considered during project design	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical methodological issues, barriers, or omissions in the project concept. If STAP provides this advisory response, a full explanation would also be 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 an early stage during project development including an independent expert as required. The proponent should provide a report of the action 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:

PPG Grant Approved at PIF: 150,000			
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (\$150,000)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent Todate</i>	<i>Amount Committed</i>
Environmentally sound management of PCBs, Mercury and other toxic chemicals in Peru	150,000	89,502.93	60,497.07
Total	150,000	89,502.93	60,497.07

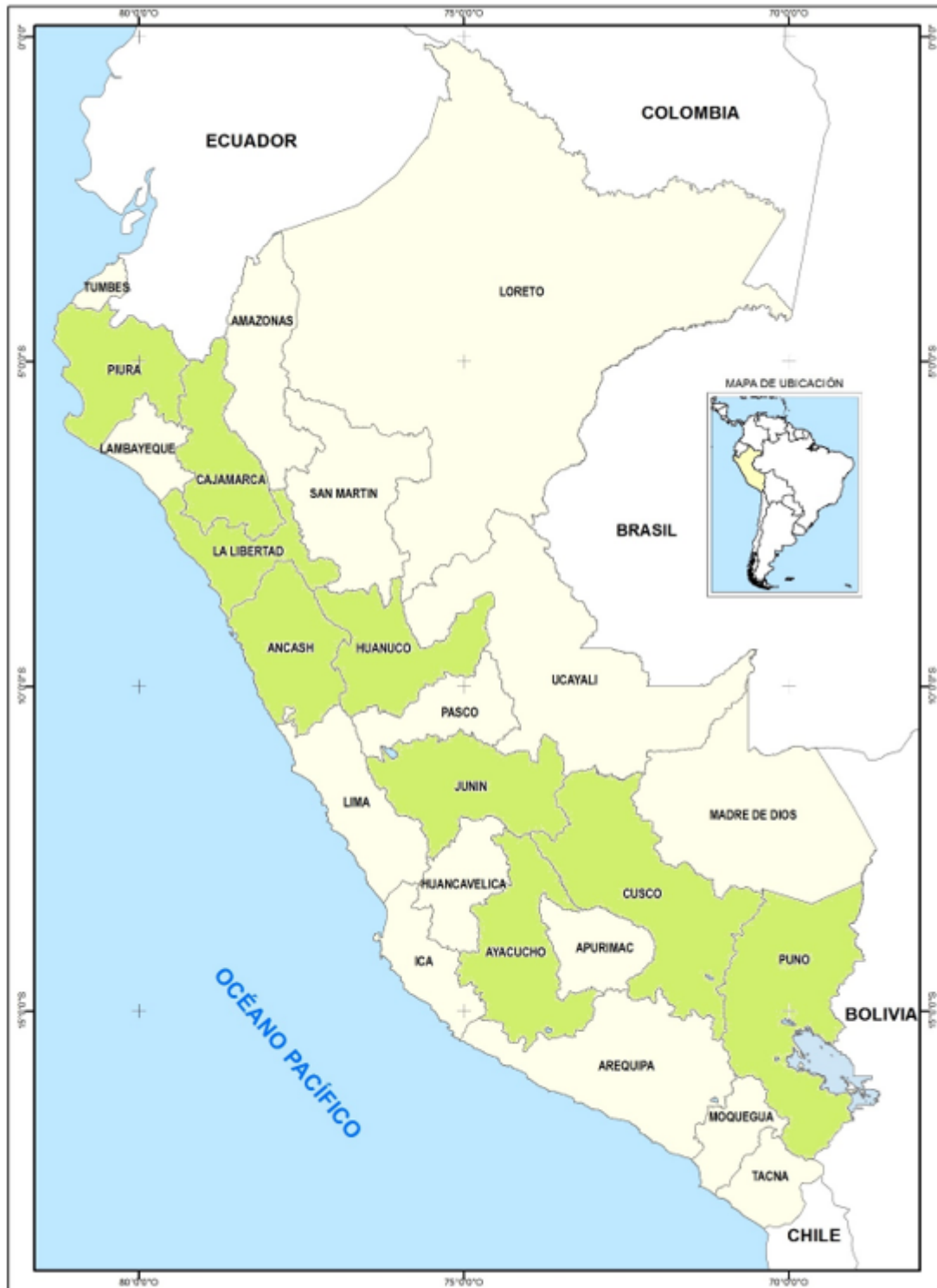
ANNEX D: Project Map(s) and Coordinates

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

a. Geographic Regions of Peru



b. Preliminary regions for Output B1 and B3 implementation.



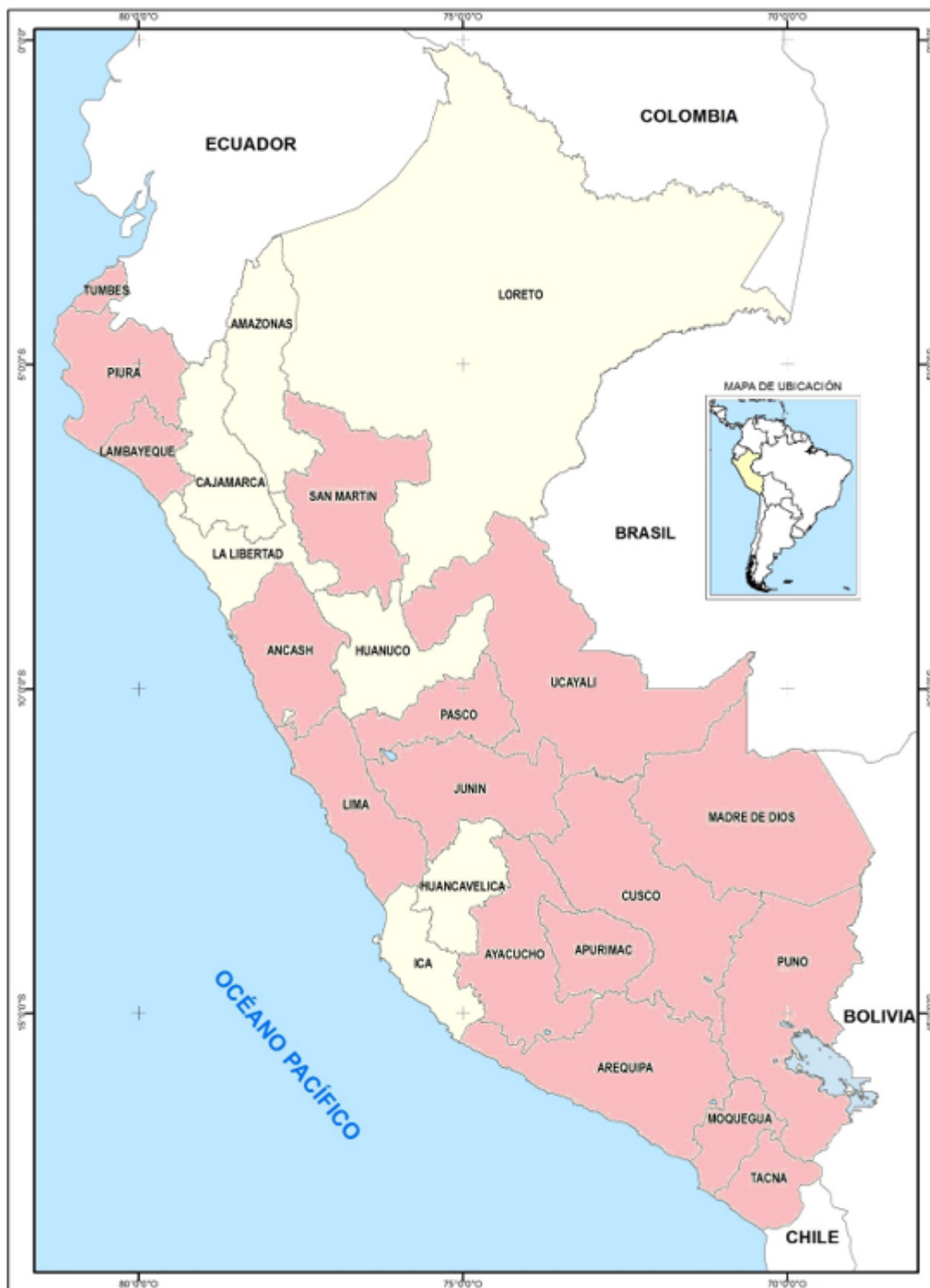
c. Location of Lima's Great Wholesale Market (Santa Anita) for Output B2 implementation.

**Great Wholesale
Market of Lima**

Coordinates:
18L
288131 m E
8668455.9 m S



d. Preliminary regions where obsolete POPs/HHP have been identified (Output C2)



e. Installed capacity for hazardous waste treatment and disposal.



Incinerators

- Seché Group Peru (Lima)
- Veolia (Lima)
- Arpe E.I.R.L. (Piura)
- Incineragas E.I.R.L. (Lima)
- Tower and Tower (Ica)



Installed capacity for treatment and elimination of equipment and oils contaminated with PCBs:

- Seché Group Peru (Lima)
- Kioshi Peru (Lima)



Regions with Security Landfills or Landfills with security cells

ANNEX E: Project Budget Table

Please attach a project budget table.

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	Component 2	Component 3	Component 4	Sub-Total	M&E	PM C		(Executing Entity receiving funds from the GEF Agency)[1]
Equipment	Pesticides containers and other materials for Output B1. Pilot for Pesticides management communication developed for rural population (family agriculture) in 9 regions of country areas, Habilitation (complementary equipment) of laboratory and Supplies for laboratory tests for Output B2. Pilot for POPs pesticides and Highly Toxic pesticides prevention in the main Lima market of greengrocers .		340,000			340,000			340,000	Ministry of Environment (MINAM)

Equipm ent	Standard office equipment					-		6,00 0	6,000	Ministr y of Environ ment (MINA M)
Equipm ent	Temporary storage silos for mercury for Output D1. Pilot project to reduce mercury use, to eliminate mercury waste and prevent emissions from healthcare waste.			100,00 0		100,0 00			100,0 00	Ministr y of Environ ment (MINA M)
Equipm ent	Standard IT equipment					-		11,0 00	11,00 0	Ministr y of Environ ment (MINA M)

Grants	Grant for Output B1. Pilot for Pesticides management communication developed for rural population (family agriculture) in 9 regions of country areas, Grant for Output B3. Pilot/Business model for management and elimination of POPs and other toxic?s containing used pesticides containers and agricultural plastics in rural areas. UNDP policies on Low-Value Grant will be followed		270,000			270,000			270,000	Ministry of Environment (MINAM)
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Grants	Grant for Replacement of selected critical devices, mercury free for Output D1. Pilot project to reduce mercury use, to eliminate mercury waste and prevent emissions from healthcare waste, and Grant for End-of-life of some selected, critical waste batches, including COVID for Output D2. Five (5) Demonstration project for the introduction of BAT and BEP for Hospital waste management for UPOPs emissions reduction from healthcare waste. UNDP policies on Low-Value Grant will be followed			680,000		680,000			680,000	Ministry of Environment (MINAM)
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Contractual services-Individual	One local individual (Project Administrative Assistant) at USD\$30,000 for 6 years					-		150,000	150,000	Ministry of Environment (MINAM)
Contractual services-Individual	One local individual for the position of National Institutional/ Legal Specialist at USD\$33,000 / year, and 30% of the Project Manager's costs: the Project Manager will undertake day-to-day project implementation, administration, procurement and management activities at USD\$39,000 per year (USD\$11,700 per year will be charged to this component)	223,500				223,500			223,500	Ministry of Environment (MINAM)

Contractual services-Individual	One local individual for the position of National Technical Advisor on Chemicals Management at USD\$33,000 - 50% will be paid from Component 2 / year, and 35% of the Project Manager's costs: the Project Manager will undertake day-to-day project implementation, administration, procurement and management activities at USD\$39,000 per year (USD\$13,650 per year will be charged to this component)		150,750			150,750			150,750	Ministry of Environment (MINAM)
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Contractual services-Individual	One local individual for the position of National Technical Advisor on Chemicals Management at USD\$33,000 - 50% will be paid from Component 3 / year, and 35% of the Project Manager's costs: the Project Manager will undertake day-to-day project implementation, administration, procurement and management activities at USD\$39,000 per year (USD\$13,650 per year will be charged to this component)			150,750		150,750			150,750	Ministry of Environment (MINAM)
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Contractual services-Individual	<p>One Project Monitoring & Evaluation Officer engaged for the coordination, implementation, oversight and follow-up of the Gender Action Plan, Social and Environmental Risks Management and the Stakeholder Engagement Plan follow-up as well as Mandatory reports production at USD\$16,000 /year. Activities include M&E of GEF core indicators and project results framework, GEF Project Implementation Report (PIR), and Monitoring of Environmental Social and Management Framework and Plan. See M&E table for additional details</p>					-	80,000	80,000	Ministry of Environment (MINAM)
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Contractual services-Company	Contractual services for Output A3. Coordination platform for regulatory compliance enforcement, for Information and Report of POPs, Mercury and other toxic chemicals control established.	45,500				45,500			45,500	Ministry of Environment (MINAM)
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Contractual services-Company	Laboratory diagnosis for Output B2. Pilot for POPs pesticides and Highly Toxic pesticides prevention in the main Lima market of greengrocers ; Plastic Waste Management services for Output B3. Pilot/Business model for management and elimination of POPs and other toxic?s containing used pesticides containers and agricultural plastics in rural areas; and Business model Training and technical assistance to OSC/ME for Output B3. Pilot/Business model for management and elimination of POPs and other toxic?s containing used pesticides containers and agricultural plastics in rural areas. Services for Output C1. 600 ton of PCBs contaminated equipment and		1,049,250			1,049,250			1,049,250	Ministry of Environment (MINAM)
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Contractual services-Company	Training and technical assistance to Hospitals, and Temporary storage silos for mercury, Mercury end-of-life Output D1. Pilot project to reduce mercury use, to eliminate mercury waste and prevent emissions from healthcare waste; and Assessment of safer technologies for hospital waste destruction, including COVID related waste and emissions measurement verification of the alternative technologies for Output D2. Five (5) Demonstration project for the introduction of BAT and BEP for Hospital waste management for UPOPs emissions reduction from healthcare waste.			450,000		450,000			450,000	Ministry of Environment (MINAM)
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Internati onal Consult ants	International consultant engaged for CSO training for Output B1. Pilot for Pesticides management communication developed for rural population (family agriculture) in 9 regions of country areas at USD\$20,000 ; and International PCB Specialist at USD\$40,000 (See Annex 5 for additional details)		60,000			60,000			60,000	Ministr y of Environ ment (MINA M)
Internati onal Consult ants	International Specialist on POPs management at USD\$60,000 (See Annex 5 for additional details)	60,000				60,000			60,000	Ministr y of Environ ment (MINA M)
Internati onal Consult ants	One International Consultant for the MTR \$15,000 and One International Consultant for the TE \$15,000. See M&E budget table on PRODOC section VI					-	30,000		30,000	Ministr y of Environ ment (MINA M)

Internati onal Consult ants	One International Health-Care Waste Specialist at USD\$70,000 including the Training and technical assistance to Hospitals, including Guideline and Standard drafting for Output D2. Five (5) Demonstrati on project for the introduction of BAT and BEP for Hospital waste management for UPOPs emissions reduction from healthcare waste. (See Annex 5 for additional details)			70,000		70,000			70,000	Ministr y of Environ ment (MINA M)
Local Consult ants	National Specialist on Chemicals management at USD\$60,000 (See Annex 5 for additional details)	60,000				60,000			60,000	Ministr y of Environ ment (MINA M)

Local Consultants	One Local consultant for MTR \$10,000 and one Local Consultant for TE \$10,000. See M&E budget table on PRODOC section VI					-	20,000		20,000	Ministry of Environment (MINAM)
Local Consultants	One local consultant for the development of the National Programme for Output D2. Five (5) Demonstration project for the introduction of BAT and BEP for Hospital waste management for UPOPs emissions reduction from healthcare waste.			70,000		70,000			70,000	Ministry of Environment (MINAM)

Local Consultants	One local consultant for the provision of Technical assistance to laboratory to take up to certification for Output B2. Pilot for POPs pesticides and Highly Toxic pesticides prevention in the main Lima market of greengrocers		20,000			20,000			20,000	Ministry of Environment (MINAM)
Local Consultants	One local consultant to document and share, in a user-friendly manner, information, lessons, best practices, and expertise generated during implementation; plans for strategic communications; and knowledge outputs at USD\$31,000				31,000	31,000			31,000	Ministry of Environment (MINAM)
Training, Workshops, Meetings	Inception workshop (see M&E budget table for additional details)					-	10,000		10,000	Ministry of Environment (MINAM)

Training , Worksh ops, Meeting s	Training for Output B1. Pilot for Pesticides management communication developed for rural population (family agriculture) in 9 regions of country areas; Technical assistance to laboratory to take up to certification and awareness-raising for Output B2. Pilot for POPs pesticides and Highly Toxic pesticides prevention in the main Lima market of greengrocers .		40,000			40,000			40,000	Ministr y of Environ ment (MINA M)
Training , Worksh ops, Meeting s	Training workshops, seminars and meetings for inception workshop, annual presentations with steering committee and follow-up with Stakeholders (as per Stakeholder Engagement Plan)				10,000	10,000			10,000	Ministr y of Environ ment (MINA M)

Training , Worksh ops, Meeting s	Training workshops, seminars and meetings to strengthen project management capabilities					-		27,000	27,000	Ministr y of Environ ment (MINA M)
Training , Worksh ops, Meeting s	Training, Workshop and Conferences for Component 1. Improve the management of hazardous chemicals in Peru including meetings of the Coordination Unit (Output A1)	25,000				25,000			25,000	Ministr y of Environ ment (MINA M)
Training , Worksh ops, Meeting s	Workshops and Seminars for Training and technical assistance to Hospitals, including Guideline and Standard drafting for Output D2. Five (5) Demonstrati on project for the introduction of BAT and BEP for Hospital waste management for UPOPs emissions reduction from healthcare waste.			165,000		165,000			165,000	Ministr y of Environ ment (MINA M)

Travel	Travel to monitor activities for Component 2. Environmentally sound management and disposal of legacy POPs		50,000			50,000			50,000	Ministry of Environment (MINAM)
Travel	Travel to monitor activities for Component 3. Prevention of emissions (UPOPs and Mercury) from Health Care Waste			94,250		94,250			94,250	Ministry of Environment (MINAM)
Travel	Travel to monitor the activities of Component 1. Improve the management of hazardous chemicals in Peru	16,000				16,000			16,000	Ministry of Environment (MINAM)
Travel	Travel to support activities carried out under Component 4. Lessons learned, identified, monitored and assessed				10,000	10,000			10,000	Ministry of Environment (MINAM)
Office Supplies	Basic office supplies for duration of project period					-		15,000	15,000	Ministry of Environment (MINAM)

Other Operating Costs	Mandatory Audit Services (USD\$2,000 per year for 4 years) and Spot Checks for HACT follow-up (USD\$2,000 per year for 4 years)					-		16,000	16,000	Ministry of Environment (MINAM)
Other Operating Costs	Audio Visual and Print Production Costs to support awareness-raising on reduction of POPs, Mercury and Toxic Chemicals				9,000	9,000			9,000	Ministry of Environment (MINAM)
Other Operating Costs	Printing and Production Costs for Component 1. Improve the management of hazardous chemicals in Peru	20,000				20,000			20,000	Ministry of Environment (MINAM)
Other Operating Costs	Printing and Production Costs for Component 2. Environmentally sound management and disposal of legacy POPs		20,000			20,000			20,000	Ministry of Environment (MINAM)

Other Operating Costs	Printing and Production Costs for Component 3. Prevention of emissions (UPOPs and Mercury) from Health Care Waste			70,000		70,000			70,000	Ministry of Environment (MINAM)
Grand Total		450,000	2,000,000	1,850,000	60,000	4,360,000	140,000	225,000	4,725,000	

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.

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 Agencies is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

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

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