



AFLDC-2 Scaling-up Investment and Technology Transfer to Facilitate Capacity Strengthening and Technical Assistance for the Implementation of Stockholm and Minamata Conventions in African LDCs

Part I: Project Information

GEF ID

10218

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

☐ CBIT

☐ NGI

Project Title

AFLDC-2 Scaling-up Investment and Technology Transfer to Facilitate Capacity Strengthening and Technical Assistance for the Implementation of Stockholm and Minamata Conventions in African LDCs

Countries

Regional, Africa, Angola, Ethiopia, Gambia, Guinea, Liberia, Mauritania, Senegal, Sierra Leone, Togo, Uganda, Zambia, Senegal

Agency(ies)

AfDB

Other Executing Partner(s):

Angola: Ministry of Environment Ethiopia: Environment, Forest and Climate Change Commission Gambia: National Environment Agency (NEA) Guinea: Ministry of Environment, Water and Forestry Liberia: Environmental Protection Agency (EPA) Senegal: Ministry of Environment and Sustainable Development Sierra Leone: Environmental Protection Agency (EPA) Togo: Ministry of Environment and Forest Resources Uganda: National Environmental Management Agency (NEMA) Zambia: Zambia Environmental Management Agency (ZEMA) United Nations Institute for Training and Research (UNITAR) Mauritania: Ministry of Environment and Sustainable Development

Executing Partner Type

Government

GEF Focal Area

Chemicals and Waste

Taxonomy

Stakeholders, Integrated Programs, Focal Areas, Chemicals and Waste, Pesticides, Mercury, Cement, Non Ferrous Metals Production, Open Burning, Emissions, Disposal, Persistent Organic Pollutants, Unintentional Persistent Organic Pollutants, New Persistent Organic Pollutants, Polychlorinated Biphenyls, Plastics, Best Available Technology / Best Environmental Practices, Sound Management of chemicals and waste, Industrial Emissions, Waste Management, Hazardous Waste Management, Industrial Waste, Influencing models, Demonstrate innovative approach, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Communications, Education, Awareness Raising, Public Campaigns, Behavior change, Private Sector, Individuals/Entrepreneurs, SMEs, Civil Society, Trade Unions and Workers Unions, Non-Governmental Organization, Academia, Community Based Organization, Beneficiaries, Local Communities, Type of Engagement, Information Dissemination, Participation, Consultation, Partnership, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Gender results areas, Capacity Development, Knowledge Generation and Exchange, Participation and leadership, Access to benefits and services, Sustainable Cities, Municipal waste management

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 0

Submission Date

4/5/2019

Expected Implementation Start**Expected Completion Date****Duration**

60In Months

Agency Fee(\$)

1,917,000.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CW-1-1		GET	8,952,849.00	126,257,143.00
CW-1-2		GET	5,481,424.00	69,327,442.00
CW-2-3		GET	6,865,727.00	318,273,320.00
Total Project Cost(\$)			21,300,000.00	513,857,905.00

B. Project description summary

Project Objective

To promote circular economy approaches within national development frameworks to achieve economic development while scaling-up investments and BAT/BEP to eliminate, reduce and control POPs and Mercury pollution sources in African LDCs

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: Strengthening the enabling environment and national enforcement capacities for the management and phase-out of POPs/Mercury and its compounds	Technical Assistance	1. Conducive enabling environments based on legal and regulatory regimes provide a sustainable basis for the environmentally sound management and disposal of chemicals and waste, in particular of POPs and mercury and its compounds	<p>1.1 Up-to-date legislative and regulatory frameworks</p> <p>1.2 Strengthened application and enforcement of updated legislative and regulatory frameworks</p> <p>1.3 Strengthened national methodologies to identify, assess, and manage sites contaminated by hazardous chemicals</p> <p>1.4 Integrated regional and national strategies to implement environmentally sound management of chemicals and waste</p> <p>Integration of</p>	GET	2,554,660.00	292,652,397.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Communicating the environmentally sound management of chemicals and wastes	Technical Assistance	2. The environmentally sound management of chemicals and waste mainstreamed into development decision making and into consumer choices.	<p>2.1 Increased awareness amongst regional and national development planners of the role of ESM of chemicals and waste within Sustainable Development policies and strategies</p> <p>2.2 Increased capacity and knowledge of public officials to incorporate ESM of chemicals and waste in public policies and programmes</p> <p>2.3: Increased engagement of key stakeholders in agriculture and industry in efforts to reduce POPs use and release</p> <p>2.4 Increased engagement of civil society organisations, communities and consumers in designing, promoting</p>	GET	4,311,065.00	25,620,923.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Scaling up of actions to reduce and wherever possible, eliminate manufacture, trade, use, emission and release of POPs and mercury and its compounds.	Investment	3. POPs and mercury reduced or phased out from agricultural, urban and industrial processes and products through environmentally sound management and the application of BAT/BEP	<p>3.1 National facility established for interim storage of mercury and POPs waste awaiting final disposal</p> <p>3.2 POPs pesticides wastes destroyed</p> <p>3.3 Environmentally sound management of PCBs</p> <p>3.4 Reduced uPOPs emissions and releases from municipal waste management through reduction of open burning of waste</p> <p>3.5 Reduced availability and use of mercury-containing products and models for their proper disposal</p>	GET	12,354,989.00	169,178,836.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 4: Monitoring and evaluation, learning and adaptive feedback	Technical Assistance	4. Effective and efficient project delivery involving informed decision making at regional and national levels	4.1 Project website created and maintained	GET	1,065,000.00	6,405,230.00
			4.2 Project Steering Committees established; meetings held			
			4.3 Gender Assessments conducted			
			4.4 Yearly lessons-learned report/publication prepared and disseminated, and case study reports prepared			
			4.5 Measuring increasing awareness and understanding of the requirements for the environmentally sound management of chemicals and waste			
			4.6 End of project			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Sub Total (\$)					20,285,714.00	493,857,386.00
Project Management Cost (PMC)						
GET					1,014,286.00	20,000,519.00
Sub Total(\$)					1,014,286.00	20,000,519.00
Total Project Cost(\$)					21,300,000.00	513,857,905.00

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	AfDB: African Development Fund (Ethiopia)	Grant	Investment mobilized	15,270,750.00
Private Sector	Korea Exim Bank (Ethiopia)	Loans	Investment mobilized	25,000,000.00
Donor Agency	EU (Ethiopia)	Grant	Investment mobilized	11,716,830.00
Others	Big Win (Ethiopia)	Grant	Investment mobilized	1,000,000.00
Recipient Country Government	Government of Ethiopia	Grant	Recurrent expenditures	8,454,443.00
GEF Agency	AfDB (Uganda)	Loans	Investment mobilized	79,114,985.50
GEF Agency	ADF (Uganda)	Grant	Investment mobilized	25,000,000.00
Recipient Country Government	Government of Uganda	Grant	Recurrent expenditures	11,000,000.00
GEF Agency	AfDB (Gambia)	Loans	Investment mobilized	3,000,000.00
GEF Agency	AfDB: African Development Fund (Senegal)	Loans	Investment mobilized	93,599,019.50
Recipient Country Government	Government of Senegal	Grant	Recurrent expenditures	25,834,042.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	AfDB (Zambia)	Grant	Investment mobilized	5,000,000.00
GEF Agency	AfDB (Angola)	Grant	Investment mobilized	1,178,679.00
GEF Agency	AfDB: African Development Fund (Guinea)	Loans	Investment mobilized	13,820,000.00
GEF Agency	IBRD (Guinea)	Loans	Investment mobilized	25,000,000.00
GEF Agency	AfDB: African Development Fund and Nigeria Trust Fund (Guinea)	Loans	Investment mobilized	12,640,000.00
Recipient Country Government	Government of Guinea	Grant	Recurrent expenditures	8,500,000.00
GEF Agency	AfDB: African Development Fund (Togo)	Loans	Investment mobilized	11,161,530.00
GEF Agency	AfDB: African Development Fund (Togo)	Grant	Investment mobilized	6,434,539.00
GEF Agency	AfDB: Transition States Facility (Togo)	Grant	Investment mobilized	11,550,240.00
GEF Agency	BOAD (Togo)	Loans	Investment mobilized	17,769,600.00
Others	Saemaul Foundation (Togo)	Grant	Investment mobilized	4,886,640.00
Recipient Country Government	Government of Togo	Grant	Recurrent expenditures	10,745,055.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	AfDB: African Development Fund (Liberia)	Loans	Investment mobilized	5,000,000.00
GEF Agency	AfDB: African Development Fund (Sierra Leone)	Grant	Investment mobilized	6,108,300.00
GEF Agency	AfDB: African Development Fund (Sierra Leone)	Loans	Investment mobilized	8,121,263.00
Donor Agency	IsDB (Sierra Leone)	Loans	Investment mobilized	34,120,000.00
GEF Agency	IFAD (Sierra Leone)	Loans	Investment mobilized	11,800,000.00
Recipient Country Government	Government of Sierra Leone	Grant	Recurrent expenditures	1,735,313.00
GEF Agency	AfDB: African Development Fund (Mauritania)	Loans	Investment mobilized	8,232,323.00
GEF Agency	AfDB: Nigeria Trust Fund (Mauritania)	Loans	Investment mobilized	8,329,500.00
Recipient Country Government	Government of Mauritania	Grant	Recurrent expenditures	2,734,853.00
			Total Co-Financing(\$)	513,857,905.00

Describe how any "Investment Mobilized" was identified

The investments mobilized originate from the AfDB operations in the respective projects that will make significant contributions to the Global Environment Benefits described in the objectives of the proposed project, if approved. The indicative co-financing is based on conservative estimates that will be confirmed during the PPG phase. Additional resource mobilization will be undertaken during the PPG phase to strengthen the private sector engagement, impact and sustainability of the project results.

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(\$)
AfDB	GET	Africa	Chemicals and Waste	POPs	15,601,527	1,404,137
AfDB	GET	Africa	Chemicals and Waste	Mercury	5,698,473	512,863
Total Grant Resources(\$)					21,300,000.00	1,917,000.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required

☐

PPG Amount (\$)

300,000

PPG Agency Fee (\$)

27,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
AfDB	GET	Africa	Chemicals and Waste	POPs	300,000	27,000
Total Project Costs(\$)					300,000.00	27,000.00

Core Indicators

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations			
Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Type/name of the third-party certification			
Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia			
Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
0	0	0	0

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE
Indicator 5.3 Amount of Marine Litter Avoided			
Metric Tons (expected at PIF)	Metric Tons (expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
125,000.00	63,000.00		

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)
1,545.00	830.80	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)
SelectDDT		87.50		<input type="checkbox"/>
SelectPolychlorinated biphenyls (PCB)	400.00	459.00		<input type="checkbox"/>
SelectAldrin	200.00	0.00		<input type="checkbox"/>
SelectLindane	200.00	0.00		<input type="checkbox"/>
SelectToxaphene	200.00	0.00		<input type="checkbox"/>
SelectHighly Hazardous Pesticides	500.00			<input type="checkbox"/>
Select		246.30		<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)
45.00	38.00		

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)

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)
11	11		
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)
11	4		
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)
5,545.00	3,775.00		
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)
350.00	330.00		
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)
11	11		
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)
11	1		

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	58,079		
Male	8,000	26,079		
Total	13000	84158	0	0

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

Core Indicator 5.3 Core Indicator 5.3: Coastal countries with uPOPs/plastics recycling measure and coast line reduced from 6 countries in PIF to 3 country (Angola, The Gambia, Guinea) in FSP. Core Indicator 9 Core Indicator 9: The total includes (as required): Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type) + Quantity of mercury reduced (within project periode) Indicator 9.1 Indicator 9.1: The numbers given were derived from country NIPs, country questionnaires undertaken as part of the AFLDC2 PPG, and information collected in the national consultation process. In some case, estimation was done based on indicators such as numbers of transformers with PCB detected. Indicator 9.2 Indicator 9.2: Total reduction is roughly estimated as the total reported input of mercury from mercury-added products from 1 year multiplied with the reduction expected, 50% (Hg subject to emissions and releases) + 0.5 years' input from previously accumulated Hg eliminated in Output 3.5 (separate Hg collection). The project will collect other products than thermometers, but these cannot be determined with precision, hence the rough estimation. The expected reduction is a mix of avoided new mercury input with products due to Minamata Convention implementation (here estimated as a fraction of the total annual input) and elimination of mercury already in circulation in society. The amounts cannot be estimated at higher precision, as available data have serious gaps and because it is not known exactly which Hg-added products people will hand in for separate collection and treatment. Data used in the estimations are from MIA reports where available, and otherwise derived with the method used in the Global Mercury Assessment (2018). Indicator 9.6 Indicator 9.6: Total reduction is assumed to include the whole product/material weight (and not just the chemicals), and equal roughly the total reported input of mercury from products per year times the reduction expected, see Indicator 9.3. Estimation of new POPs input with products has not been possible here due to lack of data for the participating countries. The mercury concentrations vary greatly among the products, but here a weighted average is roughly estimated at around 1% based on the UNEP Toolkit and examples of the consumption pattern. Background for numbers, see Indicator 9.3 (except accumulated mercury from previous years not included here). Core Indicator 10 Core Indicator 10: Total reduction is assumed to be gTEQ per year times 20% reduction of total emission from open MSW burning.

Number on open MSW burning are derived from the following sources: a) where available emissions were derived from amounts of waste openly burned (Wiedinmeyer et al., 2014) in combination with UNEP dioxins and furans Toolkit (2020) air mission factor (300 gTEQ/t waste burned) for fires at waste dumps (compacted, wet, high organic carbon content). OR, b) from BRS SEC (2006; Uganda only) OR c) derived from Fiedler (2015), assuming that open MSW burning is a major contributor to dioxins and furans emissions in the countries in question. References: 1) Wiedinmeyer C, Yokelson RJ, Gullet BK (2014): Global emissions of trace gases, particulate matter, and hazardous air pollutants from open burning of domestic waste. *Environ. Sci. Technol.*, 2014, 48 (16), pp 9523–9530. Link: <http://pubs.acs.org/doi/abs/10.1021/es502250z>; 2) Uganda only: 2006 data from BRS SEC 2020 accessed May 2020 at http://ers.pops.int/eRSodataReports2/ReportSC_UPOPsInv-Full.htm 3) Fiedler, Heidelore, 2015 (In: M. Alaee (ed.), *Dioxin and Related Compounds: Special Volume in Honor of Otto Hutzinger*, *Hdb Env Chem* (2016) 49: 1–28, DOI 10.1007/698_2015_432, © Springer International Publishing Switzerland 2015, Published online: 21 October 2015 Indicator 10.2 Indicator 10.2: BAT/BEP for open waste burning (Stockholm C.): Waste reduction through recycling and substitution of plastics. Core Indicator 11 Core Indicator 11: The numbers mentioned under "Endorsement" are 1) persons trained + receivers of Hg-free thermometers in Output 3.5 (primarily females), and 2) the total population (in brackets). The latter is because mercury and uPOPs emissions are nationally and regionally dispersed, meaning that the total population will have lower exposure to these toxic pollutants due to the project. Numbers trained: 2,079 (women) + 2,079 (men) = 4,158 Receivers of Hg-free thermometers: 56,000 (women) + 24,000 (men) = 80,000 Total trained and offered thermometers: 58,079 (women) + 26,079 (men) = 84,158

Part II. Project Justification

1a. Project Description

As the PIF was very broad in scope, a scoping process was undertaken during the PPG work in order to increase impact of the measures to be implemented. As part of the scoping process, a questionnaire survey on the baseline conditions in the participating countries was administered, and based on the PIF and the questionnaire response, outputs were sought specified beyond what was done in the PIF. In advance of the 1st regional consultation workshop held in Abidjan, 21-22 January 2020, countries were requested to make presentations on their national priorities in the suggested concrete measures of components 1 and 2, and prioritize three measures for their country among a long-list of potential concrete measures of Component 3. With a few exceptions, there was broad interest in the measures suggested for components 1 and 2. For Component 3, a couple of potential concrete measures were not prioritized by countries, while a few were prioritized by one country only; such measures with little or no prioritization were omitted in the further work. The results of the workshop are described in the meeting report in Annex AA.

The resulting prioritization provided the basis for further investigation of 2-4 potential measures per country. The project outputs presented for implementation in this report were selected based on:

- priorities of the countries' in their NIPs and any MIA's,
- complementarity to the AfDB co-financing baseline projects in the countries as well as to other ongoing or planned projects,
- complementarity to national development plans and other relevant elements of the national baseline situation,
- stakeholder feedback from the national consultations
- Global Environmental Benefit (GEB) contributions
- and budget constraints.

The country annexes (annexes P-Z) describe the national baseline in more details.

The resulting changes in planned outputs of the project since the PIF are described in detail below. Annex N gives an overview of changes in the outputs and their titles since the PIF.

1) Global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

Governments around the World have, over the past decades, become increasingly aware of the risks to human health and the environment created by highly hazardous and persistent chemicals released from intentional use in products and processes, and from processing of raw materials releasing such chemicals. As a result, the manufacture, trade, use, emission/release and disposal of such chemicals, as well as the transboundary movement of emissions and hazardous wastes, are increasingly regulated within a series of multilateral environmental agreements: The Rotterdam, Stockholm, Minamata, Basel, Bamako Conventions^[1] and the international policy framework of the Strategic Approach to International Chemicals Management (SAICM).

The Stockholm Convention seeks to reduce and, wherever possible, eliminate production, use and releases of a growing list of Persistent Organic Pollutants (POPs) intended for use in agriculture or industry and to reduce and, wherever possible, eliminate unintentional production and release. For African LDCs lacking significant industrial development, principal concerns centre on POPs pesticides, including accumulations of obsolete pesticides, Polychlorinated Biphenyls (PCBs), POPs from open burning of waste (uPOPs), and land contaminated at sites where POPs chemicals have been released during storage, handling and disposal.

Production of many of the controlled **POPs pesticides** has ceased but trade and use is still observed, notably trade and use of some more recently listed chemicals may be continuing. In some African LDCs, POPs pesticide stocks were built up to prepare for periodic swarming of particular pests of concern. Some of these stocks have become degraded and obsolete, presenting particular dangers where safeguarding controls are inadequate.

Since 1930, **PCBs** were synthesised for a variety of industrial uses based on their properties of chemical stability, resistance to thermal breakdown, and low electrical conductivity. They have been used extensively as dielectric fluids in capacitors and transformers but also find application as solvents in construction sealers, flame retardants, ink solvents, plasticizers, amongst others. Exposure to PCBs risks damage to the immune system, liver, skin, reproductive system, gastrointestinal tract and thyroid gland. The Stockholm Convention requires that all equipment containing PCBs or liquids contaminated by PCBs at concentrations above 0.005% be phased out of use by 2025 and that all such liquid wastes should be subject to environmentally sound management (ESM) for final disposal as soon as possible and not later than 2028. For several of the project countries, these goals have not yet been met.]

A wide range of improperly controlled combustion practices may give rise to the unintentional production and emission of a group of POPs (called “**uPOPs**”). Amongst these, incineration and open burning of waste by households, industries and at municipal waste sites is a major contributor to emissions inventories in many African countries, though they are in some cases likely under-reported due to absence or limited availability of data . This type of emissions may be exacerbated by the growing plastic component in many waste streams, as well as by inadequate burning of medical waste and other complex waste types.

Mercury is a dense, silverish metal element that is liquid at ambient temperature. It occurs naturally in the earth’s crust; the highest concentrations are found in sulphide minerals, notably cinnabar, mercury sulphide (HgS), the key mineral exploited in dedicated mercury mining, but also in other non-ferrous sulphide minerals (zinc, lead, arsenic, gold, etc.).

It is also present in trace concentrations (natural or as an impurity) in many other economically valuable materials including fossil fuels such as coal, gas, and oil. Mercury combines with certain commonly used metals to form alloys called amalgams and these decompose on heating with resulting volatilisation of elemental mercury vapour. Liquid elemental mercury is very heavy fluid, a technically excellent electric conductor, and expands and contracts very precisely in response to changes in temperature and maintains its volume in response to change in atmospheric pressure. Mercury's unique properties have made it useful in a variety of technical devices, such as thermometers, manometers, contacts, fluorescent lamps and many more.

As an element, mercury is persistent in the environment. While natural emissions/releases continue, from processes such as volcanic activity, weathering of rock, etc., emissions from human activity account for an estimated 60 percent of the current total emissions (distributed with about half from new emissions and the other half from re-emission in nature of older human emissions). The human activities emitting/releasing mercury include, among others, the processing of some base metal ores; the burning of coal and hydrocarbon fuels; the use of mercury in industrial processes and in artisanal and small-scale gold mining; and the breakage and improper disposal of mercury-added products. Once in the atmosphere, mercury may cycle globally with atmospheric transport, deposition and re-emission and is only immobilized through strong adsorption on organic matter and some other substances or through deep-sea sedimentation. It also cycles with the ocean current, but at a much slower pace. This global transport of mercury means that even regions with no significant mercury emissions/releases, such as the Arctic, are known to be adversely affected.

Mercury is considered by the World Health Organization (WHO) as one of the top ten chemicals or groups of chemicals of major public health concern. All bioavailable^[2] forms of mercury are extremely toxic to humans, fauna and microorganisms. Exposure to mercury and its compounds at high levels are fatal. At low levels, the nervous, especially that of developing foetus and the cardiovascular systems are the most affected even at lowest levels of exposure. Mercury may also affect other human organs including the lungs and kidneys and the immune system. The Minamata Convention obliges its Parties to eliminate intentional use of mercury in a range of industrial processes and in products containing mercury additives. It also compels its Parties to ensure the sound environmental management and disposal of mercury and mercury-containing products at the end of their life cycle. Furthermore, mercury is a natural contaminant of many metal ores, coal, oil and gas, and limestone and other raw materials used in clinker manufacture for cement. Processing of these raw materials generally lead to emissions and release of mercury. Parties to Minamata Convention are therefore under the obligation to take measures to reduce emissions and releases, including adoption of best environmental techniques and best environmental practises (BAT/BEP).

Article 6 of the Stockholm Convention and Article 12 of the Minamata Convention require parties to develop appropriate strategies for identifying **sites contaminated by POPs and by mercury** (or mercury compounds). They also require any actions to reduce the risks posed by such sites to be performed in an environmentally sound manner.

Despite efforts made in recent years, levels of awareness of the adverse effects of POPs and mercury are still low, particularly in developing countries. Stakeholders are generally not aware of the risks posed on human health and the environment as a result of exposure to these chemicals and therefore, they tend to rank these risks lower than other short-term risks. Low awareness amongst policy makers hampers efforts to mainstream sound chemicals management into sustainable development planning thereby undermining efforts to reduce harm to human health and the environment.

Furthermore, despite a high level of interest in the objectives of the chemicals and waste conventions, LDCs struggle to meet their obligations under these conventions. They may have insufficient capacity to introduce and enforce regulatory approaches; lack the capacity and financial resources to implement plans to address priority issues; lack viable alternative environmentally sound technologies and techniques; struggle to engage the private sector; and lack effective information sharing and dissemination actions to increase overall national understanding. Consequently, the potential of beneficiaries lack the awareness and means undertake highly-needed behavioural changes.

The Table 1 below provides a summary of the major barriers that exist for meeting the objectives of the of the Stockholm Convention and Minamata Convention to eliminate, reduce, and control POPs and mercury pollution sources in African LDCs, - identified in the 11 countries considered in this project. The table summarises barriers indicated in

national reports (e.g., NIPs, MIAs), global reports from the Stockholm, Minamata and Basel Conventions, the AFLDC-1 evaluation reports, as well as information collected nationally during the PPG phase in the 11 countries.

Table 1 barriers against LDCs meeting the objectives of the Stockholm and Minamata Conventions

Barrier categorization	Barrier Description
Regulatory, policy and institutional	<ul style="list-style-type: none"> · A key issue is that chemicals management is still not being considered a national development priority. However, there is increasing awareness among countries of the need for better management of municipal solid waste as the urban landscapes are confronting with increasing magnitudes of waste that they are struggling to deal with. Except for certain urban areas, proper management is still generally poor for municipal solid waste and almost absent for hazardous waste. · There is a lack of adequate legislative and regulatory frameworks within African LDCs, due to weak institutional capacity for planning, guiding and enforcement for the Convention compliance through national policy; lack of financing; and insufficient human resources and expertise. Reasons include also: lack of inter-ministerial coordination; insufficient local management experience for obsolete pesticides, chemical wastes, dioxins and furans and contaminated sites; lack of laboratory equipment and associated analytical capacity to analyse for POPs and mercury; deficiency of expertise in the monitoring of POPs and mercury and in sampling techniques; and lack of understanding of POPs and mercury in the judiciary system and other law enforcement agencies. · There is a general inadequate level of dissemination of information on POPs and mercury, their management and best practice in the chemicals arena. · Inadequate institutional infrastructure, management capability, and green human skills. · Lack of resources, knowledge and capabilities with policy making institutions. · Several institutions are mandated with some aspects related to the operationalization of the sound management of chemicals and waste. However, there is a weak coordination mechanism among these institutions to achieve the required systems approach.

Technical/ know-how	<ul style="list-style-type: none"> · Scarce capacity on chemical management and knowledge on how chemicals behave and interact with the environment to properly administer and implement national and regional chemical and waste plans and strategies. The current capacities of participating countries is still limited across their nations and proper technical advice for chemical related work still needs to be sought externally. · Countries also need to strengthen their capabilities to see the integration or mainstreaming of the objectives of the Stockholm Convention with the Minamata and Basel Conventions, Montreal Protocol and other relevant chemical related frameworks in a synergistic manner. · Implementation of BAT/BEP: The capacity to introduce BAT/BEP is poor due to the poor linkages among entrepreneurs, government officials and researchers. Entrepreneurs do not have easy access to the information of BAT and BEP. Those government professionals that are believed to be familiar with the state of the art in BATs and BEPs have little knowledge of market finance, commercial enterprise operation and economic project appraisal. · Possibly high cost of purchase, installation and maintenance. · Weak policies and lack of standards. · Inefficient research and development institutes and their disconnection from the operational needs of industry and policy development of government. · Lack of an enabling infrastructure for general waste segregation, and reuse. · Weak general waste recovery and recycling infrastructure (some activity is present, mainly informal unregulated and uneducated). · Weak technology transfer infrastructure that will tend to complicate its ability to introduce environmentally sound technologies. · Lack of human capacities
Implementation of BAT/BEP/ lack of infrastructure	<ul style="list-style-type: none"> · In the review of the NIPs, the consultation process and the needs assessment indicated that countries have been generally unable to move from NIP development to NIP implementation. · Generally, participating countries do not have any infrastructural set up to manage hazardous substances in an environmentally sound manner, nor do they have an adequate institutional system to monitor and manage chemicals that come into the country. There is a major need for these to be put into place if LDCs are going to not only track the chemicals that enter the country but also to provide a system to manage them during their product life and after they have become hazardous wastes.

Business buy-in and financial/ lack of awareness of the business and financial communities	<ul style="list-style-type: none"> · Limited access to finance to fund activities related to mainstreaming work on implementing the Conventions. · African LDCs are facing technical and economical inaccessibility to modern technologies for the management of municipal solid waste, POPs solid and liquid waste, mercury waste, as well as health-care waste. · Likewise, smallholder farmers cannot afford to buy registered pesticides. Hence, current informal polluting practices in waste management in general associated with the non-application of sustainable agricultural pest management methods lead to high risk of exposure to POPs. · Financial institution, venture capitalists and private equity stakeholders are poorly engaged in chemicals and waste development plans, because incentives are weak. · Organizational rigidities within firms themselves and their public partners. · Inadequate human resources and mechanisms for upgrading. · Lack of incentives to unlock local finance. · Lending to SMEs involves high interest rates and is therefore not favourable. · Banks do not provide a loan grace period for loans on technologies as they charge immediately with interest rate. · Lack of access to formal credit markets as a result of the informal nature of the SME and waste sector is a common barrier to implementing change.
Socio-economic and gender Barriers	<ul style="list-style-type: none"> · Education choices, cultural stereotypes, lack of awareness and lack of role models to support socio-economic fairness, gender mainstreaming and equality. · Access to finance. · Lack of means to adopt BAT/BEP. · Lack of adequate dissemination and sharing of experiences on POPs due to a lack of resources to train teachers, school students and NGO representatives on the dangers of POPs.

2) Baseline scenario and any associated baseline program/projects

Baseline scenario

This section describes the general baseline situation in the 11 participating countries, for which the baseline is similar. For the specific details by country, please see the country annexes (annexes P-Z).

Table 2 below shows the conventions to which the 11 LDCs are party to. All the 11 African LDCs participating in this project are e Party to the Stockholm and Basel Conventions. 10 of them are Party to the Rotterdam Convention; and 8 are Party to the Minamata Convention while a further 3 countries have signed the accord and are working towards accession. The LDCs that are Parties or Signatories to the chemicals and waste conventions recognize the need to reduce chemical and waste risks to human health and the environment. The environmentally sound management of chemicals and wastes is thus a key component of national sustainable development efforts and is a specific target of the Sustainable Development Goals. However, as also indicated in Table xx, the Minamata Convention is new and not yet implemented in the national regulations. The Stockholm Convention is still not implemented in all project countries, and the rest need to implement the most recent amendments to the Convention.

Table 2: status of the countries with respect to different international chemical and waste conventions*

country	Minamata Convention status	Stockholm Convention status	Rotterdam Convention status	Basel Convention status
Angola	Signed, not yet ratified	Ratified, not implemented in national regulation	Signed, not yet ratified	Ratified
Ethiopia	Signed, not yet ratified	Ratified, partly implemented	Ratified	Ratified
Gambia, The	Ratified, not implemented	Ratified, implemented partly	Ratified	Ratified
Guinea	Ratified, not implemented	Regulation drafted, partly implemented	Ratified	Ratified
Liberia	Signed, not yet ratified	Ratified, not implemented	Ratified	Ratified
Mauritania	Ratified, not implemented	Ratified, partly implemented	Ratified	Ratified
Senegal	Ratified, not implemented	Ratified, partly implemented	Ratified	Ratified
Sierra Leone	Ratified, not implemented	Ratified, partly implemented	Ratified	Ratified
Togo	Ratified, not implemented	Ratified, partly implemented	Ratified	Ratified
Uganda	Ratified [is it implemented in national regulation?]	Ratified, implemented	Ratified	Ratified
Zambia	Ratified, not implemented	Ratified, partly implemented	Ratified	Ratified

* Sources: Country responses to questionnaire and country presentations for the Abidjan 1st regional workshop (Jan 2020) for this PPG project.

To recall, this project aims to provide an integrated package of support to overcome the barriers to eliminate, reduce, and control POPs and mercury pollution sources in the 11 participating African LDCs. With respect to the actions required under the Stockholm and Minamata Conventions, several priority issues are emerging as common themes for African LDCs, including the 11 project countries:

- Nearly all LDCs have already banned most of the POPs pesticides and no specific exemptions have been requested by African LDCs for continued use of any POPs pesticides for acceptable purposes set out in the Stockholm Convention. However, enforcement capacity is insufficient to overcome illicit trade and continuous use of some POPs pesticides.
- Pesticide residues in food are hazardous to human health while residues in export products and commodities may be subject to trade restrictions. Furthermore, many LDCs, particularly in Sub-Saharan Africa, have identified disposal of POPs chemicals, in particular obsolete pesticides, amongst their NIP[3]³ implementation priorities.

- Most LDCs have ceased the use of DDT[4]⁴ but 4 of the project LDCs are listed in the DDT register[5]⁵ of the Stockholm Convention permitting their continued use of the substance for disease vector control in accordance with WHO recommendations and guidelines and when suitable alternatives are not available. LDCs using DDT are participating in the global UNEP/WHO/GEF Programme on alternatives to DDT.
- Electricity generation, transmission and distribution form basic national infrastructural elements fundamental to development efforts in all countries. Electrical capacity installed prior to about 1985 may well contain items of equipment, such as transformers and capacitors, that use PCB liquids and some of this equipment remains in service. Where maintenance and servicing regimes are inadequate PCBs from such equipment may have become mixed with other transformer oils, cross-contaminating equipment that did not originally contain PCBs. Equipment already removed from service may be simply abandoned but, more commonly, it is sold for scrap because of its high copper content. Retired equipment sold for its metal value is likely to be drained of its PCBs which, in the absence of appropriate disposal facilities, may be recovered illegally for sale as skin and hair products, cooking energy oils or as fuel additives or allowed to drain uncontrolled giving rise to locally severe soil contamination.
- For African LDCs, the major concerns related to unintentionally produced POPs (uPOPs) are improper waste management practices - primarily open burning of municipal solid waste and medical waste. Such burning reduces solid waste volumes and is undertaken by householders living beyond municipal waste collection schemes and at municipal landfill sites. In addition, industries, and commercial entities, including SMEs and informal enterprises, may burn waste to avoid disposal costs. Informal recyclers 'scavenging' for valued materials at informal dumps and formal landfills burn waste to recover metals from cables, tyres and other wastes. Elsewhere the burning of agricultural wastes represents a traditional post-harvest activity but contributes to uPOPs emissions, air pollution more generally, and the loss of carbon from already impoverished soil systems. Such practices generate uPOPs such as dioxins and furans that are emitted to the atmosphere and disbursed nationally and globally.

For **mercury**, priority issues identified in Minamata Initial Assessments of the eight project countries focus on:

- The reduction, eventual elimination, and environmentally sound disposal of a range of specialist and consumer products containing mercury. Each of these products requires careful consideration to find and ensure adoption of suitable alternatives. Furthermore, separate collection and environmentally safe treatment of mercury-containing waste is absent in all the 11 project countries. This means that mercury-containing waste is being dumped and burned along with other municipal solid waste and medical waste, causing both local, national and global exposure to the toxic mercury due to releases and long-range dispersed emissions.
- In some African LDCs with important extractive industries, such as industrial scale non-ferrous metal smelters[6]⁶, mercury emission and release inventories are dominated by a small number of very large facilities with potentially large emissions and releases of mercury. Engaging these industries, verifying their emissions and release estimates, and where necessary, make them aware of the need for modification to the use of BAT/BEP is a complex task. This may, particularly be the case where such industries are critical to the national economy and thus to development. Similarly, but with higher facility number and generally lower mercury volumes involved per facility, the production of cement clinker (intermediate for cement production) is a source category for which the awareness of the requirements of the Minamata and also the Stockholm Convention is highly needed.

Cities are central stakeholders in the management of POPs and mercury. In many LDCs they represent an important contribution to chemical production and consumption and generate significant proportions of total national industrial and municipal waste. Organised waste management is only available in larger cities and towns of the project LDCs and the systems currently in place typically struggle to cope with the pace of urbanisation, lack of financing of waste collection and treatment services, the continuing growth in waste volumes and the increasingly complex nature of produced waste.

While most participating countries have facilities for treating a few types of hazardous waste, typically waste oils and lead-acid batteries, among others, they do not have the capacity for environmentally safe storage and treatment of POPs and mercury waste required under Stockholm and Minamata Conventions respectively.

Agricultural production is critical to maintaining rural livelihoods and communities and boosting food security. Highly hazardous pesticides, including POPs- (and perhaps still in some case mercury-containing) formulations, have proved too damaging to agricultural ecosystems and to the health of farming communities. They also contribute to elevated global exposures to such toxic substances. Despite this, farmers are reported to be continuing to use such products, particularly when purchased informally and without detailed information on formulation, mode of use and the necessary environment and health precautions. In addition, obsolete pesticides stored for later disposal may be brought back into unauthorised use^[7], or their containers may degrade in situ and contaminate their surroundings. Poor practice with regard to plant protection may be exacerbated by burning of agricultural wastes that generated uPOPs and removes potentially valuable carbon from the soil.

Improving rural livelihoods is thus a priority for development in LDCs. Adding value to agricultural production through **integrated agro-industrial processing**, helps to sustain farming communities, creates employment and builds capacities and capabilities, improving returns and thus the security of farmers. With increasing concerns over the impact of poor waste management, in relation to open burning and plastics, opportunities to improve practices finding alternative uses for current wastes and joining community recyclers to urban-based networks could provide innovative opportunities for rural business development.

All the 11 African LDCs taking part in this project have utilised the enabling support available from the GEF and have completed their National Implementation Plans (NIPs) and transmitted them to the secretariat of the Stockholm Convention. Some have also benefitted from GEF support to update these plans to incorporate actions in relation to newly listed POPs. Many of the countries have received GEF support for the preparation of Minamata Initial Assessments (and, for those for whom artisanal and small-scale mining is more than insignificant, for the preparation of ASGM National Action Plans (NAPs) as required in Article 7 of the Minamata Convention).

For information about the individual GEF (and other) projects with relevance for AFLDC2, please see the country annexes (annexes P-Z). For on-going related projects, online coordination meetings will be made with their IAs and/or EAs at AFLDC2 inception and thereafter regularly as needed.

During preparation of the initial National Implementation Plans (NIPs) for the Stockholm Convention by African LDCs and SIDS, including the 11 project countries, each country identified capacity gaps to be filled in order to meet their obligations under the Convention. The countries identified a need for strengthened capacity and technology transfer in a range of areas:

- institutional capacity in technical support institutions;
- legislation, regulation, implementation, and enforcement capacities;
- research, development, and dissemination of technical capability for alternative technologies;
- capacities in POPs stockpiles and wastes identification, management, and proper disposal;
- capacities for identification and remediation of contaminated sites; and
- capacities in information exchange, public information, awareness raising, and education.

Some project LDCs have benefitted from participation in GEF-supported projects to initiate implementation of the action plans they identified in their national planning (the relevant projects are mentioned in the country Annexes xx-zz). Despite this, LDCs lag behind in terms of capacity building, financial resources and the technological solutions necessary to overcome the chemicals and waste issues outlined above and to meet their obligations under the chemicals and waste MEAs.

AFLDC-1

In response to these barriers, the GEF, United Nations for Industrial Development Organization (UNIDO), United Nations Environment Programme (UNEP), and other partners supported many African LDC and SIDS Governments to build and enhance their capacity under the programme *Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African Least Developed Countries* (hereinafter referred to as AFLDC-1) in three sub-regions in Africa (ECOWAS, SADC and COMESA) in 2011-2016. Twenty-four African LDCs and several African SIDS took part in AFLDC-1 as follows:

- ECOWAS sub-region: Benin, Burkina Faso, Cape Verde, Central African Republic, Gambia, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, São Tomé et Príncipe, Senegal, Sierra Leone, Chad, Togo
- COMESA sub-region: Burundi, Democratic Republic of Congo, Ethiopia, Rwanda, Sudan, and Uganda
- SADC sub-region: Lesotho, Mozambique, Eswatini, and Tanzania

The projects included activities at the regional and national levels and addressed: (i) legislative and regulatory framework development; (ii) sustainable enforcement and administrative capacity; (iii) coordinated information dissemination and awareness raising; (iv) BAT/BEP in industrial production processes; (v) reduction on exposure to POPs; and contaminated sites. The project comprised the following components:

- Legislative and regulatory framework development:
- Sustainable enforcement and administrative capacity:
- Two BAT/BEP pilot demonstrations in industrial processes:
- Five BAT/BEP Pilot demonstrations to eliminate or reduce exposure to POPs waste and uPOPs (e.g. at the workplace such as food smoking units):
- Establishment of Regional BAT/BEP Forums and guidelines in each sub-region:
- Coordinated information dissemination and awareness raising

Based on information from the countries, as well as the evaluation of the AFLDC-1 project, the level to which AFLDC-2 project countries benefited from AFLDC-1 varied. Besides, the Minamata Convention was not a part of AFLDC1, and the Stockholm Convention has been amended further since the undertaking of AFLDC1. Therefore, follow-up activities are needed. For a summary on AFLDC1 activities, see Annex O.

Table 3 gives an overview of estimated number of personnel in the key ministries and authorities that have “knowledge of” the requirements related to products and chemicals requirements of the Minamata and Stockholm Conventions and indicative information of previously undertaken awareness raising and training activities in the participating countries (based on responses from countries to questionnaire for this project).

Table 3 Knowledge of Minamata and Stockholm Conventions in project countries**

Country	Minamata Convention		Stockholm Convention	
Indicator	No. of persons with knowledge of products/chemicals in Convention in key ministries*	Awareness activities performed	Persons with knowledge of products/chemicals in Convention in key ministries*	Awareness activities performed
Angola	NA	None (“in-sufficient”)	NA	None (“in-sufficient”)
Ethiopia	21	None	28	Some workshops
Gambia, The	4	None	>/=5	Some aw and tr

Guinea	NA	Some aw (MIA?)	NA	Customs, regulators
Liberia	6	None	6	Customers; public: open waste burning
Mauritania	9	MIA aw	9	Farming sector
Senegal	NA	NA	NA	Some to different target groups
Sierra Leone	15	Some aw	15	Some aw
Togo	NA	NA	17	Some
Uganda	40	Customs + few in MIA	NA	Only gov. regulatory bodies
Zambia	10	Customs tr, some MIA aw	2	Customs tr, some NIP aw

Table notes: *: Estimated by country; tr = training; aw = awareness raising; NA not available in country questionnaires; NIP: National Implementation Plan projects under Stockholm Convention; MIA: Minamata Initial Assessment projects under Minamata Convention. **Sources: Country responses to questionnaire and country presentations for the Abidjan 1st regional workshop (Jan 2020) for this PPG project.

Baseline scenarios in project countries

For additional information on the baseline scenario in each of the 11 participating countries, see the country annexes (annexes P-Z).

Co-financing baseline projects

In addition, the African Development Bank supports a range of projects in participating countries that will be coordinated with AFLDC-2 and serve to work towards the mainstreaming of the environmentally sound management of chemicals and waste within sustainable development planning. These co-financing baseline projects (hereinafter called “baseline projects” or in short “BLP”s) are outlined below and presented under three thematic windows: (a) Urban landscape; (b) Agricultural production; and (c) Integrated Agro-industrial processing. For further information of how these baseline projects link to the AFLDC-2 outputs, see section 5) on incremental/additional cost reasoning below and the country annexes P-Z.

a. Urban landscape

Project: Port and Greater Banjul Area Digital Masterplan and Capacity Building Program in Gambia

The Government of The Gambia (both local and national) has requested the Bank to finance a digital masterplan and capacity building program for the Greater Banjul Area. The Gambia has one of the fastest urbanization rates in sub-Saharan Africa with the Greater Banjul Area (GBA) already accounting for 68% of the total population of the country. This rapid increase in urban population is occurring with several environmental and socio-economic issues including deforestation; soil erosion; pollution and waste generation; and

stress on health, education, and employment services. Further, the investment climate in the Gambia is growing in attractiveness to investors and with accelerating investments including via the next prospective flagship project of the 4th Port Expansion Project (located in Banjul) and the current opening of the new Sene-Gambia bridge. It will be imperative for the GBA to have the proper instruments in place to prepare for increased urbanization, traffic flows and vulnerability to climatic changes. As the port sits in the capital city and municipality of Banjul, it causes a major strain on the current urban fabric and neighbouring municipalities and merits a collaborative urban planning design approach with all stakeholders.

A detailed urban masterplan for the Banjul peninsular is therefore urgently required to: (i) establish land cadastral and registration; (ii) document land protection and development opportunities; (iii) integrate with the port masterplan and serve as a guide to the Municipality in its decisions to allocate plots of land for developments that are currently infringing into the RAMSAR protected wetlands; (iv) prepare tax collection mechanisms (v) prepare zoning guides to urban development (vi) propose activities and investment strategy to create a more liveable and sustainable port and capital city (vii) Improve waste management coming from urban areas and ship barges in the port (in the form of clean up and capacity building). To achieve its objectives, the project requires the following activities: i) digital masterplan; ii) technical assistance, and iii) capacity building. The AfDB is also supporting a Budget Support Operation to the country that includes the implementation of a Land Use Plan, zoning and Waste Bill. These reforms will also play a major role in the way that waste and development will be addressed in the coming decades.

The project includes the three municipalities Banjul (capital and harbour), Kanifing (tourist spearhead) and Birkama (rural). The project creates streets and addresses and thereby create the foundation of key elements in managing for example waste collection and billing for such services. Kanifing, the largest of the municipalities and host of the landfill common for the three municipalities, has improved waste management as a top priority and there is substantial potential in the AFLDC-2 project for incrementing the training efforts needed in this respect. The high density of tourist services in the area could potentially create a strong base for introduction/improvement of recycling of plastics and other materials. This high density enhances the possibilities for collecting clean materials fractions and is thus a promising place for start-up companies in the private recycling sector.

Project: Premier Programme De Modernisation Des Villes (Promovilles-1) in Senegal

The 2030 projections show that 60% of the population will live in cities. Pending the resolution of the problem of financing local communities, the Government of Senegal intends to support cities to provide adequate infrastructure, through the Program of Modernization of Cities (PROMO- VILLES). The Bank's support to Senegal for the period 2016-2020 is articulated around 2 Pillars (i) Pillar 1: Support to Agricultural Transformation; (ii) Pillar 2: Strengthening production and competitiveness support infrastructure (energy and transport). This program is based on Pillar 2, the main objective of which is, inter alia, to respond to the population's demand for accessibility and mobility which is an essential element of the Le Plan Sénégal Emergent, given its importance in supporting activities.

At the strategic level, the aim of the project is to contribute to the strengthening decentralization to promote the economic and social development of the country. At the sectoral level, the project aims to increase the rate of community facilities and the financial resources of local communities. At the specific level, the project will consist of providing Municipalities with infrastructure by: (i) constructing and / or rehabilitating approximately 77.46 km of roads with a structure covered with bituminous concrete (BB) and / or paved ; (ii) the construction of concrete ditches for the rehabilitation of roads; (iii) the installation of candelabras for public lighting; and (iv) landscaping. Related facilities consisting of socio-economic infrastructure and support for women and young people are also planned as well as support for municipal technical services and training of young people in road maintenance trades through training yards.

The safety and lifetime expectancy for the roads in the region are very sensitive to the correct functioning of the road drainage ditches. Due to the lack of awareness in the population and insufficient waste management capacity, waste is dumped illegally in the road drainage ditches and thus preventing their correct functioning. The AFLDC-2 project can contribute to the awareness raising in the population and training in integrated waste management and circular economy approaches to municipal professionals and associated private sector partners. The baseline project provides a platform for this training, making use of already planned infrastructure for conducting training activities.

Project: Kampala City Roads Rehabilitation Project in Uganda

The Government of Uganda has requested the Bank to finance the rehabilitation of road network in the city of Kampala. The project is aligned with Bank's Regional Integration Policy and Strategy (RIPS) 2014-2023—emphasizing regional infrastructure development, trade and industrialization. The main objectives of the proposed Rehabilitation of Kampala City Roads Project are two-fold:

- Enhance transport efficiency thereby enabling the City of Kampala to maximize agglomerative benefits of access resulting from reduced traffic congestion through upgrade and expansion of road network; and
- Improve air quality in the city through implementation of Scheduled Eco-Bus Transit Services and broadening travel choices for non-vehicular movements within Kampala by expanding networks of walkways and cycling tracks.

The proposed project involves extensive roadworks construction within the city of Kampala including expanded storm drainage structures, expected to disrupt traffic operations. However, the proposed project doesn't sufficiently integrate the principles of sound management of toxic chemicals and wastes. The AFLDC-2 project will address this deficiency by strengthening a coordinated and efficient system of proper waste management within the framework of circular economy.

Solid waste management in Kampala City entails the involvement of private companies contracted by KCCA to manage solid waste collection, transportation and disposal. Roughly, about 1500 tons of waste is generated in Kampala per day, and only about 40-50% of it is disposed properly. Integration of solid waste management strategies along the proposed road construction projects will tremendously contribute towards improved cleanliness of the city. Similarly to the Senegal situation described above, illegal dumping of waste in road drainage ditches is widespread in Uganda. The safety and lifetime expectancy for the roads in the region are very sensitive to the correct functioning of these road drainage ditches. Due to the lack of awareness in the population and insufficient waste management capacity, waste is dumped illegally in the road drainage ditches and thus preventing them to function correctly. To ease this challenge, the following components will be important:

- a) Facilitate innovative solid waste management system; development of an App through which waste generators can reach out to waste handlers;
- b) Provision of waste collection kits at bus bays: Waste collection/disposal kits at bus bays would improve cleanliness and responsiveness of the road users and most especially, public transport system. The kits should be designed in such a way that they allow waste separation at source, that is, separation of plastics, glass, paper and biodegradable with clearly visible markings;
- c) Public sensitization on waste management

The AFLDC-2 project can contribute to the awareness raising in the population, and training in integrated waste management and circular economy approaches to municipal professionals and associated private sector partners. The baseline project provides a platform for this training, making use of already planned infrastructure for conducting training activities.

b. Agricultural production

Project: Agricultural Transformation Support Project (Patam) In Mauritania

The PATAM project will support the upstream and downstream agricultural production subsectors in the Brakna-Ouest region. It will contribute to the improvement of food security and the living conditions of target communities. More specifically, it will support agricultural transformation in Mauritania by increasing the output and value of agricultural products. The baseline project will focus on the Brakna-Ouest region, and will affect Trarza and Nouakchott regions when it is scaled up to promote: (a) value chains (support for the establishment of agro-industrial processing zones); (b) youth and women's entrepreneurship and; (c) the establishment of guarantee funds for agricultural sector financing.

The project was initiated based on the conclusions of the high-level “Feed Africa” conference held in Dakar in October 2015, which recommended that particular attention be paid to supporting agricultural transformation in African countries. The needs stem from the logic of consolidating and building on the significant achievements recorded by the West Brakna Irrigation Scheme Project (PAHABO) and strengthening the transformative dimension (promotion of value chains by focusing on two key sectors: rice cultivation and market gardening). It was designed through a concerted systemic method that involves stakeholders and emphasises a participatory and integrated approach (PIA).

The project will help to modernise irrigation systems, promote agricultural transformation and value chains, develop youth and women's entrepreneurship, set up innovative and inclusive financing, and disseminate the requisite technical and organisational knowledge (use of the various information systems to be set up, agricultural advisory, etc.) to its stakeholders. The dissemination of smart agricultural technologies and practices to adapt to climate change and the guidance of farmers to improve market access will equally be relevant. These operations will build the capacity of institutional stakeholders such as administrative entities as well as inter-professional and beneficiary organisations (water users' associations, rice cooperatives, women's vegetable farming cooperatives, EIGs, etc.).

The Patam project can benefit from awareness raising and training related to the use of least environmentally harmful pest control techniques (bio-treatments, etc.) and pesticides. In other words: integrated pest management (IPM) approaches. Similarly, agricultural production and crop processing involves the management of both crop wastes, plastics waste and bio-waste, which are all significant sources to uPOPs formation if burnt. Instead utilization and recycled in circular approaches can be promoted through awareness raising and training planned for the AFLDC-2 project. The baseline project can serve as a platform for such training and awareness raising.

Project: Fall Armyworm Program In Zambia

The Government of Zambia requested the AfDB to implement the Fall Army Work Program. In its National Performance Framework, Zambia's identified improved Agricultural production as a priority sector for enhancing food security, income generation and overall poverty alleviation among its citizens. The project is also in line with national development plans as outlined in the Seventh National Development Plan and Vision 2030, which has identified agriculture as the engine for economic growth. The objective of this project will focus on improving the productivity of the crop sector among small-scale farmers. Key components of the project are to: i) conduct socio-economic and environmental impact of the FAW incursion on production; ii) create public awareness about identification and management options; iii) strengthen the community-based FAW early warning system; iv) build technical capacity on cultural, seed-dressing and foliar spray management options for the FAW; v) identify and fast track testing registration of low risk pesticides with special focus on bio-pesticides and botanical pesticide and seed – dressing, and vi) policy advocacy. The primary beneficiaries of this project are small-scale and commercial farmers whose livelihoods and income are likely to be greatly affected by the presence of the FAW. Furthermore, these interventions will not only improve their income but also provide the much-needed nutrition for the rural population of Zambia.

Fall army work is a migratory insect, it target 80 crops and can destroy 70% of the crop in the fields attacked: Maize, sorghum, vegetables, etc. are attacked. The grown up insect feed on greenery and they leave larvae and eggs that can hide in the plant stems, and seeds need to be treated or certified as FAW-free to avoid its spreading. All kinds of pesticides have been observed used to fight the FAW, including obsolete pesticides and mercury-containing pesticides. Cross-border movements of pesticides waste have also been observed and require coordinated efforts for their prevention. Through awareness raising and training, the AFLDC-2 project can help prevent obsolete pesticides use and movements, and enhance promotion of alternatives. Similarly, agricultural production and crop processing involves the management of both crop wastes, plastics waste and bio-waste, which are all significant sources to uPOPs formation if burnt. Instead utilization and recycled in circular approaches can be promoted through awareness raising and training planned for the AFLDC-2 project. The baseline project can serve as a platform for such training and awareness raising.

Project: Fall Armyworm Program in Angola

The Government of Angola has made the official request to the AfDB for assistance for effectively mitigating the potentially devastating impacts of the Fall Armyworm pest. The objective of the project will be to mitigate the impacts and spread of the FAW, following reports of outbreaks in the country, as well as, to provide technical solutions and practices to be deployed to farmers. This method will involve cultural methods like Good agricultural practices (GAP), Push and pull technologies, the use of maize seed treatment, Foliar sprays and biocontrol methods. The project will also undertake: i) training of farmers, extension agents and support to research and extension; ii) support to the

use and training to the provincial technicians of agriculture and Field Schools; iii) awareness raising and information campaigns, iv) establish a good M&E and fall armyworm surveillance system.

As described for the Zamia FAW project above, the project can benefit from awareness raising and training related to 1) the use of least environmentally harmful pest controls and 2) the reduction of uPOPs formation from burning of waste through utilization and recycling approaches. The baseline project can serve as a platform for such training and awareness raising.

c. Integrated Agro-industrial processing

Project: Integrated Agro-Industrial Parks - Support Project In Ethiopia

The intervention of the Bank has been requested by GoE and is justified in view of the need to support the main objective of Ethiopia's Growth and Transformation Plan (GTP) II (2015/16-2019/20), to: (i) maintaining an annual average real GDP growth rate of at least 11% within a stable macroeconomic environment, and (ii) pursuing aggressive measures towards rapid industrialisation and agricultural transformation while ensuring competitiveness of the domestic productive sectors. Agriculture and food processing offer an opportunity for the creation of sustainable livelihoods and economic development for rural communities in Ethiopia. With a vast land and resource availability, Ethiopia can aim to become one of the leading food suppliers to the world while at the same time serving the vast growing domestic market.

The Project development goal is to contribute to inclusive and sustainable agro-industrial development in Ethiopia, towards a structural transformation of the economy, creation of jobs and reduction of poverty. The project development objectives are to i) create a better environment for increased investment in agro-food and allied sectors, ii) reform a fragmented and supply driven agricultural production system into one that is organised and demand driven, through the integration of small holder farms, small scale processing enterprises and allied industry into commercial value chains and, iii) improve human capacities and skills of rural populations to benefit from new agribusiness employment opportunities.

The project is structured around three related components: i) Enabling infrastructure for Agro-industrial development; ii) Capacity building for sustainable Agro-industrialisation and, iii) Project coordination and management.

The project includes the establishment of four agro-industrial processing parks as well as 28 transformation centres, where initial processing is done. The project will therefore have a very substantial reach in rural parts of the country, and can provide a platform for awareness raising, training and waste recycling activities related to 1) the use of least environmentally harmful pest controls and 2) the reduction of uPOPs formation from burning of waste on agriculture and processing steps through circular economy approaches.

Project: Staple Crops Processing Zones Project In Liberia

The Bank is financing the implementation of the Smallholder Agriculture Productivity and Commercialization Project (SAPEC) in Liberia, the only Agriculture project supported in the country in recent time. The project was envisaged to address the needs for improving food security, reducing poverty, and fostering national economic growth, with core components including sustainable crop production/ intensification and value addition. The proposed Staple Crops Processing Zones project is well aligned with the Bank Group's Ten-Year Strategy (TYS) 2013-22, as it relates to inclusivity, food security and private sector development and will help Liberia address the major challenges to agriculture and the heavy dependence on food importation, including poor yields staples Rice and Cassava and other selected priority value chains, including Fisheries, Oil Palm, Fruits, Vegetables and Livestock (poultry and small and large animals). The project is also directly aligned with three of the Bank's High 5 strategic priorities, namely: Feed Africa, Industrialise Africa and Improve the Quality of Life for Africans

The Project development goal is to contribute to inclusive and sustainable agro-industrial development in Liberia, and in the process reduce staple food imports, create jobs and reduce poverty. The project objectives are to i) create a better business environment for increased investment in agro industrial sectors, ii) create opportunities for investments at the industrial level and coordinate the integration of small holder farms, and agro processing industry into sustained agro value chains and, iii) improve capacities and skills to benefit from new agribusiness employment and value chain opportunities. The project is structured around four related components; including: a) Strengthening policy, regulatory,

institutional and business environment, b) Support the development of agro industry and farm enabling infrastructure, c) enable skills and agricultural value chain development and strengthen farmer coordination and, d) Project coordination and management.

With the observed challenges in management of POP pesticides and need for improved waste management in Liberia, the project can provide a platform for awareness raising, training and waste recycling activities related to 1) the use of integrated pest management and 2) the reduction of uPOPs formation from burning of waste on agriculture and processing steps through circular economy approaches.

Project: Agro-Food Processing Zone Project in Togo

The Togo Agro-Food Processing Zone Project (PTA-Togo) is a pilot project implemented as part of the Togo Agropoles Strategic Development Plan 2017-2030 and the Feed Africa Initiative 2016-2025. The aim of the project is to create conditions conducive to private investment, notably in the processing of agricultural products, the supply of inputs and marketing, in the Kara region. The main outcomes expected from the Project are as follows: (i) increase in the productivity and agricultural production of import substitutes (rice, maize, soybean, broiler meat) and exports (cashew nuts and sesame); (ii) increase in the share of agricultural products processed in situ through private investment in the Agro-park; (iii) Strengthening of the people's food and nutritional security; (iv) creation of wealth and employment, including for young people and women.

The main impacts expected from the project for the direct beneficiaries are as follows: improved food and nutritional security and incomes thanks particularly to better access to markets, agricultural inputs, agricultural services and financing. To that end, it is expected that the project would lead to: (i) an increase in private investments thanks to a more favourable business environment for the establishment of infrastructure in the Agro-park (roads and sundry networks, single window, training room, maintenance centre, incubation centre, etc.); (ii) increase in agricultural production capacities thanks to expected rural infrastructure (dams, irrigated areas, roads, etc.); (iii) capacity building for operators in the 10 multipurpose agricultural transformation centres (ATCs) (inputs, farm equipment, technologies, financing, harvest aggregation, etc.). The project will be implemented following the value chain approach through a partnership between the State (facilitator and regulator), the private sector (promoter) and professional farmers' organisations (FOs). In addition to capacity building for FOs (technical and organisational management), the project will support the operation of consultation frameworks for priority chains, to ensure the inclusion of farmers and agreements with the private sector.

Awareness raising and training input from the AFLDC-2 project will be valuable additions to the above mentioned, increasing awareness and capacity in 1) the use of integrated pest management and 2) the reduction of uPOPs formation from burning of waste on agriculture and processing steps through circular economy approaches.

Project: Agro-Industry And Rice Value Chain Support Project (Slaris) In Sierra Leone

The aim of the SLARiS Project is to raise rural incomes, improve food and nutrition security and permit the transition of subsistent farming system towards a commercialized market-driven system and standardized product supply lines. An important goal of the project is, therefore, to increase local production with emphasis on commercialized production and value-added processing. While rice will be an important focus of the project, other key value chains with high potential such as maize, cassava and horticulture will also be supported by the project in order to promote nutrition and private sector investment. The specific objective of the project is the promotion of priority agricultural value chains (including rice, maize and horticulture) as a viable and inclusive business opportunity through enhanced production, productivity and value addition. This will be addressed through three components: (1) Support to Agricultural Production, Productivity and Agro-Industrial Development; (2) Agribusiness Youth Empowerment and Capacity Development, and (3) Institutional Capacity Development and Project Management.

At the sector level, the project is in accordance the National Strategic Agriculture Development Plan (NSADP) (2010-2030). It is also consistent with the recently launched National Agricultural Transformation Strategy (NATS) (2018- 2025) which focuses on developing agricultural value chains, making available improved inputs (seeds and fertilizers), increasing productivity and production, and establishing crops and livestock processing zones across the country. The project is also firmly rooted in the Bank's main

agriculture flagship programs focused improving agricultural productivity through technology dissemination and scaling (TAAT and PHAP), enhancing resilience to climate change through climate-smart agriculture and promoting youth empowerment (ENABLE Youth).

Similarly to the above mentioned agro-industrial projects, the project can provide a platform for awareness raising and training activities related to 1) the use of integrated pest management and 2) the reduction of uPOPs formation from burning of waste on agriculture and processing steps through circular economy approaches. The project partners include the Njala University, the key university on agriculture in Sierra Leone, which can also serve as a conduit of the training and awareness raising related to the above topics.

Project: Program for the Development of Boke and Kankan Agro-Food Transformation Areas in Guinea

Guinea currently imports about US \$ 745 million worth of fresh food (2016), most of which can be produced locally, particularly cereals whose import value is 339 million US dollars in 2016. Yet Guinea has significant agricultural potential, including abundant land and water resources, a continental shelf of 43,000 km², and enjoys mild temperatures, offering significant opportunities for development a wide range of agro-silvo-pastoral products and significant potential for the development of the blue economy. The various strategies put in place aim to correct this situation, through the development of Guinea's agricultural potential, by long-term infrastructures, in terms of transport, energy, agricultural production, marketing and processing, with the involvement of the private sector in the sector. The project's development objective is to contribute to the reduction of imports of agro-food products and to the improvement of Guinea's food and nutrition security. Its main aim is to create favourable conditions for the creation and development of private initiatives and the improvement of the living conditions of beneficiary populations. The specific objective of the project is to promote the inclusive transformation of agriculture, creating wealth and jobs, by reducing imports of agro-food products, from increased private investment in chains of priority values.

The project will achieve these objectives through the implementation of the following project components: i) Support to Governance and Incentives for Agro-Parks Management, ii) Development of Infrastructure Supporting Agricultural Transformation, and iii) Support for Key Players in Priority Agricultural Subsectors

The intervention of the Bank will affect the development of two (02) important regions of Guinea with an administrative area of approximately 103,333 km², of which 31,186 for the Boké region, with an area of arable land of approximately 2,720,000 ha, of which about 800,000 ha only in the Boké region. The program will cover about 110,000 ha in the entire project area, for an estimated population of 220,000 direct beneficiaries and 670,000 indirect beneficiaries (50.7% women) of the project's benefits.

Similarly to the above mentioned agro-industrial projects, the project can provide a platform for awareness raising and training activities related to 1) the use of integrated pest management and 2) the reduction of uPOPs formation from burning of waste on agriculture and processing steps through circular economy approaches.

3) Proposed alternative scenario with a brief description of expected outcomes and components of the project

Proposed alternative scenario

The proposed alternative scenario aims to support the participating countries with the necessary technical and financial assistance to ensure that

- (i) 334 tonnes of obsolete pesticides are identified, properly managed, and disposed,
- (ii) 38 tonnes of mercury is being prevented from being emitted/released through reduction in import of mercury-added products and separate collection and environmentally safe storage and disposal of spent mercury-added products
- (iii) 330 gTEQ of uPOPs releases are reduced through the introduction of non-burn waste management practices.
- (iv) 459 tonnes of PCBs identified, properly managed, and disposed.

The project comprises four principal components:

- Component 1: Strengthening the enabling environment and national enforcement capacities for the management and phase-out of POPs/Mercury and its compounds;
- Component 2: Communicating the environmentally sound management of chemicals and wastes;
- Component 3: Actions to reduce and wherever possible, eliminate manufacture, trade, use, emission and release of POPs and mercury and its compounds;
- Component 4: Monitoring and evaluation, learning and adaptive feedback.

This project has been designed to build upon the successes generated during AFLDC1, to address weaknesses identified by the final evaluation of AFLDC1, to take up good practices and lessons learned in completed and continuing GEF and development assistance projects in POPs, mercury and more general waste management; and to mainstream the environmentally sound management of chemicals and waste into regional, national and development bank strategies and programmes directed towards achievement of the Sustainable Development Goals. AFLDC-2 will extend participation in implementing NIP and MIA action plans to one additional African LDC (Zambia) and deepen implementation experience in participants continuing from AFLDC1. Coordination with other UN agencies working on chemicals and capacity building in the region will be ensured so that the best quality of services can be provided to the country and that experiences gained through this project are fully disseminated in Africa and beyond. Regular coordination and communication with ECOWAS, SADC, and COMESA will also be ensured.

The final evaluation of the AFLDC1 highlighted its successes in building capacity and delivering pilot projects to demonstrate approaches towards meeting convention obligations in relation to POPs (mercury was not addressed in AFLDC-1) but noted that capacity that had been built was not sufficiently deep or broad to ensure the sustainability of national efforts. Regulatory frameworks had been successfully developed but not everywhere adopted and policy-making were not sufficiently aware of the benefits of having such schemes. Similarly, the awareness of farmers and other consumer groups remains insufficient to ensure the market and behavioural changes needed to reduce and eliminate POPs and mercury can be made. For industry, continued effort is required to ensure that successful pilots undertaken in AFLDC1 are replicated suitably, with all participating countries able to take advantage of the knowledge gained in such demonstrations.

This project will address these shortcomings by continuing to use established regional and national steering and consultation groups, including national combined health and environment groups where appropriate, to tune actions to local circumstances. It will place particular emphasis on developing focused, timely and innovative approaches to engage and communicate with stakeholders and beneficiaries - including those groups that are usually beyond the remit of chemicals and waste officials. It will also promote direct communication, mentoring and experience exchange between participating countries, including between those that participated in AFLDC1 and those countries (Angola and Zambia) participating for the first time.

The project will provide support to the development of public-private engagement and partnership specifically adapted to the circumstances of LDCs to enable the sound management of chemicals and waste whilst generating commercial and financial benefits as a result.

To accommodate the various national priorities and baselines, the proposed project provides participating countries with the opportunity to address many of their chemicals and waste related challenges and selected key priorities^[1] through one of the following thematic windows: (a) Urban landscape; (b) Agricultural production; and (c) Integrated Agro-industrial processing.

a. Urban landscape

Tracking of resource use and consumption in cities is critical for ensuring the sustainable development pathway sought by cities. The generation of hazardous waste and the increasing amounts of domestic waste contaminated with hazardous waste due to lack of best practices such as segregation at the source, absence of appropriate regulatory framework or enforcement in place remain a major challenge for cities across Africa and notably more pronounced in the project LDCs. Cities should work towards actions to reduce waste and to minimize natural resource extraction by employing circular economy approaches, which promote reducing, redesigning, reusing, repairing, and recycling. At the same time, they should, work on reducing and eventually eliminating POPs, such as PCBs and brominated flame retardants, and mercury. This thematic window also supports the SAICM risk reduction objectives for reducing “the generation of hazardous waste, both in quantity and toxicity, and to ensure the environmentally sound management of hazardous waste, including its storage, treatment and disposal” in cities. In addition to reducing mercury, POPs, and ODS in infrastructure, products and materials, this thematic

window will also contribute to reducing air emissions of relevant POPs and mercury, notably through reduction of open waste burning that is widespread in LDCs, including in the project countries .

b. Agricultural production

By enhancing capacity for sustainable management of pesticides and promoting safer alternatives to pesticides, this thematic window will support countries to reduce and ultimately eliminate the continued reliance on POPs pesticides in food systems. It will seek to address accumulations of obsolete POPs pesticides to prevent their return to the market or unintentional release into the environment. It will identify opportunities to reduce agricultural waste burning.

c. Integrated Agro-industrial processing zones

Currently, industrial operations are driven by minimum compliance, and the creation of industrial zones brings with it multiple opportunities for environmental gains in terms of resource efficiency and cleaner production, access to finance and BAT/BEP and industrial symbiosis, helping industries move away from the conventional linear economic development models towards circular development models. Linear economic development models are wasteful, in the sense that they entail mining of raw materials, value adding on them, consuming the resultant products, and discarding the resultant wastes into a landfill. Hazardous chemicals in the products reduce the possibilities for safe and sustainable circulation of valuable resources.

Agro-industrial processing zones will provide modern infrastructure, and support services to companies, as well as provide opportunities for skills development, and help attract domestic and foreign investment. The creation of agro-industrial parks is a key instrument for transforming Africa's agricultural sector and the overall economic transformation on the continent, hence the agro-industrial zones model is increasingly selected as a strategic approach for meeting its development and economic targets. To be successful (and sustainable) this ambitious objective will require the mobilization of significant resources, both domestic and external, public and private.

Coupled with Industrial Symbiosis. When the supply chain components within an industrial system are integrated to be symbiotic, rather than independent, each contributing to an efficient system that generates minimal by-products and pollutants, forms a holistic approach to mitigate and adapt to climate change for industries and the communities they ultimately should serve. Materials, energy, and water resource inputs are optimized, emissions and wastes are minimized. Wastes that remain are recovered for use as feedstocks by other businesses within the system, reducing the need for sourcing and transporting additional virgin and otherwise wasted resources. When implemented holistically, Industrial Symbiosis accelerates the transformation from a linear extraction-use-throw-away model of economic growth into a closed loop supply chain, changing how industries and communities relate to each other.

Agro-industrial sectors have pressing demand toward the safe utilization of agro-materials and chemicals through BAT/BEP. Agro-industry among them releases a lot of waste materials to be utilized in many of the fields such as energy production, composting, and textile industry. In recent times, energy consumption and economic pressure on industries need sustainability in the utilization of resources and to get optimum yield. Agro-industrial wastes can be a good option to meet the demands of the present generation without compromising the future generations, so there is a gravid need for more attention into the depth of agro-industrial waste generation, utilization and recycling solutions. Child projects under this thematic window will promote BAT/BEP to reduce uPOPs releases, phase-out POPs and any mercury used or emitted from or in processes and products and demonstrate the sound management/disposal of POPs and any mercury/mercury containing waste. Emphasis will be on addressing the entire life cycle of products through a Circular Economy approach with strong private sector engagement at national to global scales. The national child projects are developed by building on identified and existing AfDB Investment projects for the respective countries.

Expected outcomes and components of the project

Changes in the project since the PIF stage

The PIF outlined 12 measures in Component 3 (investment measures), as well as a number of measures in Components 1 and 2. During the inception phase, countries were requested to set their key priorities as regards measures to be investigated further for Component 3, as well as their relative interest in the measures considered for Components 1

and 2, based on priorities in their Stockholm Convention National Implementation plans (NIPs) and their Minamata Initial Assessments (MIAs[2]). This approach encouraged focus on fewer measures in Component 3, and thereby increase the impact of each measure. This culminated in the 1st regional consultation workshop, held in Abidjan 21-22 January 2020, where the process of a common prioritisation was initiated for the 11 countries. The report of the 1st regional consultation workshop is given in Annex K.

Based on further investigations of links to the AfDB co-financing baseline projects, global environmental benefits (GEB) contributions, budget considerations and the outcomes of the national consultations, the outputs presented below for Components 1-3 were selected for implementation in the AFLDC-2 project. An overview table on outputs selected are given in the beginning of the description of each component, along with information on which project countries participate in the individual outputs.

The final selection of outputs by country was validated at the regional validation workshop held 24-25 November 2020 online. The report of the regional validation workshop is given in Annex AA.

As a result of the scoping of the project since the PIF phase, the project outputs were adjusted to better reflect the selected measures; the overall goals of the project are however the same. A comparative overview of changes since the PIF is given in Annex N.

Component 1: Strengthening the enabling environment and national enforcement capacities for the management and phase-out of POPs/mercury and its compounds

Outcome: Conducive enabling environments based on strengthened legal and regulatory regimes provide a sustainable basis for the environmentally sound management and disposal of chemicals and waste, in particular POPs and mercury and its compounds

Table 2 above gives an overview of the level of implementation of the Stockholm and Minamata Conventions in the project countries.

Participating Countries: All

Table 4 below gives an overview of the anticipated activities under Component 1.

Table 4 Component 1 outputs

Component 1 outputs
Output 1.1: Up-to-date legislative and regulatory frameworks
1.1a: Up-to-date legislative and regulatory frameworks – for POPs (Stockholm Convention)
1.1b: Up-to-date legislative and regulatory frameworks – for mercury (Minamata Convention)
Output 1.2: Strengthened application and enforcement of updated legislative and regulatory frameworks

1.2a	Training workshop(s) on updated POPs regulations for government officers responsible for the convention
1.2b	Training workshop(s) on mercury regulations for government officers responsible for the convention
1.2c	Training workshop(s) for national and local environmental permit and control officers and waste management inspectors
1.2d	Training workshop(s) on the elimination of illegal uses of obsolete POPs pesticides for trainers in the national agricultural sector
1.2e	Training workshop(s) on the environmentally sound management of PCBs for national electricity sector
1.2f	Training workshop(s) on integrated waste management for national and local trainers
1.2g	Training of trainers workshop(s) on customs and police inspections for regulated POPs-containing and mercury-added products
Output 1.3 Strengthened national methodologies to identify, assess, and manage sites contaminated by hazardous chemicals	
Output 1.4: Integrated regional and national strategies to implement environmentally sound management of chemicals and waste	
1.4a	Regional workshops held back-to-back with regional PSC meetings
1.4b	A regional industry conference held.
1.4c	A regional plastics' circular economy forum, fair and conference established.
1.4d	Project represented at meetings of Regional Cooperation Bodies

Output 1.1: Up-to-date legislative and regulatory frameworks

This output will reinforce the national legislative and regulatory frameworks and institutional responsibilities that are required by Parties to the Stockholm and Minamata Conventions in order to meet their obligations under those treaties.

Some participating countries already have legislation that addresses implementation of the Stockholm Convention - a number of these benefitted from the provision of model legal frameworks developed for the AFLDC1 project. These model legislative and regulatory schemes will be used as appropriate and updated as necessary to take into account the experiences and lessons learned during the AFLDC1 project as well as recent developments in the Convention.

Experience sharing between participating countries, in particular amongst those sharing similar legal codes, or members of same regional organisations, will be promoted as a means of encouraging regional harmonisation and best practice.

Trade and industry groups, consumer associations and other civil society organisations will be actively engaged with government institutions in the development of the legal and regulatory regimes, as specified for each country in the country annexes (annexes P-Z). While many enforcement mandates are a responsibility of government institutions, opportunities will be sought to incorporate concepts of extended producer/importer responsibilities (EPR) as potentially important means to promote the rapid transition away from POPs- and mercury-containing products. This has a potential for improving the separate collection, sorting and environmentally sound management of such products at end of life, as well as for diverting plastics and other potentially valuable recyclables away from waste streams subject to open waste burning and landfilling/dumping.

1.1a Legal and regulatory frameworks for POPs

1. A comprehensive and up to date assessment of the national legal and regulatory frameworks and institutional responsibilities for POPs will be conducted in each participating country to determine the regulatory and administrative actions and institutional responsibilities necessary to meet Party obligations under the Stockholm Convention, including for those POPs newly listed in the Convention. These assessments will take account of similar work undertaken as part of national implementation planning and any actions arising from it. Some participating countries benefitted from actions to develop regulatory frameworks using models developed under AFLDC1; in these countries, attention will focus on completing the frameworks they have developed and ensuring their compatibility with more recent additions and amendments to the Convention.

The assessment will also consider, in more detail, the model legislation developed under AFLDC-1 including recent advances in national development planning and any strategies to deliver the Sustainable Development Goals, with the objectives of identifying potential mainstreaming opportunities for chemicals and waste actions, and to harmonise national actions with initiatives of regional cooperation organisations.

2. Establish a technical expert committee to conduct consultations with the appropriate sectors of government, industry, associations and civil society, to consider:

- Regulatory text proposed for review;

- Economic impacts of the proposed regulatory review text;
- Appropriate national institutional arrangements to facilitate effective implementation of the revised legislation; and
- Hold a national endorsement meeting of the proposed regulatory review text.

During this process, good practices will be identified and shared with other participants from other countries as they begin the development of their regulatory frameworks.

1.1b Legal and regulatory frameworks for mercury

1. A comprehensive assessment of the national legal and regulatory frameworks and institutional responsibilities for mercury will be conducted in each participating country to determine the regulatory and administrative actions and institutional responsibilities necessary to meet Party obligations under the Minamata Convention. The assessment will build on any previous work undertaken, for example, as part of the mercury initial assessments (MIAs) or national action planning for the artisanal and small-scale gold-mining sector.

The assessment will also consider any recent advances in national development planning and any strategies to deliver the Sustainable Development Goals, with the objectives of identifying potential mainstreaming opportunities for chemicals and waste actions, and to harmonise national actions with initiatives of regional cooperation organisations.

2. Convene a committee comprising representatives of appropriate sectors of government, industry and civil society, to consider:

- Proposals for legal and regulatory text to infill existing regulations or to be put forward as new regulations, by a committee drawn from key government departments as well as representative of private sector stakeholders and civil society; and
- proposals for the revision or refinement of institutional responsibilities to facilitate effective implementation.

3. Develop, with health sector and dental practitioners, measures to be taken to phase down the use of dental amalgam compatible with Article 4, paragraph 3, and Annex A part II of the Minamata Convention.

Output 1.2: Strengthened application and enforcement of updated legislative and regulatory frameworks

This output will focus on strengthening the capacity and capabilities of enforcement agencies, trade and industry groups and civil society to understand and apply the legislative and regulatory measures relating to POPs, mercury and its compounds and their management as wastes in the participating countries. This will involve establishing or scaling up a wide range of national environmental guidance and control functions across all relevant ministries and their agencies. Key stakeholders include customs trainers and officers, police trainers; national and local environmental permit and inspectors; industrial permissions officers and inspectors; waste management inspectors; and private sector institutions and enterprises working in waste management and chemicals trade.

Similar to Output 1.1, all of the 11 countries will undertake the activities outlined below for this output, with amendments made to suit their national situation.

In coordination with the comprehensive assessment of the national legal framework in each participating country related to the sound management of POPs and/or mercury (under Output 1.1), a comprehensive assessment of the national institutional framework, including institutional arrangements, administrative processes, and technical preparedness, will be undertaken. These assessments will also support the identification of gaps in the institutional and a prioritization of needs. This will feed into the design of all training and capacity building activities under this project including the strengthening of the application and enforcement of updated legislative and regulatory frameworks.

1.2a One or more training workshops on **POPs regulations** will be held for at least 30 government officials with direct responsibilities for their implementation. Participation will include members of the committee making recommendations in output 1.1a who will understand Convention obligations, the national and regional context and adequate response options.

1.2b One or more training workshops on **mercury regulations** will be held for at least 30 government officials with direct responsibilities for their implementation. Participation will include members of the committee making recommendations in output 1.1b who will understand Convention obligations, the national and regional context and adequate response options.

1.2c One or more training workshops will be held for at least 30 national and local **environmental permit and control officers and waste management inspectors** in each participating country. This will include all relevant aspects relating to the conventions' provisions on POP pesticides, uPOPs, industrial POPs, and mercury and its compounds and specifically how these provisions can be addressed in permit, control, and inspection activities. The training will include a train-the-trainers component and the training materials will be made available on-line for future training conducted by the relevant authorities themselves.

1.2d A workshop on the **elimination of illegal uses of obsolete POPs pesticides**, taking into account the promotion of appropriate alternative approaches will be conducted for at least 20 trainers in the agricultural sector in each country. The trainers to be trained will be carefully selected to make use of existing capacity building structures and networks, in order to ensure an optimal cascade of dissemination of the knowledge acquired. The training will be based on the Integrated Pest Management (IPM) approach. IPM employs an array of methods and techniques, including cultural, biological and structural strategies to control a multitude of pest problems while minimizing undesired side-effects on health and environment.

1.2e A workshop or series of workshops will be held for at least 30 participants on the **environmentally sound management of PCBs** targeting PCB holders (managers), electrical facilities workers and government counterparts in countries that implement Output 3.3 on PCB management. It will include training on inventories, sampling and analysis, storage and dismantling, accidents prevention, regulatory and administrative aspects, as well as labelling and traceability schemes and other measures to prevent cross-contamination from unsound practices.

1.2f One or more training of trainers workshops on **integrated waste management** will be conducted for at least 40 trainers in each country. The focus will be on national implementation of integrated management of municipal waste, including restrictions of open burning of waste in waste dumps and informally; landfill design and management procedures to minimize open waste burning on landfills; formalization and training of waste pickers to increase number of decent jobs and avoid open burning of waste; minimization of waste amounts subject to burning and dumping through increased application of circular economy principles, including the “3 R’s”: Reduce, reuse, recycle (and beyond), for all valuable raw materials such as plastics, metals, compostable waste, glass, etc.; separate collection and environmentally safe treatment of hazardous waste, e-waste, etc.

1.2g One or more train-the-trainers workshop will be held on customs and police inspections for regulated POPs-containing and mercury-added products for at least 50 customs trainers, police trainers and environmental prosecutors in each participating country. This will include the development of customs control guidelines on mercury and its compounds, and the use and expansion (as needed) of an existing guideline on identification of POPs-containing products[3]. The training will expand on previous training held on POPs in some of the participating countries. The workshop will include training in undertaking import and market inspections.

Output 1.3: Strengthened national methodologies to identify, assess, and manage sites contaminated by hazardous chemicals

This output will strengthen or establish national capacities necessary for the identification and assessment of chemically-contaminated sites by making use of international guidance such as the UNIDO “Toolkit for investigating and managing POPs-contaminated sites” and the “Guidance on the management of contaminated sites” (UNEP/MC/COP.3/8/Rev.1), adopted by COP3 of the Minamata Convention, taking into account the national and local contexts of the participating countries.

The methodologies and guidance will also facilitate the development of contaminated sites management plans in line with Article 6 of the Stockholm Convention and Article 12 of the Minamata Convention, which require Parties to develop appropriate strategies for identifying and assessing sites contaminated by POPs and mercury respectively, and to undertake remediation of such sites in an environmentally sound manner.

Output 1.4: Integrated regional and national strategies and approaches to implement environmentally sound management of chemicals and waste

1.4a **A series of regional workshops held to share experiences and lessons learned** at the national level in implementing the chemicals and waste conventions. The workshop will be held back-to-back with regional PSC meetings for at least four persons per country, namely the project focal points (Stockholm and Minamata focal points of

each country; each time) and two technical officers working with the topics on the agenda for the specific workshop, see below (these two persons will likely change for each workshop). The trainers on these workshops will include top experts in the topics covered, with a preference for African top experts, or secondarily experts of other origin with good knowledge of the African situation.

At each of these regional workshops, one or more of the measures implemented within the project will be scrutinized, and the countries implementing the specific measures will have the opportunity to exchange on challenges met and lessons learned in their implementation of the measures, to the benefit of all participants. This will allow for an effective cross-pollination amongst the countries implementing the specific measures but will also give insight in these topics for countries that have selected other Component 3 measures. These workshops will be supported by the establishment of an online forum for each of the Component 3 measures, in which challenges and lessons can be exchanged and discussed in-between workshop sessions.

This training and sharing of experience will include the following subjects (among others):

- The hazards for the environment and human health of the POPs and mercury. Update, on a detailed level, of the requirements of the Stockholm and Minamata Convention requirements, and how these can be implemented in the national legislation and strategies in the context of the participating countries. Regional work for establishments/enhancement of a roadmap for the environmentally sound management of chemicals and waste. (Held back-to-back with the inception workshop).
- Environmentally sound management of PCBs, POP pesticides and mercury waste (linked to Outputs 3.1, 3.2, 3.3, 3.4 and 3.5).
- Reduction in the availability of mercury-added products and industrial POPs through promotion of alternatives and improved enforcement of legislation (linked to Outputs 1.1, 1.2, 2.4 and 3.5).
- Reduction of uPOPs emissions from open waste burning through increased use of the 3R's (reduce, reuse, recycle), and other circular economy initiatives (linked to Output 3.4).
- Development of national methodologies and guidance for the identification, assessment, and remediation of sites contaminated by (hazardous) chemicals, with POPs and/or mercury as examples (linked to Outputs 1.3, 3.2, 3.3, among others).

1.4b A regional industry conference held. The project will organize a regional conference to highlight private sector responsibilities and promote industry engagement in the implementation of the chemicals and waste conventions.

The meeting will target, in particular, participation from those industry sectors listed in Annex Part II of the Stockholm Convention and in Annex D of the Minamata Convention, notably the non-ferrous metal and cement clinker production sectors, and the public officials engaged in regulating these sectors in the project countries (and beyond, as feasible).

Topics addressed at the conference will include, but will not be limited to:

- Industry-related obligations of the Stockholm, Minamata, Basel and Bamako Conventions: how these requirements are being implemented in the national regulations in the region;
- Origin and typical fate of mercury and uPOPs in the industries in question;
- Requirements to implement BAT/BEP for existing and new facilities under these conventions;
- Current state of BAT/BEP implementation in the project countries and the African region;
- Dealing with POPs- and mercury-wastes;
- Current and future possibilities for public/private interaction and exchanges on BAT/BEP and future development perspectives in the industries.

1.4c A regional plastics circular economy forum, fair and conference established.

In the African context many stakeholders in the value chain of plastics recycling lack the capital; technical knowledge and capacity; and the commercial networks to increase business opportunities and develop sustainable enterprises. This activity will increase the business to business networking in the region and inform the participants of the latest technology advances and business opportunities.

Target participants include:

- national and any regional companies and community-based organisation engaged in or supporting the collection and re-processing of plastics;

- national and regional companies and organisations engaged in the production of replacements for plastic products from other raw materials, including compostable bio-plastics and traditionally-used materials;
- national, regional and international traders/buyers of recycled plastics raw materials;
- national, regional and international companies and experts engaged in sustainable development of the plastics industry.

The event will form the basis for the creation of a business to business forum for continued networking, exchange and interaction. The event and forum will also showcase the potential opportunities and incentives that are available for entities interested in investing in this sector.

Partners in the international plastics industry will be engaged as co-hosts and co-funders of the event and forum, as feasible.

1.4d Project represented at meetings of Regional Cooperation Bodies and other cooperative information exchange. Presentation of the project will be made by representatives of the project at governing body meetings of at least two of the relevant regional cooperation for a: the African Union, ECOWAS, SADC and COMESA. The presentation will be made either as an official intervention or as a side-event, perhaps in collaboration with similar GEF-funded projects within the region.

Stockholm Convention mechanisms such as the PCB Elimination Network (PEN) and participation in collective information events such as webinars organised by for example, the BRS Secretariat will also be utilised to share knowledge gained through the proposed project.

Component 2: Communicating the environmentally sound management of chemicals and wastes

Outcome: The environmentally sound management of chemicals and waste mainstreamed into development decision making and into consumer choices.

This outcome will promote wider understanding of the environmentally sound management of chemicals and waste amongst regional and national decision makers and private sector stakeholders in order to mainstream its objectives into development planning, policy building and investment programming. It will raise the awareness of chemical risks - particularly from POPs and mercury, amongst consumers in order to reduce demand for these chemicals and products containing them.

The planned awareness raising activities will address, as relevant for the individual target groups:

- Why hazardous chemicals and waste need to be addressed: Risks to human health and the environment; current exposure levels.
- Where such hazardous chemicals can be found in products, processes and emissions/releases.
- What the updated regulation requires of members of the target groups in order to reduce these risks.

- How the risks can concretely be reduced through implementation of specific measures for environmentally sound management of chemicals and waste, such as substitution to alternatives, promotion of hazard warnings to work places and consumers (for example GHS[4]), and proper waste management through separate collection and treatment and avoidance of open burning and dumping of waste.
- How such measures can contribute to increased sustainability through reduced health problems locally and nationally, through improved resource efficiency by gradual introduction/improvement of circular economy approaches and increased industrial symbiosis including through business-to-business, EPR[5] and PPP[6] approaches, and through improvement or creation of decent jobs (waste picking, waste sorting, re-processing etc.).

The awareness raising activities conducted will be closely coordinated with the Component 3 investment outputs implemented in the country which will demonstrate the relevance and efficacy of the available mitigation measures.

An overview of the outputs of Component 2 is given in in Table 5 below.

Table 5 Component 2 outputs

Component 2 outputs
<i>Output 2.1:</i> Increased awareness amongst regional and national development planners of the role of ESM of chemicals and waste within Sustainable Development policies and strategies
<i>Output 2.2:</i> Increased capacity and knowledge of public officials to incorporate ESM of chemicals and waste in public policies and programmes
<i>Output 2.3:</i> Increased engagement of key stakeholders in agriculture and industry in efforts to reduce POPs use and release
<i>Output 2.3a:</i> Increased awareness and engagement of farmers, farming associations and cooperatives, and farm suppliers in stopping or limiting POPs pesticide use and reducing uPOPs releases from the burning of agricultural wastes
<i>Output 2.3b:</i> Increased awareness and engagement of electrical engineers and power sector managers in the environmentally sound management of PCBs
<i>Output 2.3c:</i> Increased awareness and engagement of industry and the waste management sector in reducing uPOPs emissions and releases from MSW

Output 2.3d: Engaging companies, SMEs, community-based groups, and artisans in the development, manufacture and use of locally-available sustainable alternative packaging materials

Output 2.4: Increased engagement of civil society organisations, communities and consumers in designing, promoting and implementing ESM for chemicals and wastes

Output 2.1: Increased awareness amongst regional and national development planners of the role of ESM of chemicals and waste within Sustainable Development policies and strategies

This sub-output supports the efforts in sub-output 1.1 of convening a committee comprising representatives of appropriate sectors of government, industry and civil society, to consider proposals for legal and regulatory text, and proposals for the revision or refinement of institutional responsibilities to facilitate effective implementation. The outreach activities below will secure that the participants are adequately informed of the convention requirements and root problems, and provided a platform for discussions of these aspects and how they can best be implemented in national regulations, strategies and institutional infrastructure.

Participating countries: All

National high-level workshops will be held in each country to highlight the role of the environmentally sound management of chemicals and waste in the Sustainable Development Goals and in the regional and national development policies developed to deliver them.

An introductory workshop, to be held at the start of component 1, will set out the goals of the chemicals and waste conventions to which the country is Party, their interlinkages with the Sustainable Development Goals, the actions necessary to implement the conventions, opportunities to integrate actions with development plans and projects, including those directly linked as baseline co-funding, and the supportive actions planned within the project.

A workshop to consider preliminary findings will be held to coincide with consideration of the findings and recommendations of assessments carried out in outputs 1.1 and 1.2 with the aims of building widespread support for strengthening legal and regulatory frameworks and institutional arrangements and capacities for managing chemicals and wastes; and building consensus to promote the mainstreaming of the ESM of chemicals and waste within a broad range of regional and national development strategies.

The workshops will be presented by the national project secretariat together with representatives of selected parliamentary committees and international technical experts and will target participants amongst national policy makers, regulators, and national delegates to regional cooperation fora, including government and parliamentary representatives, senior civil servants from key ministries, as well as industry leaders and senior representatives of civil society.

The workshops will include the development of a plan among the national key stakeholder groups for steps in the process mentioned to reduce POPs and mercury emissions and releases through the measures of the project.

Output 2.2: Increased capacity and knowledge of public officials to incorporate ESM of chemicals and waste in public policies and programmes

Participating countries: All

Public officials directly engaged in national efforts to implement the Stockholm and Minamata Conventions, particularly those with responsibilities for public health and environment, are generally well aware of the need to manage these prioritised hazard substances through the actions set out in those treaties. This was shown in the response to country questionnaires as part of the consultation process performed. However, many implementation actions can only be achieved in collaboration with a wider group of officials from other ministries, departments and agencies with direct responsibilities in key fields.

For this reason, one or more ***national workshops*** will be hosted by Environment and Health officials to communicate convention objectives and project actions to that wider audience of officials.

The target audience will include those public institutions with responsibilities for agricultures, mining and natural resources, trade and industry, energy, waste and urban development, local government, education and social affairs, finance and economic development, customs, gender and equality, labour and justice. Representatives of major municipalities and associations of municipalities will also be invited.

The agenda will include the following topics, among others:

- The environment and health risks associated with improper management of chemicals and wastes - with particular reference to POPs and mercury;
- The actions necessary at national level for Parties to the chemicals and waste convention - the Basel, Bamako, Rotterdam, Stockholm and Minamata Conventions (as well as the Strategic Approach to International Chemicals Management beyond 2020, as relevant), taking account of available national information on POPs and mercury use and release;
- Opportunities and positive impacts arising from the successful implementation of the conventions and the take up of Best Available Technologies and Best Environmental Practices;
- Opportunities for co-benefits from linking chemicals and wastes actions into development strategies and policies addressing the Sustainable Development Goals;
- Identification of key actors to cooperate in highly-ranked actions.

Further ***outreach to key actors***. Following the workshop(s), further meetings with officials from institutions recognised as key actors with respect to project activities will be conducted to boost their engagement and implementation. Outreach, tailored to national needs, will likely include, but is not limited to:

- Outreach to the agricultural sector with regards to enhanced plant protection without Highly Hazardous Pesticides including those chemicals listed in the Stockholm Convention;
- Outreach to industry and energy sector regulators and their industry counterparts with regards to BAT/BEP and environmentally sound management of POPs-containing equipment, mercury use, and reducing POPs and mercury emissions and releases;
- Outreach to the health sector, both public and private and including pharmacies, customs, importers and suppliers with regard to phasing out mercury instruments
- Outreach to dental practitioners in relation to the phase-down plan for dental amalgam in output 1.1
- Outreach to health sector waste systems managers with regard to managing mercury wastes;
- Outreach to public sector procurement officers, importers and suppliers concerning the need to specify mercury-free products in contracts to replace mercury-added products listed in Annex A of the Minamata Convention;
- Outreach to the waste management sector with regard to best practices in the treatment and disposal of mercury-added products at end-of-life and in avoiding POPs and mercury emissions and releases from open-burning of wastes.

Output 2.3: Increased engagement of key stakeholders in agriculture and industry in efforts to reduce POPs use and release

The implementation of convention obligations can be an onerous burden on countries that lack the capacity and capabilities to introduce and enforce appropriate regulations. Industry participation is critical if key initiatives are to be successful.

2.3a Increased awareness and engagement of farmers, farming associations and cooperatives, and farm suppliers in stopping or limiting POPs pesticide use and reducing uPOPs releases from the burning of agricultural wastes.

Participating countries: All

Tasks will include:

- Identification of target farmers groups and the means to gain their attention and engagement;
- Preparation and delivery of appropriate communications materials relating to, but not necessarily limited to:
 - hazards to human health and the environment from use of POP pesticides and from uPOPs generated by open burning of agricultural wastes;
 - applicable obligations of the chemicals and waste conventions as reflected in national legislative and regulatory frameworks;
 - locating obsolete POPs pesticides for disposal;
 - alternative less hazardous options for plant protection (IPM);
 - safe handling of pesticides;
 - opportunities for alternative uses for agricultural waste through circular economy/recycling approaches.

In the countries that have AfDB baseline projects in the rural/agricultural sectors, the infrastructure and activities of the baseline projects will be used as platforms for the dissemination of the above messages. In all countries, existing agricultural outreach channels will also be used in collaboration with the responsible operating agencies.

2.3b Increased awareness and engagement of electrical engineers and power sector managers in the environmentally sound management of PCBs

Participating countries: Guinea, Liberia, Mauritania, Sierra Leone, Togo and Uganda

Tasks will include:

- Identification of target companies and organisations, managers and professionals responsible for power sector equipment supply, operation, maintenance and disposal
- Identification of the appropriate means, key channels and opportunities to gain their attention and engagement;
- Preparation and delivery of appropriate communications materials relating to, but not necessarily limited to:

- hazards to human health and the environment from improper management and handling of PCBs;
- applicable obligations of the chemicals and waste conventions as reflected in national legislative and regulatory frameworks;
- locating, inspecting and maintaining equipment containing PCBs, avoiding cross-contamination with oil-filled equipment, storing PCBs and avoiding their discharge to the environment;
- preparing replacement schedules for PCB-containing equipment.

2.3c Increased awareness and engagement of industry and the waste management sector in reducing uPOPs emissions and releases from MSW

Participating countries: All

Tasks will include:

- Identification of target companies, SMEs and informal traders whose activities in manufacture, import, packaging and sale result in significant quantities of plastic waste;
- Identification of target companies, informal SMEs, and community-based and informal groups engaged in the management of wastes likely to be burnt in open air;
- Identification of the appropriate means, key channels and opportunities to gain their attention and engagement
- Preparation and delivery, as appropriate, of communications relating to, but not limited to:
 - hazards to human health and the environment from improper management and open burning of wastes;
 - applicable obligations of the chemicals and waste conventions as reflected in national legislative and regulatory frameworks;
 - opportunities to reduce plastic packaging materials through substitution, reuse and recycling;
 - opportunities and good practices in recycling plastic wastes

- other measures to reduce open burning of waste, such as formalisation and training of waste pickers and landfill management practices minimizing open burning

2.3d Engaging companies, SMEs, community-based groups, and artisans in the development, manufacture and use of locally-available sustainable alternative packaging materials

Participating countries: Angola, The Gambia, Guinea, Uganda

Tasks will include:

- Outreach to community groups to highlight the human health and environmental impacts of the use of short-lived plastic packaging, not least in the potential generation of uPOPs during open-burning of waste;
- Identification of artisans and community-based groups skilled in the production of packaging from local, natural materials;
- Promotion of skills -sharing and engagement of artisans with potential commercial customers to encourage take-up of materials by industry;
- Communicating benefits to potential commercial customers and consumers.

Output 2.4: Increased engagement of civil society organisations, communities and consumers in designing, promoting and implementing ESM for chemicals and wastes

Participating Countries: All.

This output will support outputs 3.4 (on uPOP reductions) and 3.5 (on mercury-added products), and beyond, by reaching out to those project beneficiaries in smaller and informal enterprises, civil society organisations and community groups in order to raise awareness of health risks pertaining to the use and improper disposal of domestic products that may

consist of or contain POPs and mercury; to examine and address the demand drivers for such products and thus to reduce demand; and to drive public opinion towards improved waste management.

Particular targets for attention would include:

- mercury-containing products such as thermometers and batteries that give rise to exposure risks when items are broken or dismantled at home,
- skin-lightening creams and soaps, used particularly by women;
- schemes to separate wastes facilitating the collection of hazardous wastes for environmentally sound disposal and of materials such as plastics of recycling value but typically burnt with other MSW fractions creating unintentional emissions of POPs.

These messages will be disseminated through nationally and regionally appropriate channels identified through a regional communications strategy (with national annexes, as needed) to be developed in the project. It is anticipated that the following communication channels may be among the selected means for communication:

- Training materials for school-age children (and via them to their parents). Sets of training materials customized for key educational stages will be developed under the project and be adapted to the national situations (including translation) in cooperation with relevant representatives of the national ministries of education. The training materials could make use of a range of modern and more traditional media and include materials for teachers with ideas for incorporating learning into the wider curriculum.
- Educational materials for university level and similar advanced education. For these higher education institutions, training materials will be developed in cooperation with representatives of selected national universities that already offer education in subjects appropriate to the environmentally safe management of chemicals and waste management. The primary target will be the introductory course level for environmental studies. Additionally, opportunities for survey, assessment and research activities of national and international value will be identified and encouraged. The material will consist of electronically available material that will be promoted to all major universities in each country, available through download from the project website. Language versions will be provided (English, French, Portuguese; others if feasible).
- Through social media, TV and radio to the general population, with an emphasis on young people and women. Materials will address social and cultural drivers for the domestic use of hazardous substances and seek to overcome barriers to reducing demand for hazardous products; and to improving waste management practices. Local - if feasible regional - influencers, will be engaged, working as necessary with specialised advertising bureaus, to design and deliver dynamically adaptive social media campaigns.
- Through existing networks involving local leaders/chiefs; if possible directly via existing digital contact groups or social media, otherwise indirectly via municipalities or the ministry of local government, as relevant and feasible in the individual country.

Component 3: Scaling up of actions to reduce and wherever possible, eliminate manufacture, trade, use, emission and release of POPs and mercury and its compounds

Outcome: POPs and mercury reduced or phased out from processes and products through substitution, environmentally sound management and the application of BAT/BEP

This component comprises a range of actions that advance the implementation of the Stockholm and Minamata conventions. Table 6 shows those countries participating in each of the outputs within this component. The participation is based on priorities of the countries' in their NIPs and any MIA's, incrementality to AfDB baseline projects, prioritisation provided by country participants at the 1st regional consultation workshop (held in Abidjan, 21-22 January 2020; see Annex AA), complementarity to other projects, the results of national consultations as described in the country annexes (annexes P-Z), GEB outputs and budget constraints.

Table 6 Component 3 outputs and participating countries

Component 3 outputs (for countries where respective outputs are selected)	Participating countries (per output)
<i>Output 3.1: National facility established for interim storage of mercury and POPs waste awaiting final disposal</i>	<i>Ethiopia, Senegal, Zambia</i>
Identification and preliminary characterisation of existing sites used for the storage and treatment of hazardous wastes	
Selection of a short-list and ranking of potential permanent sites for the interim storage of hazardous waste	
Improvement / development of a permanent interim storage facility for hazardous waste	
<i>Output 3.2: POPs pesticides wastes destroyed</i>	<i>Angola, Ethiopia, Liberia, Sierra Leone, Togo, Zambia</i>
National inventories	

Risk assessment of identified stores	
Repackaging and removal to interim storage	
Evaluation of disposal options	
Final disposal operations	
<i>Output 3.3: Environmentally sound management of PCBs</i>	<i>Guinea, Liberia, Mauritania, Sierra Leone, Togo and Uganda</i>
Revised and updated national inventory of PCB-containing equipment	
Preparation of maintenance and servicing schemes for equipment	
Risk assessment and ranking of equipment for treatment, disposal and replacement and evaluation of disposal options	
Final disposal operations	
<i>Output 3.4: Reduced uPOPs emissions and releases from municipal waste management through reduction of open burning of waste</i>	<i>Angola, The Gambia, Guinea, Uganda</i>
Promoting manufacture and use of locally-available sustainable alternative packaging materials	
Promoting sustainable manufacturing from recovered plastic wastes	

Demonstrating or scaling-up sustainable and efficient approaches to the separation and collection of plastics for recycling	
Output 3.5: Reduced availability and use of mercury-containing products and models for their proper disposal demonstrated	<i>The Gambia, Mauritania</i>
Investigating the availability and flows of mercury-added products	
Providing the capacity and capability to analyse certain products suspected to contain mercury	
Providing model systems for the collection and disposal of mercury-added products while promoting alternatives	

Output 3.1: National facility established for interim storage of mercury and POPs waste awaiting final disposal

Participating countries: Ethiopia, Senegal and Zambia.

In participating countries, the tonnage of POPs and mercury wastes arising are likely to be relatively small and unlikely to warrant the investment necessary to develop domestic infrastructure and facilities for final treatment and disposal. It follows that interim storage sites will be required to act as transfer stations, holding the hazardous wastes awaiting shipment for appropriate final destruction overseas.

This output will identify, in each participating country, a permanent facility suitable for the interim storage of POPs and mercury wastes arising from project activities as well as other hazardous priority waste awaiting final treatment and disposal. While countries may have sites at which obsolete pesticides, PCB-containing equipment or other hazardous wastes are currently handled and stored, few, if any, of these sites currently meet the standards for environmentally-sound interim storage as developed under the Basel Convention[7] and adopted by the Stockholm and Minamata conventions. Opportunities to improve and up-scale such sites to meet those standards will be considered but as sites needs to be situated in safe distances to dwellings and other vulnerable infrastructure, and final disposal is likely to entail international shipment making connections to transport infrastructure an important consideration in site selection, other sites may be preferable.

The output is to secure the availability of a permanent facility where prioritised hazardous waste segregated from the general waste stream can be stored in an environmentally sound manner until further treatment. Such a facility is a corner stone in a well-functioning integrated waste management system, and the requirements of the Stockholm and Minamata Conventions of environmentally safe waste management of their respective chemicals cannot be fulfilled without it.

Activities will include the following elements:

1. **Identification and preliminary characterisation of existing sites used for the storage and treatment of hazardous wastes,**
2. **Selection of a short-list and ranking of potential permanent sites for the interim storage of hazardous waste-;** taking into consideration such factors as existing infrastructure, soil and groundwater conditions, environmental impact assessment, human settlement, safety and security, access and transport infrastructure, ownership and land rights, acquisition and preparation costs.
3. **Development of a permanent interim storage facility for hazardous waste,** in accordance with convention guidance; and in collaboration with waste management partners engaged in final collection, repackaging and disposal operations. Including, but not necessarily limited to improvement/development of storage areas and building; provision of storage, handling, safety and management equipment; development of emergency response protocols and infrastructure; recruitment and training of staff; improvement/preparation of business plans securing continued sustainable operation (based on the polluter pays principle); and improvement/preparation of decommissioning plans.

In Liberia and Sierra Leone, which did not prioritise the establishment of a permanent storage facility for hazardous waste, short-term storage will be improved or established as per relevant guidelines for storage of POPs and mercury wastes collected during the project until its final treatment within the project period (at a lower cost than for permanent facilities but with adequate environmental safeguards for short term storage).

Output 3.2: POPs pesticides wastes destroyed

Participating countries: Angola, Ethiopia, Liberia, Sierra Leone, Togo, Zambia (inventory only)

This output will address the elimination of obsolete POPs pesticides in the participating countries.

Key elements of this output will be:

- Undertaking detailed national inventories of obsolete pesticides stocks and assessment of overall priorities
- Repackaging and removal to interim storage
- Evaluation of disposal options
- Final disposal operations.

- Developing strategies for further assessment and management of identified contaminated sites.

National inventories and assessment of obsolete pesticides stocks have been prepared through initiatives of the FAO and as part of national implementation planning for the Stockholm Convention. Available inventories will be reviewed and, where necessary, updated using FAO methodologies, so that each participating country has an accurate assessment of the quantities and condition of the obsolete pesticide accumulations in its territory. Inventory work will include, where necessary, sampling and analysis so that damaged and unlabelled materials can be correctly characterised. This information will be used to characterise the risks presented at the different sites; to determine priority actions for clean-up and disposal; and to prepare the technical specifications for repackaging, shipping and disposal operations.

The national inventories will be overseen by a national inventory advisory group comprising key national stakeholders such as the ministries of agriculture and environment; industry representatives and national farming associations; farmer unions and civil society.

Inventories activities will be led by suitably qualified national assisted international experts. The national teams provided with appropriate training and provided with appropriate personal protective equipment to be used for undertaking the national inventory exercises.

Based on the updated detailed inventories, a detailed risk assessment of identified obsolete pesticide stores and stocks contained and development of Environmental and Social Management Plans (ESMP) will be undertaken, which will set out mitigation measures for each risk identified. The ESMP will include the following: All steps to be carried out by trained personnel, safeguarding to be conducted according to ADR / IMDG[8]⁸ using UN specified containers and appropriate personal and environmental protection measures. Selection of qualified contractors. As the POP chemicals dealt with are highly toxic, all steps need to be done by trained personnel and to be overseen by relevant experts, in order to eliminate or minimize risk of releases of the chemicals to the environment and risks of exposure of involved personnel. This will be secured in the project through procurement of these services from expert companies and personnel selected based on detailed Terms of Reference and proper documentation of their expertise and experience. Selected contractors will be required to submit detailed management plans as part of their offers including safeguarding, transport, emergency and disposal plans. In general terms such international service providers will be responsible for safeguarding of high and medium risk stores, while national teams will conduct safeguarding of lower

risk stores. They will be given advance proper training by relevant experts as part of the project to secure adequate performance standards. Operations performance will be monitored by project staff.

Repackaging and removal to interim storage will be undertaken in order of risk priorities. In many cases, existing packaging of obsolete pesticides is likely to have degraded to the point where it cannot be handled or moved safely. In this case, the accumulated wastes, including old containers and packaging, and, potentially, minor quantities of any highly contaminated soil beneath the stored pesticides, would need to be repackaged in new UN-approved containers, appropriately labelled and inventoried. Repackaged materials would then be transferred to interim storage established in Output 3.1.

Evaluation of disposal options: In most cases, the environmentally sound option for dealing with obsolete pesticide wastes is to destroy them, typically by complex or expensive processes such as high-temperature incineration. It is unlikely that suitable destruction facilities are available within the participating countries and the quantities of waste to be destroyed would not merit the investment in such infrastructure. It follows that options for the final disposal of the waste would most likely involve their transport to an overseas facility. Options for disposal will be evaluated by the national inventory advisory group.

Detailed terms of reference will be developed to steer the procurement of the services for international transport and disposal of the pesticide wastes. The procurement of these services will be conducted through an international tender following the AfDB procurement procedures.

Final disposal operations to destroy the pesticide wastes will be undertaken at disposal facilities that are licensed and monitored by competent authorities and have a proven successful track record of operating to recognized standards. Transboundary transport from interim storage to the disposal facility will be undertaken according to international regulations and protocols such as the :

- The Basel Convention on the Control of Hazardous Wastes and their Disposal
- The International Maritime Dangerous Goods (IMDG) Code.
- The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

Contaminated sites

Regarding identified sites contaminated with POP pesticides, environmental and social risk scoping and strategies for further assessment and management will be prepared under the project. Except for moving minor quantities of any highly contaminated soil beneath the stored pesticides, the project will not be able to include detailed assessments and comprehensive remediation of any contaminated sites.

Output 3.3: Environmentally sound management of PCBs

Participating countries: Guinea, Liberia, Mauritania, Sierra Leone, Togo and Uganda.

This component will support the development and implementation of PCB management plans compatible with, and necessary for the achievement of, the regulatory and institutional arrangements developed in component 1. It will be compatible with the obligations of Parties to the Stockholm Convention to take equipment containing PCBs out of service by 2025 and disposed as waste no later than 2028.

Key elements of the output are:

- Revised and updated national inventory of PCB-containing equipment;
- Preparation of maintenance and servicing schemes for equipment, avoiding cross-contamination of equipment;
- Risk assessment and ranking of equipment for treatment, disposal and replacement and evaluation of disposal options;
- Final disposal operations

Revised and updated national inventory of PCB-containing equipment:

A comprehensive PCB inventory will be conducted. This inventory will revise and update previous preliminary inventories undertaken during national implementation planning for the Stockholm Convention and provide the basis for the preparation of detailed plans for the remaining service and end-of-life management of PCB-containing equipment. Equipment suspected of containing PCBs will be sampled and analysed, where possible with non-destructive methods. Results will be managed in a national database permitting a risk-based ranking of equipment for replacement and disposal. This system will be actively managed to monitor progress towards the Convention objectives; to ensure that disposal is undertaken by environmentally sound means; and to monitor equipment servicing and replacement so that operations do not result in cross-contamination of the wider transformer population or the introduction of PCB-containing or contaminated equipment.

The inventory will also identify and assess sites where PCB equipment is handled, maintained, serviced and stored to provide data and information for the preparation of improved maintenance and servicing schemes; and to inform decisions with regard to treatment and disposal operations.

Preparation of maintenance and servicing schemes for equipment, avoiding cross-contamination of equipment:

PCB-containing equipment in good working order may continue in service until end-of-life or 2025 whichever is the sooner. This allows time for such equipment to be identified, managed correctly and to be replaced as part of capital investment business plans. Owners of PCB-containing equipment will require equipment maintenance and servicing

schemes to ensure that such equipment is managed separately from other equipment, thereby avoiding cross-contamination, and to ensure that other equipment potentially already contaminated is identified and cleaned. Such schemes would become part of standard maintenance and servicing schedules used by equipment owners and benefit their wider operations by providing improved operational performance.

Risk assessment and ranking of equipment for treatment, disposal and replacement and evaluation of disposal options

The treatment, disposal and replacement of equipment identified within the national inventory will be subject to a risk assessment, undertaken with equipment owners, to identify equipment posing high risks and thus representing a priority for retirement and disposal.

National facilities may exist for initial treatment of some equipment - such as transformer draining, cleaning, dismantling and interim storage, or for the in-situ dechlorination of lightly-contaminated equipment. If so, these facilities will be used where such treatment can be achieved in an environmentally sound manner. Consideration will be given to limited upgrading of such facilities where this represents the most economically efficient and environmentally rational solution. Facilities for the final disposal or destruction of PCBs and PCB-contaminated wastes are not available in participating countries so that options for final disposal will need to be assessed, taking into consideration guidance adopted by the chemicals and waste conventions and international best practice.

Final disposal operations

Detailed technical specifications will be developed for the procurement of services for international transport and final disposal or destruction of the PCB wastes. The procurement of these services will be conducted through an international tender following the AfDB procurement procedures. Disposal operations will be independently monitored to ensure that international standards are met and certificated throughout.

Output 3.4: Reduced uPOPs emissions and releases from municipal waste management through reduction of open burning of waste

Participating countries: Angola, Gambia, Guinea, Uganda

This output will demonstrate improved municipal waste management practices that reduce open-burning of waste and thus reduce emissions and releases of POPs produced unintentionally. This will be done by improving recycling and substitution of plastics that could otherwise be burnt; a measure that is BAT/BEP under the Stockholm Convention. It operationalises the goals and aspirations of the regulatory and institutional arrangements developed in component 1.

The output will focus on addressing problems associated with the considerable volumes of waste plastic currently being generated. It will build on national development plans and strategies to boost efforts to prevent and minimise plastic waste, as well as government-, industry- and civil-society-led schemes collecting, sorting, reusing and recycling such wastes. Achieving positive social- and economic-impacts and encouraging private sector participation will be key to the success of this output and so be the subject of supporting communications targeting key stakeholders and beneficiaries and described in component 2.

The output will seek to complement existing national efforts; to replicate and supplement AFLDC1 pilot projects that reduced open burning of waste; and build on wider AfDB initiatives to improve municipal waste management. These initiatives seek to prevent and minimise plastic waste by:

- promoting sustainable manufacturing from recovered plastic wastes (3.4a1), and
- demonstrating or scaling-up sustainable and efficient approaches to the separation and collection of plastics for recycling (3.4a2);
- or promoting the manufacture and use of locally-available sustainable alternative packaging materials (3.4b);

3.4a1 Promoting sustainable manufacturing from recovered plastic wastes;

This task will support the development, scaling up or technical improvement of businesses manufacturing from recycled plastics or with the potential to do so. Opportunities for this will vary from country to country as a factor of the national manufacturing base. For example, in some countries, the focus may be on encouraging the re-processing of PET beverage bottles for use as raw materials in the production of non-food items such as textiles. Elsewhere, the focus may be on improving the re-processing of collected PE or PP from single use plastics such as drinking water bags into durable plastic construction materials. In coastal countries a third opportunity may be the recovery and re-processing of waste plastics fishing equipment (nets, ropes, crates, etc.).

Activities will work with the existing recycling sector to identify and explore opportunities to up-scale the manufacture from recovered plastics waste and will include:

- Assessment of opportunities to scale up existing manufacture from recovered plastics materials;
- Investment in capacity and technology, as relevant and feasible, to scale up manufacture from recovered plastics materials.

A key activity will be an analysis of the SODIAPLAST[9]⁹ pilot project that was successfully implemented in Guinea during AFLDC-1. Best practices and lessons learned both in the development and operation of the public- partnership, between the municipality of Conakry and SODIAPLAST, and in the recycling of plastic wastes into more durable products, will be carefully studied and sought replicated in participating countries, including through a business forum described more fully in component 1. Similarly, experience in manufacturing based on waste plastics from fishing equipment in Denmark[10]¹⁰ can be investigated and the potential for promoting private-private cooperation can be explored.

3.4a2 Demonstrating or scaling-up sustainable and efficient approaches to the separation and collection of plastics for recycling;

Informal waste pickers are engaged in the separation and collection of a variety of waste materials that have value in recycling. As such, they play a key – yet usually informal – role in many municipal solid waste systems. Unfortunately, the work is typically inefficient and financially precarious and exposes them to significant health risks, physical dangers and social isolation. Waste pickers in some participating countries are already receiving support from community-based organisations and this project will seek to build on

those efforts by working with suitable organisations, to support and scale-up their efforts towards improved plastic waste separation and collection schemes thereby diverting such materials from municipal waste streams subject to open-burning.

In some instances, schemes to provide improved opportunities for sustainable and healthy livelihoods may benefit from the formalisation of waste-picker communities into organised cooperatives with formally recognised roles within a modified municipal waste systems.

Existing private sector entities, including SMEs, with potential to participate in recycling and manufacturing of recycled materials will be identified and encouraged to participate in order to develop 'circular' flows of material. It follows that the target waste fractions to be collected will depend on a developing synergy between the materials recovered from waste streams and the resources required by local industries.

To stimulate research, investment, and SME participation and growth, local micro-credit financing mechanisms and other appropriate financing frameworks including incentives will be established on a pilot basis. These financing mechanisms and frameworks will administer seed funding, on a cost-recovery basis, to qualified participants in the delivery of plastic waste and marine plastic litter management services, within the project framework.

The micro-credit financing mechanism may take the form of loans in a revolving fund (administered by a local bank or other legally mandated institution), which can be accessed by qualified individuals and cooperatives to enable them to effectively participate in waste management. To access funding, the loan applicants could be assessed on their capacity to utilize, and ability to repay, the loans, and the viability of the proposed activities for investment. Selected applicants will be trained on basic financial management and business plan development, in addition to plastic waste and marine plastic litter management aspects. This will contribute to building local capacity in plastic management (collection, sorting and recycling), creation of decent work, enhancement of the local economy, and improving the potential for success and sustainability of the local financing mechanism.

Direct injection of project funds to finance recycling/buy-back centres and enhancement of existing re-processing activities may also take place, based on a case-by-case needs assessment, and within budget frames for this output.

To kick-start the local financing mechanism, the project will provide initial funding which may be complemented by other funding sources from other donors. This could also be coupled with the government providing import duty waivers on equipment and tax breaks for SME's for a fixed start-up period.

The performance of waste management systems, particularly those focused on 3Rs principles, relies in large part on the positive engagement of community members and local leaders who understand and support the ideals and community advantages being promoted by such programmes. Their participation in the design of such systems is fundamental to successful implementation and will be strongly promoted through project participation opportunities and communications efforts described more fully in component 2.

3.4b Promoting manufacture and use of locally-available sustainable alternative packaging materials;

In many developing countries, packaging made from single-use plastics has become ubiquitous only in the last few decades. In many cases, this packaging replaced traditional materials and resulted in the loss of artisanal and small-scale manufacturing and jobs. Traditional materials that are locally available, durable and sustainably acquired thus represent an opportunity to re-establish local employment and skills whilst reducing plastic packaging arising in waste streams. As an alternative to 3.4a described above, this sub-output can be chosen in the initial assessment of activities to be supported in the specific country case.

Activities will work with community groups and community-based organisations to identify and explore opportunities to reintroduce or promote the manufacture and use of such materials as alternatives to single-use plastics and will include:

- Assessment of traditionally-used packaging materials and other available natural materials^[11]¹¹ that could provide alternatives to plastic-based packaging, their availability and current skills for their utilization;
- Testing of suitability of materials to replace plastic packaging in certain applications;
- Assessment of opportunities to scale up or reinstate use of local materials, including assessment of potential reduction in uPOPs emissions from the replacement of plastic packaging by compostable or longer-lived items produced from local materials;
- Promotion of suitable materials to local manufacturers and importers involved in repackaging.

Output 3.5: Reduced availability and use of mercury-containing products and models for their proper disposal demonstrated

Participating countries: The Gambia, Mauritania.

This output is compatible with, and supports actions necessary for the achievement of, the regulatory and institutional arrangements developed in component 1 for Parties to the Minamata Convention on mercury. It provides first actions towards their obligations, under Article 4 of that treaty, not to allow the manufacture, import or export of listed mercury-added products after 2020^[12]¹², as well under Article 11 to manage mercury waste in an environmentally sound manner.

Actions towards compliance involve the communications campaigns with importers, and where relevant manufacturers^[13]¹³, set out in component 2. Typically, such efforts are more successful when undertaken in parallel with efforts to influence consumer demand away from such products; these are also planned as part of component 2.

This output will assist those efforts by:

- investigating the availability and flows of mercury-added products;
- providing the capacity and capability to analyse certain products suspected to contain mercury;
- providing model systems for the collection and disposal of (certain/common) mercury-added products from major consumers such as the health sector and government.

3.5a Investigating the availability and flows of mercury-added products:

Activities will build on the results of the preliminary investigation of mercury-added products undertaken during the Minamata initial assessment in each country, as data on several mercury-added products were not easily available during their mercury inventory development.

An inventory of wholesalers, importers, any manufacturers, retailers and major consumers will be developed in consultation with customs officials, import trade groups and civil society groups, as a basis for targeted awareness and communications efforts under component 2. The goals of this inventory will be:

- to identify the principal categories of mercury-added products available to local consumers;
- to determine the key elements of their trade flows; and
- to examine societal drivers of product use and opportunities to divert demand to alternative safer approaches or mercury-free and non-hazardous products.

Sampling and analysis of potentially mercury-added products will be undertaken to highlight the availability and risks posed by such products. The product types to be selected for sampled will be selected based on international and regional expertise to increase “hit rates”. Experience with other products containing heavy metals, such as lead in paint, highlights the common difficulty of distinguishing products that contain the metal from those that do not. The analysis of readily-available or on the shelf products purchased at retailers and markets has proved an effective tool in highlighting the availability of such products both to national officials and consumers[14]¹⁴.

A survey of the mercury content of certain readily-available products will be conducted in cooperation with local civil society consumer groups. Samples of products potentially containing mercury will be purchased and analysed for their mercury content. The survey will focus on products such as cosmetics that give rise to risks of direct contact. Analyses will be conducted at an independent, accredited laboratory. The results will be published to add to information from similar NGO-led studies in other countries and contribute to wider awareness raising efforts amongst all the countries participating in the project.

3.5b Providing the capacity and capability to analyse certain products suspected to contain mercury:

Hand-held XRF analysers will be provided to participating countries for their use in continuing investigation and enforcement work. Analysers will be selected among the types that can measure mercury and other heavy metals quantitatively at the ppm level in materials where the chemical of interest is present in (or near) the surface of the material. Training of environment, trade and customs officials will include XRF testing of the product samples collected above, where results can be compared with the laboratory data.

3.5c Providing model systems for the collection and disposal of mercury-added products while promoting alternatives

Systems for the separate collection, interim storage and disposal of mercury-containing products are lacking in participating countries. The project will build on successful experiences in other GEF-financed projects, in particular with the health sector, to provide specific collection schemes for mercury-added products particularly for major consumers such as public works and for the general public.

For public works, lighting products will generally be an important component of mercury-added product wastes. Departments responsible for public buildings maintenance would be encouraged to separate mercury-added lighting products from other wastes and to secure them awaiting periodic collection and transfer to interim storage.

For families, a most obvious mercury-added product would be a mercury-filled thermometer. In order to reduce risks from breakage and mercury spills at home, the project will seek to advance the retirement of such thermometers by offering to replace such items with digital thermometers. The project will seek to engage pharmacies to cooperate in creating a network for a safe collection and replacement system. Families will also be allowed to hand in other mercury-added products selected later, based on the improved inventory. This activity shall be coordinated closely with component 2 measures to secure maximum outreach to the public.

The mercury-added products collected in this way will be gathered into a central interim storage established in output 3.1 where they will be safely repackaged and stored prior to final disposal as part of the project.

Component 4: Monitoring and evaluation, learning and adaptive feedback

Outcome: Effective and efficient project delivery involving informed decision making at regional and national levels

An overview of the outputs of Component 4 is given in Table 7 below.

Table 7 Component 4 outputs

Component 4 outputs
Output 4.1: Project website created and maintained
Output 4.2: Project Steering Committees established, meetings held
Output 4.3: Yearly lessons-learned report/publication prepared and disseminated
Output 4.4: Measuring increasing awareness and understanding of the requirements for the environmentally sound management of chemicals and waste

<i>Output 4.5: End of project publication prepared and disseminated</i>
<i>Output 4.6: Mid-term and terminal project evaluations</i>

Output 4.1: Project website created and maintained

All publishable deliverables of the project will be posted on the project website, available for all project partners as well as the public. The website will be established in the first year of the project and will be maintained regularly with new materials produced, including annual and final reports.

User-friendly summaries and multimedia materials based on the project activities will be uploaded on the website periodically and proposed for partners' websites. Electronic newsletters will be regularly issued, and feedback surveys will be conducted. A feedback mechanism on the usefulness of the data and information will be included for the enhancement of the website.

Output 4.2: Regional Project Steering Committee established, meetings held

A Regional Project Steering Committee (RPSC) will be formed and will include the following organizations: a) The Regional Executing Agencies (Africa Institute and the Dakar Regional Centre); b) The African Development Bank, as the Implementing Agency; c) the National Project Coordinators and the National AfDB offices as co-executors of national projects; and d) international experts and organizations working in related initiatives (UNEP, WHO, UNDP, WB) and the GEF secretariat. The Regional Executing Agencies will act as the Secretariat for the Project Steering Committee. The role of the Project Steering Committee will assess progress made. Furthermore, the RPSC will adopt measures to facilitate implementation in countries and to adapt to changing situations. It will also review the project workplan, targets and indicators and will propose adequate changes if needed. The RSPC meeting will take place once a year.

A national Project Steering Committee (NPSC) will also be established in each participating country making full use of existing structures dealing with chemicals management (e.g. national coordination groups for POPs, mercury, SAICM, etc.). Each NPSC will comprise a group of experts from different sectors (e.g. government, private sector, academia, and NGOs) whose roles will be coordination, oversight, and advisory regarding project activities. The NPSC will seek synergies and joint activities with relevant existing and planned chemicals-related activities. The NPSC will meet and communicate as required, a meeting will be held at least once or twice a year.

A Regional Project Steering Committee (RPSC) will gather representatives of all key stakeholders in the project (IA, EA, international partners, national project focal points of participating countries) and **Output 4.3: Yearly lessons-learned report/publication prepared and disseminated**

An annual lessons-learned session will take place as part of the PSC meetings and the report from it will be disseminated through the project website, the AfDB and EAs networks, as well as through regional and global international events (COPs, International Conferences, etc.

Output 4.4: Measuring increasing awareness and understanding of the requirements for the environmentally sound management of chemicals and waste

Outputs in components 1 and 2 have as their goal the increased awareness and understanding of a wide range of stakeholders and beneficiaries of the need to take up the sound management of chemicals and wastes, in particular with regard to POPs and mercury, in order to protect human health and the environment.

It will be important to monitor awareness and understanding of the beneficiaries and stakeholders as project activities proceed. For this reason, actions in those outputs will be monitored at their start, periodically during relevant activities and at their conclusion. Interim results will be considered by output managers in order to respond appropriately through adaptive management of the outputs to ensure that planned targets are achieved. Final surveys will be included in assessments of the success of project actions and will provide important lessons for further implementation projects in the chemicals and waste portfolio of the GEF and AfDB.

Output 4.5: End of project publication prepared and disseminated

The project will produce a final report to be sent to GEF. The outcomes of the project will be published and distributed at different international events and presented in a ceremony with the participation of high level political representatives. The final publication will serve as a way to communicate the impacts of the project and to demonstrate how this project contributes to the achievement of the SDGs in each participating country and in the region.

Output 4.6: Mid-term and terminal project evaluations

Independent Mid-term Review: An independent mid-term review process (MTR) will take place at the mid-point of the project and the report will be submitted to the GEF. The MTR will include all parameters recommended by the GEF for such evaluations and will verify information gathered through the GEF core indicator worksheets, as relevant. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing, or advising on the project to be evaluated. The GEF Operational Focal Points and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the EA and AfDB. The final MTR report will be available in English and will be cleared by EA and AfDB and approved by the PSC.

Terminal Evaluation: An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The TE process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Regional Project Manager will remain on contract until the TE report and management response have been finalized. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. The terms of reference, evaluation process, and final TE report will follow the standard templates and guidance prepared by AfDB, based on the GEF guidance. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing, or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the TE process. Formal comments on the report will be shared in an open and transparent manner. Additional quality assurance support is available from EA and AfDB. The final TE report will be reviewed and cleared by AI and AfDB, and will be approved by the PSC. A review of the quality of the evaluation report will be submitted along with the TE report to the GEF Evaluation Office not later than six months after the completion of the evaluation. The TE report will be publicly disclosed.

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

The project addresses three key objectives of the Chemicals and Waste focal area:

- CW11: Strengthening the sound management of industrial chemicals and their waste through better control, and reduction and/or elimination;
- CW12: Strengthening the sound management of agricultural chemicals and their waste through better control, and reduction and/or elimination;
- CW23: Strengthening the enabling environments in LDCs and SIDs to manage harmful chemicals and waste.

Through these actions, it will also contribute to the better understanding of POPs and mercury issues in the participating countries and thus indirectly contribute to the fourth chemicals and waste objective:

- CW-EA: Strengthen the capacity of countries to report to the Minamata and Stockholm Conventions

All the participating countries are LDCs. The project seeks to deepen and broaden their capacity and knowledge to manage chemicals and wastes, extending awareness beyond those directly responsible for the implementation of legal and regulatory regimes to facilitate the mainstreaming of chemicals and waste objectives into policies and strategies towards the achievement of the sustainable development goals, the African Union Agenda 2063 goals and African Development Bank “High 5s” goals.

Activities in the project are designed to **engage industry**, including through public private partnerships, in actions that either avoid POPs and mercury use or reduce and where possible eliminate their emissions.

The project outputs address remaining issues of **agricultural POPs**, including accumulations of obsolete POPs pesticides, and emissions of unintentional POPs from open-burning. It will seek to boost rural livelihoods by increasing the capacity of farmers to improve plant protection without POPs chemicals and to boost income diversification, including, where practical, the use of local materials as substitutes for short-lived and single-use plastics.

The project will contribute to the **sustainable cities impact programme** by addressing POPs and mercury issues both in products and in **waste management and recycling**, including of **PCBs and mercury**. In completing and adopting appropriate and up-to-date legal and regulatory frameworks, there will be opportunities to extend their scope to include **SAICM emerging policy issues** such as lead in paint.

The project will build the capacity of public-sector officials, and their trade partners in industry, to avoid procurement of mercury-added products and to engage beneficiary stakeholders in order to boost behavioural change amongst those principally urban consumers of POPs and mercury-added products. Communications using, for example, social media on mobile devices, that provide direct links to consumers that might otherwise not engage are seen as an important tool in this regard and can help to **overcome gender-based discrimination** in decision making in relation to, for example, mercury-added cosmetics and other products thus gaining access for a wider range of actions relating to improving chemicals management.

It will seek to engage extractive industries, including cement industry and non/ferrous metal industry, in improving the understanding of the POPs and mercury emissions and releases they generate and the BAT/BEP required under the Minamata Convention.

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

All the countries participating in this project have been active participants in negotiations and meetings leading to the agreement and adoption of the chemicals and waste MEAs and SAICM. All are Parties to the Basel^[15] and Stockholm Conventions and have become, or declared their intentions to become, Parties to the Rotterdam and Minamata Conventions. They have benefitted from GEF enabling activities to develop national implementation plans for POPs and have carried out, or are planning for carrying out, Minamata initial assessments (MIAs) for mercury.

As a result of these activities, they have – as far as their resources and capabilities have allowed – amended or drafted legislation compatible with their obligations under the chemicals and waste MEAs. They have established, and in some cases updated, national plans that include the actions necessary to bring them into compliance with their obligations under the conventions. Furthermore, they have established basic infrastructure and defined direct responsibilities for the enforcement of the legal and regulatory regime and to lead implementation efforts. This infrastructure and the cadre of responsible officials taking forward implementation represent the in-kind contribution of the participants to the baseline of the project.

Also, within the baseline is the considerable financial assistance made available to participating countries through a series of thematic ‘windows’ of the African Development Bank for key regional and national development initiatives. This assistance represents the cash co-financing being made available to the project.

Despite the baseline contributions being made, it is clear that African LDCs have not yet succeeded in building the broader awareness and capacity necessary across government to ensure that initiatives to address priority chemicals and waste issues are mainstreamed within national sustainable development planning and implementation. Furthermore, current efforts to engage industry and civil society stakeholders have to date been inadequate to change their behaviour towards the avoidance of risks to human health and the environment from chemical and waste. Further efforts are necessary to engage a wide variety of stakeholder groups, to demonstrate alternative approaches and to replicate appropriate and successful actions demonstrated elsewhere.

The cost of these necessary additional efforts, that constitute the activities to be undertaken in the project, represent the incremental cost of the alternative scenario presented above. This incremental cost is efficient because it establishes direct links between chemicals and waste activities and broader, and typically much larger, initiatives directed at key stakeholder groups or priority national issues; in this way it serves effectively to mainstream the chemicals and waste actions and to safeguard development from chemicals and waste risks. The project seeks this incremental cost from the GEFTE.

The incrementality of the AFLDC2 project vis-à-vis the AfDB baseline projects is summarised for each participating country in the tables below (see the description of the baseline projects in the baseline projects section above).

Table 8 links to the Angola baseline project

Baseline project	<i>Fall Armyworm (FAW) Program in Angola.</i> Assistance and resources to control the FAW pest. The baseline project budget is USD1,178,679. [The administrative costs, a final workshop and “unforeseen” costs are not considered as co-financing]		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1 ..Enabling environment and national enforcement..	Training of the agricultural sector, including trainers and farmers, in the combatting of the FAW Institutional capacity building, dissemination of good practices in plant protection with a budget of: USD415,740	A wide set of techniques are required to control the FAW pest. The legislative and infrastructural assistance and capacity building of the AFLDC2 can secure that POP pesticides use is reduced or eliminated and that integrated pest management (IPM) approaches, securing maximum effect and least environmental and health impacts, are well known and available to the sector.	POP pesticides and other POPs and mercury
2 Communicating ..	Awareness of the agricultural sector on combatting the FAW Information, education and communication. Budget of USD: 17,066	The AFLDC2 can improve the knowledge of policy makers and all other relevant stakeholders and thereby support the efforts nationally to eliminate POP pesticides and use less harmful alternatives for controlling the FAW and other pests. The FAW Programme can support the dissemination of these messages in the sector and increase motivation among the stakeholders.	POP pesticides and other POPs and mercury
3.2 POPs pesticides wastes destroyed [if accepted by Angola]	Selection and purchasing of pesticides for combatting the FAW Acquisition of pesticides and equipment necessary for their application and Training in the safe, effective and efficient use of synthetic pesticides, and seed dressing and treatment, with a budget of USD247,923	AFLDC-2 secures the environmentally safe collection and treatment of POP pesticides identified in the country.	POP pesticides

3.4 uPOPs reductions	Technical Assistance in Plant Protection, Agroecological Practices and Agrarian Policy, with a budget of USD300,000	<p>The FAW project has a broad rural contact and can – with the assistance of AFLDC2 – promote avoidance of open waste burning which is particularly prevalent in rural areas, and recycling of agricultural plastics.</p> <p>[any other reasonable incremental reasoning?]</p>	uPOPs and mercury
4 Monitoring and evaluation..	Monitoring and evaluation activities	The AfDB FAW Programme staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.	NA

Table 9 links to the Ethiopia baseline project

Baseline project	<p><i>Integrated Agro-Industrial Parks (IAIPs) - Support Project in Ethiopia.</i></p> <p>Assistance and resources for the implementation of agro-industrial parks to support annual growth, industrialization and agricultural transformation with resulting creation of jobs and reduction of property.</p> <p>The BLP budget is USD 85.95 million.</p>		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1.Enabling environment and national enforcement.	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project, including through training and awareness of the agricultural sector, their trainers, industry partners and farmers, in possibilities for increased productivity and domestic processing, while promoting a strategic and sustainable market approach.</p> <p>The baselines project includes a component on Capacity Building for Sustainable Agro-Industrialization, which entails: Enhanced management of IAIPs and RTCs[1], Improved capacity along the target value chains, and Development of quality and relevant skills for agro-industrialization. The budget for this component is: USD12.12mm</p>	To sustainably increase the productivity and domestic industrial processing, it is of key importance to secure adequate and environmentally safe management of chemicals and waste in the agricultural sector. AFLDC-2 can enhance this through the supporting national enabling structures for the purpose (legislation and infrastructure), capacity building of national and local government officials and other key stakeholders, and awareness raising in the sector and among its partners and consumers.	POP pesticides and other POPs and mercury
2 Communicating.	See Component 1 above	See Component 1 above	POP pesticides and other POPs and mercury
3.1 Hazardous waste storage facility	<p>Establishing infrastructure and creating the operational frameworks of the agro-industrial parks and associated transformation centres</p> <p>The relevant baseline project includes Development of Waste (liquid and solid) Management Plants on 4 IAIPs. The relevant budget is interpreted as USD18.49mm</p>	AFLDC-2 can contribute to designing ESM frameworks for chemicals and waste in the baseline project, including proper management of wastes of agricultural and agro-industrial chemicals such as pesticides used in crop protection and mercury potentially used in temperature and pressure control in meat and dairy processing. ESM of such chemical waste include the safe separate collection, storage and treatment, of which a national facility for interim storage of such hazardous waste awaiting final treatment is a key component.	POP pesticides and other POPs and mercury

3.2 POPs pesticides elimination	Establishing infrastructure and creating the operational frameworks of the agro-industrial parks and associated transformation centres The relevant budget is USD18.49mm.	Avoiding and eliminating POP pesticides in agriculture and rural living is a key requirement in reducing the exposure of farmers and their families to these hazardous chemicals. This is also an important factor in increasing the national agricultural production in a sustainable manner.	POP pesticides
4 M&E	Monitoring and evaluation activities	The AfDB FAW Programme staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.	NA

Table 10 links to the Gambia baseline project

Baseline project (BLP)	<p><i>Port and Greater Banjul Area Digital Masterplan and Capacity Building Program in Gambia.</i></p> <p>The BLP budget is USD3mm. (n.b. the total project budget is USD3mm, though the proportions are taken from the original proposed budget table of USD3.5mm).</p>		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1..Enabling environment and national enforcement..	<p>Improve waste management coming from urban areas and ship barges in the port (in the form of clean up and capacity building).</p> <p>The BLP has resources for capacity building of municipalities and the port authority, and technical assistance to support municipalities develop. The budget is: USD865,714</p>	AFLDC-2 can enhance environmentally safe management (ESM) of waste in the municipalities involved and the country at large through supporting national enabling structures for the purpose (legislation and institutional infrastructure), capacity building of national and local government officials and other key stakeholders, and awareness raising among key stakeholders and to the public.	POP pesticides and other POPs and mercury
2 Communicating..	As for Component 1	As for Component 1	As above
3.4 uPOPs reductions	The BLP includes a component to prepare a digital Masterplan for the 3 Municipalities including GIS mapping plus Data Centre, including a property and commercial tax improvements component, and development of a 5 year Urban Development Investment Plan. The budget (across 3.4 and 3.5) is: USD 857,143	AFLDC-2 can enhance environmentally safe management (ESM) of waste in the municipalities involved through promoting separate collection and usage of plastics and promoting sustainable local packaging materials production.	uPOPs
3.5 Mercury products	The BLP includes a component to prepare a digital Masterplan for the 3 Municipalities including GIS mapping plus Data Centre, including a property and commercial tax improvements component, and development of a 5 year Urban Development Investment Plan. The budget (shared across 3.4 and 3.5) is: USD 857,143	To reduce the input of the toxic chemical mercury to municipal solid waste, AFLDC can promote the use of environmentally safer alternatives to mercury-added products in the baseline project and ensure collection and ESM of waste mercury-added products used by families, industry and the health sector. This can serve as an example in the country of the need for separate collection and treatment of hazardous waste.	Mercury

4 M&E	Monitoring and evaluation activities	The AfDB BLP staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.	NA
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Table 11 links to the guinea baseline project

Baseline project	<p><i>Program for the Development of Boke and Kankan Agro-Food Transformation Areas in Guinea.</i></p> <p>Assistance and resources for the increasing domestic supply of agricultural products through governance and incentives for agro-parks management, infrastructure development supporting agricultural transformation and support to key players in priority sub-sectors.</p> <p>The total BLP budget is USD84.99million.</p>		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1..Enabling environment and national enforcement..	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project, including through training and awareness of the agricultural sector, their trainers, partners and farmers, in possibilities for increased productivity and domestic processing.</p> <p>The BLP includes support to the governance and other measures of the agro-food transformation areas, and support for key actors in priority agricultural domains (including capacity building for agricultural producers and local communities, and central and decentralised services). The budget is: USD31.43mm</p>	To sustainably increase the productivity and domestic industrial processing, it is of key importance to secure adequate and environmentally safe management of chemicals and waste in the agricultural sector. AFLDC-2 can enhance this through the supporting national enabling structures for the purpose (legislation and infrastructure), capacity building of national and local government officials and other key stakeholders, and awareness raising in the sector and among its partners and consumers.	POP pesticides and other POPs and mercury
2 Communicating..	<p>See Component 1 above</p> <p>The BLP includes a sub-component of setting up a communications plan. The funds interpreted for this are: USD100,000</p>	See Component 1 above	See above

3.3 PCB	<p>Establishing infrastructure and creating the operational frameworks of the agro-industrial parks and associated agricultural production areas</p> <p>Infrastructure development for the agricultural transformation, including infrastructure to service the agro-parks, to access agricultural inputs and services, and support infrastructure for agricultural production. The budget is (shared across components 3.3 and 3.4): USD23.38mm</p>	Access to the power grid is an important part of the infrastructure of agro-industrial zones and in general for rural growth. AFLDC2 can secure that toxic PCB is removed from the power grid and introduce modern PCB-free equipment.	
3.4 uPOP reductions	<p>Establishing infrastructure and creating the operational frameworks of the agro-industrial parks and associated agricultural production areas</p> <p>Infrastructure development for the agricultural transformation, including infrastructure to service the agro-parks, to access agricultural inputs and services, and support infrastructure for agricultural production. The budget is (shared across components 3.3 and 3.4): USD23.38mm</p>	AFLDC-2 can enhance the possibilities for implementing proper ESM and circular economy approaches for plastics waste and crop wastes in the agricultural sector to increase optimal re-use of valuable materials, including crop sequestered carbon, and reduce open burning resulting in uPOPs emissions. Additionally, open waste burning is particularly prevalent in rural areas, and AFLDC-2 can create outreach to rural population through the baseline project.	uPOPs
4 M&E	Monitoring and evaluation activities	The AfDB FAW Programme staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.	NA

Table 12 links to the Liberia baseline project

Baseline project	<p><i>Staple Crops Processing Zones Project in Liberia.</i></p> <p>The Project development goal is to contribute to inclusive and sustainable agro-industrial development in Liberia, and in the process reduce staple food imports, create jobs and reduce poverty. The project objectives are to i) create a better business environment for increased investment in agro-industrial sectors, ii) create opportunities for investments at the industrial level and coordinate the integration of small holder farms, and agro processing industry into sustained agro value chains and, iii) improve capacities and skills to benefit from new agribusiness employment and value chain opportunities.</p> <p>The BLP total budget is USD5mm (million).</p>		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1..Enabling environment and national enforcement..	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project, including through training and awareness of the agricultural sector, their trainers, industry partners and farmers, in possibilities for increased productivity and domestic processing, while promoting a strategical and sustainable market approach.</p> <p>The relevant BLP sub-components include: Support to the PDU and the Inter-ministerial Committee for the development of a strategy and a roadmap for the operationalization of the SEZ Authority; Capacity building in negotiation and contract management of the SEZ and promoting targeted investments towards SEZ; Support for the implementation of an enabling policy related to local transformation; Support for the implementation of the standards system; Support and strengthen trade regulations to create enabling environment for exports; Support for business environment reforms and investor incentives</p> <p>The BLP budget for these co-financing activities is: USD500,000</p>	<p>To sustainably increase the productivity and domestic industrial processing, it is of key importance to secure adequate and environmentally safe management of chemicals and waste in the agricultural sector. AFLDC-2 can enhance this through the supporting national enabling structures for the purpose (legislation and infrastructure), capacity building of national and local government officials and other key stakeholders, and awareness raising in the sector and among its partners and consumers.</p>	POP pesticides and other POPs and mercury
2 Communicating.	<p>See Component 1 above</p> <p>Support investment promotion events to enable the private sector occupation of the SCPZ in Buchanan</p> <p>The interpreted co-financing from this sub-component is USD200,000</p>	See Component 1 above	See above

3.2 POPs pesticides	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project.</p> <p>Several BLP sub-components are relevant to the project including: Support the development of external infrastructure in the SEZ, Develop Master Plans and Full Feasibility Studies for the SCPZ, Provide support to infrastructure development in the industrial park (fencing, internal road and drainage network, water supply, wastewater/effluent plant and management, power connectivity/electricity Supply, lighting, telecommunication connectivity, Administrative Building, Ware Houses, One Stop shop Services, parking lot, etc), Support investment promotion events to enable the private sector occupation of the SCPZ in Buchanan, Provide support for rural based infrastructure, Development of 2 Rural Transformation centers and 4 Aggregation centers, Enhance farmer production and productivity, Skills Development, in line with agro industrial demand/requirements, and Entrepreneurship development</p> <p>The BLP budget for these activities is split across component 3.2, 3.3: USD1.27mm</p>	AFLDC-2 secures the environmentally safe collection and treatment of POP pesticides identified in the country and promotes Integrated Pests Management.	POP pesticides
3.3 PCBs	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project</p> <p>Several BLP sub-components are relevant to the project including: Support the development of external infrastructure in the SEZ, Develop Master Plans and Full Feasibility Studies for the SCPZ, Provide support to infrastructure development in the industrial park (fencing, internal road and drainage network, water supply, wastewater/effluent plant and management, power connectivity/electricity Supply, lighting, telecommunication connectivity, Administrative Building, Ware Houses, One Stop shop Services, parking lot, etc), Support investment promotion events to enable the private sector occupation of the SCPZ in Buchanan, Provide support for rural based infrastructure, Development of 2 Rural Transformation centers and 4 Aggregation centers, Enhance farmer production and productivity, Skills Development, in line with agro industrial demand/requirements, and Entrepreneurship development</p> <p>The BLP budget for these activities is split across component 3.2, 3.3: USD1.27mm</p>	Access to the power grid is an important part of the infrastructure of agro-industrial development and in general for rural growth. AFLDC2 can secure that toxic PCB is removed from the power grid and introduce modern PCB-free equipment.	
4 M&E	Monitoring and evaluation activities	The AfDB FAW Programme staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.	NA

Table 13 links to the Mauritania baseline project

Baseline project	<p><i>Agricultural Transformation Support Project (Patam) in Mauritania.</i></p> <p>Promote: (a) value chains (support for the establishment of agro-industrial processing zones); (b) youth and women's entrepreneurship and; (c) the establishment of guarantee funds for agricultural sector financing. The project will help to modernise irrigation systems, promote agricultural transformation and value chains, develop youth and women's entrepreneurship, set up innovative and inclusive financing, and disseminate the requisite technical and organisational knowledge (use of the various information systems to be set up, agricultural advisory, etc.) to its stakeholders.</p> <p>The BLP budget is UA13.9million/ USD19.55mm.</p>		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1..Enabling environment and national enforcement..	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project, including through training and awareness of the agricultural sector, their trainers, partners and farmers, in possibilities for increased productivity and domestic processing.</p> <p>The BLP includes promotion of value chains, youth and women's entrepreneurship (notably technical support, support for IPM, promotion on youth and women's entrepreneurship, and inclusive financing. The budget is USD4.28million</p> <p>There is a capacity building and project coordination sub-component in the BLP. The capacity building contribution is considered to be USD750,000</p>	<p>To sustainably increase the productivity and domestic industrial processing, it is of key importance to secure adequate and environmentally safe management of chemicals and waste in the agricultural sector. AFLDC-2 can enhance this through the supporting national enabling structures for the purpose (legislation and infrastructure), capacity building of national and local government officials and other key stakeholders, and awareness raising in the sector and among its partners and consumers.</p>	POP pesticides and other POPs and mercury
2 Communicating..	See Component 1 above	See Component 1 above	See above

3.3 PCBs	<p>Ensuring good investment conditions for private sector and long-term sustainability of agro-industrial activities promoted by the project</p> <p>The BLP contains a component on Transformative irrigation infrastructure, notably with environmental and social measures, and control of the construction</p> <p>The budget is shared across 3.3, and 3.5: USD3.18mm</p>	<p>Access to the power grid is an important part of the infrastructure of agro-industrial development and in general for rural growth. AFLDC2 can secure that toxic PCB is removed from the power grid and introduce modern PCB-free equipment.</p>	PCBs
3.5 Mercury products	<p>Establishing infrastructure and creating the operational frameworks of the agro-industrial parks and associated agricultural production areas</p> <p>The BLP contains a component on Transformative irrigation infrastructure, notably with environmental and social measures, and control of the construction</p> <p>The budget is shared across 3.3, and 3.5: USD3.18mm</p>	<p>AFLDC can promote the use of environmentally safer alternatives to mercury-added products in the baseline project and ensure collection and ESM of waste mercury-added products used on agricultural processing and veterinarian practices.</p>	Mercury
4 M&E	Monitoring and evaluation activities	<p>The AfDB FAW Programme staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.</p>	NA

Table 14 links to the Senegal baseline project

Baseline project	<p><i>Premier Programme De Modernisation Des Villes (Promovilles-1) in Senegal.</i></p> <p>At the specific level, the project will be providing involved municipalities with infrastructure by: (i) constructing and / or rehabilitating approximately 77.46 km of roads; (ii) the construction of concrete ditches for the rehabilitation of roads; (iii) the installation of candelabras for public lighting; and (iv) landscaping. Related facilities consisting of socio-economic infrastructure and support for women and young people are also planned as well as support for municipal technical services and training of young people in road maintenance trades through training yards.</p> <p>The full cost of the BLP is UA107.12 million/ USD 149.84 million.</p>		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1..Enabling environment and national enforcement..	<p>Ensuring long-term durability and safety of the improved road through training, awareness raising and maintenance procedures to avoid improper waste disposal in road ditches, resulting in road deterioration and disruption of traffic safety.</p> <p>The baseline project includes training and urban planning studies. The budget is: USD4.15 million</p>	<p>Enhancing environmentally safe management (ESM) of waste in the city is of key importance to the sustainable and long-term durability of the improved road system. AFLDC-2 can enhance this through supporting national enabling structures for the purpose (legislation and institutional infrastructure), capacity building of national and local government officials and other key stakeholders, and awareness raising among key stakeholders and to the public.</p>	POP pesticides and other POPs and mercury
2 Communicating..	See Component 1 above	See Component 1 above	See above
3.1 Hazardous waste storage facility	<p>The links to the baseline project include Development or / and rehabilitation of Infrastructures (notably, the construction of roads, street lighting, landscaping, raising awareness of environmental protection, and environmental monitoring) and related measures</p> <p>The budget for these in the BLP is: USD71.12million</p>	<p>ESM of municipal waste includes the safe separate collection, storage and treatment of hazardous waste that will otherwise be co-mingled with the municipal solid waste. A national facility for interim storage of such hazardous waste awaiting final treatment is a key component in integrated waste management.</p>	POP pesticides, other POPs and mercury
4 M&E	Monitoring and evaluation activities	The AfDB FAW Programme staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.	NA

Table 15 links to the Sierra Leone baseline project

Baseline project	<p><i>Agro-Industry And Rice Value Chain Support Project (Slaris) in Sierra Leone.</i></p> <p>The specific objective of the project is the promotion of priority agricultural value chains (including rice, maize and horticulture) as a viable and inclusive business opportunity through enhanced production, productivity and value addition. This will be addressed through three components: (1) Support to Agricultural Production, Productivity and Agro-Industrial Development; (2) Agribusiness Youth Empowerment and Capacity Development, and (3) Institutional Capacity Development and Project Management.</p> <p>The total BLP budget is ISD11.93 million.</p>		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1..Enabling environment and national enforcement..	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project, including through training and awareness of the agricultural sector, their trainers, partners and farmers, in possibilities for increased productivity and domestic processing.</p> <p>The BLP includes a capacity building component of USD408,800</p>	To sustainably increase the productivity and domestic industrial processing, it is of key importance to secure adequate and environmentally safe management of chemicals and waste in the agricultural sector. AFLDC-2 can enhance this through the supporting national enabling structures for the purpose (legislation and infrastructure), capacity building of national and local government officials and other key stakeholders, and awareness raising in the sector and among its partners and consumers.	POP pesticides and other POPs and mercury
2 Communicating..	<p>The BLP includes outreach, specifically the ENABLE NJALA Youth Empowerment Program and a Farmer Outgrowers Scheme. The combined budget is: USD3.8million</p>	See Component 1 above	See above

3.2 POPs pesticides	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project</p> <p>The BLP project includes a component on support to agricultural input production & distribution systems, with: Research, Development and Multiplication; Seed Testing, Inspection and Certification; and Agricultural Input Distribution Systems. The total budget (shared across components 3.2, and 3.3) is: USD1.67 million</p>	AFLDC-2 secures the environmentally safe collection and treatment of POP pesticides identified in the country.	POP pesticides
3.3 PCBs	<p>Ensuring good investment conditions for private sector and long-term sustainability of agro-industrial activities promoted by the project</p> <p>The BLP project includes a component on support to agricultural input production & distribution systems, with: Research, Development and Multiplication; Seed Testing, Inspection and Certification; and Agricultural Input Distribution Systems. The total budget (shared across components 3.2 and 3.3) is: USD1.67 million</p>	Access to the power grid is an important part of the infrastructure of agro-industrial development and in general for rural growth. AFLDC2 can secure that toxic PCB is removed from the power grid and help promote modern PCB-free equipment.	
4 M&E	Monitoring and evaluation activities	The AfDB FAW Programme staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.	NA

Table 16 links to the Togo baseline project

Baseline project	<p><i>Integrated Agro-Industrial Parks - Support Project In Togo.</i></p> <p>Assistance and resources for the implementation of agro-industrial parks to support annual growth, industrialization and agricultural transformation with resulting creation of jobs and reduction of property.</p> <p>The total budget of the BLP is UA45.07million/USD32.19 million.</p>		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1..Enabling environment and national enforcement..	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project, including through training and awareness of the agricultural sector, their trainers, industry partners and farmers, in possibilities for increased productivity and domestic processing, while promoting a strategical and sustainable market approach.</p> <p>The identified activities from the BLP include: Support policy, governance and incentive measures, and Capacity building for actors in priority agricultural sectors.</p> <p>The relevant budget is USD6.66 million</p>	<p>To sustainably increase the productivity and domestic industrial processing, it is of key importance to secure adequate and environmentally safe management of chemicals and waste in the agricultural sector. AFLDC-2 can enhance this through the supporting national enabling structures for the purpose (legislation and infrastructure), capacity building of national and local government officials and other key stakeholders, and awareness raising in the sector and among its partners and consumers.</p>	POP pesticides and other POPs and mercury
2 Communicating..	See above.	As for Component 1 above	POP pesticides and other POPs and mercury
3.2 POPs pesticides	<p>Ensuring long-term sustainability of agro-industrial activities promoted by the project.</p> <p>The BLP's development of processing and access infrastructure relates to the AfLDCs-2 project, and can be considered relevant to components 3.2 and 3.3.</p> <p>The budget (split equally across Component 3 outputs is: USD20.73 million</p>	AFLDC-2 secures the environmentally safe collection and treatment of POP pesticides identified in the country.	POP pesticides

3.3 PCBs	<p>Ensuring good investment conditions for private sector and long-term sustainability of agro-industrial activities promoted by the project.</p> <p>The BLP's development of processing and access infrastructure relates to the AfLDCs-2 project, and can be considered relevant to components 3.2 and 3.3.</p> <p>The budget (split equally across Component 3 outputs is: USD20.73 million</p>	<p>Access to the power grid is an important part of the infrastructure of agro-industrial development and in general for rural growth. AFLDC2 can secure that toxic PCB is removed from the power grid and introduce modern PCB-free equipment.</p>	
4 M&E	Monitoring and evaluation activities	<p>The AfDB FAW Programme staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.</p>	NA

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Table 17 links to the Uganda baseline project

Baseline project	<i>Kampala City Roads Rehabilitation Project in Uganda.</i> USD288 million total budget.		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBS targeted
1..Enabling environment and national enforcement..	<p>Ensuring long-term durability and safety of the improved road through training, awareness raising and maintenance procedures to avoid improper waste disposal in road ditches, resulting in road deterioration and disruption of traffic safety.</p> <p>The road construction works component has multiple elements: 5km of storm water drainage works, signalization of 11 junctions, smart street lighting, tree planting, 6 roadside markets for women vendors, 30 public toilets, parking areas for trucks and bike taxis, and construction of bus depot. The budget is:</p> <p>USD246.20 million</p>	Enhancing environmentally safe management (ESM) of waste in the city is of key importance to the sustainable and long-term durability of the improved road system. AFLDC-2 can enhance this through supporting national enabling structures for the purpose (legislation and institutional infrastructure), capacity building of national and local government officials and other key stakeholders, promotion of best practices (integrated waste management, etc.) and awareness raising among key stakeholders and to the public. The improved road system will also enhance possibilities for effective waste collection.	POP pesticides and other POPs and mercury
2 Communicating	Communications in the baseline project comes mainly through women and youth skills development, including basic construction and entrepreneurship development, business skills and facilitation of reimbursable financing, and institutional capacity building. The budget is: USD3.85 million	As for Component 1 above	See above
3.3 PCBs	Solid waste management services is contained within Project Management: The total budget is: USD14.95 million	AFLDC-2 can help modernize the power grid system by replacing toxic PCB-containing transformers with modern PCB-free equipment, thereby providing a safer and more sustainable power infrastructure.	
3.4 uPOPs reductions	Under solid waste management services, as per component 3.3	AFLDC-2 can enhance the possibilities for implementing proper ESM and circular economy approaches for plastics waste to increase optimal re-use of valuable materials and reduce open burning resulting in uPOPs emissions.	uPOPs

4 M&E	Monitoring and evaluation activities. A budget for M&E is included in component 1.	The AfDB BLP staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.	NA
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Table 18 links to the Zambia baseline project

Baseline project	<i>Fall Armyworm (FAW) Program in Zambia.</i> Assistance and resources to control the FAW pest. BLP project total of USD5,000,000		
AFLDC-2 comp. /output	Relevant baseline project activities (linkages)	Incremental GEF activities	GEBs targeted
1. Enabling environment and national enforcement.	Training of the agricultural sector, including trainers and farmers, in the combatting of the FAW Training takes place across multiple outputs and activities. The combined training budget is: USD 1,050,000	A wide set of techniques are required to control the FAW pest. The legislative and infrastructural assistance and capacity building of the AFLDC2 can secure that POP pesticides use is reduced or eliminated and that integrated pest management (IPM) approaches, securing maximum effect and least environmental and health impacts, are well known and available to the sector.	POP pesticides and other POPs and mercury
2 Communicating.	Awareness of the agricultural sector on combatting the FAW Communications and awareness raising takes place across multiple outputs and activities. The combined budget is: USD 1,476,000	The AFLDC2 can improve the knowledge of policy makers and all other relevant stakeholders and thereby support the efforts nationally to eliminate POP pesticides and use less harmful alternatives for controlling the FAW and other pests. The FAW Programme can support the dissemination of these messages in the sector and increase motivation among the stakeholders.	POP pesticides and other POPs and mercury
3.1 Hazardous waste storage facility	Selection of pesticides for combatting the FAW The relevant budget is: USD200,000 Notable activities include: <ul style="list-style-type: none"> · Training of farmers in pesticide in safe management of empty pesticide containers · Procure protective clothing 	In the selection of pesticides for the FAW control, it is important that POP pesticides available in the country are avoided and that identified obsolete pesticides can be stored at in environmentally safe storage facility that will be secured by the AFLDC-2 project, while awaiting destruction.	POP pesticides and other POPs and mercury

3.2 POPs pesticides	<p>Selection and purchasing of pesticides for combatting the FAW</p> <p>The relevant budget is: 699,000</p> <p>Notable activities include:</p> <ul style="list-style-type: none"> · Procurement of the identified and recommended safe biological pesticides and low risk synthetic pesticides · Training of camp extension officers in pesticide risk reduction · Training of farmers in pesticide risk reduction 	AFLDC-2 supports inventory development for POP pesticides and secures the environmentally safe collection and treatment of POP pesticides identified in the country.	POP pesticides
4 M&E	Monitoring and evaluation activities	The AfDB BLP staff in the country will monitor the AFLDC-2 project execution and ensure adequate progress and adaptive feedback.	NA

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

Local emissions and releases of POP and mercury contribute directly to the global environmental pressure from these hazardous chemicals through their atmospheric transport over global distances. The activities of the project are designed to contribute the following global environmental benefits:

- Reduction, and wherever possible, elimination of trade and use of mercury-added products through their replacement with appropriate mercury-free alternatives. The reduction of inputs of mercury with products and materials to the 11 project countries is estimated at 38 tonnes based on MIA inventory results, and where MIA's are still not developed, derived from the Global Mercury Assessment (GMA) 2018 (using GMA methodology). Considering that a successful implementation of the project will reduce the input of mercury with products over many years, the impact will however be considerably larger.
- Reduction of risks from accumulations of 334 tonnes of obsolete POPs pesticides through their environmentally sound management and destructions.
- Reduction of emissions and releases of 459 tonnes of PCBs from electrical equipment through improved environmentally sound management and destruction;
- Establishment of a permanent interim storage facility for safe storage and safeguarding of highly hazardous wastes will limit exposure and minimise the health and environmental risks associated with POPs and mercury.
- The permanent interim storage facility, once operational will lead to avoidance of an estimated future 5,000 tonnes of POPs and 100kg of mercury from leaking into the environment and prevent health exposure. Reduced emissions of uPOPs. (330 gTEQ), primarily from an objective of 20% reduction in the open burning of municipal solid waste,

including medical waste. Reductions of open burning of waste will also reduce emissions of mercury from the burning of mercury-added products and from trace levels in other waste materials.

- Improved understanding, through convening an industry conference on the project topics, of mercury emissions from industrial point sources, such as cement clinker production and non-ferrous metal smelters, and any BAT/BEP investment needs in such sector. The contributions to global mercury emissions from industry in Sub-Saharan Africa was estimated at about 42 tonnes/y in the 2018 Global Mercury Assessment, of which a part comes from the project countries;

The project addresses GEF7 Core Indicators 9, 10 and 11 and their constituent indicators as set out in Annex F.

- 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)
- Reduction, avoidance of emissions of POPs to air from point and non-point sources (grams of toxic equivalent gTEQ)
- Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

For a description of the estimation methods applied, see the Core Indicator Worksheet (Annex F).

7) Innovation, sustainability and potential for scaling up

Innovation

This project is innovative in its promotion of Circular Economy approaches[1]. Circular Economy is a change of the mindset of consumers, private sector and public actors, that is partly already prevalent in the African setting[2], and partly depend on major long-term changes in perception and outlook. Promotion of Circular Economy requires economy, awareness and frameworks; this project supports all of these:

- **Economy:** In this project, investments will be made that will 1) increase the collection and recovery of valuable waste materials[3], and 2) help remove hazardous chemicals from circulation that would otherwise hamper sustainable circulation. It will also promote awareness and establishment of frameworks that contribute to making circulated/recycled materials economically competitive against new materials (the latter currently still dominate the market). For example, it will increase business-to-business networking national through involvement of private sector in the project implementation, and regionally through the planned conference and fair on recycling/Circular Economy in the plastics sector, and thereby help pave the way for better prices for recovered materials through increased competition.
- **Awareness:** A slowly growing consciousness among consumers and other stakeholders is emerging, that we are globally moving into an era where new materials are gradually becoming more scarce. As long as virgin materials are less costly than the circulated materials, the crucial tool for increasing Circular Economy is awareness amongst consumers and other stakeholders to reverse the trend. This project has a strong awareness raising component where Circular Economy and environmentally safe management of waste are key elements.
- **Frameworks:** Effective Circular Economy requires a higher level of organisation in society. This project will promote adoption and implementation of regulation and practical frameworks that may include incentives that are key elements in promoting/establishing Circular Economy.

This project is innovative in directly linking national action plans defined for POPs and mercury to broader development strategies and programmes with development financing. This approach will serve to demonstrate the benefits of mainstreaming in driving forward the implementation of chemicals and waste objectives and, at the same time, significantly increasing the cadre responsible for development actions considering and integrating chemicals and waste actions and ensuring their sustainability.

The project is also innovative in its emphasis on communication as a basis for engaging stakeholders, including beneficiaries, to drive demand-led changes in market behaviour towards the avoidance of products containing POPs or mercury. This extends the ‘community of practitioners’ implementing chemicals and waste objectives beyond those directly responsible for policy implementation to a much larger group of actors including procurement officials, suppliers and consumers.

The project will promote innovation through exchange of technologies, practices, and approaches that have been applied elsewhere in the region and which have proven successful and considered to be fitting for local or national circumstances. Other approaches that have not yet been tested in the region, but which are deemed to be technically and financially feasible and sustainable will also be investigated especially in the area of plastic recycling.

Sustainability

There are several aspects that will be addressed and supported by the project which will contribute towards sustaining the project’s results beyond the project’s duration:

- The permanent interim storage facility for safe storage and safeguarding of highly hazardous wastes established under the project be sustained through the application of “polluter pays principle”. The owners of hazardous waste will be required to pay an agreed fee during the storage period. Further, the government through the Ministry of Environment will assume ownership of the storage facilities. Therefore, the maintenance and operational costs will be provided by the government to supplement the revenue generated from the application of the “Polluter Pays Principle.” .
- Creating an enabling framework for a circular economy approach in plastic waste management through reformed national legislative and institutional frameworks and establishing PPPs ventures, EPR schemes, and other long-term arrangements
- Involving key private sector partners that have a financial interest in sustainable investment in the countries. The private sector business approach is crucial to ensure that the initiatives such as plastic collection, sorting and plastic initiated under this project will be sustained beyond the lifespan because of the profitability guarantee.
- Developing guidance and providing training that can be regularly replicated to a wide range of stakeholders. The training will be designed and implemented with the support of national training institutions, National Project Steering Committees (NPC), Executing Agencies, and others. All guidance and training materials will continue to be accessible on the project website beyond the project’s duration.
- Implementing targeted awareness raising of all those involved in and/or impacted by plastic waste management.

Plastic waste management approaches that are relatively new to the region will be tested in the countries and will further facilitate scale-up and replication. The project will document all interventions applied, through the project website, the yearly lessons-learned reports and other publications, and this will enable other stakeholders to replicate such approaches and select the BAT/BEP most fitting to their needs and circumstances.

The national legal framework, enforcement measures, implementation plans, and pilot demonstration activities that will be developed/strengthened as part of the project will also support the scale-up/replication of project interventions among entities/partners which did not significantly participate in the project or pilots. The approaches learned in establishing and strengthening such frameworks can also be applied to other areas of chemicals management and waste management in the future.

Scaling up

Experience gained through the training and the pilot projects in the AFLDC1 project and in related GEF-supported programmes enhances the ability of this project to replicate and scale up alternative, environmentally sound, approaches to avoid POPs and mercury emissions and releases. Some of the countries participating in this project continue their work from AFLDC1 and others have not previously benefitted. This mixture provides opportunities for mentoring and experience-sharing with the intention of accelerating implementation.

The useful elements of the AFLDC-1 pilot project on manufacture from recovered plastics (Sodiaplast pilot project) will be studied and replicated as appropriate in the AFLDC-2 project implementation.

The AFLDC-2 project will scale up existing facilities storing and treating hazardous waste to enable ESM of highly toxic waste like POP pesticides, PCB and mercury. This also increases the potential for implementing circular economy because it helps remove hazardous chemicals from circulation that can otherwise hamper sustainable reuse of valuable materials, such as for example Stockholm Convention POP chemicals in plastics (PBDE, etc.) and in otherwise reusable oils (PCBs).

[1] Including industrial symbiosis: The use of one industry's waste (etc.) as a raw material in another industry.

[2] Due to poverty, waste picking of the most valuable waste materials is widespread in Africa, including the participating countries.

[3] Today, only the most valuable materials are collected for recycling. For example, recycling of PET bottles can be increased by such a simple measure as enabling the wasting of dirty bottles in the recovery companies, which is already done in e.g. South Asia.

[1] Rural Transformation Centre

[1] It is noted that the participating LDCs have all or most of the challenges described in the root causes and baseline sections, and that this project can target some of these challenges meaningfully within the budget available, while other challenges can be targeted in future initiatives.

[2] For the participating countries that have made MIAs.

[3] Draft guidance on sampling, screening and analysis of persistent organic pollutants in products and articles:
<http://chm.pops.int/Implementation/NIPs/Guidance/guidanceonsampling,screeningetcofPOPs/tabid/5333/Default.aspx>

[4] Global Harmonized System for classification and labelling.

[5] EPR: Extended producer responsibility regulation where companies introducing products on the market are required to pay for the setup and running of collection and recycling schemes.

[6] Public Private Partnerships; for example a mutual contracted partnership where private companies employ business models for solving a societal problem (such as waste management) of priority for public entities and the population as such.

[7] Other relevant guidance may also be considered.

[8] IMDG – International Maritime and Dangerous Goods Code

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

[9] <https://www.sodiaplast.com/WEB/ACCUEIL>

[10] <https://plastixglobal.com/howwedoit/>

[11] Such as for example the use of water weeds for manufacturing of shopping bags done in Uganda.

[12] None of the participating countries that are currently Parties to the Convention have requested Article 6 exemptions/extensions so the 2020 phase-out date applies.

[13] Mercure is reported used in battery manufacture in Senegal (ref: MIA), but other informal manufacture may take place, for example of skin-lightening creams with mercury compounds.

[14] See for example “Lead in enamel decorative paints: National paint testing results: A nine country study” UNEP/IPEN, Published UNEP 2013.

[15] Participating countries in West Africa are also Parties to the Bamako Convention

[1] Rotterdam Convention on the Prior Informed Consent Procedure for certain hazardous chemicals and pesticides in international trade; Stockholm Convention on Persistent Organic Pollutants (POPs); Minamata Convention on mercury; the Basel Convention on the control of transboundary movements of hazardous wastes and their disposal. The Bamako Convention on prohibiting the import into Africa of any hazardous waste.

[2] Bioavailable means that it can be absorbed in the metabolism of living organisms (contrary to for example mercury being tightly chemically bound inside glass or stone material).

[3] National Implementation Plan

[4] DDT: dichloro-diphenyl-trichloroethane

[5] Ethiopia, Senegal, Uganda, Zambia

[6] Artisanal and small-scale gold mining, present in many African LDCs including some of the project countries, is a major mercury source category, but is not targeted in this project because it is dealt with in other GEF projects.

[7] Stolen or sold illegally and used by farmers.

1b. Project Map and Coordinates

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



	Country	Coordinates
1	Angola	12 30 S, 18 30 E
2	Ethiopia	8 00 N, 38 00 E
3	Gambia	13 28 N, 16 34 W
4	Guinea	11 00 N, 10 00 W
5	Liberia	6 30 N, 9 30 W
6	Mauritania	20 00 N, 12 00 W
7	Senegal	14 00 N, 14 00 W
8	Sierra Leone	8 30 N, 11 30 W
9	Togo	8 00 N, 1 10 E
10	Uganda	0 19 N, 32 33 E
11	Zambia	15 00 S, 30 00 E

1c. Child Project?

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

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

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Detailed stakeholder engagement plans are shown by country in the Country annexes (annexes P-Z).

The project will engage a wide range of international, regional, national and local actors in promoting, demonstrating and replicating environmentally sound chemicals management approaches. Stakeholders will include those shown in table xx below. For details on stakeholders in individual countries, see the country annexes (annexes P-Z).

Table 19 Stakeholders and their roles

Stakeholders	Mandates	Role in the project
Governments represented by National Focal Points for the chemicals and waste conventions, the ministries responsible for sustainable development planning and execution as well as for environmental management and land-use development, agriculture, health, energy and industrial development, customs, communities and women's affairs, information and communication	Custodians of government policy, norms, and standards and key regulators in environment and other issues related to chemicals and wastes.	<ul style="list-style-type: none"> · Coordinates the project · Chairs the PSC · Hosts the Project Secretariat · Supports the regulatory aspects of the project · Ensures quality execution of project activities · Supports national training conducted under the project
Regional counterparts to government within ECOWAS, COMESA and SADC	Serves their member States with the implementation of the regional integration agenda, where the concept of good faith and the resultant observance of treaty obligations are the basis on which member States must make regional integration decisions as well as ensuring their performance and implementation.	<ul style="list-style-type: none"> · Supports regional coordination and information exchange
Municipalities	Responsibilities for municipal waste management and disposal	<ul style="list-style-type: none"> · Supports and provides advice on the implementation of the municipal-level waste management activities including awareness raising · Receives training and awareness materials on selected topics
Regional entities of the chemicals and waste MEAs such as the Basel Convention Regional Centres	Focuses on training and technology transfer regarding the management of hazardous and other wastes and the minimization of their generation	<ul style="list-style-type: none"> · Supports and provides advice on project approaches including BAT/BEP and compliance with the BRS and Minamata Conventions · Supports regional cooperation and information exchange · Specifically, Africa Institute and BCRC Dakar serve as regional executing agencies (or supporting regional executing agencies); See section on Institutional Arrangements.

Parastatal and private sector enterprises and their trade associations, including electrical utilities, extractive industries, manufacturers and traders, SMEs, etc.	Involved in, among others, chemicals and waste management addressing import, production, transport, use, export, recycling, and disposal; municipal and hazardous waste management; agriculture; and wholesale and retail of electrical and electronic goods	<ul style="list-style-type: none"> · Advises on and supports implementation of suitable BAT/BEP, financing mechanism, etc. · Receives training and awareness materials on selected topics · Supports awareness raising activities
Expert international, regional and national contractors in the fields of BAT/BEP, environmentally sound management and disposal of POPs and mercury-containing products; recycling companies and municipal solid waste, and communications.	Expert advisors in specific topics within chemicals and waste management	<ul style="list-style-type: none"> · Advises on and supports implementation of suitable BAT/BEP, financing mechanism, etc. · Supports awareness raising activities
Academia and research institutions	Engaged in agricultural research and identification and development of BAT/BEP Laboratories accredited to test for POPs, mercury and other hazardous chemicals	<ul style="list-style-type: none"> · Participates in awareness raising aspects of the project · Participates in the pesticides management activities in the project · Advises on suitable BAT/BEP, financing mechanism, and PPP framework · Support laboratory analysis
Civil society organisations Informal sector groups, community groups and influencers	Active in the areas of waste management, environmental protection, health, and education	<ul style="list-style-type: none"> · Member of the PSC (NGOs will be proposed to designate one of their entities to represent them on the PSC; this should be determined on the occasion of the Inception Workshop for the project) · Coordinates with partners regarding community input and awareness raising activities · Contribute to outreach to their respective member groups and beyond
Microfinance institutions and banks	Concerned with the granting of small loans to SMEs in the context of waste management; communication services (mobile and fixed telephony), electricity, and water services; and customs and tax services	<ul style="list-style-type: none"> · Participates as an advisor and participant regarding PPPs and other financing mechanisms
Training institutions	Undertakes education, research, and training	<ul style="list-style-type: none"> · Advises on and supports educational and training aspects of the project

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.

Kindly see the detailed stakeholder engagement plans shown by country in the Country annexes (annexes P-Z).

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

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

Executor or co-executor;

Other (Please explain) Yes

1) involved in consultations for regulation, 2) Contributor to creating awareness (Component 2).

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

For details, please see the gender assessment report in Annex M. Gender aspects are also highlighted in the Environment and social safeguards scoping report in Annex L.

A gender expert will be engaged in the project to monitor progress in the planned gender mainstreaming initiatives (see the gender assessment in Annex M).

Activities in this project are designed ultimately to reduce risks to human health and the environment from chemicals and waste. Chemical hazards present similar risk mechanisms for men and women but there are significant differences in gender exposure to these risks and in the consequences of exposure. Furthermore, evidence of severe and permanent damage to children, including the unborn, makes their protection of the highest importance. Evidence of chemical transfer between mothers and their children requires particular attention to be paid to the exposure to chemical risks of mothers and young women of child-bearing age.

While male employment remains the norm in the larger 'heavier' industries such as mining and mineral processing and utilities, the workforce of smaller enterprises and informal working such as artisanal and small-scale mining and informal waste recycling is likely to include a significant component of women and children. Furthermore, traditional gender-based roles in household activity and employment are changing as societies become increasingly urbanised. An increasing proportion of women is taking up employment, either through increased opportunities arising from better education and access or through necessity driven by poverty. It follows that the project will engage with women in such occupations to ensure that the design and execution of project activities is appropriate to their needs for risk reduction within the context of improved working conditions.

Changing the behaviour of markets with regard to such products as cosmetics that may contain mercury or to waste practices that give rise to POPs emissions, relies not only on regulatory actions but also on shifting consumer and practitioner attitudes. Modern forms of social interaction and communication are changing the access of women to information. This increasing independence and decreasing reliance on knowledge transfer through male heads of household is providing traction for the engagement and empowerment of women in making decisions about the daily lives of themselves and their children.

The emphasis on communications within this project is deliberately geared to take advantage of such communication methods to drive demand-side change; women and young people are key target groups in the awareness raising activities in this project. Regarding the women, this is partly because some mercury-added products are primarily targeted towards women (notably skin-lightening creams and fever thermometers), and partly because women are still often the primary custodians of the family health. Using innovative techniques to reach consumers and, where possible, working with 'influencers' on social media to raise awareness and change attitudes will provide a significant boost to project aims and, if successful, provide an entry point for continuing and broadening knowledge transfer with regard to chemicals and waste risks and their avoidance. The importance of such initiatives will be reflected in gender-sensitive indicators within the project logical framework and monitor and evaluation schemes.

Equal access to information (e.g. regarding risk management, BAT, BEP, and project activities) related to PCBs, open burning, uPOPs, e-waste, plastics, waste management, obsolete pesticides, mercury-added products, mercury-emitting industries, and other topics, where applicable, will be ensured. Awareness raising materials specifically designed for facilitating women's involvement will be prepared, which will introduce the gender-differentiated impacts of chemicals and waste management exposure to human health, particularly reproductive health..

Towards the end of the project monitoring will be performed to assess any changes brought about by the project that contribute towards the achievement of SDG 5: Achieve Gender Equality and Empower all Women and Girls, and in particular Target 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

Equal opportunity to participate in project activities (including as members of the National Project Coordination and regional coordination entities) and decision-making at all levels will also be ensured. In the course of the recruitment processes, the project will encourage women applicants.

Further, the gender element will be very significant in the project since several associations and other micro-enterprises in the field often include women. During the implementation, programmes to strengthen capacities and mechanisms for support to micro-enterprises will particularly target women. Homemakers are also important targets in any programme for communication and information to improve waste management practices. Collection, production and recycling and reclamation strongly involve women and will be generating revenue for these activities, which will contribute to improving their living conditions and their financial autonomy. Women will therefore play a very important role in the implementation of the project.

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 Yes

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

No

4. Private sector engagement

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

The engagement and participation of the private sector is critical to many areas of the work of the project.

Engaging the private sector in the discussions for preparations of the new/amended legislation necessary to implement the Minamata Convention and the new elements of the Stockholm Convention can be vital to achieving good results in the implementation of this legislation by avoiding pitfalls that can be prevented based on early sector feedback.

Locally-established industries engaged in the manufacture, trade, use and supply of regulated POPs- and mercury-containing products will be involved in order to bring their practices into conformity with the obligations of the conventions. In some cases, this may involve working with them to promote BAT/BEP and it's take-up or identify national suppliers of alternative mercury-free products.

Many municipal authorities have outsourced service provision to the private sector so that procuring agencies and service providers will need to work together to ensure that services meet convention obligations as set out in national legal and regulatory frameworks. Setting environmentally sound management targets in, for example, waste management and recycling, are likely to provide opportunities for business growth and decent jobs. Avoiding the use of short-lived or single-use plastic materials could provide opportunities at all business scales to develop the use of products manufactured from locally-available materials; sometimes even agricultural wastes.

Other aspects of the project will require the engagement of regional or international private sector expertise in, for example, the handling, treatment and disposal of hazardous wastes such as POPs pesticides and mercury. Technologies and techniques from these experts can be transferred to local businesses with long-term benefits.

Increased awareness of chemical and waste hazards can also improve public and private sector procurement and safeguarding practices thus avoiding harm to human health and the environment, and this aspect is also dealt with in the project.

The AfDB recognises that sustained and well-structured engagement and participation of the private sector is crucial to many areas of the work of the project. For example, the private sector's resources, expertise, experience, and innovation is crucial to enable the development of efficient, comprehensive, and economically viable national waste management systems for collection, sorting, and recycling/treatment of plastics, mercury and solid waste and create new, more sustainable products that contributes to sustainable waste management approaches. This will also lead to the creation of decent jobs and reduction of the environmental burden. Under this project, the engagement and participation of the private sector will be conducted through national and regional formalised structures and mechanisms.

A number of private companies with potential for inclusion in the project are identified in the country annexes (annexes P-Z). The selection of the actual companies to cooperate with in the individual outputs in the countries will be based on assessments to be performed as part of the project implementation.

Through this project, the AfDB is responding to requests from least developed African countries to leverage its convening powers at the highest levels of national governments, led by Ministry of Finance, to help build resilient and enabling national structures, policy frameworks and accelerate action toward addressing government commitments under the Chemical Conventions. The AfDB's comparative advantage lies in its deep regional developmental insights, ability to mobilise and leverage resources, convene stakeholders around the issue and lead robust dialogue both at national and regional levels leading to concrete actions. The AfDB brings its unique convening powers, regional insights to

elevate policy dialogue and pivot to shifting the allocation of resources from national budgets to meet convention obligations and facilitate establishment of national enabling frameworks to promote increased contributions from the private sector.

The AfDB approach will allow the GEF interventions to be mainstreamed in national frameworks and planning process resulting in sustainability of these interventions after this project lifespan is completed. Activities with high environmental health consequences, such as e-waste recycling, illegal mercury trade and scavenging in urban dumpsites are a reflection of poverty, fragility and vulnerability of existing systems; usually a default livelihood option for the poor and marginalized people who are often unaware of long term adverse impacts to health and the surrounding environment. These are complex social and economic issues, as well as environmental, challenges, requiring an integrated and long-term systemic approach through policy, infrastructure and health investments, training and capacity building and awareness interventions. While focusing on higher level objectives of environmental and health risks, the program is targeted to activities that bring about reduction of POPs and mercury through application of cleaner technologies and approaches for eliminating releases from waste and other sources. Other benefits include the establishment of value addition industry and creation of decent jobs for the marginalized, especially women and the youth.

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):

Table 20 PROJECT RISKS AND MITIGATING MEASURES PLANNED

Com-ponent	Risk	Risk level	Risk reduction measure
	<i>Risks related to Component 1 – Regulatory framework and enforcement</i>		
C1	Participating countries may lack the appetite for establishing a comprehensive regulatory framework, and may not allocate legal drafting resources to a perceived low priority.	M	<p>All participating countries are Parties or Signatories to the chemicals and waste MEAs and have thus shown their willingness to meet their obligations under these accords. Awareness raising amongst regional and national decision-makers, begun in AFLDC1, and continued in AFLDC2 will continue to emphasise the benefits to human health and environmental considerations, commitments made in international law to the MEAs, as well as direct local benefits.</p> <p>The National Stockholm Convention focal points, Ministries of Environment, and national environmental protection agencies have confirmed their strong interest of the countries in the project, which is in line with the priorities regarding PCBs, uPOPs, mercury, agriculture, e-waste, plastics, waste management, as outlined in the respective national documents. In terms of risk mitigation measures, the National Stockholm and Basel Convention focal points are assigned as National Project Focal Points (NFPs) and will be members of the national and regional PSCs and will play key roles for coordinated actions at the national level between government and other key stakeholders. The National Coordination Mechanisms established during the NIP development processes, and which have the commitment of a wide range of governmental sectors, will be used as a basis for national coordination. In this project, the Ministers of Environment and parliamentarians from the environmental select committees will be engaged as early as possible. Specific awareness raising events will be organized and targeted at them. The project will include the review of legislation to enable the inclusion of the relevant chemicals and waste management provisions into existing legislation, where relevant. This is usually more efficient and results in a faster endorsement process compared to the drafting and adoption of new regulations.</p>
C1	Legislative drafting takes time while political adoption is beyond the control of the project.	M	The project will apply considerable continue the approach in AFLDC1 to provide awareness raising to policy makers and parliamentarians to explain why and how ESM of waste and chemicals is crucial to overall development goals, The projectandwill provide appropriate models, negating the need for drafting legislation from scratch and instead adapting the models to their own legislative situation.

C1	Model legislation is not suited to participating countries whose legal frameworks are not based on “common law”.	M	The project will learn from AFLDC1 in adapting or developing suitable models for these countries and will seek to involve relevant experience on other law traditions than “common law”..
C1	Suppliers and traders may exploit weaknesses in regulation or its enforcement to resist attempts to switch away from POPs- and mercury-containing products.	M	Awareness raising amongst enforcement officials and amongst suppliers and traders will be provided, and the enforcement officials will be trained in detection of relevant products. Communications efforts towards changes in consumer demand are designed to address this risk.
C1	While considerable capacity has been built within the cadres of officials directly responsible for chemicals management, the final evaluation of AFLDC1 noted that progress towards implementation of action plans and mainstreaming of chemicals and waste objectives were hampered by the lack of capacity beyond the chemicals teams.	M	This project will continue and broaden capacity building efforts at regional and national levels, combining countries that participated in AFLDC1 with LDCs that did not participate, in order to providing support and mentoring possibilities for all; extending chemicals and waste capacity building to those responsible for co-financed projects and programmes. Special training and awareness raising activities are planned for public officials beyond the dedicated chemicals teams, as well as to industry and trade.
	<i>Risks related to Component 2 – Awareness raising</i>		
C2	The awareness of consumers to the risks they face from the inappropriate use of POPs and mercury-containing products has been targeted during campaigns in AFLDC1 and other projects but remains inadequate.	M	This project will put particular emphasis on communications with consumers through effective media, including through innovative approaches such as social media and mobile, in order to reach those most at risk. In a similar way, efforts to boost awareness amongst policy-makers, begun in AFLDC1, will be continued and enhanced at regional and national levels so that consideration of chemicals and waste risks can be incorporated in sustainable development planning.
C3	Larger industries that are economically influential may resist attempts to enhance POPs and mercury inventories and management, even where such attempts provide evidence that remedial work is not required.	M	Substantial efforts are planned to involve industry in the preparation for updated regulation and related promotion of BAT/BEP. Many of these facilities are internationally owned and parent companies and their trade associations have engaged with the international processes leading to the chemicals and waste MEAs and may be willing to prompt the engagement of local subsidiaries. Through the inventory project process, industries can informed to better understand the inevitable future prospects for their business in relation to the conventions, and thereby enabling their timely transition, reducing their expenses and improving their possibilities in the new market order.
	<i>Risks related to Component 3 – investment measures</i>		

C3	Smaller and informal industries may be wary of government-led approaches and unable or unwilling to adapt without initial technical and financial assistance. Some may be operating illegally and require careful encouragement to move into regulated business regimes.	M	Demonstrations of the health, environmental and financial benefits of alternative approaches, documented from AFLDC1 pilots and elsewhere previous projects, and the prospects for financial and technical support for improvement of their production facilities will be instrumental in addressing this risk.
C3	Project resources may be insufficient to ensure the completion of activities.	L	The availability of co-financing within the thematic window of the African Development Bank will be of assistance in scaling up and rolling out successful schemes. Longer-term efforts may require further GEF support through dedicated projects.
C3	Pilot projects, demonstrations of suitable approaches to chemicals and waste management and programmes to remove and destroy POPs present health and safety risks due to the exposure to chemicals and waste, to those engaged in them,	L	The Environment and social safeguards assessment and risk assessments to be developed as part of the project implementation includes specific instructions on avoidance and minimization of risks to personnel and stakeholders involved. These elements of the project will be led by technical experts employing best practices and aware of these risks and their mitigation. Workers will receive and implement practical training on the use of personal protective equipment (PPE), risk avoidance and accident preparedness =. Contractors certificated to manage hazardous materials will be engaged as necessary. All efforts will be made to ensure that workers are not exposed to hazardous chemicals and related risks.
C3	For countries involved in improvement/establishment of hazardous waste transfer stations, hazardous waste may be accumulated that will not be finally treated according to ESM procedures	L	For POPs and mercury collected as part of the project activities, final treatment is included in the project. For any hazardous waste stored beyond the project framework, a business model will be developed as part of the project that will ensure that sufficient funds are saved up from waste acceptance fees to secure final treatment of all hazardous waste stored at the facility. Additionally, a decommissioning plan for the facility will be developed as part of the project.
C3	For countries involved in PCB or POP pesticides management under the GEF project, PCB inventory is delayed or incomplete due to the absence of coordination, technical or economic difficulties, etc. (e.g. in carrying out sampling of dielectric oil)	L	The project intends to address this risk by establishing a strong supervisory mechanism supported by TORs. A national inventory team will be formed and trained. The national inventory team will be complemented with local regional teams. The composition of the national inventory team will include representatives of the Ministries of Environment; national energy utility companies; academia; and NGOs.
C3	Chemical accidents during sampling, transport, storage, or disposal, where applicable	L	Training in best practices for each stage of the lifecycle management of applicable chemicals and waste will be conducted under the project and use of best practices enforced during the implementation phase of the project.

C3	Climate risk	M	Some of the child country projects are in coastal countries susceptible to climate change and extreme events, including sea-level rise and flooding. These could impact the appropriateness selection of selected BAT/BEP activities. Climate related risk are described in the environment and social safeguarding scoping report (Annex L).and environmental and human exposure to pollutants.
G	<i>General issues</i>		
G	The evaluation of the AFLDC1 project in the ECOWAS region noted that project continuity in some participating countries was hampered by changes in project officers.	M	Procedures for appropriate handover will be developed as part of the project and national project officers will be trained in its use.
G	The split responsibility between regional and national executing agencies in a number of outputs/activities may result in differences in prioritisation of the projects funds and associated deficiencies in project performance in the countries.	M	<p>A close coordination between national and regional EAs and the AfDB country offices/Task Managers will be ensured, monitored and documented.</p> <p>National prioritisation of AFLDC2 performance will be ensured by the IA (AfDB) through Regional PSC meetings and regular monitoring and coordination.</p> <p>National budgets will be detailed, and payments will be ear-marked to specific deliverables, with payment stop and other pre-planned appropriate repercussion measures in case of non-compliance.</p>
G	Complex projects with many participants give rise to management and coordination risks that threaten project delivery and completion.	M	Dedicated project management at EA level and close coordination and cooperation between IA, EA and regional and national steering groups, and a national coordinator for each participating country, will serve to alleviate management and coordination risks.
G	Challenges with mobilizing all countries in a coordinated manner to support improved chemicals and waste management practices in the SADC, COMESA, and ECOWAS regions and ensuring active involvement of several players from both the public and private sectors at the national and regional level	M	<p>This will be addressed through national and regional coordination mechanisms, regular communication, and the establishment of a knowledge sharing platform (project website). The project secretariat will ensure coordination in conjunction with national partners within the departments in charge of the waste sector, agriculture, health, and other areas as required. Regional harmonisation of the national policies and approaches will be ensuredstrongly promoted, where appropriate.</p> <p>Activities lead by national executing agencies will be coordinated closely with AfDB country offices and Task managers.</p>

G	Interference by political authorities in the project management	L	The project aims to gain the support of municipalities, local authorities, and other units by building upon their existing capacities, ensuring two-way communication, and communicating the benefits that the project activities will provide to their respective constituencies.
G	Environmental and gender related risks	L	The Measures for avoiding, or minimizing, environmental and social risks are described in the environment and social safeguarding scoping report (Annex L) and gender related risks are described in the gender assessment (Annex M).

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.

This project will be regionally implemented by AfDB and executed by the Africa Institute based in Pretoria, South Africa and the Basel Regional Center for Francophone Africa based in Dakar, Senegal (Regional Executing Agencies (EAs) and in participating countries by Lead Ministries working on Chemicals and Waste Management issues (National Executing Agencies) supported by the National Task Managers from the AfDB baseline projects. . The Regional EAs will supervise the administrative, technical activities during the implementation of the project, and it presents regular reports to AfDB (Implementations organization).

An overall Regional Steering Committee of the Project (PSC) will be created and it will meet once a year. A mid term progress review will be organized. This committee will be formed by donors, executing and implementation organisms (AfDB, Dakar Center, Africa Institute, National Project Focal Points (NFPs) and any other UN organizations participating in the project or implementing similar initiatives). This committee will evaluate the progress of the project and will take the necessary measures to meet the fulfillment of the goals and objectives. It will meet once a year during the project execution.

In each participating country, a National Project Committee (NPC) will be established and such will assess progress made during execution of the national component of this regional project. This National Executing Agency will be in charge of national project decision making throughout the project and will act as the Secretary for the NPC. National Executing Agencies will be technically and administrative supported by the National Offices of the AfDB. The ministries, the representatives of industries and associations, the representatives of hazardous wastes management companies and the corresponding NGOs and other stakeholders will be part of this committee (see stakeholder table). NPC will decide on the frequency of the meetings and their operating procedures. Although regular meetings will be carried out throughout the implementation, additional meetings may be set as necessary. NPC will supervise the tasks of the Project Focal Points (NFPs) and of the implementation team. Likewise, this committee will review, comment on and approve the work plan. Every decision made by the Committee, such as the corresponding liabilities, schedules and budget, will be duly reported to whom it may concern. Members of the NPC will facilitate the implementation of project activities within their corresponding organizations, they will guarantee that cooperation activities are timely executed and they will promote integration of the activities arose from the project with existing programs and practices.

A Project Team (PT) will be established within the national executing organisms of the participating countries; this team will be in charge of the execution and day-to-day management of the project and it will report to the Regional Executing Agencies (Africa Institute and Dakar Centre) and to the Steering Committee of the Project; also, it could likely be composed by the Project Coordinator (NFP), Technical Assistant and Management Assistant.

AfDB, as implementation organism, will work in strict collaboration with the Regional Executing Agency (EA) and with the national project teams. Through its national offices, AfDB will provide technical organization support to the executing organism at the national level. AfDB will report to the Secretariat of GEF on matters regarding the progress of the

project. The regional Executing Agency will be in charge of executing the regional activities (organization of regional trainings, Project Steering Committees) and to provide administrative and technical support for the participating countries.

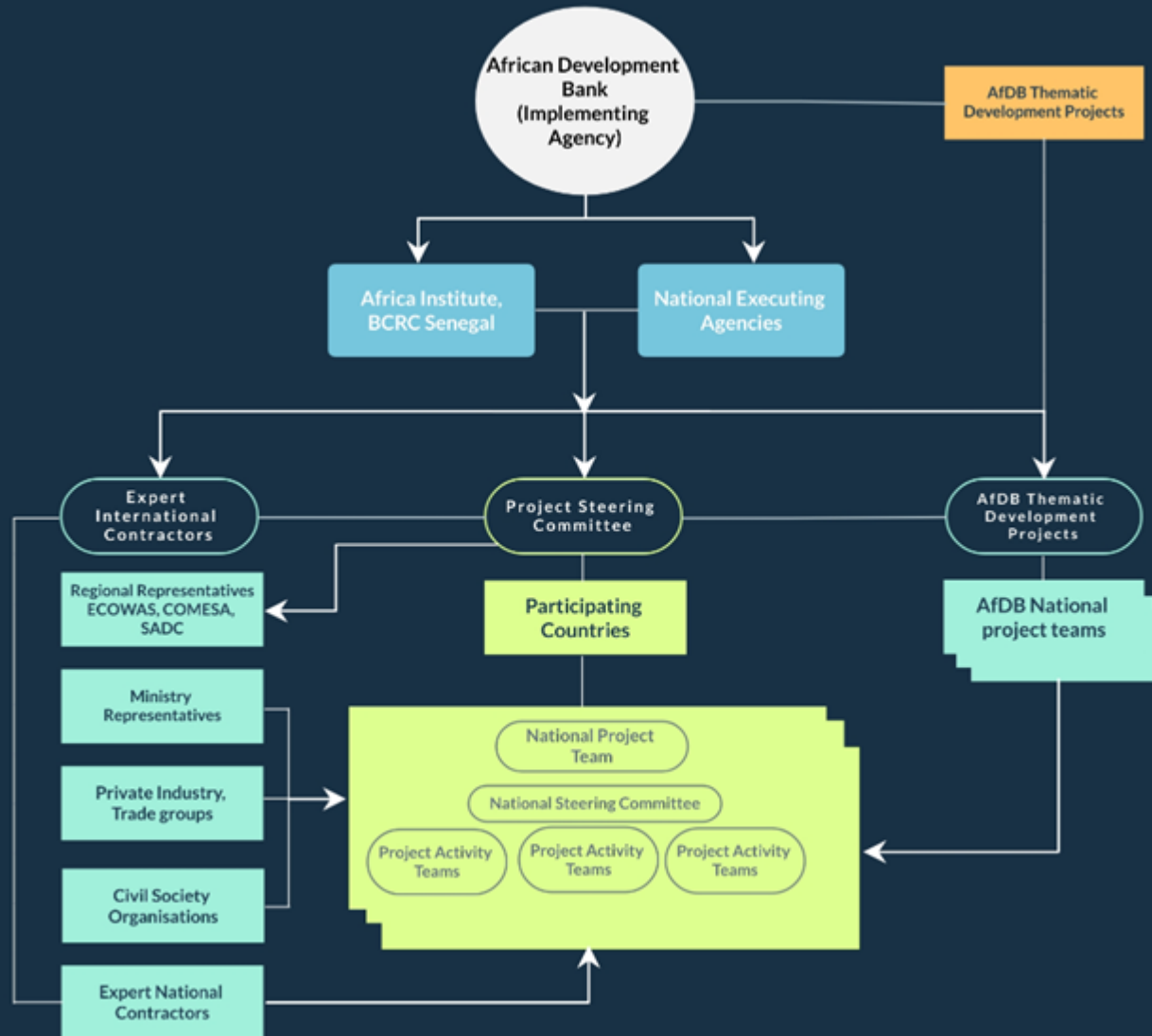
The National Executing Agencies will prepare and submit budgets and expense reports, it will search and hire consultants, it will acquire equipment and evaluate the project; in addition, it will organize independent audits in order to guarantee the proper use of GEF funds. Financial transactions, audits and reports will be carried out in accordance with national regulations and AfDB procedures.

The Regional Executing Agency will establish an office for the project and, along with the AfDB; it will appoint a Regional Coordinator (RC) that will report to the Project Steering Committee (PSC), and the the AfDB .

The RC will guarantee the fulfillment of the work plan, and its main responsibilities will include counselling and control upon all the technical aspects of the regional implementation of the project as well as the financial control of the regional execution of the project. The RC will work in strict coordination with the appointed national coordinators named by the countries and the Officer(s) assigned by the AfDB. Likewise, it will be responsible of facilitating task control for the AfDB project, which means to prepare technical and financial reports for the AfDB and the GEF, organize meetings during field evaluations and confirm the quality of the results of the project.

1. Project Implementation and Execution Arrangements

ORGANIZATIONAL CHART



The project's institutional structure is as follows:

The project will avoid duplication and seek to find synergies with other ongoing projects and programmes, particularly the initiatives listed below which are not included as baseline activities but nonetheless have strong linkages with the proposed project activities. Collaboration will be done via communications with the responsible agencies (Africa Institute, BCRC in Dakar, COMESA, ECOWAS, and SADC sub-regions) and they will be invited to participate in stakeholder consultation meetings and be consulted in all project phases.

Coordination with the following initiatives is envisaged through direct contact to the agencies listed:

- UNIDO/UNEP: Capacity Strengthening and Technical Assistance for the Implementation of Stockholm and Minamata Conventions in African LDCs and SIDS of the COMESA, ECOWAS and SADC sub-regions (AFLDC 1 Project);
- UNEP/WHO/African Institute: Integrated Health and Environment Observatories and Legal and Institutional Strengthening for the Sound Management of Chemicals in Africa (African ChemObs);
- AfDB: Urban sanitation, drainage and solid waste management in Chimoio & Inhambane, Mozambique;
- African Institute/UNEP/DTIE: Disposal of PCB Oils Contained in Transformers and Disposal of Capacitors Containing PCB in Southern Africa;
- World Bank: Environmental Health and Pollution Management Program (EHPMP);
- UNITAR/UNIDO/WHO: Minamata Initial Assessment and National Action Plan on ASGM in African countries ; and
- UNIDO: Promotion of BAT and BEP to Reduce uPOPs Releases from Waste Open Burning in the Participating African Countries of COMESA-SADC Subregions.

All the above projects have addressed some aspects of chemicals and waste management. They have not been developed to establish a comprehensive system of sustainable management of harmful chemicals and waste. However, the results can be further explored to achieve synergy and/or complementarity with the present regional project.

For information about the individual GEF (and other) projects with relevance for AFLDC2 in individual project countries, please see the country annexes (annexes P-Z). For on-going related projects, online coordination meetings will be made with their IAs and/or EAs at AFLDC2 inception and thereafter regularly as needed.

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.

The project draws on international conventions to which beneficiary countries are parties. These include, among others, the: (i) Stockholm Convention on Persistent Organic Pollutants (POPs), whose main objective is to protect human health and the environment against POPs, by reducing or eliminating their emissions into the environment, (ii) Minamata Convention on Mercury whose objective is to protect human health and the environment from emissions and anthropogenic mercury and mercury components; (iii) Rotterdam Convention, which is intended to encourage the sharing of responsibility and cooperation between parties in the field of international trade of certain hazardous chemicals in order to protect health and environment against possible damage; and (iv) Basel Convention on the control of transboundary movements of hazardous wastes and their disposal.

The project is also consistent with the environmental management policy, the strategic document on poverty reduction and promotion of employment, the strategies and plans on climate change, and the national legal texts regulating the waste sector. The project is consistent with the NIPs, MIAs, and ASGM NAPs. For further details, see the country annexes (annexes P-Z).

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.

As described elsewhere, a project website will be developed for public access, where all publishable project materials will be posted. This will enable open sharing of results and avoid duplication, beyond what is often done in such projects.

While previous projects have built capacity amongst those directly responsible for chemicals management and boosted awareness amongst project stakeholders, efforts towards knowledge management have typically focused on technical mechanisms to host and provide access to information. Such mechanisms have proved difficult to build and sustain and deliver only limited access, typically most accessible to those already trained.

While capacity building amongst project actors forms an important part of this project, with the intention of broadening and deepening the understanding of chemicals and waste issues, the emphasis on communications in the project recognises the need to engage much more widely and, where possible, directly, with a much broader range of stakeholders and beneficiaries in order to stimulate engagement and demand-side changes in attitudes and behaviour.

Communications campaigns addressing particular chemicals and waste topics and for different stakeholder groups will be designed and executed in participating countries with the assistance of local stakeholders and media experts. Communications materials directed towards women and educational materials for children will be included.

Materials for public officials and national and international managers of development projects will make clear the needs to safeguard project design and procurement from chemicals and waste risks.

The project will make efforts to ensure that communications materials are readily available both during the project and afterwards, including through existing channels of national focal points and government information services as well as local media.

Materials developed for the project will be made available for wider use to regional entities, including the regional centres for the chemicals and waste MEAs, and the convention clearing house mechanisms. The project will seek opportunities to publicise its objectives, progress and findings at appropriate international, regional and national meetings.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

Monitoring and evaluation, learning and adaptive feedback

Outcome: Effective and efficient project delivery involving informed decision making at regional and national levels

The project will comply with AfDB and GEF standard monitoring, reporting, and evaluation procedures. Reporting requirements and templates are an integral part of the legal instrument to be signed by the Executing Agencies and Implementing Agency. AfDB will work with the relevant project stakeholders to ensure that AfDB M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the GEF M&E policy and other relevant GEF policies.

In addition to these mandatory AfDB and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project Executing Agencies and Participant countries in M&E activities including the GEF Operational Focal Points and national/regional institutions assigned to undertake project monitoring. The GEF Operational Focal Points will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Core indicator worksheet) across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.

M&E oversight and monitoring responsibilities:

Regional Coordinator: The Regional Coordinator (recruited by the Executing Agency/ies) is responsible for day-to-day project management and regular monitoring of the regional project results and risks, including social and environmental risks. The Regional Coordinator will ensure that participating countries receive appropriate technical support for the project and will maintain a high level of transparency, responsibility, and accountability in M&E and reporting of project results. The Regional Coordinator will inform the Project Steering Committee (PSC) of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

The Regional Coordinator will develop annual work plans based on the multi-year work plan, including annual output targets to support the efficient implementation of the project. The Regional Coordinator will ensure that the standard AfDB and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR (see a more detailed description below), and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. Gender Action Plan, IEC strategy) occur on a regular basis.

Project Steering Committee (PSC): The PSC will take corrective action as needed to ensure the project achieves the desired results. The PSC will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the PSC will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response. The PSC will be composed by the Implementing Agency, Regional Executing Agencies, Participating Countries (National Focal Points/ National Coordinators), Supporting Agencies and Stakeholders and GEF. The PSC will meet once a year.

Gender Equality Committee (GC): The Gender Committee will: ensure that women participate in the project; ensures that women lead certain activities and processes; and ensure that the project Gender Action Plan will be implemented. This will empower women through training and inclusion in the development of policies and other project activities. The GC will meet once a year and will include representatives from the Participating Countries that are actively engaged in gender related issues.

Participating countries and National Executing Agencies: The Participating Countries **are responsible for providing any and all required information and to locally execute the activities**. They will ensure national execution of activities and will appoint a National Coordinator. They will provide timely, comprehensive, and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Participating Countries will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems.

Inception Workshop and Report: A project inception workshop will be held within two months after the project has started and the agreement has been signed between the Implementing Agency and the Executing Agencies. It will serve to:

- Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project implementation
- Discuss the roles and responsibilities of the regional and national project teams, including reporting and communication lines and conflict resolution mechanisms
- Review the results framework and finalize the indicators, means of verification, and monitoring plan
- Discuss reporting and monitoring and evaluation roles and responsibilities, and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; and discuss the role of the GEF OFP in M&E
- Update and review responsibilities for monitoring the various project plans and strategies, including the Gender Action Plan; and other relevant strategies
- Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit
- Plan and schedule PSC meetings and finalize the first-year annual work plan

The Regional Project Manager will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the EA and AfDB and will be approved by the PSC.

Reporting:

GEF Project Implementation Report (PIR): The Regional Project Coordinatorss (EA), rNational Coordinators (national EA) and AfDB (IA) will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.

The PIR submitted to the GEF will be shared with the PSC. The National and Regional EAs will coordinate the input to the PIR from the GEF Operational Focal Points and other stakeholders in participating countries as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums (e.g. twitter, facebook, mail lists, etc). The project will identify and participate, as relevant and appropriate, in scientific, policy-based, and/or any other networks, which may be of benefit to the project. The project will identify, analyse, and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the African region, and globally. An annual lesson learned meeting will take place back to back to the PSC and will produce a report, which will be disseminated during the Chemicals related international events. The lessons learned exercise is part of component 4 of the project.

GEF Focal Area Core indicator worksheet: The following GEF Core indicator worksheet will be used to monitor global environmental benefit results:

The baseline/CEO Endorsement GEF Focal Area Core indicator worksheet will be updated by the Regional Project Manager and shared with the mid-term review consultants and terminal evaluation consultants before the required review/evaluation missions take place. The updated GEF Core indicator worksheet will be submitted to the GEF along with the completed Mid-term Review report and Terminal Evaluation report.

Mid-term Review: A mid-term review process (MTR) will take place at the mid-point of the project and the report will be submitted to the GEF. The MTR will include all parameters recommended by the GEF for such evaluations and will verify information gathered through the GEF core indicator worksheet, as relevant. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing, or advising on the project to be evaluated. The GEF Operational Focal Points and other stakeholders will be involved and consulted during the mid-term review process. Additional quality assurance support is available from the EA and AfDB. The final MTR report will be available in English and will be cleared by EA and AfDB and approved by the PSC.

Terminal Evaluation: An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The TE process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Regional Project Manager will remain on contract until the TE report and management response have been finalized. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. The terms of reference, evaluation process, and final TE report will follow the standard templates and guidance prepared by AfDB, based on the GEF guidance. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing, or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the TE process. Formal comments on the report will be shared in an open and transparent manner. Additional quality assurance support is available from EA and AfDB. The final TE report will be reviewed and cleared by AI and AfDB, and will be approved by the PSC. A review of the quality of the evaluation report will be submitted along with the TE report to the GEF Evaluation Office not later than six months after the completion of the evaluation. The TE report will be publicly disclosed.

Final Report: The project's terminal PIR along with the TE report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the PSC during an end-of-project review meeting to discuss lessons learned and opportunities for scaling up.

Audit: The project will be audited in accordance with AfDB Financial Regulations and Rules and applicable audit policies.

The detailed monitoring and evaluation plan is given in Annex I.

10. Benefits

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

The project will bring direct and indirect socioeconomic benefits. The direct and immediate benefits are those related to the implementation of the project itself, including employment of project staff, operators, and others; possible establishment of public-private partnerships for the management of the PCB-contaminated equipment/waste and uPOPs/municipal and agricultural waste; and financial incentives for the PCB owners for the sampling, analysis, and treatment of their PCB-contaminated equipment, and for waste managers.

The project will also bring obvious indirect benefits. The removal of PCB and POP pesticide sources (equipment, waste) from the environment and reduction of uPOPs emissions will prevent the contamination of the environment by these substances. This will translate into reduced exposure to the population, reduced mortality and morbidity of the population in the long-term, with specific reference to the pathologies associated with exposure to the toxic chemicals in question, resulting in the reduction of social and economic costs.

In addition, the technical capacity developed by the project partners (project and institutional staff, consultants, and stakeholders) in the management of chemicals and waste will result in the creation of skills and capabilities for the management of hazardous substances and waste in general, which will result in the creation of specialized jobs in the country.

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			
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.

Enhancement/Mitigation Measures

This section describes how the potentially negative impacts of the project will be handled to avoid or minimize the effects. The section also includes timing of these measures, and planned indicators and reporting of monitoring of the performance of the measures.

General risk – covid-19

The general risk of covid-19 infections and related damages must be managed in project, considering that general vaccination may not have been achieved in advance of the individual project activities.

Potential impact	Measures	Timing	Indicator
Risk of covid-19 infection	All national restrictions to avoid covid-19 infection must be always respected and in all project activities.	Throughout project until general vaccination is reported finalised by the	See below

	<p>A checklist will be developed based on international standards for avoidance of covid-19 infections. The checklist should be strictly followed in all project work where the assemblance of people is required.</p> <p>The checklist should include as a minimum:</p> <ul style="list-style-type: none"> Physical assembling must only take place for project activities where allowed under national covid-19 restrictions, and no physical assembling shall take place in the project unless sanctioned by the National project Focal Point (NFP) and the management of the participating institutions. Measures taken to insure safe social distancing (in meeting rooms, in the planning of physical work, in flights and other transport, etc.) Face masks should be used in all assemblies, unless other more protective equipment is used (such as specific filters to protect against hazardous chemicals) Hand disinfectant must be available to all project workers under all project work circumstances All other national covid-19 restrictions must be observed 	main authority in charge nationally and restrictions are completely lifted in the country in question and by the institutions engaged in the project	Check list filled for each physical assembly and physical work activity
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Component 1 – Enabling environment and capacity

Improving the enabling environment and increasing capacity in the public institutions and beyond has the potential for reducing greatly the environmental impacts of POPs, mercury, and other hazardous chemicals in the project countries, also beyond the project period. The necessary regulation and strategies developed or enhanced in the project will reflect the multilateral chemicals conventions in question, which have themselves been designed to minimize adverse environmental and social impacts[1].

Hence, the potentially negative impacts of the activities of Components 1 and 2 to be dealt with here are those described below.

Table 6: Mitigation measures – Component 1:

Potential impact	Measures	Timing	Indicator
Climate gas emissions and fossil fuel depletion from international and regional flights	Face-to-face training and other project activities will be pooled in the missions to minimize the number of flights.	Throughout project	Mission reports showing that project activities were pooled optimally

	As far as possible, on-line meetings and workshops will be applied, to minimize number of flight trips. Initial face-to-face meetings may be required to establish personal contacts.	Throughout project	Meeting reports
	In the project, the Internet connections of the National Project Focal Points will be checked, and if needed and feasible, improved with minimal measures.	Within first ½ year	Completion notice of upgrade
Stakeholder involvement	Consultation workshops and awareness raising activities are integral elements in the project, including in Components 1 and 2. See the CEO Endorsement Request document for details (Components 1 and 2 and section on stakeholder management).	Throughout project	MTR and FT reports
Equal opportunities in training activities	A gender expert will review all planned trainings, expert ToRs, and contracts for the training activities, to secure equal opportunities across genders through explicit invitation policy and participants selection. See also the gender assessment in Annex M to the Request for CEO Endorsement document.	Throughout project	Draft invitations and training statistics
	Secure physical access or adequate assistance to enable participation of any disabled participants.	Throughout project	Mission /meeting reports

Component 2 – Awareness raising

Table 7: Mitigation measures – Component 2:

Potential impact	Measures	Timing	Indicator
Selection of target groups and communication means	Outreach to citizen groups closely affected by the project, such as for example waste pickers to be trained and neighbours to waste storage facilities will be engaged actively through the stakeholder engagement process of the relevant activities. See description of Component 3 measures below.	See Component 3 measures below.	See Component 3 measures below.

	<p>General population: Getting a high impact in awareness raising to the public is very expensive if all groups, including the poorest and disadvantaged shall be reached. Poor and marginalized groups are often the hardest groups to get in contact with. Besides, their attention span regarding chemicals management may generally be smaller because they have more acute and tangible concerns in their lives. In the project it is therefore planned to focus outreach to the public to the primary target groups women and youth. Women are often the main caretakers in families and are known to generally be more attentive to risks that can affect their families, such as hazardous products. Besides, women are more frequent users of such products as skin lightening creams and mercury thermometers that can pose health risks. Youth are tomorrow's decision makers and family caretakers and can be reached through their education; basic as well as advanced.</p> <p>Social media are a relatively low cost means to affect large parts of the population. Social media will therefore be a major element in the outreach to the general population, but traditional means like radio, television and printed medias will also be used, as feasible, and possibilities for low-cost use of these broadcasting medias will be explored.</p>	Throughout project	Outreach activities completed (MTR and FT)
	Outreach to decision-makers, public officials and selected private sector groups will be done through direct written and electronic communication, and – primarily – through meetings and workshops, for which the measures described for Component 1 above apply in the project.	Throughout project	Outreach activities completed, event statistics
	Outreach to labour forces will primarily take place in private sectors directly engaged in project activities, such as customs officers, waste pickers, official waste workers, recycling industry workers, and pharmacists engaged in mercury product collection. Such workers will be reached through direct oral training and communication, and if feasible through written or electronic communication and instructions.	See Component 3 measures below.	Outreach activities completed, event statistics
	Outreach to local communities directly affected by Component 3 activities such as build-out or establishment of waste storage facilities will be done through community meetings (with local chiefs and if needed public meetings) and written and electronic communication, as relevant and feasible.	See Component 3 measures below.	Meeting reports, communication materials
Equal opportunities in training participation and hiring of experts	A gender expert will review all planned trainings, expert ToRs and contracts for the awareness raising activities to secure equal opportunities across genders through explicit invitation policy and participants selection. See also the gender assessment in Annex M to the Request for CEO Endorsement document.	See component 3 measures below	Meeting reports, ToRs, contracts, communication materials

Culturally sensitive outreach	The outreach activities will need to be culturally adapted to assure positive reception. This also means that certain national outreach elements may need to be adapted to cultural particularities in each country, for example such as main religions present. This will be secured by the national project secretariats.	Throughout project	Outreach material
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Component 3, Output 3.1 – Permanent facilities for interim storage of hazardous waste awaiting final disposal

Table 8: Mitigation measures – Output 3.1:

Potential impact	Measures	Timing	Indicator
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Selection of facility/location	<p>The facilities for interim storage of hazardous waste will preferably be selected among existing facilities for the same purpose, but where the installations need upgrading to secure environmentally safe storage of highly toxic chemical waste such as pesticides, PCB, and mercury. In case an existing facility is selected, the goal of the project will be to make the facility safer than it already is and perhaps increase the storage capacity is needed and feasible. If no suitable facilities exist in advance, it will be considered to construct a new facility, provided there is sufficient national ownership and a suitable institution that can run the facility sustainably. Whether an existing or a new facility will be used, it will be selected/located based on a specific and detailed environment and social assessment to be made for this purpose that considers all the risks and potentially adverse effects types dealt with in this report, including but not limited to:</p> <ul style="list-style-type: none"> · Safe distance to: <ul style="list-style-type: none"> o human dwellings and related issues (disadvantaged groups, indigenous groups, etc.), o protected nature and other sensitive nature types (including relevant biodiversity concerns, if any), o prioritised groundwater reservoirs, and o prioritised cultural heritage sites/interests (proximity is not very likely, but it should be checked). · Adequate precautions against climate disasters (flooding). · Optimal transport possibilities for incoming waste and for export of waste for treatment abroad (near major cities, main roads or train connections and harbours, as relevant). <p>If possible and adequate, locations that are already designated in local planning for risk industries/activities will be preferred.</p>	Selection phase Years 1-2	Specific and detailed environment and social assessment report
Climate change resilience in facility design (changed precipitation patterns).	Design the facility (changes) to make it resilient to changed precipitation patterns, notable increased intensity, and duration of rain episodes (roofs, sewage systems, sewage chemicals safety traps, compartmentalisation).	Design phase: Year 1-2	Designs elaborated

Stakeholder involvement	<p>Securing adequate stakeholder involvement in the selection process and locally adapted safety measures is a priority in the project. The process should involve all relevant potentially affected local population groups, including but not limited to relevant local authorities, any proximate neighbours to the facility, relevant local citizens groups, the local chief(s), any affected disadvantaged groups (including and any squatters on the facility grounds).</p> <p>The contact point in this process will for all stakeholders, including the local communities affected, be the National project Focal Points (NFPs).</p>	<p>Selection: Year 1-2, Construction: Year 3-4</p>	<p>Selection: Environment and social assessment report Construction: FT report</p>
Measures to avoid /reduce pollutant exposure from facility and during project operations	<p>The improvements of existing facilities or construction of new facilities should be designed according to the requirements for safe hazardous waste handling of the Stockholm, Minamata and Basel Conventions, and according to good international design standards, adapted as necessary to make them secure and sustainable under the prevailing conditions (chemicals spills, explosion risks, temperatures, monsoon precipitation, draught, safety against theft and terror, etc.).</p> <p>Instruction manuals for operations and maintenance will be developed, and training in the use of the instructions will be performed during the project phase.</p> <p>Within the project period, all relevant measures will be taken to secure an optimal handing over of the upgraded/constructed facility to the entity responsible for its continued sustainable and safe operation.</p>	<p>Design phase: Years 2-3 Instructions and training: Year 4-5 Handing over: Year 4-5</p>	<p>Design descriptions Instructions and training statistics Handing over documents</p>
Ensure safe and healthy working conditions in facility (working instructions, facility design, PPE, ToRs)	<p>The facility upgrade/construction and the site operations will be designed to inherently minimize all relevant risks in the working environment; the use of personal protection equipment (PPE) should only be a second measure to include when other options are not available.</p> <p>Instruction manuals for secure and safe operations and maintenance will be developed, and training in the use of the instructions will be performed during the project phase. The instructions will include, but not be limited to detailed work instructions, check lists, use of PPE. ToRs for all job positions will include explicit descriptions of responsibilities for ensuring a safe working environment (management on all levels and workers).</p>	<p>Design phase: Years 2-3 Instructions and training: Year 4-5</p>	<p>Design descriptions Instructions and training report</p>
Gender: Ensure equal opportunities in any hiring of employees (ToRs)	<p>The facility will have/get several job functions, both administrative and practical, and Terms of Reference (ToR) for its job positions shall explicitly enhance equal opportunities for genders. A gender expert will review the ToRs and human resources policy of the facility to guarantee equal opportunities. See also the gender assessment in Annex M to the Request for CEO Endorsement document.</p>	<p>Years 4-5</p>	<p>ToRs</p>

Outputs 3.2 and 3.3 – POPs pesticides wastes destroyed and environmentally sound management of PCBs

This section deals with both Output 3.2 and 3.3 as their potential negative impact and mitigation plans are similar in character.

Obsolete pesticides and PCB represent an acute environmental threat where they are located, notably if they are contained in inadequate or damaged containers. Elimination of these pollutants from their current sites require the following key operations of physical character that may pose a risk: 1) Re-packaging into UN approved containers, 2) loading of the containers onto trucks for transport 3) centralisation of containers to intermediate storage site, 4) off-loading of containers s at the storage site, 5) loading and stowage of containers into ISO shipping containers suitable for shipping/export (if not done previously), 6) overseeing and securing containers' and barrels' conditions during interim storage, 7) road and/or rail transport of containers to a suitable export harbour (for land-locked countries this needs to go through neighbouring countries), 8) loading of containers on ship, 9) overseeing and securing containers' conditions during shipping, 10) off-loading and transport of containers to final treatment site, 11) final treatment/disposal.

It should be emphasized that the project also includes training and promotion of integrated pest management practices (in Components 1 and 2) and training in proper labelling and maintenance of any PCB-containing electrical equipment that is identified but not eliminated within the project period, as relevant. See the CEO Endorsement Request document for details.

In line with BAT/BEP this project will be using a risk management framework in common with other GEF programmes focussing on chemicals and waste (such as the FAO Environmental Management Tool Kit series which is an established series of documents dealing with the safeguarding and disposal of obsolete pesticides). In general terms, the CEO Endorsement Request document sets out higher level risks that give bearing to risk assessment and risk mitigation activities carried out later during the project. During the early implementation phase, detailed data collection activities, such as inventory, will inform in-depth risk assessment (environmental impact assessment) and development of specific risk mitigation measures as part of environmental and social management planning. This Environmental and social scoping report sets out a frame structuring risk assessment and risk mitigation activities that will give rise to final risk management activities conducted as part of the implementation phase of the project.

Table 9: Mitigation measures – Outputs 3.2 and 3.3:

Potential impact	Measures	Timing	Indicator
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Measures to avoid /minimize pollutant exposure during project operations (pollution, biodiversity, land use, indigenous, Community HSS)	<p>Based on detailed inventories to be conducted as part of the project, undertaking of detailed risk assessment of obsolete pesticide stores and stocks contained and development of Environmental and Social Management Plans (ESMP) which will set out mitigation measures for each risk identified. The same applies for equipment confirmed to contain PCB concentrations that require action. The ESMP will include the following: All steps to be carried out by trained personnel, safeguarding to be conducted according to ADR / IMDG[2] using UN specified containers and appropriate personal and environmental protection measures. Selection of qualified contractors will be secured in the project through procurement of these services from expert companies and personnel selected based on detailed Terms of Reference and proper documentation of their expertise and experience. Selected contractors will be required to submit detailed management plans as part of their offers including safeguarding, transport, emergency, and disposal plans. In general terms international service providers will be responsible for safeguarding of high and medium risk stores, while national teams will conduct safeguarding of lower risk stores. They will be given advance proper training by relevant experts as part of the project to secure adequate performance standards. Operations performance will be monitored by project staff.</p> <p>For project countries where a permanent facility for interim storage of hazardous waste will be upgraded/established, these facilities will be used for Steps 4-6. For other countries, a short-term interim storage place will be used, preferably selected among existing major storage sites for the same chemicals (such as pesticide storage stocks at major public users [or transformer maintenance/storage sites for PCB-containing electrical devices]). Such short-term storage sites will be selected according to the principles described for Output 3.1 above, however taking into consideration that the storage will only take place within the short project period. The storage sites selected will be upgraded as needed with minimum efforts that secure the short-term storage, such as a perimeter fence, an open roof above the containers, and similar measures as per international standards for such operations.</p> <p>Export of the wastes requires advance permits in accordance with the Basel and Bamako Conventions, as relevant, to be obtained by the company procured for export and final treatment.</p>	<p>Inventories year 1-2</p> <p>Risk assessment year 2-4</p> <p>Packaging, transport, and disposal year 4-5</p>	<p>Procurements ToRs</p> <p>Any trainings: Instructions and training statistics</p> <p>Inspection reports</p> <p>Short-term storage: Upgrade design descriptions and ToRs</p>
Measures to avoid /minimize pollutant exposure during project operations (labour)	Proper protection of the personnel involved in the operations 1-11 listed above is a high priority in the project and will be secured either by procurement terms stipulating the needed training and protection equipment, or by providing such training and equipment as part of the project, as relevant and appropriate.	As above, but always prior to actual physical steps	As above

Output 3.4 – Reduced uPOPs emissions and releases from municipal waste management through reduction of open burning of waste

The scope of Output 3.4 is to minimize uPOPs (and other hazardous pollutant) emissions through reduction of open burning of waste. The methods applied include increased/improved collection of valuable waste fractions (focusing on plastics), increased/improved manufacturing of useful products from recovered plastics by existing companies, [promotion of replacement of single-use plastics with manufacturing of sustainable packaging from local materials], and promotion of proper waste management practices.

Table 10: Mitigation measures – Output 3.4

Potential impact	Measures	Timing	Indicator
Measures to minimize pollutant releases from recycling operations and production of sustainable packaging materials	<p>Reductions of pollutant releases from manufacturing of recovered plastics will be achieved through the following measures in the project:</p> <ul style="list-style-type: none"> · Training in plastics collection and sorting to increase recycling while avoiding plastic types that are not optimal for the production due to chemical composition (for example thermo-set plastics) or plastics that may likely contain undesired additives (for example brominated flame retardants and phthalate plasticizers). · Proper disposal at approved landfills (or other safe solutions) of any collected plastics that are sorted out and not used for manufacturing, as well as for other solids removed from the plastics. · Optimization of manufacturing conditions (on a minimal need basis), as feasible. · Improvement/establishment of any needed wastewater treatment or any needed emission reduction equipment (on a minimal need basis), as feasible. <p>Similarly, reductions of pollutant releases from production of sustainable packaging from local materials will be promoted through securing proper waste management and proper (low-tech) treatment of any effluents and emissions (it is expected that any such production selected for support in the project will be handy craft dominated with minimal adverse environmental impacts).</p>	Years 3-5	<p>Training report</p> <p>Instructions /ToRs for operations and upgrades</p> <p>Inspection reports</p>
Gender: involvement of women and children planned training activities	A gender expert will review all planned trainings to ensure that women and children in the waste pickers groups are aware of potential health risks and how they can act to lower these risks. See also the gender assessment in Annex M to the Request for CEO Endorsement document.	Throughout project	Training reports

Promote safe working conditions for waste pickers, recycling workers and production workers	<p>Waste picking is generally dirty work with fume and dust exposure, risks of contact with sharp objects and vermin, and heavy lifts. The waste pickers involved in the project will be trained in avoiding open waste burning (which they may otherwise do to isolate metals) and safer working conditions, and they will be provided with basic personal protection equipment such as safety boots/shoes, gloves, and dust masks during the project period.</p> <p>Similarly, supported manufactures of recovered plastics and producers of sustainable packaging materials will be trained in securing proper work environment and safety, and be supported in increasing safety in the operations and providing basic personal protection to their employees, as needed and feasible.</p>	Years 3-4	<p>Training reports</p> <p>PPE purchase receipts</p>
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Output 3.5 – Reduced availability and use of mercury-containing products and models for their proper disposal

This output includes two elements: 1) Promoting the use of alternatives to mercury-added products, and 2) demonstrating models for collection and disposal of mercury-added products waste in a situation where general national systems for separate environmentally safe hazardous waste collection is absent.

In many products uses of mercury, the mercury is encapsulated in the intact product; some of the product types are however fragile, such as for example mercury thermometers and mercury-added lamps, and therefore care is required for the safe management of such products during collection and handling. Common to all mercury-added products is however that the mercury is likely to be released to the environment during improper waste treatment, either quickly through waste burning or through product breakage and gradual release. This is the reason why mercury usage in products is restricted, and environmentally safe disposal is required, in the Minamata Convention.

Mercury-added products become waste when they are broken or taken out of use and disposed of or handed in for disposal/treatment. This section focuses on the environmentally safe handling of waste mercury-added products. In the general absence of separate collection of waste mercury-added products in the project countries, the project will promote substitution of mercury-added thermometers and simultaneously free households for the risk from having a mercury-added thermometer in the house. For every mercury-added thermometer handed in to participating pharmacists by a household, the household will get a free (or at a symbolic price) digital fever thermometer (maximum one per household). The mercury-added thermometers handed in will be collected by the pharmacist in a dedicated project bucket, collected by a national contractor procured for the purpose, and brought to the national facility for interim storage of hazardous waste. Public works will also be offered collection of selected self-stocked mercury-added products waste [and so will hospitals and major health clinics].

Table 11: Mitigation measures – Output 3.5:

Potential impact	Measures	Timing	Indicator
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Measures to avoid /reduce mercury exposure during project operations	<p>The pharmacies, public works (and hospitals/clinics, as applicable) included in the project will receive written instructions on how to handle and package the mercury-added products waste safely prior to collection, in accordance with national law and international standards.</p> <p>Instructions for and – if not previously given – training in the environmentally safe collection and transport of mercury-added products waste will be given to all workers involved in the collection and transport of the waste. The instructions will be in in accordance with national law and international standards and will be part of the procurement Terms of Reference. Similarly, it will be required in the Terms that only personnel having received appropriate training can carry out the work. This will be overseen by announced and un-announced inspections by project staff.</p> <p>Safe working conditions and any need for personal protection equipment will be part of the instructions and training.</p>	Years 1-3	<p>Instructions and ToRs</p> <p>Training reports</p>
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[1] While changing regulation and strategies will have physical impacts, these have the inherent goal of reducing environmental impacts as per requirements of the environment conventions concerned. The conventions are designed for reducing environmental impacts and any other effects of their design are not discussed here.

[2] IMDG – International Maritime and Dangerous Goods Code

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex L - Environmental and Social Safeguards Scoping Report - final 10	CEO Endorsement ESS	

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

This project will contribute to the following Sustainable Development Goals: 1, 3, 6, 9, 11, and 12

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
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Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Project Objective: To promote circular economy approaches within national development frameworks to achieve economic development while scaling-up investments and BAT/BEP to eliminate, reduce and control POPs and Mercury pollution sources in African LDCs.]	Improved environment and health through elimination of POPs pesticides and PCBs and reduced emissions and releases of uPOPs and mercury.	Currently the implementation of the Stockholm and Minamata Conventions is weak in the 11 participating LDCs as the majority of the objectives of the Convention are largely un-implemented. Despite efforts made by countries, POPs and mercury are still present due to the lack of appropriate human and financial resources, as well as the lack of understanding of the Chemical related MEAs	As further specified below, establishing of project implementation bodies, project assessment activities, initial outreach to involve stakeholders in update/establishment of national legislation and strategies, and development of said legislation/strategies will be accomplished by mid-term of the project.	Relevant legislation and strategies developed and endorsed; capacity building and outreach finalised; investment projects established. Resulting in a significantly increased implementation of the Minamata and Stockholm Conventions. including targeted POPs eliminated; foundation for significant uPOPs and mercury emission /releases reductions established and beginning reductions observed; increased knowledge among involved stakeholders of the need for ESM of chemicals and waste and general.	All project participants: governments, project team members and involved stakeholders are dedicated to achieving actual increased knowledge and awareness and reduced current and future emissions and releases of targeted POPs and mercury. National executing agencies work goal-oriented at forwarding project objectives and spend the national project budgets effectively and efficiently with this sole purpose in view. The implementing agency and the executing entities/ governments are dedicated to reaching the project objectives and work rigorously, continuously, effectively and efficiently throughout the project period to engage government and other project participants and to meet project objectives in a timely manner with high quality deliverables and within the project budget.

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Component/Outcome 1 Conducive enabling environments based on strengthened legal and regulatory regimes provide a sustainable basis for the environmentally sound management and disposal of chemicals and waste, in particular POPs and mercury and its compounds	Output 1.1: Legal framework for POPs drafted/updated with recent elements, legal framework for mercury drafted	POPs and mercury management legislation, regulations, or strategies for sound management unavailable or inadequate	11 comprehensive assessments of the national legal and institutional framework completed New/upgraded national regulations to implement POPs and mercury conventions drafted	New or amended legislation and regulations which include specific POPs and mercury provisions adopted by 11 project country governments and disseminated to key national stakeholders Advisory support and required technical assistance in the implementation of the national legislation and regulations and strategies on POPs and mercury delivered through continuous project support	Governments are willing and ready to adopt regulations, etc. that target the conventions' requirements. A fruitful cooperation among project staff, government, and key stakeholders on technical, legal, and financial matters is ensured so that the new or amended regulatory package is implementable, enforceable, and sustainable.

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
	Output 1.2: Strengthened application and enforcement of updated legislative and regulatory frameworks enhanced through capacity building and sharing of lessons learned. Number of participants trained on and confident in the prioritised training topics.	While some capacity exists among government officers in charge, there is a need to widen the knowledge of the two conventions' requirements and how these can be enforced in the countries. The infrastructure for enforcement is generally weak among participating LDCs.	Technical assistance to the environmental authorities on the enforcement of the new or amended legislation and technical regulations related to POPs and mercury delivered through seven specialized trainings in each country and a total of 100 stakeholders trained and joint participation of project staff, government representatives and relevant private sector through online and face-to-face trainings	250 national officers trained in each participating country and POPs and mercury enforcement plans developed representatives and relevant private sector	The national project focal points and other lead stakeholders ensure an effective, efficient and participative execution of national training sessions, and committed engagement among the training participants
	Output 1.3: Strengthened national methodologies established to identify, assess, and manage sites contaminated by hazardous chemicals	There is a need for establishing national strategies for identification, assessment and management of sites contaminated with hazardous chemicals, exemplified by POPs and mercury	11 national strategies on contaminated sites drafted that meet Stockholm and Minamata Convention requirements	11 national strategies adopted by governments that meet Stockholm and Minamata Convention requirements, and disseminated to relevant stakeholders	Governments prioritize the development of national strategies to manage POPs and Hg contaminated sites

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
	Output 1.4: Integrated regional and national strategies and approaches to implement environmentally sound management of chemicals and waste. Number of participants trained on and confident in the prioritised training topics.	Participating countries do not have an integrated and consolidated multi-sectorial approach to Sound Management of Chemicals that is coordinated with countries in the region.	Three annual regional sharing and training workshops held on specified subjects (e.g. illegal traffic of chemicals, hazardous chemicals and risk to human health and the environment, women and chemicals and waste, etc), including with cross-pollination among project countries with similar challenges and priorities.	Five annual regional sharing and training workshops held.	Project countries are willing to share their experience and ensure participation of both top officers and relevant technical personnel in the regional workshops. Countries are willing to work nationally and regionally to address risks of chemicals and wastes.
Component/Outcome 2 The environmentally sound management of chemicals and waste mainstreamed into development decision making and into consumer choices	Output 2.1: Increased awareness amongst regional and national development planners of the role of ESM of chemicals and waste within Sustainable Development policies and strategies. Number of participants trained on and aware of the need for ESM of chemicals and waste in policies, plans and programmes	The knowledge of and priority given to ESM of chemicals and waste among policy makers is still weak in the participating LDCs	Two national awareness raising workshops held on building widespread support for strengthening legal and regulatory frameworks and institutional arrangements and capacities for ESM of chemicals and waste. Key stakeholder groups developed a plan to reduce POPs and Hg emissions through the measures provided through the project. Cooperation agreement between the national project coordinator and the ministers of agriculture and industry drafted.	Three national awareness raising workshops held on building widespread support for strengthening legal and regulatory frameworks and institutional arrangements and capacities for ESM of chemicals and waste. Agreements implemented and resulting in actions to be included as part of the annual workplan for agriculture and industry groups	The national project focal points ensure an effective, efficient and participative execution of national awareness raising sessions, and committed engagement among the workshop participants. The government lead institutions are willing to consider measures to reduces POPs and mercury.

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
	Output 2.2: Increased capacity and knowledge of public officials to incorporate ESM of chemicals and waste in public policies and programmes. Number of participants trained on and aware of the need for ESM. Number of additional meetings held with stakeholder groups.	The implementation of ESM for hazardous chemicals requires that a wider group of public officials from other ministries, departments, agencies than those directly responsible for the conventions, are aware of the need, which is currently not the case.	Development of training programmes for national public officials and private sector developed	Two workshop held in each country. Five meetings held with key stakeholder groups. At least 200 officers in each country are trained and at least 8 countries adopt chemicals and waste programmes in their next National Development Plans	The national project focal points ensure an effective, efficient and participative execution of national awareness raising sessions. Government and other stakeholders are willing to take part in workshop and meetings.
	Output 2.3: Increased engagement of key stakeholders in agriculture and industry in efforts to reduce POPs use and release. Materials prepared and disseminated.	The general awareness of the need for ESM of chemicals and waste is low among key stakeholder groups in relevant sectors such as: Agriculture, power supply sector, waste management sector and SME's etc.		Seven sets of communication materials prepared and delivered to specified target stakeholder groups in the participating countries	The government lead institutions are willing to disseminate the communication materials developed.

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
	Output 2.4: Increased engagement of civil society organisations, communities and consumers in designing, promoting and implementing ESM for chemicals and wastes. Awareness material developed. Access and download counts from project webpage and social media platforms.	The public at large has very low awareness of the hazards of the targeted chemicals. Mercury-added and POPs-containing products are traded and used with no restrictions.	Awareness strategy developed and accepted by the national project focal points and involve NGOs and civil society representatives and ministries and institutions responsible for school and higher education curriculums. Curricula developed for primary schools on Chemicals and Waste Management. A social information exchange platform for the region with national sections is designed.	National awareness raising strategy implemented involving NGOs and national ministries involved on Chemicals management; one national curricula (per country) developed and one social information exchange platform operational and delivering training and resources on POPs and mercury issues.	The ministries and institutions responsible for school and higher education curriculums are willing and able to promote positive cooperation and a wide use of the outreach material in the relevant educational institutions
Component/Outcome 3 POPs and mercury reduced or phased out from processes and products through substitution, environmentally sound management and the application of BAT/BEP	Output 3.1: National facilities established for interim storage of mercury and POPs waste awaiting final disposal. Number of facilities improved/established.	The infrastructure for ESM of hazardous waste is very limited in participating LDCs; facilities for treatment are few and environmentally inadequate and they treat only few hazardous waste types, not POPs nor mercury.	Suitable sites for improvement/establishment of haz waste storage assessed and selected in the 9 countries participating in this output.	Facilities improved/established for haz waste storage in the 3 countries participating in this output (other countries that undertake Outputs 3.2, 3.3 and/or 3.5 will have short term storage sites only).	Suitable sites are selected and approved/accepted by all relevant stakeholders. Government and private owners of existing facilities cooperate actively and takes ownership for improvement/establishment process and the finalised facilities.

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
	Output 3.2: POPs pesticides wastes destroyed. 334 tonnes of POPs pesticides waste destroyed.	The 5 of the 6 countries prioritising this output has identified obsolete pesticides, of which some are confirmed as POPs, that need ESM and the national capacity and resources for ESM are inadequate. Zambia has no identified stocks, but need a detailed inventory.	Detailed inventory and risk assessment/prioritisation conducted in the countries undertaking this output.	Re-packaging, removal and destruction of identified pesticides conducted in at least 5 of the 6 countries undertaking this output. Environmental and social risk scoping and strategies prepared for any remaining site contamination performed.	Pesticide owners cooperate in data collection and removal operations. All team members and entities involved are carefully instructed in adequate and safe handling of the waste. Experienced contractor assuring safe transport and treatment available.
-	Output 3.3: Environmentally sound management of PCB. 459 tonnes of PCB waste treated.	The 6 countries prioritising this output has identified (preliminarily) PCB waste that need ESM and the national capacity and resources for ESM are inadequate	Revised/updated national inventory of PCB-containing equipment and risk assessment/ranking performed in the 6 countries undertaking this output	Maintenance and servicing schemes for PCB equipment performed. Final disposal operations conducted.	PCB owners cooperate in data collection, development of servicing schemes, and removal operations. All team members and entities involved are carefully instructed in adequate and safe handling of the waste. Experienced contractor assuring safe transport and treatment is available.

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
	Output 3.4: Reduced uPOPs emissions and releases from municipal waste management through reduction of open burning of waste. UPOPs emissions reduced with 330 g/y.	<p>Open burning of waste informally and on landfills is common in the participating LDCs and the general waste management capacity is weak. While certain valuable waste types are collected to some degree and some facilities are already engaged in recycling of plastics, the amounts collected and recycled are deemed minimal and a substantial additional potential for diverting plastics waste from burning to recycling exists. The sector is largely informal, poorly paid and uneducated, and open burning of waste is often used as a means for identifying metals collected. This makes awareness raising on the dangers of open burning challenging while needed.</p> <p>Plastics are still very much present in the waste stream and alternative use of locally available sustainable packaging materials can be encouraged to help bring down plastic amounts burnt.</p>	<p>For the 4 countries participating in this output:</p> <p>a) Assessment of availability and feasibility of promoting local sustainable packaging materials conducted.</p> <p>b) Opportunities for potential up-scaling of manufacturing from recovered plastics identified and assessed/prioritised.</p> <p>c) Communities/opportunities for potential demonstration or up-scaling of separate collection of recoverable plastics identified and assessed/prioritised.</p>	<p>a) Promotion of suitable local alternative materials conducted.</p> <p>b) Measures for scaling up manufacture from recovered plastics implemented.</p> <p>c) Measures for demonstrating or scaling up separate collection of recoverable plastics implemented.</p>	<p>National and local government is positively encouraging and supporting engagement and training of public and private sector, including waste pickers.</p> <p>a) Communities/manufacturers of local packaging materials are investing own time and means, as feasible, in taking ownership in the supported promotion of their products.</p> <p>b) Manufacturers from recovered plastics are investing own time and means, as feasible, in taking ownership of implementing and running the improved production capacity.</p> <p>c) Local organisations and community leaders support the formalisation and other measures to demonstrate or scale up separate collection activities, and the participating waste pickers cooperate and receive training towards achieving project objectives.</p>

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
	Output 3.5: Reduced availability and use of mercury-containing products and models for their proper disposal demonstrated. Mercury-added product input to society reduced with 57 t.	There are currently no restrictions on mercury-added products import and trade in the participating LDCs and the sales of such products continue. While alternatives are available, they are generally more expensive, and as consumers are unaware of the danger of mercury, they do not give incentives for avoiding mercury. Separate collection and ESM of mercury containing waste is absent in the participating LDCs, meaning that mercury is co-mingled with municipal waste and dumped, burnt and landfilled with resulting emissions and releases.	For the 2 countries participating in this output: a) Detailed inventory of availability, flows of, and societal drivers for, mercury-added products performed. b) Capacity and capability to analyse certain products suspected to contain mercury provided (XRF analysers provided and training in its use performed). c) Possibilities for model systems for collection and disposal of mercury-added products assessed and planned.	c) Model systems for collection and disposal of mercury-added products implemented and collected mercury-added waste products disposed safely.	a) Trades and importers (and the any producers present) are willing to share data on products for which data cannot be extracted from trade statistics. b) Project staff and environmental inspectors are adequately trained in the performance of market inspections (under Component 1) and use of guidelines and the handheld XRF analyser to identify mercury-added products targeted. c) Pharmacists are willing, adequately instructed for the collection of specified mercury-added products. Experienced contractor assuring safe transport and final disposal is available.
Component/Outcome 4 Effective and efficient project delivery involving informed decision making at regional and national levels	Output 4.1: Project website created and maintained with publishable materials	N/A	Project website created (during 1st project year) and maintained with publishable materials available at the time	Project website maintained with all publishable project materials available including annual and final reports.	Project materials finalised in a timely manner
	Output 4.2: Project Steering Committees established; meetings held	N/A	Project Steering Committees established nationally (NPSC) and regionally (RPSC); meetings held	Project Steering Committees established nationally and regionally; all meetings held (one per year)	All the relevant stakeholders well aware of GEF/AfDB rules, and willing to cooperate in the timely establishment of project management structures

Component/outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
	Output 4.3: Yearly lessons-learned report/publication prepared and disseminated	N/A	Yearly lessons-learned reports/publications prepared and disseminated	All yearly lessons-learned reports/publications prepared and disseminated at international fora like COPs for POPs and Hg	Project reporting and planning mechanisms and templates communicated in a timely manner and agreed with project management staff at all levels
	Output 4.4: Measuring increasing awareness and understanding of the requirements for the environmentally sound management of chemicals and waste	N/A	Monitoring plan established on awareness and understanding of the beneficiaries and stakeholders. Interim monitoring performed and adaptive measures undertaken.	Continued monitoring and adaption throughout the project. Final surveys will be included in assessments of the success of project actions	Clear monitoring plan established and known and committed to by output managers.
	Output 4.5: End of project publication prepared and disseminated	N/A		End of project publication prepared, posted on project website and disseminated	Goals of the project are well known and committed to by project staff at all levels
	Output 4.6: Mid-term and terminal project evaluations	N/A	Mid-term evaluation and auditing activities carried out	Terminal and auditing activities carried out; terminal reporting completed and submitted to project countries, AfDB and GEF	Project stakeholders actively cooperating in all evaluation and auditing activities Evaluation and auditing are carried out in an independent and professional way, with the purpose to enhance project activities and generate recommendations for project success and sustainability after project closure

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).

This is currently being addressed and will be sent upon re-submission of the GEF CEO Endorsement documentation.

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

This is currently being addressed and will be sent upon re-submission of the GEF CEO Endorsement documentation.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)

ANNEX E: Project Map(s) and Coordinates

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

Kindly see Annex E - Project Map(s) and Coordinates

ANNEX F: Project Budget Table

Please attach a project budget table.

Kindly see Annex F: Project Budget Table