



**FAO/GLOBAL ENVIRONMENT FACILITY  
PROJECT DOCUMENT**



<b>PROJECT Title:</b>	Disposal Of Obsolete Pesticides Including POPs And Strengthening Pesticide Management Of The Comité Permanent Inter-Etats De La Lutte Contre La Secheresse Dans Le Sahel (CILSS) Member States (FSP)		
<b>PROJECT SYMBOL:</b>	GCP /INT/147/GFF		
<b>RECIPIENT COUNTRY/IES:</b>	Burkina Faso, Chad, Cape Verde, Gambia, Guinea Bissau, Mali, Mauritania, Niger and Senegal		
<b>RESOURCE PARTNER:</b>	Global Environment Facility		
<b>FAO PROJECT ID:</b>	613564	<b>GEF PROJECT ID:</b>	4740
<b>EXECUTING PARTNER(S):</b>	CILSS Executive Secretariat and its technical and administrative branches, ECOWAS, UEMOA and Ministries of Agriculture		
<b>EXPECTED EOD (STARTING DATE):</b>	1 March 2015		
<b>EXPECTED NTE (END DATE):</b>	28 February 2019		
<b>CONTRIBUTION TO FAO'S STRATEGIC FRAMEWORK</b>	Strategic Objective 2: Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner		
<b>GEF FOCAL AREA:</b>	CHEMICALS		
<b>GEF STRATEGIC OBJECTIVES:</b>	CHEM-1 Outcome 1.4 POPs waste prevented, managed and disposed of, and POPs contaminated sites managed in an environmentally sound manner		
<b>ENVIRONMENTAL IMPACT ASSESSMENT CATEGORY:</b>	B		
<b>Financing plan:</b>			
			USD
<b>GEF allocation:</b>			7,450,000
<b>Co-finance:</b>	CILSS		10,000,000
	ECOWAS		5,458,965
	CropLife International		4,430,000
	PIP-COLEACP		820,419
	IITA		120,000
	FAO		4,508,300
	<b>Total Co-finance</b>		<b>25,337,684</b>
	<b>Total Budget</b>		<b>32,787,684</b>

## EXECUTIVE SUMMARY

About 50% of the population in the Comité Inter Etats de Lutte contre la Sécheresse au Sahel (CILSS) countries (Burkina Faso, Chad, Cape Verde, Gambia, Guinea Bissau, Mali, Mauritania, Niger and Senegal) is rural and highly dependent on agriculture. Due to climate change and progressive desertification, agricultural lands are decreasing, jeopardizing efforts of the CILSS member states to achieve sustainable development. In addition, under the Sahelian climatic conditions, pests and disease frequently cause extensive crop losses during crop production and post harvest. In an attempt to control pests and disease associated with crops (locusts and other transboundary pests) conventional pesticides are used excessively.

In CILSS member states, pesticide wastes and unused pesticides are stored under poor conditions in the vicinity of public recreational spaces, water sources, fields and pastures, protected areas and areas of rich biodiversity. Spills and leaks from these stocks are hazardous to local communities, and the receiving environment, constituting a threat to local and global biodiversity. Every year cases of poisoning are reported, and exposure to toxic chemicals regularly causes deaths.

As a result of unsound pesticide management in the region, more than 500 tonnes of obsolete pesticides and associated waste and a number of heavily contaminates sites currently exist and are posing high risk to communities and the environment in the project countries.

Building on past and ongoing pesticide management related efforts, this project aims to eliminate the existing obsolete pesticides, including Persistent Organic Pollutants (POPs) and associated wastes, remediate contaminated sites. The project also aims to strengthen the capacity for sound pesticides management at regional and national levels in order to prevent future accumulation in the nine participating CILSS countries. Specifically, the project will: safely dispose of POPs and other obsolete pesticides and remediate heavily pesticide-contaminated sites (Component 1); implement management systems for empty pesticide containers (Component 2); strengthen the regulatory framework and institutional capacity for sound management of pesticides (Component 3); and promote alternatives to POPs and other conventional hazardous chemical pesticides (Component 4).

The project is complex as it has components that will be implemented at both regional and national level and involves a wide range of stakeholders with diverse interests and capacities. The key regional intergovernmental institutions involved are the CILSS Secretariat and its specialized technical Institut du Sahel, the Economic Community of West African States (ECOWAS) and its West African Pesticides Registration Committee (WAPRC), and the West African Economic and Monetary Union (UEMOA). At the national level, key institutions include the Ministries of Agriculture, Environment and Health, and multi-stakeholder National Pesticide Management Committees. A number of national, regional and international NGOs as well as the private sector will also participate in the project.

FAO will be the GEF Agency responsible for the supervision and provision of technical guidance during the implementation of the project.

The project has a duration of four years and a budget of USD 32 877 610, of which USD 7 450 000 is GEF financing and USD 25 427 610 co-financing.



## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	<b>2</b>
<b>GLOSSARY OF ACRONYMS</b> .....	<b>5</b>
<b>SECTION 1: RELEVANCE</b> .....	<b>7</b>
1.1 GENERAL AND SECTORAL CONTEXT.....	7
1.2 INSTITUTIONAL, POLICY AND LEGAL CONTEXT .....	8
1.3 RATIONALE.....	9
1.4 FAO's COMPARATIVE ADVANTAGE.....	15
1.5 STAKEHOLDERS AND BENEFICIARIES .....	15
1.6 LESSONS LEARNED FROM PAST AND RELATED WORK .....	17
1.7 LINKS TO NATIONAL DEVELOPMENT GOALS, STRATEGIES, POLICY AND LEGISLATION, GEF AND FAO's STRATEGIC OBJECTIVES .....	17
<b>SECTION 2: PROJECT FRAMEWORK AND EXPECTED RESULTS</b> .....	<b>19</b>
2.1 PROJECT STRATEGY .....	19
2.2 PROJECT OBJECTIVES .....	19
2.3 PROJECT COMPONENTS.....	19
2.4 GLOBAL ENVIRONMENTAL BENEFITS .....	29
2.5 COST EFFECTIVENESS.....	30
2.6 INNOVATIVENESS.....	30
<b>SECTION 3: FEASIBILITY</b> .....	<b>31</b>
3.1 ENVIRONMENTAL IMPACT ASSESSMENT .....	31
3.2 RISK MANAGEMENT.....	31
<b>SECTION 4: IMPLEMENTATION AND MANAGEMENT ARRANGMENTS</b> .....	<b>34</b>
4.1 INSTITUTIONAL ARRANGEMENTS.....	34
4.2 IMPLEMENTATION ARRANGEMENTS .....	35
4.3 FINANCIAL PLANNING AND MANAGEMENT.....	41
4.4 FINANCIAL MANAGEMENT AND REPORTING ON GEF RESOURCES.....	43
4.5 PROCUREMENT.....	44
4.6 MONITORING, EVALUATION AND REPORTING.....	44
4.7 PROVISION FOR EVALUATIONS.....	49
4.8 COMMUNICATION AND VISIBILITY .....	49
<b>SECTION 5: SUSTAINABILITY OF RESULTS</b> .....	<b>51</b>
5.1 SOCIAL SUSTAINABILITY .....	51
5.2 ENVIRONMENTAL SUSTAINABILITY .....	51
5.3 FINANCIAL AND ECONOMIC SUSTAINABILITY .....	51
5.4 SUSTAINABILITY OF CAPACITIES DEVELOPED .....	52
5.5 APPROPRIATENESS OF TECHNOLOGY INTRODUCED .....	52
5.6 REPLICABILITY AND SCALING UP.....	52
<b>APPENDICES</b> .....	<b>53</b>
<b>APPENDIX 1: RESULTS MATRIX</b> .....	<b>54</b>
<b>APPENDIX 2: PROVISIONAL WORK PLAN</b> .....	<b>68</b>
<b>APPENDIX 3: RESULTS BUDGET</b> .....	<b>73</b>
<b>APPENDIX 4: DRAFT TERMS OF REFERENCE</b> .....	<b>84</b>
<b>APPENDIX 5: PROCUREMENT PLAN</b> .....	<b>88</b>

## GLOSSARY OF ACRONYMS

AWP/B	Annual Work Plan and Budget
ASP	African Stockpiles Programme
BH	Budget Holder
CAADP	The Comprehensive Africa Agriculture Development Programme
CEDEAO	Communauté Economique Des Etats de l'Afrique de l'Ouest (see also ECOWAS)
CEO	Chief Executing Officer (GEF)
CILSS	Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel
CLCPRO	Commission for Desert Locust Control in the West Region
CLI	CropLife International
CMDT	Compagnie Malienne pour le Développement du Textile
COLEACP	Comité de Liaison Europe-Afrique-Caraïbes-Pacifique
CORAF	West and Central African Council for Agricultural Research and Development
CRPU	Regional Committee of Pesticides of the Union
DL	Desert Locust
DREA-AUC	Department of Rural Economy and Agriculture – African Union Commission
ECLC	Emergency Centre for Locust Operation
ECOWAS	Economic Community of West African States (see also CEDEAO)
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMPRES	Emergency Prevention System
EMTK	Environmental Management Tool Kit (series of FAO guidance documents)
EP	Executing Partner
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
FPMIS	Field Project Management Information System
GEBs	Global Environmental Benefits
GEF	Global Environment Facility
GEFSEC	GEF Secretariat
HS	Harmonized System (Customs codes)
IITA	International Institute for Tropical Agricultural
IMBA	International Biocontrol Manufacturers' Association
IOMC	Inter-Organization Programme for the Sound Management of Chemicals
IPEN	International POPs Elimination Network
IPM	Integrated Pest Management
IPPM	Integrated Production and Pest Management
LTO	Lead Technical Officer
LTU	Lead Technical Unit
IUCN	International Union for Conservation of Nature
LDCs	Least Developed Countries
LOA	Letter of Agreement
LTO	Lead Technical Officer
LTU	Lead Technical Unit
M&E	Monitoring and Evaluation
NIP	National Implementation Plan
NPMC	National Pesticide Management Committee
OED	FAO's Office of Evaluation
OSU	Oregon State University
PAN	Pesticide Action Network
PIC	Prior informed consent
PIF	Project Identification Form (GEF)
PIR	Project Implementation Review
PMU	Project Management Unit

POPs	Persistent Organic Pollutants
PPE	Personal Protective Equipment
PPG	Project Preparation Grant (GEF)
PPPs	Plant Protection Products
PPR	Project Progress Report
PRODOC	Project Document
PSC	Project Steering Committee
PSMS	Pesticide Stocks Management System
PY	Project Year
QPIRs	Quarterly project implementation reports
REA	Rapid Environmental Assessment (of contaminated sites)
ROPPA	Réseau des Organisations Paysannes et de Producteurs de l'Afrique de l'Ouest
SCPC	Société Coopérative des Producteurs de Cotton
SPC	Sahelian Pesticides Committee
STAP	Scientific and Technical Advisory Panel
TCI	Investment Centre Division (FAO)
TOR	Terms of Reference
UEMOA	West African Economic and Monetary Union (Union Economique et Monétaire Ouest-Africaine)
USD	United States Dollar
WAPRC	West African Pesticides Registration Committee
WCO	World Custom Organization

# 1 SECTION 1: RELEVANCE

## 1.1 GENERAL AND SECTORAL CONTEXT

Since the introduction of pesticides in the 1940s and 1950s, these chemicals have contributed to improved disease control and increased crop production. Conversely, they have also caused many varied and widespread adverse impacts on human health and the environment. Examples of these include death and disability among pesticide users and communities around them, global transport and bio-accumulation of persistent organic pollutants (POPs), contamination of local water supplies and loss of income to farmers whose produce contains unacceptable concentrations of pesticide residues.

The CILSS countries (Burkina Faso, Chad, Cape Verde, Gambia, Guinea Bissau, Mali, Mauritania, Niger and Senegal cover a total surface of 5 343 545 km<sup>2</sup> with a population of 77 million people in 2010. By 2025 the population is expected to reach 115 million, with approximately 50 percent residing in rural areas. Agriculture plays an essential role in feeding the growing CILSS population. In 2008, cereal production alone in West Africa was estimated at over 56 million tonnes. The production of cash crops, including cowpeas and groundnuts was estimated at over 40 million tonnes<sup>1</sup>. The production of cotton, an industrial cash crop, was estimated at 1.2 million tonnes in West Africa in 2007.

Adverse weather conditions prevailing in the Sahel, endemic crop pests, desert locust (DL) and other migratory pests frequently cause considerable crop losses during crop production and post-harvest. Moreover, due to climate change and progressive desertification, available arable agricultural lands in the region are decreasing. All these jeopardize efforts to achieve food security and sustainable development in the region.

In order to control pests, centralized purchases of large quantities of pesticides have been undertaken for use in the state-owned cotton sector. These centralized purchasing policies have resulted in extensive use of hazardous chemical pesticides, including endosulfan, which is now banned under the Stockholm Convention. Substandard pesticide products combined with intensive pesticide use have contributed towards the emergence of increased pest resistance. Currently farmers respond to pest resistance by increasing the amount of pesticides used. From 2006–2008 CILSS member-states imported USD 46 336 million worth of pesticides annually<sup>2</sup>. The heavy use of pesticides has also resulted in the widespread accumulation of obsolete pesticides, and associated contamination of the environment.

In addition to pesticides used for the control of pest and diseases in agriculture and vectors of diseases such as Malaria, over the last 20 years, CILSS countries have faced more frequent DL outbreaks. Exacerbated by climatic change, these outbreaks threaten food security, and lead to increased use of pesticides. To date, conventional pesticides continue to be the first option to control DL and related migratory pests. The failure to halt the 2003–2006 DL upsurge in West and North-West Africa in its early stages, resulted in the spraying of 2.2 million hectares of agricultural land at a total cost of USD 47 million. This included areas of Mauritania, Mali, Niger, Senegal and Chad, leaving an estimated 260 000 units of empty pesticides containers, as well as several contaminated sites. After the 2003-2006 DL upsurge, approximately 2 000 tonnes of pesticides were inventoried in the aforementioned countries.

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<sup>1</sup> réf. Etudes et Recherches Sahéliennes N° 16, 2012.

<sup>2</sup> Information from CILSS Secretariat.

In CILSS member states, pesticide waste and unused pesticides are stored under poor conditions, in the vicinity of public recreational spaces, water sources, fields and pastures, protected areas and areas of rich biodiversity. Spills and leaks from these stocks are hazardous to local communities, and the receiving environment, constituting a threat to local and global biodiversity. Every year cases of poisoning are reported, and exposure to toxic chemicals regularly cause deaths. In Benin alone an investigation identified at least 37 deaths attributable to endosulfan, after the reintroduction of the chemical in cotton growing areas<sup>3</sup>. Because distribution channels are neither adequately controlled nor regulated, some producers use hazardous and often prohibited pesticides, on food crops. The impact is often greater on the poor since obsolete pesticides are often stored in poor conditions in economically weak areas (urban and rural).

## 1.2 INSTITUTIONAL, POLICY AND LEGAL CONTEXT

### Regional Level

At regional level, pesticide management is governed by three regional regulations under three intergovernmental regional organizations, namely CILSS, the Economic Community of West African States (ECOWAS), and the West African Economic and Monetary Union (UEMOA).

In 1992, CILSS member countries adopted the Common Regulation for the Registration of Pesticides. The main objective of this regulation is to ensure rational and judicious use of pesticides in order to protect human health and the environment. The intention of the regional approach was to combine national expertise and financial resources for better evaluation and registration of pesticides to minimize entrance and circulation of harmful pesticides in the region. The common regulation was revised in 1999. It covers the nine project countries: Burkina Faso, Cape Verde, Gambia, Guinea Bissau, Mali, Niger, Senegal and Chad. It also covers new members countries: Cote d'Ivoire, Guinea Conakry, Togo and Benin<sup>4</sup>. The Sahelian Pesticide Committee (SPC) was created in 1994 as an authority to implement the regulation. SPC has a permanent secretariat based in Bamako, Mali, under the direct supervision of the Institut du Sahel.

In 2008, ECOWAS adopted a regulation pertaining to the harmonization of rules governing pesticide registration in the ECOWAS region. The ECOWAS regulation is binding upon the fifteen ECOWAS member states<sup>5</sup>, including all the CILSS member states except Mauritania and Chad, which are not members of ECOWAS. ECOWAS also adopted the establishment of the West African Pesticides Registration Committee (WAPRC) under the supervision of the ECOWAS Commission. The approved WAPRC institutional structure is composed of a technical secretariat and two sub-committees that respect agro-ecological specificities: one entity for the Sahelian zone with arid climate including 9 countries (Burkina Faso, Chad, Cape Verde, the Gambia, Guinea Bissau, Mali, Mauritania, Niger and Senegal); and another for the humid zone covering 8 countries (Benin, Cote d'Ivoire, Ghana, Guinea, Liberia, Nigeria, Sierra Leone, and Togo). These committees are responsible for the evaluation of registration applications, working closely with National Pesticide Management Committees (described below).

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<sup>3</sup> Ton P, Tovignan S and Davo Vodouhê S, Endosulfan deaths and poisonings in Benin, Pesticides News, 2000, Vol 47, pp12-14.

<sup>4</sup> These countries adopted Resolution No. 8/34/CM/99 in 2012..

<sup>5</sup> Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo.



UEMOA endorsed a regulation on harmonization of rules governing the approval, marketing and control of pesticides within UEMOA. This regulation foresees the creation of the Regional Committee of Pesticides of the Union (CRPU). This committee is not operational. All UEMOA member states (Benin, Burkina Faso, Cote d'Ivoire Guinea Bissau, Mali, Niger, Senegal and Togo) are also members of ECOWAS.

Due to the overlap in the membership of CILSS, ECOWAS and UEMOA and the need to harmonize pesticide regulation across West Africa, a tripartite CILSS-ECOWAS-UEMOA Agreement for the Management of Pesticides in West Africa was proposed by ECOWAS and approved by CILSS and UEMOA in April 2013. Under this agreement, pesticide registration and post registration will be carried out by the West African Pesticides Registration Committee (WAPRC). Institut du Sahel (CILSS SPC) is in charge, on behalf of ECOWAS and UEMOA, as of April 2013, of the set up and coordination of the Western African Pesticides Registration Committee, during the five-year-transition period 2014-2018 (transition to permanent institutional arrangements based on the experience and effectiveness of the arrangements tested during the transition period).

#### National level

At the national level, all CILSS member states have national pesticides legislations. However only five member states (Cape Verde, Guinea Bissau, Mali, Mauritania, and Niger) have amended their national legislation to incorporate key elements of the CILSS common pesticide registration system.

Implementation of the national pesticide legislations falls under the responsibility of the Ministries of Agriculture, except in Senegal and Gambia where the legislation is under the responsibility of the Ministries of Environment. CILSS SPC with the support of its partners, including FAO, have facilitated the establishment of National Pesticide Management Committees (NPMC) – called commissions or councils in some countries. This is with the exception of Guinea Bissau where a NPMC does not exist. NPMCs are hosted by Ministries of Agriculture in all project countries (by Ministries of Environment in Senegal and Gambia). Members of these national committees are supposed to be representatives of key institutions involved in pesticides management including Ministries of Agriculture, Health and Environment, customs services, the private sector and NGOs. NPMCs are responsible for the implementation of SPC recommendations and post-registration activities at the national level including:

- Management of each registered product including inspection and quality control at import and throughout national pesticides distribution networks;
- Application of Good Agricultural Practices (GAPs) such as monitoring the effectiveness of registered products in the field, pests resistance to the products, side effects on human health and the environment, residues in plant products and environment; and
- Communication of results collected to other CILSS member countries.

Important to note that even though the committees are supposed to be operational in all countries, currently only NPMC-Mali is operational.

### **1.3 RATIONALE**

#### **a) Issues and barriers to sound pesticide management in CILSS**

The key issue is that due to the poor management of pesticides in the region, significant stockpiles of obsolete pesticides have been generated. During project preparation, inventories of obsolete stocks and associated wastes were completed and heavily-contaminated sites posing high risk to human health and the environment were identified. Table 1 below provides a summary of inventories of identified stocks.

**Table 1 Inventory of obsolete pesticides and associated wastes, October 2013**

Country	Pesticides (tonnes)	Empty containers (tonnes)	Number of priority contaminated sites	Contaminated materials (fertilizers and seeds) (tonnes)
Burkina Faso	100	7	3	60
Mauritania	165	40	1	0
Niger	150	10	1	15
Senegal	20	0	3	0
<b>Total</b>	<b>435</b>	<b>57</b>	<b>8</b>	<b>75</b>

Some of the inventoried stocks and empty pesticide containers are under poor storage conditions, in the vicinity of public areas and important water bodies. In Niger, for instance, some of the stores are located very close to Lake Chad and Niger River.

The large volumes of pesticides imported into the region result in the production of vast numbers of pesticide containers. These containers pose a significant risk because empty container management is generally overlooked in the lifecycle management of pesticides in the region. Approximately 11 million empty containers have been generated in the cotton production areas in Burkina Faso, Chad, Mali and Senegal over the last three years as shown in Table 2.

**Table 2 Empty pesticides containers generated in the key production areas of cotton in CILSS member states<sup>6</sup>**

Country	2010/11	2011/12	2012/13	TOTAL
Burkina Faso	1 352 000	1 600 000	1 800 000	4 752 000
Mali	972 000	1 780 000	2 000 000	4 752 000
Chad	208 000	280 000	400 000	888 000
Senegal	104 000	80 000	120 000	304 000
<b>Total</b>	<b>2 636 000</b>	<b>3 740 000</b>	<b>4 320 000</b>	<b>10 696 000</b>

Through consultations conducted during project preparation, it became evident that awareness among communities on the impact of empty pesticides containers on human health and the environment in agricultural production areas is virtually non-existent in the project countries. Containers are currently seen as useful, and are quickly used by community members, especially women, to store food and water. This practice has a high risk of exposure and poisoning.

There are a number key barriers hampering the sound management of pesticides throughout their life cycle. These include:

1) Weaknesses in the regulatory and institutional frameworks

As described above, the regulatory and institutional framework in the CILSS countries and wider West African region is complex. The responsibility for the management and control of pesticides is divided between a combination of regional and national regulatory bodies. One of the major shortcomings of the CILSS common registration system identified through an evaluation of the system conducted in 2012 (as part of project preparation) is that there is a lack of a formal linkage between the pesticide registration committee responsible for the common registration system and the national pesticide management committees responsible for post registration management of

<sup>6</sup> Source : USDA, 18 April 2012

pesticides. The result is a breakdown in the overall system for pesticide risk management across the countries. The situation is such that SPC makes decisions on what pesticides are allowed or banned but these decisions are not sufficiently communicated nor implemented because of lack of coordination among responsible institutions (Ministries of Agriculture, Environment, Customs Services, and others). There is no proper feedback from the countries to SPC on the performance of registered pesticides in the field. There are also gaps in the common registration regulation itself. For instance, the regulation does not cover the registration of pesticides imported during emergencies such as the recurrent desert locust invasions. These emergency pesticides are known to be a source of illegal traffic and build-up of new obsolete stocks.

2) Weaknesses in technical capacity for implementation of post-registration activities

Weaknesses in technical capacity are hindering efforts to improve regional pesticide management, including inspection and control of substandard and illegal traffic of pesticides at import and distribution, and their use at the farm level. The main issue here is that the national pesticide management committees (NPMCs) in all project countries, except Mali, exist only on paper. Having an operational NPMC in Mali has proven to be an important factor in their management of pesticides. NPMC in Mali is composed of 12 members representing Ministries of agriculture, Public Health and Environment; the private sector and NGOs. It is chaired by the Minister of Agriculture and most importantly has a work plan and budget support from the Government. The organization of NPMC in Mali will be taken as a pilot example to be applied/adapted in the other project countries. Once NPMCs are operational in the project countries, they will need to be trained on key aspects of post registration management. The essential point is that without effective post-registration management of pesticides in the countries, which relies on well coordinated institutions with sufficient capacity, then the regional common system will not be of much use.

3) Lack of a strategy and limited access to alternatives to conventional pesticides

Based on documented impact of pesticides on human health and the environment, 33 Plant Protection Products (PPPs) are regulated under the Prior Informed Consent (PIC) Procedure of the Rotterdam convention, and 15 POPs are banned under the Stockholm Convention. In addition to the 33 PPPs regulated by CILSS and due to acute intoxications and pests resistance to pesticide, Paraquat was banned in 2011. Registrations are no longer accepted in CILSS for products containing Atrazine and Carbofuran. While such regulatory actions are crucial to protect human health and natural resources for sustainable crop production, the agricultural sector is faced with an insufficiency of the number of registered pesticides. Currently only 208 chemical pesticides including 5 Bio-pesticides are registered in CILSS countries. This has a consequence on the illegal use of banned plant protection products as demonstrated recently by the illegal marketing and use of about 150 PPPs recorded in 2012 in the project countries.

There are a number of past and ongoing initiatives that have successfully demonstrated integrated pest management alternatives. Although the alternatives exist, the challenge is that the results are scattered, and tend to be limited to where they have been introduced because IPM has not been sufficiently institutionalized and not well reflected in policies to support scaling-up. There is no regional strategy to do this. So in the end farmers are left with limited choice - to use hazardous chemical pesticides, especially when pesticide costs are subsidized or low compared to potential profits. Also, farmers are most often not aware of medium and longer-term health effects; nor have most been trained in the use of low health-risk IPM alternatives.

**b) Baseline and co-financing projects**

A lot of work is being done and has been done by regional bodies (CILSS, ECOWAS and UEMOA), Governments, NGOs and other development partners to address pesticides management issues in

the region. This work includes the following projects or programmes that the proposed GEF-funded activities will build upon:

Capacity building related to multilateral environmental agreements in African, Caribbean and Pacific countries (ACP-MEAs) - (GCP/INT/063/EC). This EC-funded project, which started in 2009, aims to support the implementation of Multilateral Environmental Agreements (MEAs) linked to pesticides (Basel, Rotterdam and Stockholm Conventions). The first phase of the project (phase 1) focused on providing technical support to countries to develop capacity at national level. The project also facilitated the examination of working systems (including the evaluation of the CILSS common registration system) to effectively deliver support at national and regional level.

Under the EC-funded project a pilot container management scheme has been established in the cotton production areas in three communes in Kita and four communes in Koutiala. The pilot scheme is organized through the parastatal cotton company, Compagnie Malienne pour le Développement du Textile (CMDT) which is the sole supplier of pesticides to the cotton farmers in the two regions. The company requires its farmers to return empty containers for recycling. Currently 100% of the pesticide containers are being returned to CMDT but only 25% are triple rinsed and 77% are stored securely. None of the empty containers are currently recycled.

The ACP MEAs Phase 2 project became operational in 2013 with a four year implementation period. The Phase 2 project, which works more at the regional level, is implemented in partnership with key regional centres and institutions such as the Centre Régional des Conventions de Bâle et de Stockholm pour les pays d'Afrique francophone (CRCBS –AF), the West African Pesticide Registration Committee (WAPRC), Regional Economic Commissions (ECOWAS and UEMOA), the Institut du Sahel and CILSS. The ACP MEAs Phase 2 project will provide co-finance to support the enhancement of the Pesticide Stock Management System (PSMS) to include the Harmonized Global System Codes to control POPs and PIC list pesticides product at one entry point of each project country – under component 3 of the proposed project.

#### CILSS-ECOWAS-UEMA and national programmes

The regional bodies are currently working on strengthening the regional legal and institutional framework and capacity for pesticides registration. As mentioned earlier, CILSS, ECOWAS and UEMOA approved the “CILSS-ECOWAS-UEMOA Agreement for the Management of Pesticides in West Africa” in April 2013. Under this agreement, pesticide registration is to be carried out by the West African Pesticides Registration Committee (WAPRC). The regional bodies have developed an initial draft of CILSS-UEMOA-ECOWAS harmonized legal instrument for the common registration system. The next key steps will be to review the instrument and strengthen it, as necessary, and take it through the approval processes by the countries and the regional bodies; and operationalizing WAPRC by strengthening the institutional structure in terms of personnel and infrastructure within the coordination unit and the technical secretariat for the two WAPRC subcommittees. This is the baseline for component 3.

#### Comité de Liaison Europe-Afrique-Caraïbes-Pacifique (COLEACP)

COLEACP represents and protects the collective interests of producers and exporters in ACP countries and importers of horticultural products in European countries. FAO and COLEACP have initiated collaboration to promote sustainable strategies on plant protection of horticultural products, pesticide management and good agricultural practices in ACP countries. COLEACP is supporting improvement of pesticide management through development of a field monitoring system for pest and pesticides used on key crops in Burkina Faso, Mali and Senegal, and development of curricula on integrated pest and pesticide management (IPM). In addition to this, and as co-financing to the proposed project, COLEACP will provide support to component 4 on promotion of alternatives to chemical pesticides in the form of information on main pests and

disease on fruits and vegetables, the screening trials and selection of biocontrol agents (BCA) and technical guidelines on IPM.

#### USAID “Locust emergency prevention and mitigation”

The USAID programme has promoted the sound management of pesticides used for desert locust (DL) control in West and North West Africa (including the CILSS region). The programme supported appropriate storage, and management of remaining stocks following the 2003-2005 DL upsurge. Countries have been assisted in the establishment of national and regional management capacities for empty containers and quality control of residual obsolete stocks in the DL sector. What is relevant for the proposed GEF-funded project is the upgrading of a laboratory in Bamako for the quality control of pesticides which will be linked to the capacity strengthening under component 3.

#### CropLife International (CLI)

FAO and CLI have signed Framework Agreement for Voluntary Contributions to Obsolete Pesticide Stocks Projects. Under this agreement, CLI will safeguard pesticide products inventoried in Niger and Burkina Faso in some of the project countries (component 1). CropLife will also contribute to the scaling up of the pilot container management scheme in Mali (component 2) and the provision of training on IPM (component 4).

#### Integrated Production and Pest Management (IPPM) programme in West Africa

Since 2001, FAO has been working with farmers and extension to promote low-risk IPM alternatives in the region. This has been complemented by the GEF-funded project on POPs reduction and monitoring in Niger and Senegal Rivers. The regional project has led to the first detailed, scientifically based analysis of pesticide risks for this region using a computer model and global database modified for use in West Africa<sup>7</sup>. In a related study in the region<sup>8</sup>, more than 4,000 cotton farmers in Mali were shown, from cotton company sales records, to have reduced their purchase of highly hazardous pesticides by 92%, and kept it low over an 8-year period. The results were highly correlated with training in IPM Farmer Field Schools (FFS). Cotton farmers in this study were using both local and commercial bio-pesticides. The propose project will build on the experience and outcomes of these earlier projects to develop a solid scientific evidence base for the use of promising, low-toxicity alternatives to highly hazardous pesticides through collaboration with national and international researchers. The project will facilitate the registration of proven alternatives through the regional registration system and the promotion in the countries through the National Pesticide Management Committees.

### **c) Incremental cost reasoning**

The planned project will complement existing projects and build on the capacity developed in the region. GEF resources will be used to provide targeted inputs which will either complete existing work or to initiate systems which will then be replicated using co-finance resources. This project will primarily look to further reduce risks from obsolete pesticide stockpiles and old pesticide containers (Components 1 and 2) based on the successful development of capacity under previous projects. The project will also build on existing structures and earlier GEF project results, to put in place

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<sup>7</sup> Jepson P, Guzy M, Blaustein K, Sow M, Sarr M, Luh H, et al. Ecological and health risks associated with West African agriculture, and potential for development of effective stress testing. *Phil. Trans. R. Soc. B, in press*

<sup>8</sup> Settle, W.H., M. Soumaré, M. Sarr, M Hama Garba and A. Poisot. 2013. Reducing pesticide risks to farming communities: cotton farmer field schools in Mali. *Phil. Trans. R. Soc. B in press*.

sustainable systems to prevent future accumulation of new stockpiles via institutional capacity building and capacity building for small-scale farmers on Integrated Pest Management (IPM) approaches to reduce the use of Highly Hazardous Pesticides (HHPs) in agricultural production (components 3 and 4). Specifically the project will:

**Component 1: Safe disposal of POPs and other obsolete pesticides and remediation of heavily contaminated sites:** None of the baseline projects above will result in the disposal of all existing POPs and other obsolete pesticides nor the remediation of heavily contaminated sites in the project countries. Without the support from GEF, these would continue posing risk to public health and the environment. This component will aim to remove all existing stocks from the target countries and support further development of local remediation strategies for pesticide contaminated sites. (NB. A parallel disposal project is under formulation in Mali based on the results of the Africa Stockpiles Programme (ASP) by the World Bank, therefore Mali is excluded from disposal activities). The majority of GEF funds are allocated to this component.

**Component 2: Development and implementation of empty pesticide containers management systems:** Currently there are a number of pilot scale container management schemes operational in locust affected countries and in two regions of the cotton producing areas in Mali. The Desert Locust container management schemes do not cover other sectors including cotton and horticulture production (different logistics, stakeholders, areas affected, infrastructure), so they cannot be considered to be sufficient. The aim of the project is to set out a solid regulatory basis for management of containers followed by a scaling up of existing pilot studies and the replication of systems into neighbouring countries. Based on the analysis of risks it has been decided to focus on the cotton production areas in the region which are known to use highly hazardous pesticides and where there is a risk of continued use of banned products such as endosulfan (one of the new POP chemicals banned under the Stockholm Convention). The ultimate aim of the project will be the development of a regional strategy for pesticide container management across all project countries. The GEF resources are essential to support technical assistance for the scaling up of the existing systems and also to provide the impetus for development of a sustainable system for container management across the region into the future.

**Component 3: Strengthening the regulatory framework and institutional capacity for sound management of pesticides:** ECOWAS, CILSS and UEMOA have already initiated the process of strengthening the institutional and regulatory framework for pesticide management in the region. GEF funding will focus on technical assistance to support the process - expertise for the development of a harmonized regional regulation, operationalizing the new common registration system and building the capacity of National Pesticide Management Committees. Without this support, the regional bodies would continue with the process, but some existing weaknesses particularly those related to post-registration activities at country level would probably remain unaddressed. The GEF resources are critical to the implementation of an effective system for regulation of pesticides at regional and national level and prevent future accumulations of obsolete pesticides due to poor life-cycle management.

**Component 4: Promotion of alternatives to chemical pesticides:** As mentioned in the previous subsection, past and ongoing initiatives have successfully demonstrated integrated pest management alternatives but the results are scattered. The proposed project will build on the experience and outcomes of these earlier projects to pull together a solid scientific evidence base for the use of promising, low-toxicity alternatives to highly hazardous pesticides through collaboration with national and international researchers. The GEF resources are needed to scale up the existing work and allow for roll-out of working systems to countries in the region. The support from GEF will have a significant catalytic effect on reduction of risks to farmers and improve food quality due to reduction in harmful pesticide residues.

## 1.4 FAO's COMPARATIVE ADVANTAGE

The mandate of FAO includes prevention and management of agricultural pests; the safe distribution and use of pesticides including their disposal as governed by the International Code of Conduct on Pesticide Management (2012); and, the control of international trade in particularly hazardous pesticide formulations as governed by the Rotterdam Convention on Prior Informed Consent. A specific mandate from the FAO Council instructed FAO to assist countries in reducing risks from pesticides. In addition, the Plant Production and Protection Division of FAO (AGP) provides guidance on the Sustainable Production Intensification of Crops with a particular focus on ecological approaches as embodied in Integrated Pest Management (IPM), which is able to reduce reliance on chemical pesticides, and on migratory pest control, which has been a major cause of obsolete pesticide stockpiles.

FAO has operated a programme for the prevention and elimination of obsolete pesticides since 1994. The experience gained by AGP in the area of obsolete pesticide prevention and disposal has allowed FAO to develop a comprehensive series of technical guidelines, training modules, toolkits and awareness materials which are used by a number of other Intergovernmental Agencies. The FAO programme is currently supporting activities in 60 countries.

AGP has been advocating the adoption of Integrated Pest Management (IPM) for over three decades through the FAO Regular Programme and extra-budgetary funding. The Global IPM Facility, established in collaboration with the World Bank in the 1990s, was hosted in AGP and significantly boosted the dissemination and uptake of IPM in many countries. IPM and Farmer Field School regional and national programmes are ongoing in the CILSS region and in projects currently being implemented in 30 countries in sub-Saharan Africa.

FAO is therefore ideally and uniquely positioned to support members in the development and implementation of projects for the comprehensive, safe and effective management of pesticides, disposal of obsolete pesticides and the promotion of alternatives to hazardous pesticides.

## 1.5 STAKEHOLDERS AND BENEFICIARIES

**CILSS, ECOWAS and UEMOA, and policy makers in the environment, agriculture and health sectors in the countries:** are the driving institutions behind the regional harmonization and improvement of pesticide management in the region (West Africa). These organizations will lead the development of a common pesticide registration system, supporting regulation, as well as regional and national institutional arrangements for registration and post-registration management of pesticides in the countries. The focal point for the regional bodies will be the CILSS Executive Secretariat (Executive Secretary).

**Ministries of Agriculture, Environment, Health and others:** These national institutions will work closely with the CILSS Executive Secretariat in the implementation of activities at the national level. The link will be through the nominated CILSS National Coordinator/ Permanent Secretary as well as the National Pesticide Management Committee (NPMC) Committees which consist of technical staff involved in chemical distribution, storage, transport, safeguarding and disposal; laboratory staff; agricultural and health extension and advisory staff and NGOs.

**Non-Governmental Organisations:** Key non-governmental stakeholders include major international NGOs such as the World Wild Life Fund (WWF), Pesticide Action Network Africa (PAN Africa) and the International POPs Elimination Network (IPEN). Of the NGOs listed WWF and PAN-Africa were involved in the development of communication activities under similar operations completed in Mali under the GEF-funded Africa Stockpiles Programme (ASP). Similarly, PAN Africa has been involved in the implementation of awareness campaigns under the ASP and have participated in the preparation of this project description. They will be involved in the execution of the communication strategies at

national level. The development and implementation of the awareness and communications activities will be achieved by partnering with local NGO and civil society partners at national level. This will include targeted community based research studies in areas such as poison reporting and assessment of health impacts from pesticide use. The project will also collaborate with IPEN, a network of over 700 environmental NGOs, to disseminate information on project implementation.

**Academic stakeholders:** The project will make available existing training and educational materials developed by FAO and other international organizations. The project will partner with academic institutions or other international institutions to offer the materials as either new training modules or as an extension of existing modules. The project will also encourage the identification new areas where formal training can be developed to supplement the existing materials. Oregon State University (OSU) and the University of Wageningen will provide support to further update the PRiME<sup>9</sup> model and other systems for estimating quantitative risks to environment and human health, which has already been adapted to work in the context of several West African countries, in order to support risk assessment in all project countries. OSU will also assist in risk communication training as needed.

**Local communities:** Local communities living near rehabilitated obsolete pesticide stores and severely contaminated sites are obvious beneficiaries from the implementation of Outcome 1 of this project. In addition, due to the persistence of many of the chemicals in the environment, the wider rural and urban populations are also indirect beneficiaries from the removal of materials and containment of pollution.

**Farming community:** Farming communities are key beneficiaries through reduced risks of exposure to pesticides. Women and children that work in the farms will benefit from reduced exposure to pesticides through adoption of improved pest management practices and general improvements in pesticide management via increased awareness about the risk of pesticides.

**Industry supplying alternatives:** The International Biocontrol Manufacturers' Association (IMBA) is considered to be a key project stakeholder. IBMA will be involved in the execution of Component 4, in close collaboration with PIP-COLEACP, providing resource personnel on alternatives and samples of alternative products tested in other regions.

**CropLife:** CropLife International is the trade association of the major pesticide manufacturers and was fully involved in the development of the project. CLI will be involved in the execution of component 1 as a co-financing partner.

**Laboratories:** A laboratory with analytical capacities for the quality control of pesticides doesn't exist in the region. The *Laboratoire Central Veterinaire*, located in Bamako Mali has supported analysis of pesticides residues in soils and water for monitoring soil remediation under ASP-Mali but has limited capacities for the analysis of quality control of pesticides. It is planned that this lab will be upgraded as a regional laboratory to ensure that there is the technical capacity in the region to analyse pesticides for registration and post registration management.

**Recycling industry:** The container recycling industry is considered to be an important stakeholder. Recycling industry stakeholders from the container management pilot countries will be identified and engaged during project implementation.

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<sup>9</sup> PRiME is an established model and global database on pesticide risk already modified for use in 5 CILSS countries <http://ipmprime.org/>



## **1.6 LESSONS LEARNED FROM PAST AND RELATED WORK**

With respect to disposal of stockpiles of obsolete pesticides and associated wastes there have been two types of approaches in the Sahel countries, namely, an “all-in” turnkey approach and the approach put forth by the Africa Stockpiles Programme (ASP).

The “all-in” turnkey approach: as it has been implemented since 1996 in Niger, Senegal, Mauritania and Cape Verde, this approach requires that a disposal contract be signed by donor agencies, the executing agency and a specialized firm. The specialized firm assumed full responsibility for organizing, planning and executing safety operations, transport, storage and disposal. They were one-time operations. Disposal operations had not been preceded by detailed national inventories and had therefore been implemented at the least possible cost. Countries’ involvement was very weak and there has been an accumulation of stocks of obsolete pesticide in the years following the disposal.

The ASP approach: As was planned in Mali between 2009 and 2012, the ASP approach required that a disposal contract between the Government and a specialized firm be signed, but it was the national executing agency’s responsibility to develop a national disposal strategy, evaluate available human resources and capacity in storage / consolidation of waste, prepare technical specifications determining the amount of equipment and materials necessary for the disposal of pesticides, prepare and then launch an international tender bid, organize a field trip to the bidding companies, assess the technical and financial bids from the various bidders and award the bidder with the highest combined price-quality score for the disposal.

In addition to strengthening capacity, the ASP approach has made it possible to reduce the overall disposal costs and to prevent accumulation of obsolete pesticide stocks in the short and medium terms. The ASP approach is a more holistic vision for pesticide management. The proposed project plans to adopt this approach.

In the CILSS member states, empty container management is generally overlooked in the lifecycle management of pesticides. Accordingly, there is not much proven experience in empty container management taking into account all aspects from collection to recycling. The experience in Mali and Tunisia demonstrate the importance of community involvement in container management schemes.

In Mali, at first attempts to repurchase empty containers were initiated by extension services. These attempts failed because of both lack of financial resources and a strategic vision. Within the framework of ASP, Mali and Tunisia have developed pilot strategies for sustainable management of empty pesticide containers which are community-driven and involve local leaders, structures and stakeholders in the management of pesticides. The community defines the sound management of empty containers as being a remediation activity geared towards improving its quality of life and it therefore participates voluntarily in the activities. Seven districts in two administrative areas with a strong cotton production potential were targeted by this pilot phase. This is an important lessons for the proposed component 2 of the project.

## **1.7 LINKS TO NATIONAL DEVELOPMENT GOALS, STRATEGIES, POLICY AND LEGISLATION, GEF AND FAO’s STRATEGIC OBJECTIVES**

### **a) National and regional goals and policies**

As described in section 1.2, the entire project intends to support the implementation of collective regional and national priorities with respect to sound chemicals management. Also, the project is

aligned with the Economic Community of West African States (ECOWAS) Agricultural Policy. The objective of the policy is to improve agricultural productivity and competitiveness through sustainable means. Again, in this policy ECOWAS has placed high priority on the improvement of pesticides management, through strengthening the regulatory and institutional capacity in the region. Hence the establishment of the West African Pesticides Registration Committee (WAPRC), and the ongoing process of harmonizing pesticide regulation across West Africa.

#### **b) Alignment with NIPs**

All participating countries have ratified the Basel, Rotterdam and Stockholm Conventions and specifically have developed Stockholm Convention National Implementation Plans (NIPs). All participating countries have prioritized issues related to obsolete pesticides, and pesticide management in their NIPs. The project will support implementation of the following priority actions identified in the NIPs:

- Safe disposal of obsolete pesticide stocks and associated waste;
- Strengthening institutional and regulatory frameworks;
- Development of a harmonized system for registered pesticides and a database on pesticide imports and use;
- Training of staff to ensure appropriate control of pesticides in and among CILSS member countries; and
- Promotion of alternatives to hazardous pesticides.

#### **c) Alignment with GEF Focal Area Strategies**

The project contributes to the implementation of the GEF-5 Chemicals Strategy. It focuses on: CHEM-1, specifically the management, prevention and disposal of POPs wastes and sound environmental management of contaminated sites. The project will dispose of about 850 tons of existing obsolete pesticides in the target countries and remediate eight heavily contaminated priority sites. To prevent future mismanagement, focus will also be on strengthening regulatory and institutional capacity at regional and national levels.

#### **d) Alignment with FAO Strategic Objectives**

The new FAO Strategic Framework became operational in January 2014 and is comprised of five Strategic Objectives (SOs) that represent the main areas of work of FAO. This project is linked to Strategic Objective 2 (SO-2), "Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner" particularly Organizational Outcome 2 under SO-2 "Stakeholders in member countries strengthen governance – the laws, policies and institutions that are needed to support producers in the transition to sustainable agricultural systems".

## **2 SECTION 2: PROJECT FRAMEWORK AND EXPECTED RESULTS**

### **2.1 PROJECT STRATEGY**

The strategy of this project is to address the key barriers to the sound management of pesticides as described in section 1. 3, focusing on the key stages of pesticide lifecycle management, from registration to use and management of related waste. This is reflected in the arrangement and focus of the five components described in the next section. Certain elements have been incorporated in the strategy. These include:

- building on existing capacity developed under previous and on-going initiatives implemented by the regional bodies, the project countries, FAO and other development partners. In particular, the project will look to use and adapt as necessary existing guidelines, tools and training materials that were developed under the GEF-funded Africa Stockpiles Programme (ASP);
- the use of the ASP approach (see lessons learned above) - thorough training of national (and regional) teams and ensure their maximum involvement in the execution of all components of the project . This approach has been successful in Mali. The Mali-ASP team has actually been very instrumental in the preparation of the proposed project – supporting inventory exercises in the other project countries. This is done to ensure the sustainability of capacities developed;
- addressing both regional and national needs. While this is a regional project, pesticide management capacity differs from country to country. Therefore activities at national level are tailored to address specific national needs. An operational manual will be developed by each country during an inception phase (first six months of the project life) which will detail the focus of actions at national level;
- partnership with a range of organisations including national/international NGOs; other UN agencies such as UNEP Chemicals and WHO that are implementing related projects on institutional strengthening for better management of chemicals plus the promotion of alternatives to DDT for malaria control; and the pesticide industry as represented by CropLife International.

### **2.2 PROJECT OBJECTIVES**

The objectives of the project are to eliminate existing obsolete pesticides, including POPs and associated wastes, and to strengthen the capacity for sound pesticides management in order to prevent future accumulation in the nine participating CILSS countries. The specific objectives of each component are to: safely dispose of POPs and other obsolete pesticides and to remediate heavily pesticide-contaminated sites (Component 1); implement a management system for empty pesticide containers (Component 2); strengthen the regulatory framework and institutional capacity for sound management of pesticides (Component 3); and to promote alternatives to POPs and other conventional hazardous chemical pesticides, and communicate the importance of alternatives to stakeholders (Component 4). Components 5 and 6 cover Monitoring & Evaluation and Project Management respectively.

### **2.3 PROJECT COMPONENTS**

The following section outlines the scope of the five project components including expected outcomes and outputs to be delivered.

## **Component 1: Safe disposal of POPs and other obsolete pesticides and remediation of heavily contaminated sites**

Under this component, the project will look to complete the inventory of all obsolete stocks in the CILSS countries and remove up to 850 metric tonnes of stocks based on an extrapolation of the existing inventory data held in the FAO Pesticide Stock Management System (PSMS) which confirms 567 metric tonnes of obsolete stocks in Burkina Faso, Chad, Mauritania, Niger and Senegal. In addition to the environmentally sound management of obsolete pesticide stockpiles risks to water and soils from sites where pesticides have leaked into the environment will be minimized. Existing work has already identified eight locations where the risks from leaked pesticides need further analysis. The project will look to expand the initial screening of contaminated sites across the CILSS region. The project will then look to prioritise the locations based on an FAO screening methodology which assesses the potential / real impact on possible receptors including people and animals from the sources of contamination by managing exposure through control the pathway linking the receptor to the source of the contamination. A number of demonstration risk reduction activities will then be completed as an illustration of the methodologies which can be applied in the wider regional context.

Outcome 1 Identified risks from existing obsolete stocks eliminated and risk from heavily pesticide-contaminated sites reduced.

Output 1.1: Inventory of obsolete pesticides and associated wastes updated/validated in all 9 countries

Inventory and assessment of the storage locations is considered as the starting point for all activities linked to environmentally sound management of obsolete stockpiles of pesticides.

**Main Activities:** The main activities to be implemented under this Output are:

- 1.1.1 Data collection: inventory of obsolete pesticides and assessment of storage locations requires site visits by trained teams with the skills necessary to collect accurate information in a safe manner. As stated above detailed inventory data is available for Burkina Faso, Chad, Mauritania, Niger and Senegal. The validity of this data needs to be confirmed and any additional stockpiles and storage locations added to the existing data. Data needs to be collected in Cape Verde, Gambia, Guinea Bissau and Mali. Of these second group of countries Cape Verde and Gambia were part of a previous project funded and implemented by CropLife International and so it is understood there stocks of obsolete pesticide may be restricted to those in the private supply chain with little additional stocks from government sources. Mali has completed a comprehensive national inventory and EMP development process as part of the ASP project.
- 1.1.2 Data entry into PSMS: As stated above existing inventory data is entered into PSMS for Burkina Faso, Chad, Mauritania, Niger and Senegal. Staff will be trained in data entry using PSMS as required. Following completion of inventory collection exercise, data will be entered into PSMS awaiting validation by the nominated national official;
- 1.1.3 Data validation in PSMS: all inventory data entered into PSMS requires validation by a competent official appointed by the national government. The official will be trained in the PSMS and will be responsible for review of all data entered into the system by the national team. The data validation step is important to ensure all information is accurate and technically correct.

**Time line for implementation:** It is anticipated that this Output will be completed during Year 1 of implementation of this new project.

Output 1.2 Up to 850 metric tons of POPs pesticides and other obsolete pesticides safely destroyed in an environmentally sound manner

**Main activities:** The main activities to be implemented under this Output are:

- 1.2.1 Environmental Assessment (EA) and Environmental Management Plan (EMP) development: FAO guideline EMTK<sup>10</sup> volume sets out the process for developing a country level EA and EMP for obsolete pesticides and associated wastes. Countries will be supported to produce these documents which will use the validated PSMS data to define aspects such as the preferred safeguarding strategy, the preferred disposal strategy, an analysis of alternatives for the proposed strategies, the risks and associated mitigation strategy and the overall relationship of the obsolete stocks and the storage locations with the wider environment. The EMP and EA may also include additional assessments of the container management needs and an assessment and prioritisation of sites contaminated with pesticides. The EA and EMP will form the basis of the tender for services for safeguarding and disposal of the waste identified in PSMS. It is proposed that the development of these documents will be completed as a regional activity to maximise economies of scale and to foster an environment of cooperation between national project teams in neighbouring countries;
- 1.2.2 Safeguarding of obsolete stocks: Safeguarding of obsolete pesticides covers all aspects related to stabilisation and repacking of obsolete pesticides at the point of storage, through transport and interim storage at a national collection point. EMTK volume 4 provides technical guidance on the supervision and implementation of repackaging activities. EMTK volume 2 provide technical guidance on transport and interim storage of obsolete pesticides. Teams from project countries will be trained in the technical aspects covered under each of the EMTK guidelines. Separate training will be provided to countries based on the specific requirements detailed in the safeguarding strategy developed as part of the EA / EMP process above. The safeguarding strategy will confirm the roles and responsibilities of national stakeholders and identify the specific training needs. The strategy will also define the scope of services to be included in a tender for waste management services (to include disposal services – see below);
- 1.2.3 Disposal of obsolete stocks: The transport of waste for environmentally sound disposal by approved technologies is covered by the technical guidelines of the Basel and Stockholm Conventions. This activity will be implemented in full compliance with the requirements of these Conventions. A regional tender for disposal activities will be managed based on the approved disposal strategy developed as part of the EA / EMP process above.

**Timeline for implementation:** The EA and EMP will be developed, disclosed and approved in year 2 of project implementation. All safeguarding activities will be completed in year 3. Disposal will be completed in year 4.

Output 1.3 Risks from eight highly contaminated sites quantified, remediation strategies developed and implemented.

Eight highly contaminated priority sites in Burkina Faso, Mauritania, Niger and Senegal have been identified. This figure is considered the minimum number of such sites in the region and the data will be updated as part of the inventory process to be implemented in Output 1.1.

**Main activities:** The main activities to be implemented under this Output are:

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<sup>10</sup> The FAO EMTK Series (volumes 1 – 4) cover aspects such as environmental risk assessment (volume 1), storage and transport planning (volume 2), EA and EMP development (volume 3) and safeguarding of stocks (volume 4). A fifth volume of the series is under development covering assessment of risks from contaminated sites.

- 1.3.1 Site investigations and prioritizations: as outlined above national teams will be trained in the application of Rapid Environmental Assessment (REA) tools and will collect data from sites highlighted as contaminated during the inventory process. Countries will be provided with an automated tool developed in cooperation with the EC and the Blacksmith Institute to allow the prioritisation of all sites based on assessment of sources, pathways and receptors. The REA will include the development and detailed site sampling plans;
- 1.3.2 Development of remediation/risk reduction plans: based on the findings from the application of the REA tool a number of highest risks (preliminary set as eight locations but may vary) will be subject to a detailed intrusive site investigation. The site sampling plans developed above will be implemented with the support of national laboratories with the appropriate accreditations. Based on the data collected a Conceptual Site Model (CSM) will be developed for the selected priority sites. The CSM will form the basis of a set of site specific remediation strategies which will include an analysis of alternative options for remediation and complete cost estimates for each alternative. Based on past experience the strategies are likely to be based on in-country or in-situ treatment technologies which will require extended time for implementation and achievement of results;
- 1.3.3 Implementation of remediation/risk reduction plans: based on the available budget the remediation strategies for up to eight high priority sites will be implemented. The strategies will be implemented over a period of 18 – 24 months to allow for a critical assessment of the risk reduction achieved over the lifetime of the project.

**Timeline for implementation:** The detailed site investigation and prioritisation will be completed in year one. Detailed site investigation will be completed in year two. The implementation of the remediation and risk reduction strategies will be completed in year three and four.

## **Component 2: Development and implementation of empty pesticides containers management systems**

Component 2 aims to reduce the risks to human health and the environment from empty pesticide containers in cotton producing areas in four project countries (Burkina Faso, Chad, Mali and Senegal). The design of the component is based on the International Code of Conduct on Pesticide Management (2012) and the supporting guideline “Guidelines on Management Options for Empty Pesticide Containers” (2008).

The risks will be reduced in two steps. Firstly, by changing behaviours of male and female farmers through the promotion of “triple rinsing” and puncturing of containers once the contents have been used. Triple rinsing ensures that all the pesticides are used for the purpose for which they are intended and the residual contamination on the surfaces of the containers is reduced to the extent that the containers no longer represent a gross hazard. Puncturing the containers renders them unusable and avoids the risks of them being used for the storage of food and water for human or animal consumption. Puncturing also prevents them accumulating rain water and becoming a potential breeding ground for disease vectors.

The second step is the establishment of sustainable container management schemes (CMS) to remove the containers from pesticide users and to recycle or dispose of them in an environmentally sound manner. Their removal will ensure that the containers are not disposed of inappropriately either through dispersal in the environment or uncontrolled combustion which is a potential source of uPOPs.

The component builds on the current pilot container management programme in the cotton production areas in seven communes in Mali (three of the 18 communes in the Kita region and four of the 17 communes in Koutiala region). This pilot will be scaled up to all the cotton production areas in Kita and Koutiala. The experience gained in Mali will be used to inform the design of the pilot programmes for the cotton production areas in Burkina Faso, Chad and Senegal. At the end of the

project the pilot programmes will be evaluated and the findings will be the basis of a strategy for establishing a regional container management programme.

Outcome 2 Risks to the environment and human health from empty pesticide containers used in cotton production reduced

Output 2.1 Scaling up of pilot container management scheme in Mali

**Main Activities:** The main activities to be implemented under this Output are:

- 2.1.1 Evaluation of the pilot and design for scale up: A critical evaluation of the effectiveness of the current pilot programme will be undertaken. The evaluation will review the efficiencies of the collection mechanism, the effectiveness of the communication activities to support the mechanism, the legal basis and opportunities for sustainable funding of the scheme. The review will also assess and evaluate the opportunities for recycling/disposing of the containers in an environmentally sound manner. Recommendations for improvements to the scheme and its roll-out to the remaining cotton production areas in Kita and Koutiala will be presented to a stakeholder workshop for agreement of the strategy for the roll-out;
- 2.1.2 Phase I of the scale-up: The strategy for the scale-up will be implemented in the cotton production areas of 17 communes, including: the development and implementation of an improved communications campaign; training for key stakeholders involved in collection and advise to users; investment in the infrastructure for the collection and centralization; recycling and disposal of the collected containers. At the completion of Phase 1 there will be a further review of the effectiveness of the strategy and its refinement for phase II;
- 2.1.3 Phase II of the scale-up: the revised and improved strategy will be implemented in all cotton producing areas in all 35 communes. The effectiveness of the strategy will be reviewed again at the end of year 3 and will inform the design of the container management schemes in the other countries and for the region.

**Time line for implementation:** It is anticipated that this Output will be completed during Years 1 to 3 of implementation of this new project.

Output 2.2 Containers management systems piloted in cotton producing areas in three project countries (Burkina Faso, Chad and Senegal)

**Main Activities:** The main activities to be implemented under this output are:

- 2.2.1 Needs assessment and situation analysis: national consultants working in conjunction with international experts on container management systems will undertake an assessment and situation analysis of pesticide usage and container management options in cotton producing areas in each of the countries. The review will result in recommendations for options to establish pilot container management schemes in the cotton production areas in each country. The needs assessment will build on the conclusions of the critical evaluation of the pilot in Mali;
- 2.2.2 National strategy development: the findings of the assessment and situation analysis will be presented to a stakeholder workshop for the agreement of the design of the pilot scheme and roles/responsibilities of each of the stakeholders ; Where appropriate and multiple options for the management of the scheme have been identified, different designs will be recommended for each country to allow for later comparison of the efficacy of the different schemes
- 2.2.3 Implementation of the pilot schemes: The national strategies will be implemented in each of the countries. After a year of operation the effectiveness of the scheme will be evaluated. The evaluation reports will inform output 2.3..

**Time line for implementation:** It is anticipated that this Output will be completed during Years 1 to 4 of implementation of this new project.

### Output 2.3 Regional strategy for the management of empty pesticides containers

This output will develop a strategy for the management of empty containers throughout the region. It will build on an assessment of the impacts to human health and the environment from empty containers and the evaluations of the national pilot schemes in Burkina Faso, Chad and Senegal, and the scaled-up scheme in Mali. It will aim to build on synergies between the national schemes particularly for the recycling of collected containers using regional resources.

**Main Activities:** The main activities to be implemented under this output are:

- 2.3.1 Community baseline assessment of impacts on human health and environment from empty containers in Mali: national consultants working in conjunction with international experts on surveying at community level will undertake an assessment of impacts from empty pesticide containers in cotton production areas of Mali.;
- 2.3.2 Community baseline assessment of impacts in 2 additional countries: a similar study as that carried out in activity 2.3.1 will be undertaken in 2 of the other countries in year 2
- 2.3.3 Community baseline assessment of impacts in remaining country: a similar study as that carried out in activity 2.3.1 and 2.3.2 will be undertaken in remaining countries in year 3
- 2.3.4 Regional strategy for sustainable management of empty pesticides containers: Based on the findings of the community baseline assessments of impacts on health and environment and the evaluations of the pilot schemes in the four countries, an international expert on container management schemes and communications for development will develop proposals for the establishment of a regional container management. The proposals will include recommendations for the legal basis for the scheme, roles and responsibilities of stakeholders, sustainable funding mechanisms for the scheme and the potential for synergistic use of regionally based recycling and collection infrastructure. The recommendations will be presented to a regional stakeholder workshop for agreement of the final strategy in Year 4.

**Time line for implementation:** The output will be completed in year 4.

### **Component 3: Strengthening the regulatory framework and institutional capacity for sound management of pesticides**

Component 3 aims to support CILSS, ECOWAS, UEMOA and the member countries in their efforts to harmonize and improve pesticides management in the region. This component is about setting a sound legal basis for the common regional pesticide registration system and improving post-registration management capacity in the countries.

The first part of this component will involve a review of the three CILSS, ECOWAS and UEMOA pesticide regulations and the tripartite agreement developed during the preparation of this project. The project will support the continuation of the process to produce a sustainable legal basis for the common registration and post-registration management of pesticides in West Africa and its adoption by the regional bodies. Once the regional legal instrument is adopted by CILSS, ECOWAS and UEMOA, national pesticide legislation will be revised to incorporate its key elements. This is necessary in order to avoid legal gaps at national level.

Parallel to legal reviews, this component will assist in re-organizing the structure of the new registration system and its implementation. This new system will cover 17 countries in the region (ECOWAS countries, Chad and Mauritania). CILSS/Sahelian Pesticide Committee (SPC) is currently leading the reorganization of the institutional arrangements for the Western African Pesticides Registration Committee (WAPRC). This includes the development of terms of reference for the technical secretariat and the two sub-committees and staff to be recruited (with funding from the regional bodies). A regional panel of experts in pests and pesticides management will be nominated to collect and analyze existing lists of registered and banned pesticides in the region. The panel will produce and adopt a common list of registered, banned and restricted use of pesticides in West



Africa. In addition to the common list, operational registration procedures will be developed and training of technical and administrative staff will be conducted to ensure appropriate implementation of the new registration procedures.

This component will contribute to the reinforcement of post registration management of pesticides in each project country. National Pesticide Management Committees (NPMCs) in all project countries will be restructured and revitalized and establish a strong link between the NPMCs and WAPRC established. The component will focus on training NPMC members on different stages of pesticide life -cycle management. Tools and systems such as the FAO Pesticide Stock Management System (PSMS) to ensure information exchange between NPMCs and WPRC will be introduced.

Particular attention will be given to establishing systems for pesticide inspection and control at import and throughout national pesticides supply chain. In each country inspectors will be trained on inspection and quality control of pesticides based on guidelines produced jointly by FAO-CILSS and SAICM. In each project country, one key pesticide entry point will be equipped with the Harmonized System Code and customs staff trained on its use for the control of POPs and PIC list pesticides. In addition to this, Laboratoire Central Veterinaire for pesticide residues analysis, located in Bamako, Mali will be upgraded to have appropriate technical and analytical capacities for quality control of pesticides in the region.

**Outcome 3:** Regulatory framework and institutional capacity for sound management of pesticides throughout their lifecycle strengthened.

**Output 3.1** A regional regulation for a common pesticide registration system for participating CILSS member states drafted and submitted for endorsement by regional and national authorities

**Main activities:** The key activities to be implemented under this Output are:

- 3.1.1 Review of the three existing common regulations for registration and post-registration management of pesticides in West Africa: An international legal expert will review, in consultation with the regional bodies, the existing tripartite ( CILSS-ECOWAS-UEMOA) agreement and the three regional pesticide regulations to come up with a proposal for a sustainable instrument on registration and post registration of pesticides in West Africa.
- 3.1.2 Revision and finalization of the draft harmonized regulation for the registration and post-registration management of pesticides in West Africa: The draft instrument prepared by the international legal expert will be reviewed by CILSS, ECOWAS and UEMOA legal experts and discussed at a regional stakeholder meeting for approval by the three regional bodies. The draft regulation will be revised accordingly based on inputs from the stakeholders.
- 3.1.3 Review and revision of national pesticide legislations for incorporation of key elements of the harmonized regulation for the registration and post-registration management of pesticides in West Africa: National consultants, in consultation with relevant authorities in the countries, will review and revise the existing national pesticides legislation in nine project countries to incorporate the regional provisions of the regional instrument. These will be submitted for adoption by national authorities.

**Timeline for implementation:** The harmonized regional regulation should be submitted for adoption by the regional bodies and national governments during the third year of implementation. Revised national legislations are expected to be submitted for adoption during the fourth year of implementation.

**Output 3.2** The common pesticides registration system is made operational

**Main activities:** The key activities to be implemented under this Output are:

3.2.1 Development and adoption of a common list of registered, banned and restricted pesticides in West Africa: a regional consultant will collect existing lists of registered, banned and restricted pesticides in CILSS countries and the other eight countries that joined the regional registration and post registration management of pesticides in West Africa. This list will be assessed and revised by a regional expert committee to come up with one common list to be adopted by WAPRC.

3.2.2 Development of procedures, manuals and training modules for the common registration system: A regional/international consultant will review the existing manual on submissions and evaluation of dossiers for pesticides registration in CILSS and revise/adapt this manual to be consistent with the new registration system. This will have to be adopted by WAPRC as well.

3.2.3 Organization of training sessions: Institut du Sahel will lead the organization of training sessions on the adopted manual and other tools for the implementation of the common registration system

3.2.4 Implementation and evaluation of the new registration system: An independent evaluation of the new system to assess its efficiency and effectiveness. This will be carried in the fourth year of project implementation.

**Timeline for implementation:** The common list and procedures for registration should be in place by the second year of implementation, followed by training of WAPRC staff. The independent evaluation will be in the fourth year.

Output 3.3 Action plans to pesticide lifecycle stages developed and implemented by NPMCs and systems for inspection tested.

**Main activities:** The key activities to be implemented under this Output are:

3.3.1 Restructuring of NPMCs and training of their members on the new registration system and all key aspects of post-registration management of pesticides: a regional committee led by CILSS executive secretariat will be nominated to assess current achievements by the pilot NPMC in Mali and determine what needs to be done to operationalize NPMCs in all other countries. The regional committee will review the legal status, available logistic and resources for the NPMC in each project country and make recommendations to national authorities to operationalize the NPMCs. Once the NPMCs are operational training will be implemented.

3.3.2 Development and implementation of national action plans to monitor pesticide life-cycle: NPMC will develop and implement national action plans to monitor pesticides at import, stock management and distribution in the country and use by farmers. In each country, inspectors will be nominated and a regional training session on inspection and quality control of pesticides will be conducted during the second year of project implementation. A system for inspection of pesticides including the harmonized system code will be piloted in Mali and rolled out to other project countries.

3.3.3 Assessment of the effectiveness of NPMCs in the management of pesticide life-cycle: A regional committee will organise an evaluation of the functioning and performance of NPMCs in Mali and other project countries.

**Timeline for implementation:** NPMCs officers will be nominated the first year and trained on new materials in support of post registration activities in the second year and will implement their respective action plans in the third and fourth years.

Output 3.4 Regional analytical services and quality control of pesticides strengthened to serve nine participating countries

**Main activities:** The key activities to be implemented under this Output are:

- 3.4.1 Assessment of the analytical capacities of *Laboratoire Central Veterinaire*, located in Bamako Mali: an international expert will be recruited to assess the analytical equipment, the technical staff and the layout of the laboratory and its legal status.
- 3.4.2 Up-grading of *Laboratoire Central Veterinaire* to perform appropriate quality control analysis and initiate its accreditation to ISO 17025: an international expert will be recruited to recalibrate the analytical equipment, develop guidelines on Good Laboratory Practices (GLPs) and train technical staff in the organization of lab activities and quality control analytical methods.
- 3.4.3 Evaluation of the analytical capacities of the upgraded *Laboratoire Central Veterinaire*: To verify the effect of the above activities and conformance to ISO 17025, the analysis results from the lab will be compared to those obtained by other reference laboratories for the same samples.

**Timeline for implementation:** the regional assessment of analytical laboratory capacities will be done the first year, the selected laboratory upgraded the second year and evaluated the third and the fourth year.

#### **Component 4: Promotion of alternatives to chemical pesticides**

Component 4 aims to reduce reliance on highly hazardous conventional chemical pesticides by promoting low risk integrated pest management (IPM) alternatives.

The promotion of alternatives to conventional chemicals will be achieved in four steps. Firstly identifying proven and potential alternatives including bio pesticides, bio control agents, resistant varieties, agricultural practices and IPM strategies. This first step will be based on field data collection from a representative farmers network in cotton production areas of Mali, Burkina Faso and Senegal. Representative farmers network identification will be based on agro-ecological zones. In each agro- ecological zone, various type of farms will be grouped based on their size and production factors: typology of farming systems. The farmers network will be composed of representatives from each farm type and will cover male and female farmers. This representative farmers network will permit a sound and realistic identification of pest control practices in each cotton production area.

The second step is data collection on pest control practices of key pests associated with key crops throughout the crop production cycle, post harvest and storage. Data collected on crop varieties, pest control practices, other inputs and water usage, other farming practices, and crop yields will be uploaded by trained national teams into Pest Control Monitoring and Management System under development in FAO. As a result of this process a potential list of alternatives to conventional pesticides will be developed as well as identifying farming practices that minimise health impact to men, women and children involved in agriculture as well as consumers and rural communities. The third step is field demonstrations to assess technical and economic feasibility of each identified alternative. Selected alternatives approved by a regional committee led will be retained for submission for registration by WAPRC and promotion in the project countries. The fourth step is the promotion of selected alternatives using farmer field schools (FFS) networks in the countries.

To support the promotion of identified alternatives, empty container management schemes and to inform the public on the impact of pesticides on human health and the environment, a communication strategy will be developed and implemented in collaboration with PAN - Africa and other NGOs.

**Outcome 4:** IPM alternatives to conventional pesticides successfully promoted in the region and the quantity of highly hazardous pesticides reduced in cotton production areas in three project countries<sup>11</sup>.

**Output 4.1** A regional action plan for the promotion of IPM developed.

**Main activities:** The key activities to be implemented under this Output are:

- 4.1.1 Establishment of a representative farmer network of male and female farmers based on the structure and functioning of farms in each agro ecological zone. A letter of agreement will be signed with relevant institutions in Burkina Faso, Mali and Senegal to conduct a typology study to identify a representative network of female and male famers. This study will draw lessons from a pilot project on farming systems underway in Benin.
- 4.1.2 Collection field data on pest control practices: This will be conducted by well trained national teams using data collection methodologies developed under the Benin pilot project.
- 4.1.3 Analysis of data to identify and describe potential alternative methods being currently used.
- 4.1.4 Preparation of a regional strategy for the promotion of IPM alternatives. This activity will be done in conjunction with activities under output 4.2 below.

**Timeline for implementation:** Typology of farming system studies should be completed during year 1, collection, analysis and identification of potential IPM alternatives in year 2, preparation and endorsement of a regional strategy should be completed between year 2 and 3.

**Output 4.2** List of proven IPM alternatives established

**Main activities:** Key activities to be implemented under this Output are:

- 4.2.1 Field demonstrations on potential alternatives: a regional team of experts led by WAPRC will design a strategy and methods for testing the identified potential IPM alternatives. Field demonstrations will be conducted either in plots of some members of the farmers network or in research stations (representing key cropping systems).
- 4.2.2 Selection of IPM alternatives: selection criteria will be prepared by a regional team of experts. The selection criteria should include among others, performance, technical and economic feasibility of each alternative.
- 4.2.3 Evaluation of the value chain (import, local production, distribution, availability to farmers) of the selected alternatives: Prior to registration of the proven alternatives, a value chain study will be carried out by an appropriate institution to evaluate the availability, the production, the distribution, safe use and quality control parameters of each selected alternative.

**Timeline for implementation:** Field experiments be conducted in the second and third years of project implementation and value chain analyses of identified alternatives carried out in the third and fourth year.

**Output 4.3** The most promising IPM alternatives are scaled up in Burkina Faso, Mali and Senegal .

**Main activities:**

- 4.3.1 Existing FFS training curriculum updated to include most-promising IPM alternatives: Curriculum will be updated for each crop-pest combination using comparative advantage, best agricultural practices of each selected alternative including prescription, conditions of

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<sup>11</sup> Cotton producing areas also include extensive production of horticultural and high-value cereal crops (maize)

application and techniques of application. This activity builds on achievements of the ongoing FAO IPM programme in West Africa.

4.3.2 Implementation of Farmer Field School programme: implementation of the curriculum developed for the promotion to the selected alternatives in the cotton production areas of B. Faso, Mali and Senegal. It is expected that about 100 farmer field schools will be organised and 3 000 farmers will be trained.

**Timeline for implementation:** Training curriculum and training sessions will be conducted from the end of year 2 to the fourth year.

Output 4.4 A Communication strategy for the promotion of IPM alternatives to conventional pesticides and sustainable container management developed and implemented in all 9 project countries.

**Main activities:**

4.4.1 Development of a communication strategies and complete Knowledge Attitudes and Practices (KAP) surveys: PAN Africa, in consultation with project partners, will prepare and implement the communication strategy. The communication strategy will benefit from the NGO network established under Africa Stockpiles Programmes (ASP) . The content of the communication strategy should cover all project components tailored to various target stakeholders in the region and in the countries.

4.4.2 Implementation of the strategy and conduct a midterm KAP survey.

4.4.3 Revision of the strategy as necessary and continue implementation.

**Timeline for implementation:** The communication strategy should be developed during the first year and implemented throughout project implementation.

## **Component 5: Monitoring and Evaluation**

The objective of component 5 is to ensure a systematic results-based monitoring and evaluation of project progress towards achieving project outputs and outcome targets as established in the Project Results Matrix as well as promote the wider dissemination of project results for replication in other countries in the region and other regions. For further details please see section 4.6 Monitoring and Evaluation and Reporting.

Output 5.1: Project monitoring system providing six-monthly reports on progress in achieving project outputs and outcomes

Output 5.2: Midterm and final evaluation reports

Output 5.3: Project “best-practices” and “lessons-learned” disseminated via publications, project website and others.

**Time for implementation:** 5.1 and 5.3 will be continuous, a mid-term evaluation will be conducted at project mid-term (after two years of implementation) and a final evaluation at project completion.

## **2.4 GLOBAL ENVIRONMENTAL BENEFITS**

The project will deliver the following significant global environmental benefits:

- (i) Approximately 850 tonnes of POPs and other obsolete pesticides disposed of in an environmentally sound manner by the end of the project;
- (ii) Eight heavily contaminated sites remediated and risks from the sites reduced by at least 50%;

- (iii) Pilot empty pesticide container management schemes operational in four project countries (Burkina Faso, Chad, Mali and Senegal) and 90% of empty pesticide containers generated in target cotton production areas triple rinsed.

To sustain these benefits, and prevent future accumulation of obsolete stocks, the project will improve pesticide regulations, strengthen institutional capacity at the regional and national levels to enforce the regulations, and seek to scale-up integrated pest management alternatives to highly hazardous pesticides in the project countries.

## **2.5 COST EFFECTIVENESS**

Cost effectiveness will be achieved through: (i) building on existing capacity developed under previous and on-going initiatives implemented by FAO and others. For instance, the project will use technical guidelines and adapted training materials already existing, instead of developing new materials and duplicating what is already there; (ii) disposal of all obsolete stocks under one disposal contract, instead of several contracts/one for each country. Having one contract reduces transaction costs and the actual cost of disposal; and (iii) implementing pilots in phases, and assessing what works before scaling-up/rolling-out to other countries.

## **2.6 INNOVATIVENESS**

An important feature of this project is the regional approach that enhances the already existing regional collaboration. What the regional leading institutions and countries have done, understanding that they have a common issue they could only address more effectively working together than on their own, is a good example of close cooperation that other regions could learn from.

### **3 SECTION 3: FEASIBILITY**

#### **3.1 ENVIRONMENTAL IMPACT ASSESSMENT**

The project is designed to have positive benefits to the environment through the removal of obsolete pesticides and risk reduction of contaminated sites together with the reduction in use of hazardous pesticides and the routine environmentally sound management of empty pesticide containers..

However in achieving these objectives, there is potential for environmental impairment particularly in the event of an accident in the removal and elimination of the obsolete pesticides. To mitigate these risks the project will follow FAO's Environmental Management Tool Kits (EMTK) for the assessment, safeguarding, transportation and disposal of obsolete pesticides. Environmental Management Plans (EMP) will be developed for the safeguarding activities that will consider all potential risks and develop mitigation strategies. The EMP will cover:

- repackaging of obsolete pesticides;
- safeguarding of stocks of obsolete pesticides;
- collection, transportation and safe storage/handling of empty containers;
- transportation and intermediate storage of stocks of obsolete pesticides; and
- decontamination of heavily pesticide-contaminated sites.

The methodologies set out in the EMTK have been used in similar FAO projects since 2003 and no adverse environmental impacts have resulted. This project is therefore classified as Category B under FAO's guideline "Environmental Impact Assessment – Guidelines for FAO's field projects".

#### **3.2 RISK MANAGEMENT**

The following risks were identified during project preparation. Mitigation measures are proposed, and where appropriate, will be further elaborated in the Environmental Management Plans. All these will be closely monitored during project implementation.

Risk	Ranking	Mitigation measures	Responsibility
<p>Larger than expected volumes of waste are found at each contaminated sites or additional sites are identified.</p> <p>This could mean that funds dedicated to the safeguarding of high-priority sites, and the disposal of POPs would be insufficient.</p>	Low	<p>Results of detailed project preparation investigations indicate that indicative financing is sufficient to complete the project activities. However, if there is a need for additional co-financing, it will be sought from project partners and related projects during project execution.</p> <p>Also the possibility of an additional waste has been included in the estimated amount that will be disposed of.</p>	Project Management Unit team led by the Chief Technical Adviser (CTA), FAO
Institutional arrangements pose challenges to project execution.	Low	<p>All key institutions including the CILSS Executive Secretariat, ECOWAS, UEMOA and the national governments have demonstrated excellent high level political support to the objectives of this project, which are in line with the objectives of the regional bodies and the countries.</p> <p>All partners were involved in the design of the proposed institutional arrangements. In case any challenges arise during implementation, these will be brought to the attention of the Project Steering Committee to seek guidance and identify ways forward .</p>	Project Management Unit and CTA, FAO, CILSS Secretariat, Project Steering Committee
Extreme weather conditions such as torrential rain and floods.	Low to medium	Emergency sites will be safeguarded during the driest months (from November to May) with a view to reducing risks associated with torrential rainfall. Contingency plans, especially targeting removal of excess water accumulated in the holding areas, will be implemented in the event of torrential rains.	Project Management Unit, CTA
Environmental contamination from leakage of POPs and other obsolete pesticides due to poor conditions of containers.	Medium	Management measures to be included in the EMP include field procedures to ensure no further leakage occurs during the project activities. Chemical stores will be ranked according to leakage risk at the beginning of the project, and will be safe-guarded as a matter of priority.	Project Management Unit, CTA



<b>Risk</b>	<b>Ranking</b>	<b>Mitigation measures</b>	<b>Responsibility</b>
Technical staff being exposed to pesticides during collection and repacking of empty containers.	Low to medium	Training modules on collection techniques for the safe collection, repackaging and storage of wastes will be executed, and Personal Protection Equipment (PPE) provided for all personnel involved in container collection.	Project Management Unit, CTA, FAO
Insufficient ownership of the drafted uniform regional regulation.	Low	National and regional stakeholders have been consulted during project preparation and other preparatory activities. The development of a harmonized approach is at the region's request. Continued sensitization will be conducted during project execution including national training sessions, and regional consultations with CILSS, ECOWAS and UEMOA.	PSC, National Pesticide Management Committees and CILSS National Coordinators, CILSS Secretariat.
Low uptake of alternative technologies by producers.	Low	A large-scale information and awareness-raising campaign about the modes of application and effectiveness of the proposed alternatives will be undertaken to help promote uptake of alternatives.  Another strategy is to employ existing farmer field schools networks. The promotion of IPM through FFS has been quite successful in previous related initiatives.	PMU, CTA, NGO partners, FFS extension partners.

## 4 SECTION 4: IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

This project is complex as it has components that will be implemented at both regional and country level and involves a wide range of stakeholders with diverse interests and capacities. This section describes the stakeholders, their roles and responsibilities in the implementation of the project.

### 4.1 INSTITUTIONAL ARRANGEMENTS

#### Regional arrangements

(Please also see section 1.2 Institutional, Policy and Legal Context)

The main partners in this project at the regional level are:

Comité Inter Etats de Lutte contre la Sécheresse au Sahel (CILSS). CILSS is an intergovernmental organization consisting of the nine<sup>12</sup> project countries. The Executive Secretariat of CILSS is located in Ouagadougou, Burkina Faso. CILSS implements the “Common Regulation for the Registration of Pesticides in CILSS Member States” common regulation through the Secretariat of the Sahelian Pesticide Committee (SPC) which is hosted within the Institut du Sahel, one of the regional technical branches based in Bamako, Mali. SPC is responsible for registration, banning and restricting use of pesticides in CILSS countries, as well as development of guidelines for all member states, training and information dissemination. The decisions of the SPC are implemented at national level by National Pesticides Management Committees (NPMCs).

Economic Community of West African States (ECOWAS). ECOWAS’s mission is to promote economic integration in all fields of economic activity including agriculture and natural resources. ECOWAS adopted a regulation pertaining to the harmonization of the rules governing pesticide registration in the ECOWAS region in 2008. ECOWAS has established a regional committee West African Pesticides Registration Committee (WAPRC) to oversee the implementation of the regulation.

West African Economic and Monetary Union (UEMOA). UEMA is an intergovernmental organization of eight West African states. One of the major goals of UEMOA is to coordinate national sector policies and harmonize member state legislations. UEMOA endorsed in 2009, the Regulation pertaining to the harmonization of rules governing the regulation, marketing and control of pesticides within UEMOA member states.

As mentioned, due to the overlap in the membership of CILSS, ECOWAS and UEMOA and the need to harmonize pesticide regulation across West Africa, a tripartite Agreement CILSS-ECOWAS-UEMOA for the Management of Pesticides in West Africa was proposed by ECOWAS and approved by CILSS and UEMOA in April 2013. Under this agreement, registration and post registration management of pesticides will be carried out by the West African Pesticides Registration Committee (WAPRC), which will be composed of a subcommittee for the management of pesticides used in the Arid zone based in Bamako Mali, a sub-committee for the humid zone based in Accra, Ghana and a technical Secretariat of the two sub-committees in Bamako, Mali. Institut du Sahel is in charge, on behalf of ECOWAS and UEMOA, as of April 2013, of the set up and coordination of the Western African Pesticides Registration Committee, during the five-year-transition period 2014-2018.

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<sup>12</sup> In 2012, Cote d’Ivoire, Guinea Conakry, Togo and Benin adopted Resolution N° 8/34/CM/99 and became members of CILSS.

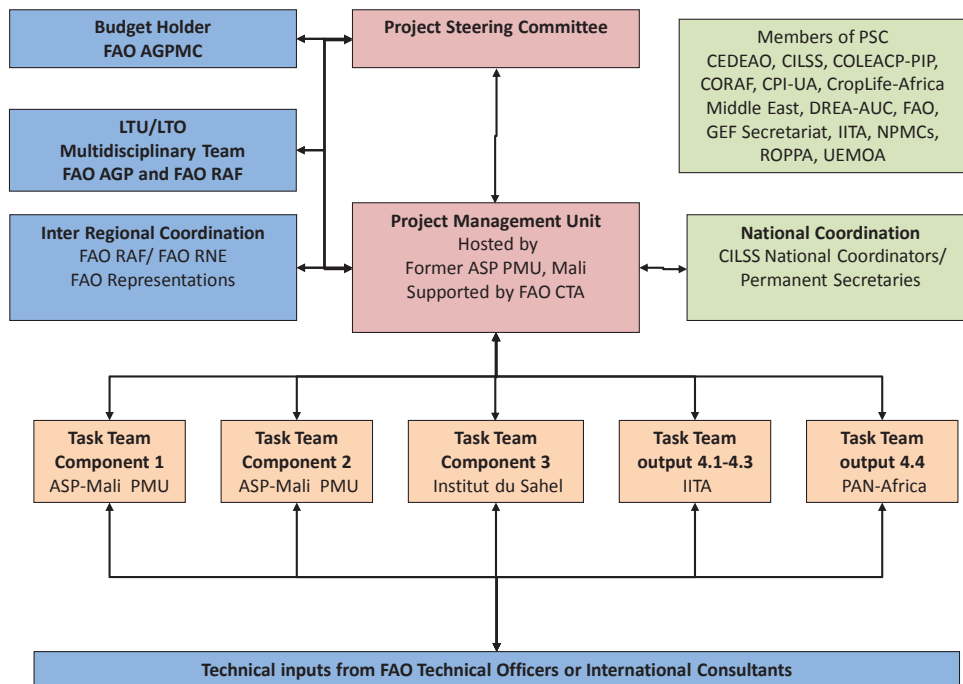
### National arrangements

The lead executing and coordinating partners will be the Ministère de l'Agriculture et de la Sécurité Alimentaire, Burkina Faso; Ministère du Développement Rural, Cape Verde; Ministère de l'Agriculture et de l'Irrigation, Chad; Ministère de l'Agriculture, Gambia; Ministère de l'Agriculture et du Développement Rural, Guinea Bissau; Ministère de l'Agriculture, Mali, Ministère du développement rural, Mauritania; Ministère de l'agriculture, Niger and Ministère de l'agriculture et de l'équipement rural, Senegal. **CILSS National Coordinators/Permanent Secretaries** are based within these Ministries in each participating country and are responsible for official liaison between the national governments and the CILSS regional body.

**National Pesticides Management Committees** (NPMCs) are national institutions created by law or decree in eight CILSS member countries (all project countries except in Guinea Bissau) and are specialized in pesticides management and specifically the implementation of the results and deliberations made by the SPC at the country level. Members of these national institutions are representatives of key institutions involved in pesticides management including ministries of agriculture, public health and environment, private sector and NGOs.

## **4.2 IMPLEMENTATION ARRANGEMENTS**

The Food and Agriculture Organization (FAO) will be the GEF Agency responsible for the supervision, and provision of technical guidance during the implementation of the project. The key executing partners, based on decisions and recommendations of the regional and national partners, are the Institut du Sahel, the Ministries of Agriculture and Environment and other regional institutions. Since existing institutions at national level have mixed responsibilities in the area of pests and pesticide management, other relevant ministries (Ministries of Environment and Public Health and other stakeholders) will be involved also primarily through the National Pesticide Management Committees. The project management unit that was established under the Africa Stockpiles Programme Mali (ASP-Mali), which is within the Ministry of Environment, has been proposed by project partners to play the role of a Regional Project Management Unit (PMU) for the project.



**Figure 1. Arrangements for Implementation of the Project**

Regional level

At the regional level, key executing institutions will be Institut du Sahel, Africa Stockpiles Programme ASP – Mali and Pan Africa. Overall supervision of execution will be undertaken by the CILSS Executive Secretariat.

**Institut du Sahel** is in charge, on behalf of ECOWAS and UEMOA, as of April 2013, of the set up and coordination of the Western African Pesticides Registration Committee, during the five-year-transition period. Its mandate is to review the existing common registration of pesticides in line with the future registration and post registration management of pesticides in West Africa, and accordingly revise national legislations and reorganise National Pesticides Management Committees (NPMCs) in project countries. In this context, it will be responsible for co-executing Component 3 through a Letter of Agreement.

**PAN Africa** based in Dakar, participated in the design and implementation of Africa Stockpiles Programme and developed and implemented a communication strategy on the prevention and disposal of obsoletes pesticides in nine African countries. PAN Africa in collaboration with PAN UK also developed a specific communication strategy to address the impact of pesticides used in Desert Locust control in West Africa. PAN Africa through a Letter of Agreement will execute Output 4.4. on communications and awareness.

**ASP-Mali Project Management Unit** based in the Ministry of Environment in Bamako, provides a good example of a structure for coordination among key regional and national institutions for efficient project execution. Throughout the ASP, the PMU of ASP-Mali demonstrated good technical, administrative and financial management skills. Its financial systems were audited by the World Bank and deemed appropriate to meet the Bank’s standards for the management of project finance and for progress and financial reporting. The PMU of ASP-Mali played a key role in the design of this project. Therefore the partners proposed that the PMU of ASP-Mali take on the role of regional PMU

for this project. The ASP-Mali team is currently composed of a project coordinator, procurement and financial officers, one expert in the management of obsolete pesticides and soil remediation, one expert in pest and pesticides management and a secretary. The PMU will be supervised by the CILSS Executive Secretariat and FAO.

The PMU will be strengthened with a Chief Technical Advisor (CTA) financed by the project's GEF resources, and short-term consultants as necessary. The PMU will be responsible for the day to day management of the project and timely and efficient implementation of and monitoring of approved annual work plans. In close consultation with National Project Coordinators, Institut du Sahel and other partners, the Project Steering Committee (PSC) and FAO, the PMU will:

- a) Act as secretariat to the PSC;
- b) Organize project meetings and workshops, as required;
- c) Prepare Annual Work Plans and detailed Budgets (AWP/B) and submit these for approval by FAO and the PSC;
- d) Coordinate and monitor the implementation of the approved AWP/B;
- e) During project inception period, review the project's M&E plan and propose refinements, as necessary, and implement the plan;
- f) Prepare the six-monthly Project Progress Reports (PPRs) and give inputs in the preparation of the annual Project Implementation Review (PIR) by the Lead Technical Officer. Ensure that all co-financing partners provide information on co-financing provided during the course of the year for inclusion in the PIR;
- g) Coordinate the project with other related on-going activities and ensure a high degree of inter-institutional collaboration; and
- h) Assist in the organization of midterm and final evaluations.

The PMU will be required to coordinate and manage a series of project component teams. Three component level task teams will be developed to ensure that adequate regional and government inputs are mobilized in line with co-financing agreements. Technical staff from departments and ministries will be seconded to the project on an as-needed basis.

In addition to the overall management and coordination the PMU will be responsible for the execution of components 1 and 2.

**Other executing partners. The International Institute for Tropical Agriculture (IITA)** located in Cotonou, Benin, is involved in field data collection of pest control practices from the representative network of farmers identified using typology of farming system in each project country. It will be responsible for co-executing component 4 (outputs 4.1, 4.2 and 4.3).

**The Commission for Desert Locust Control in West Africa (CLCPRO)** based in Algiers, is currently in charge of developing and implementing an emergency and prevention system for Desert Locust control (EMPRES) and involved in the management of the existing stocks of pesticides used in Desert Locust control at the regional and national levels. CLCPRO will co-execute component 3 – Output 3.3. on the post registration management of pesticides used in Desert Locust control.

**Croplife International and Croplife Africa Middle East:** are active in the region in the inventory and safeguarding of obsolete stocks and supporting the establishment of empty pesticide container management schemes. Although these organizations will not be engaged formally in the project structure, the project will maintain close liaison to ensure that the activities of the project and those of Croplife are adequately coordinated.

### Country level

At national level, the **Ministry of Agriculture** in each country<sup>13</sup> has nominated CILSS National Coordinator/ Permanent Secretary. The CILSS National Coordinators will be the main focal points between the project and the Government. In addition to the CILSS National Coordinators (co-financing), National Project Coordinators (NPCs) in each project country will be contracted (paid by the project) to coordinate all project activities in their country, organizing workshops and facilitating official meetings, working closely with the CILSS National Coordinators. The NPCs, together with the CILSS National Coordinators will lead teams of government technical staff and consultants that will implement activities at the national level.

The NPCs will work closely with the **National Pesticide Management Committees (NPMCs)**, which are hosted by the Ministry of Agriculture – **Ministry of Environment** in Senegal and Gambia. NPCs together with NPMCs will be responsible for planning, organizing and executing project activities at the national level. In particular, the NPMCs will be responsible for developing and implementing action plans for monitoring pesticides life cycle stages in their respective countries under component 3.

### **Project Steering Committee**

A multi-stakeholder regional Project Steering Committee (PSC) will be established to guide and oversee implementation of the project. Specifically the PSC will:

- a) Provide guidance to ensure that project implementation is in accordance with the project document;
- b) Review and approve any proposed revisions to the project - project Results Matrix and implementation arrangements;
- c) Review, amend (if appropriate) and endorse all Annual Work Plans and Budgets;
- d) Review project progress and achievement of planned results as presented in six-monthly Project Progress Reports, Project Implementation Reviews (PIRs) and Financial Reports;
- e) Advise on issues and problems arising from project implementation, submitted for consideration by the Project Management Unit or by various stakeholders; and
- f) Facilitate cooperation between all project partners and facilitate collaboration between the Project and other relevant programmes, projects and initiatives in the region.

### **FAO's Role**

FAO will be the GEF Agency for the project. As the GEF agency, FAO will maintain project oversight to ensure that GEF policies and criteria are adhered to and that the project meets its objectives and achieves expected outcomes in an efficient and effective manner. FAO will report on project progress to the GEF Secretariat; financial reporting will be to the GEF Trustee. FAO will closely monitor the project and provide technical support (through FAO's Agriculture and Consumer Protection Department and other technical divisions) and carry out supervision missions.

As the GEF agency for the project, FAO will:

- Manage and disburse funds from GEF in accordance with the rules and procedures of FAO;
- Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers and the rules and procedures of FAO;
- Provide technical guidance to ensure that appropriate technical quality is applied to all activities;

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<sup>13</sup> *Ministère de l'agriculture et de la sécurité alimentaire, Burkina Faso; Ministère du développement rural, Cape Verde; Ministère de l'agriculture et de l'irrigation, Chad; Ministre de l'Agriculture, Gambia; Ministère de l'agriculture et du développement rural, Guinea Bissau; Ministère de l'Agriculture, Mali, Ministère du développement rural, Mauritania; Ministère de l'agriculture, Niger and Ministère de l'agriculture et de l'équipement rural, Senegal*

- Carry out at least one supervision mission per year; and
- Report to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, on project progress and provide financial reports to the GEF Trustee.

FAO will also be responsible for the financial execution of the project. This means that FAO will be responsible for the procurement of goods and services for the project in consultation with project partners based on the annual work plans and budgets approved by the PSC.

FAO will designate a Budget Holder<sup>14</sup> to be responsible for the timely operational, administrative and financial management of the project. She/he, working closely with the PMU, the FAO Lead Technical Officer and Lead Technical Unit, will be responsible for:

- a) Management of GEF resources in accordance with the Project Document, and approved Annual Work Plans and Budgets;
- b) Procurement of goods and contracting of services for the GEF component of the project and financial reporting in accordance with FAO rules and procedures;
- c) Preparation of annual/six-monthly budget revisions, as required, for submission to the LTO/LTU and the GEF Coordination Unit;
- d) Preparation of six-monthly financial reports to be submitted to the GEF Unit and shared with the executing partners and the PSC;
- e) Represent FAO in the PSC.

The BH will also be responsible for reviewing and giving no-objection to Annual Work Plans and Budgets (AWP/B), Project Progress Reports and co-financing reports submitted by the Project Management Unit, in consultation with the FAO Lead Technical Officer (LTO), Lead Technical Unit (LTU) and the GEF Coordination Unit.

**FAO Project Task Force (PTF):** The BH will establish a multi-disciplinary PTF to support the project. Members of the task force will be responsible for supervision of activities in their area of technical competence. The PTF members will work in cooperation with the LTO and BH and will include representatives from the two regional offices (RAF and RNE).

**The FAO Lead Technical Unit (LTU):** The Pesticide Risk Reduction Group in the Plant Production and Protection Division (AGP) of the Agriculture and Consumer Protection Department will be the FAO Lead Technical Unit (LTU) for this project. The LTU will support a Lead Technical Officer<sup>15</sup> (LTO), in providing technical advice and backstopping in consultation with other teams in AGP and FAO. The LTO, supported by the LTU, will :

- a) Review and provide clearance to TORs for consultancies, LOAs and contracts, in consultation with the LTU and relevant technical officers in FAO;
- b) Participate in the selection of consultants and firms to be hired with GEF funding;
- c) Review and provide technical comments to draft technical products/reports and, as necessary, ensure clearance by relevant FAO technical officers of final technical products delivered by consultants and contract holders financed by GEF resources before the final payment can be processed;
- d) Review and approve project progress reports submitted by the Project Management Unit to the BH;
- e) Support the BH in reviewing, revising and giving no-objection to AWP/B to be approved by the Project Steering Committee;

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<sup>14</sup> This project covers eight countries from Regional Office for Africa (RAF) and one country from Sub Regional Office for North Africa (SNE). Budget Holder designation to be discussed between relevant units within FAO.

<sup>15</sup> To be designated from FAO regional office or AGP in Headquarters.

- f) Prepare the annual Project Implementation Review (PIR) report, with inputs from the Chief Technical Adviser, to be submitted to the LTU and the GEF Coordination (TCI) for clearance. The PIR will subsequently be submitted to the GEF Secretariat and Evaluation Office as part of the Annual Monitoring Review report of the FAO-GEF portfolio;
- g) Field annual (or as needed) technical support and backstopping missions;
- h) With the LTU, review and clear TORs for the mid-term evaluation, participate in the mid-term workshop with all key project stakeholders, development of an eventual agreed adjustment plan in project execution approach, and supervise its implementation;
- i) With the LTU, review and clear TORs for the final evaluation, participate in the final project closure workshop with all key project stakeholders and the development of and follow up on recommendations on how to insure sustainability of project outputs and results after the end of the project.

**The GEF Coordination Unit** in the Investment Centre Division (TCI) will review and approve project progress reports, annual project implementation reviews (PIRs) and financial reports and budget revisions. The unit will also participate in the mid-term and final evaluations and the development of corrective actions to mitigate eventual risks affecting the timely and effective implementation of the project. The GEF Coordination Unit will, in collaboration with the FAO Finance Division, request transfer of project funds from the GEF Trustee based on 6 monthly projections.

**The FAO Finance Division** will clear budget revisions, provide annual Financial Reports to GEF and, in collaboration with the GEF Coordination Unit, call for project funds on a six-monthly basis from the GEF.



### 4.3 FINANCIAL PLANNING AND MANAGEMENT

#### 4.3.1 Financial plan

Financial plan (by component, outputs and co-financier)

Component	Output	CILSS in kind	CLI	Ecowas Cash	FAO TFs	IITA		PIP COLEACP	Total co-financing	% co-financing	Total GEF	% GEF	Grand Total
						in kind							
1	1.1				579,500				579,500	52.37%	527,130	47.63%	1,106,630
	1.2		2,025,000		160,530				2,185,530	51.89%	2,026,600	48.11%	4,212,130
	1.3		125,000		330,250				455,250	60.64%	295,440	39.36%	750,690
2	2.1				0				0	0.00%	514,005	100.00%	514,005
	2.2		80,000		650,000				730,000	62.61%	436,031	37.39%	1,166,031
	2.3				400,000				400,000	67.92%	188,931	32.08%	588,931
3	3.1				259,620			110,345	369,965	69.41%	163,074	30.59%	533,039
	3.2	5,682,017	2,200,000	4,508,965	161,980			220,690	12,773,652	97.72%	298,073	2.28%	13,071,725
	3.3				168,920				168,920	39.42%	259,573	60.58%	428,493
	3.4			950,000	390,000				1,340,000	81.11%	312,073	18.89%	1,652,073
4	4.1	3,191,713			770,000		60,000		4,021,713	93.28%	289,500	6.72%	4,311,213
	4.2	318,000			70,000				388,000	65.07%	208,260	34.93%	596,260
	4.3				100,000		60,000	579,310	739,310	54.92%	606,890	45.08%	1,346,200
	4.4				460,000				460,000	51.15%	439,364	48.85%	899,364
5	5.1-3	400,000			7,500				407,500	47.34%	453,376	52.66%	860,876
6	6.1	408,270			0				408,270	48.61%	431,680	51.39%	839,950
<b>Grand Total</b>		<b>10,000,000</b>	<b>4,430,000</b>	<b>5,458,965</b>	<b>4,508,300</b>		<b>120,000</b>	<b>0</b>	<b>25,427,610</b>	<b>77%</b>	<b>7,450,000</b>	<b>23%</b>	<b>32,877,610</b>

#### 4.3.2 GEF inputs

GEF is providing USD 7.45 million in financing for this project which has been allocated across the five components. The majority of GEF funds (USD 2 849 170) are allocated to the safe disposal of POPs and highly hazardous pesticides and the remediation of contaminated sites. Significant GEF funds are also allocated to developing, piloting and promoting less toxic alternatives (USD 1 544 014), as these activities are considered key to the project's long term sustainability. GEF funds are also allocated to support regional activities on developing and instituting an effective and sustainable revised regional regulatory framework (USD 1 032 793), and to support national efforts in developing strategies for sustainable container management (USD 1 138 967).

#### 4.3.3 Government inputs

Each participating national government has CILSS National Coordinators who, working with National Pesticide Management Committees and other Government staff, will be responsible for the: provision of available data on import and use of pesticides; technical and infrastructure for analysis of residues in soil, plant materials and water; and provision of statistics to develop typology of farming systems and representative networks of farmers in each country to establish reference data on the use of pesticides and to develop alternatives to POPs and conventional chemical pesticides. They will also facilitate networking among relevant institutions and focal points of international conventions.

Governments inputs also include: the provision of national teams to conduct or update national inventories and safeguarding of obsolete pesticides and associated wastes; sites and stores for safeguarding and temporary storage of inventoried stocks awaiting their shipment for incineration; the preparation and facilitation of all paper work required under the Basel Conventions for Transboundary movement of hazardous wastes; the provision of a national team and office for maintaining PSMS; a network of farmers and government representatives to create and supervise containers collection centres; and transport and intermediate and final collection centres for processing empty pesticides containers.

#### 4.3.4 FAO inputs

This project builds on a previous FAO Technical Support to regional Program and national project supporting pest and management of pesticides management in West Africa.

#### 4.3.5 Other co-financiers inputs

**ECOWAS, UEMUOA and CILSS** will provide 60 percent, 30 percent and 10 percent respectively of co-financing for the logistic and functioning of the Western African Pesticides Registration Committee (WAPRC) in Sahel and Western Africa, which is composed of the coordination unit, technical secretariat of the two subcommittees and the subcommittee in charge of the arid zone based in Bamako, Mali, and the subcommittee in charge of Humid zone based in Accra, Ghana.

**FAO and CLI signed Framework Agreement for Voluntary Contributions to Obsolete Pesticide Stocks Projects.** Under this agreement, CLI will safeguard and/or contribute to the destruction of pesticide products inventoried in Niger and Burkina Faso.

**USAID** will continue to co-finance the quality control of pesticides used for DL control under the Locust emergency prevention and mitigation project executed by FAO (2008-2017). The USAID funded project will contribute to the upgrading of a laboratory in Bamako for quality control of pesticides used in DL control.

**PIP-COLEACP:** an Agreement/MoU between FAO and COLEACP "Comité de Liaison Europe-Afrique-Caraïbes-Pacifique," a non-profit inter-professional association, that is managing a programme on the improvement of horticultural products and representing and defending the collective interests of ACP producers/exporters and EU importers of fruits, vegetables, flowers and other plants has been signed. Under this agreement a cooperation and collaborative programme has been established to

undertake the following activities in the project countries: raise awareness about the issues of pest and pesticide management in horticulture; organize consultations and report on the current situation, potential solutions and areas of improvement; and exchange information and knowledge for the improvement of horticulture production systems.

**Capacity building related to multilateral environmental agreements in African, Caribbean and Pacific countries (ACP-MEAs)** Phase 1 and 2 executed are being executed by FAO from 2009–2017. This project is contributing to the establishment of the common list of registered pesticides in Sahel and West Africa during the five- year- transition period and the establishment of regional and national inspection and quality control of pesticides products planned under this project.

#### **4.4 FINANCIAL MANAGEMENT AND REPORTING ON GEF RESOURCES**

FAO will maintain a separate account in USD for the Project GEF resources showing all income and expenditures. Expenditures incurred in a currency other than USD will be converted into USD at the United Nations operational rate of exchange on the date of the transaction. FAO shall administer the GEF resources in accordance with its regulations, rules and directives.

##### **Financial reports**

The Budget Holder, supported by an Operations and Administrative Officer, will prepare six-monthly Project expenditure accounts and final accounts for the Project's GEF resources, showing amount budgeted for the year, amount expended since the beginning of the year, and separately, the unliquidated obligations as follows:

- Details of Project expenditures on an output-by-output basis, reported in line with Project budget codes as set out in the Project Document, as at 30 June and 31 December each year.
- Final accounts on completion of the Project on an output-by-output cumulative basis, reported in line with Project budget codes as set out in the Project Document.
- A final statement of account in line with FAO Oracle Project budget codes, reflecting actual final expenditures under the GEF component of the Project, when all obligations have been liquidated.
- An annual budget revision will be prepared by the BH in consultation with the LTO and LTU and submitted for approval to the FAO GEF Coordination Unit.

The BH will submit the financial reports for review and monitoring by the LTU, and the FAO GEF Coordination Unit. Financial reports for submission to the GEF will be prepared in accordance with the provisions in the GEF Financial Procedures Agreement and submitted by the FAO Finance Division.

##### **Responsibility for cost overruns**

The BH is authorized to enter into commitments or incur expenditures up to a maximum of 20 percent over and above the annual amount foreseen in the GEF component of the Project budget under any budget sub-line provided the total cost of the annual budget is not exceeded.

Any cost overrun (expenditure in excess of the budgeted amount) on a specific budget sub-line over and above the 20 percent flexibility should be discussed with the FAO GEF Coordination Unit with a view to ascertaining whether it will involve a major change in Project scope or design. If it is deemed to be a minor change, the budget holder shall prepare a budget revision in accordance with FAO standard procedures. If it involves a major change in the Project's objectives or scope, a budget revision and justification should be prepared by the BH for discussion with the GEF Secretariat.

Savings in one budget sub-line may not be applied to overruns of 20 percent in other sub-lines even if the total cost remains unchanged, unless this is specifically authorized by the FAO GEF Coordination Unit upon presentation of the request. In such a case, a revision to the Project Document amending the budget will be prepared by the BH.

Under no circumstances can expenditures exceed the approved total Project budget for the GEF resources or be approved beyond the completion (NTE) date of the Project. **Any over-expenditure is the responsibility of the BH.**

#### **Audit**

Project GEF resources will be subject to the internal and external auditing procedures provided for in FAO financial regulations, rules and directives and in keeping with the Financial Procedures Agreement between the GEF Trustee and FAO.

The audit regime at FAO consists of an external audit provided by the Auditor-General (or persons exercising an equivalent function) of a member nation appointed by the governing bodies of the Organization and reporting directly to them, and an internal audit function headed by the Inspector-General who reports directly to the Director-General. This function operates as an integral part of the Organization under policies established by senior management, and furthermore has a reporting line to the governing bodies. Both functions are required under the Basic Texts of FAO, which establish a framework for the TOR of each. Internal audits of imprest accounts, records, bank reconciliation and asset verification take place at FAO field and liaison offices on a cyclical basis.

## **4.5 PROCUREMENT**

Goods and services will be procured in accordance with FAO's regulations, rules, procedures, and administrative instructions for procurement and finance. A procurement plan shall be prepared following the approval of the project (inception period).

## **4.6 MONITORING, EVALUATION AND REPORTING**

### **4.6.1 Oversight and reviews**

Project oversight will be carried out by the PSC and FAO. Project oversight will be facilitated by: (i) documenting project transactions and results through traceability of related documents throughout the implementation of the project; (ii) ensuring that the project is implemented within the planned activities applying established standards and guidelines; (iii) continuous identification and monitoring of project risks and risk mitigation strategies; and (iv) ensuring project outputs are produced in accordance with the project results framework. At any time during project execution, underperforming components may be required to undergo additional assessments, implementation changes to improve performance or be halted until remedies have been identified and implemented.

#### **Project revisions**

The following types of revisions may be made to this project document with no-objection from the PSC and the approval of FAO GEF Coordination Unit in consultation with the LTO, LTU and BH:

- Minor revisions that do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of inputs already agreed to or by cost increases due to inflation. These minor amendments are changes in the project design or implementation that could include, *inter alia*, changes in the specification of project outputs that do not have significant impact on the project objectives or scope, changes in the work plan or specific implementation targets or dates, renaming of implementing entities, or reallocation of grant proceeds not affecting the project's scope.

- Revisions in, or addition of, any of the annexes of the project document.
- Mandatory annual revisions which rephrase the delivery of agreed project inputs or take into account expenditure flexibility.

All minor revisions shall be reported in the annual Project Implementation Reviews (PIRs) submitted by FAO to the GEF Secretariat and Evaluation Office.

#### **4.6.2 Monitoring responsibilities**

Monitoring and evaluation (M&E) of progress in achieving project results and objectives will be done based on the targets and results indicators established in the project Results Matrix and the annual work plans and budgets. M&E activities will follow FAO and GEF monitoring and evaluation policies and guidelines. The M&E plan, which has been budgeted at USD 453 376, will be reviewed and updated during the project inception phase. This will involve: (i) review of the project's results framework; (ii) refining of outcome indicators; (iii) identification of missing baseline information and action to be taken to collect the information; and (iv) clarification of M&E roles and responsibilities of project stakeholders. The project's M&E system will be put in place within the first 6 months of project implementation.

The day-to-day monitoring of the project implementation will be the responsibility of the Project Management Unit led by the Chief Technical Adviser (CTA) and driven by the preparation and implementation of an Annual Work Plan and Budget (AWP/B) and the preparation of six-monthly project progress reports (PPRs). The preparation of the AWP/B and six-monthly PPRs will represent the product of a unified planning process between main project partners. As tools for results-based-management (RBM), the AWP/B will identify the actions proposed for the coming project year and provide the necessary details on output targets to be achieved, and the PPRs will report on the monitoring of the implementation of actions and the achievement of output targets. Monitoring at national level will be supported by the National Project Coordinators and the National Pesticide Management Committees. An annual project progress review and planning meeting will be organized by the CTA with the participation of the National Project Coordinators and representatives from key executing partners prior to the Project Steering Committee Meeting. The AWP/B and PPRs will be submitted to the PSC for approval (AWP/B) and review (PPRs) and to FAO for approval. The AWP/B will be developed in a manner consistent with the project's Results Matrix to ensure adequate fulfillment and monitoring of project outputs and outcomes.

Following the approval of the Project, the project's first year AWP/B will be adjusted (either reduced or expanded in time) to synchronize it with an annual reporting calendar. In subsequent years, the work plan and budget will follow an annual preparation and reporting cycle as specified in section 4.6.4 below.

#### **4.6.3 Indicators and information sources**

To monitor project outputs and outcomes including contributions to global environmental benefits specific indicators have been established in the Results Matrix (see Annex 1). The framework's indicators and means of verification will be applied to monitor both project performance and impact. Following FAO's monitoring procedures and progress reporting formats data collected will be of sufficient detail to be able to track specific outputs and outcomes and flag project risks early on. Output target indicators will be monitored on a six-monthly basis and outcome target indicators will be monitored on an annual basis if possible or as part of the mid-term and final evaluations.

Monitoring information sources will be evidence of outputs (reports, website, farmer surveys, lists of participants in training activities, manuals etc.). To assess and confirm the congruence of outcomes with project objectives, physical inspection and/or surveying of activity sites and participants will be carried out. This latter task would often be undertaken by the PMU supported by the FAO LTO and LTU.

Knowledge sharing is an integral component of the project in that lessons learned will be shared among the project countries and others where similar activities are being undertaken, so that subsequent activities can be improved on the basis of fore-runners.

#### **4.6.4 Reports and their schedule**

Specific reports that will be prepared under the M&E program are the: project inception report; Annual Work Plan and Budget (AWP/B); Project Progress Reports (PPRs); annual project implementation review (PIR); technical reports; co-financing reports; and a terminal report. In addition, assessment of the GEF POPs tracking tool against the baseline will be required at mid-term and final evaluation.

**Project Inception Report:** After FAO approval of the project and signature of the FAO/Government Cooperative Programme (GCP) Agreement by project countries Governments and FAO, the project will initiate with a six month inception period. An inception workshop will be held. Immediately after the workshop, the CTA will prepare a project inception report in consultation with the FAO LTO and other project partners. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed First Year Annual Work Plan and Budget (AWP/B) and a plan with all monitoring and supervision requirements. The draft report will be circulated to FAO and the Project Steering Committee for review and comments before its finalization. The report should be cleared by the FAO BH, LTO, LTU and the FAO GEF Coordination Unit and uploaded in FPMIS by the LTO.

**Annual Work Plan and Budget (AWP/B):** The CTA will submit to the FAO LTO an Annual Work Plan and Budget. The AWP/B, divided into monthly timeframes, should include detailed activities to be implemented and outputs to be (targets and milestones for output indicators) achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The draft AWP/B is circulated to and reviewed by the FAO Project Task Force, PMU incorporates eventual comments and the final AWP/B is send to the PSC for approval and to the FAO for final no-objection and upload in FPMIS by the GEF Coordination Unit.

**Project Progress Reports:** One month before the mid-point of each project year, the CTA, with inputs from the National Project Coordinators, will prepare a semi-annual Project Progress Report (PPR). The report will contain the following: (i) an account of actual implementation of project activities compared to those scheduled in the AWP/B; (ii) an account of the achievement of outputs and progress towards achieving project objectives and outcomes (based on the indicators contained in the results framework); (iii) identification of any problems and constraints (technical, human, financial, etc.) encountered in project implementation and the reasons for these constraints; (iv) clear recommendations for corrective actions in addressing key problems resulting in lack of progress in achieving results; (iv) lessons learned; and (v) a revised work plan for the final six months of the project year. The report will also include an estimate of cofinancing received from all co-financing partners.

The PPR will be submitted by the CTA to FAO no later than one month after the end of each six-monthly reporting period (30 June and 31 December). The draft PPR will be reviewed and cleared by FAO (LTO/LTU and BH). The LTU will submit the PPR to the GEF Coordination Unit for final clearance. The final PPR will be circulated by the LTO/BH to the PSC.

**Project Implementation Review:** The LTO supported by the FAO LTU, with inputs from the CTA and National Project Coordinators, will prepare an annual Project Implementation Review (PIR) covering the period July (the previous year) through June (current year). The PIR will be submitted to the GEF Coordination in TCI for review and approval no later than 30 June. The GEF Coordination Unit will

submit the final report to the GEF Secretariat and Evaluation Office as part of the Annual Monitoring Review report of the FAO-GEF portfolio. The finalized PIR will also be submitted to the PSC by the CTA and national GEF Operational Focal Points by the National Project Coordinators.

**Technical Reports:** Technical reports will be prepared to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the CTA to the FAO LTO who will share it with the LTU for review and clearance, prior to finalization and publication. Copies of the technical reports will be distributed to the Project Steering Committee and other project partners as appropriate. These will also be posted on the FAO FPMIS by the LTO.

**Co-financing Reports:** The CTA and National Project Coordinators will be responsible for collecting required information and reporting on in-kind and cash co-financing provided by all co-financing partners. The CTA and National Project Coordinators will provide the information in a timely manner and will transmit such information to FAO. The co-financing reports should be completed as part of the semi-annual PPRs and annual PIRs.

**GEF-5 Tracking Tools:** Following the GEF policies and procedures, the tracking tools for POPs will be submitted at three moments: (i) with the project document at CEO endorsement; (ii) at project mid-term evaluation; and (iii) at final evaluation. These should be completed by CTA and National Project Coordinators with support from the LTO at mid-term and final evaluation.

**Terminal Report:** Within two months of the project completion date the CTA will submit to FAO a draft Terminal Report, including a list of outputs detailing the activities taken under the Project, “lessons learned” and any recommendations to improve the efficiency of similar activities in the future. This report will specifically include the findings of the final evaluation as described above.

#### 4.6.5 Monitoring and evaluation plan summary

The summary monitoring and evaluation plan is outlined below.

Type of monitoring and evaluation activity	Responsible parties	Time frame	Budget
Inception Workshop	Project Management Unit led by the Chief Technical Adviser (PMU); CILSS Secretariat and Institut du Sahel; CILSS National Coordinators; FAO Budget Holder, Lead Technical Officer, Lead Technical Unit and the FAO GEF Coordination Unit.	Within two months of project start up.	USD 50 000. FAO costs covered by the GEF agency fee.
Inception report	PMU in consultation with Institut du Sahel, FAO LTO and other project partners.	Immediately after the workshop.	USD 10 000
	Cleared by FAO LTO, LTU, BH and the FAO GEF Coordination Unit.		
Design and implementation of monitoring and evaluation system, including staff training	PMU CTA, with support from FAO LTO	During the first six months of project implementation	USD 10 000. FAO costs covered by the GEF agency fee.

Type of monitoring and evaluation activity	Responsible parties	Time frame	Budget
Field-based impact monitoring	PMU, National Project Coordinators supported by national government technical staff, local communities and farmers	Continually	USD 38 376 Staff time of the CTA and PMU, National Project Coordinators and in-kind national co-financing.
Supervision visits/missions	PMU, National Project Coordinators, FAO LTO/LTU or independent consultants	Annual or as required.	USD 40 000 CTA/PMU/CILSS National Coordinator's costs from the project travel budget, FAO/independent consultants costs to be covered by the GEF agency fee.
Project progress reports (PPR)	PMU CTA with inputs from National Project Coordinators (NPCs) . Submitted to FAO LTO, LTU, BH and FAO GEF Coordination Unit. Finalized reports submitted by the PMU to the PSC.	Six- monthly	USD 30 000 PMU, CTA, NPC, regional admin assistant staff time.
Project Implementation Review (PIR)	FAO LTO with inputs from the CTA, BH and LTU. Submitted by the FAO GEF Coordination Unit to the GEF Secretariat. Final report also submitted to the PSC and national GEF Operational Focal Points.	Annually.	Covered by the GEF agency fee.
Reports on co-financing	Consolidated by the National Project Coordinators and PMU/CTA, with information from all co-financing partners.	Six monthly and annually as part of PPR and PIR.	USD 15 000 NPCs, PMU, CTA staff time.
PSC meetings	PMU, CILSS Secretariat	At least once a year	USD 40 000
Technical reports	PMU CTA, NPCs, consultants, FAO LTO/LTU	As appropriate	-
Mid- term evaluation	External consultant(s), FAO independent evaluation unit in consultation with project partners and national GEF Operational Focal Points	At mid-point of project implementation.	USD 70 000. FAO staff time paid through the GEF agency fee.
Final evaluation	External consultant(s), FAO independent evaluation unit in consultation with project partners and national GEF Operational Focal Points	At the end of project implementation	USD 70 000. FAO staff time paid through the GEF agency fee.



Type of monitoring and evaluation activity	Responsible parties	Time frame	Budget
Terminal Workshop	PMU, NPCs, CILSS Secretariat and Institut du Sahel; CILSS National Coordinators; FAO Budget Holder, Lead Technical Officer, Lead Technical Unit and the FAO GEF Coordination Unit.	At the end of project implementation.	USD 50,000
Terminal report	PMU, CTA, FAO LTO, LTU, BH	At least two months before the end of the Project	USD 10 000 CTA and PMU staff time
		Total	USD 453 376

#### 4.7 PROVISION FOR EVALUATIONS

An independent Mid-Term Evaluation (MTE) will be undertaken at project mid-term (end of second or beginning of third year) to review progress and effectiveness of implementation in terms of achieving the project objective, outcomes and outputs. Findings and recommendations of this evaluation will be instrumental for bringing improvement in the overall project design and execution strategy for the remaining period of the project's term if necessary. The FAO Evaluation Office will arrange for the MTE in consultation with the project partners. The evaluation will, *inter alia*:

- (i) review the effectiveness, efficiency and timeliness of project implementation;
- (ii) analyze effectiveness of partnership arrangements;
- (iii) identify issues requiring decisions and remedial actions;
- (iv) propose any mid-course corrections and/or adjustments to the implementation strategy as necessary; and
- (v) highlight technical achievements and lessons learned derived from project design, implementation and management.

An independent Final Evaluation (FE) will be carried out three months prior to the terminal review meeting of the project partners. The FE would aim to identify the project impacts and sustainability of project results and the degree of achievement of long-term results. This evaluation, which will be organized by the FAO Evaluation Office in close consultation with the BH, LTO and GEF Coordination Unit, would also have the purpose of indicating future actions needed to sustain project results and disseminate products and best-practices within and outside the region.

#### 4.8 COMMUNICATION AND VISIBILITY

The project will be supported by a high level communications and visibility plan. The high level plan will identify the main target groups, messages and appropriate delivery mechanisms at the project level. GEF guidelines on communications and visibility will be incorporated into the overall plan. The high level plan will also outline the Component specific communications needs and make the distinction between project level communications and country level communications for each component. Each country will then be supported to develop a national strategy for communications and visibility based on the specific focus of project activities at country level. A number of specific communications and visibility activities have already been identified:

- A project-specific website will be developed with links to and from websites of regional and national project partners, local NGO partner and relevant local associations.

- Communications campaigns, awareness-raising and outreach activities will be used by the project (as part of Component 4) to promote behavioural change in pesticide use in target groups. The project will work with prominent NGOs in each participating countries to execute the awareness campaigns. The campaigns will include a large community-based outreach plan.
- A project news letter will be developed highlighting specific areas of interest, progress and events. The letter will include a snap shot of the progress in delivery and also the plan looking forward. Letters will be sent out quarterly or to correspond to major events and meetings.

## **5 SECTION 5: SUSTAINABILITY OF RESULTS**

### **5.1 SOCIAL SUSTAINABILITY**

The project proposes to safeguard and dispose of poorly stored POPs and other obsolete pesticides at high risk sites. Many of these sites are currently contaminating soil and water. By removing obsolete pesticide stocks and remediating contaminated sites, the project will minimize the risk to the health of communities living and working close to critical sites and the wider community indirectly exposed to contamination through food and water.

Socio-economic benefits will also accrue from the promotion of IPM alternatives through farmer field schools (FFS) in cotton systems in Burkina Faso, Mali and Senegal. Results from previous and ongoing work on IPM in the region show that IPM alternatives have not only resulted in significant reductions in pesticide use but have also contributed to increased cotton yields – from between 14 to 70% for farmers that have received IPM training and adopted IPM practices. The project will use existing FFS to scale-up IPM in the three countries.

One of the most important groups the project will benefit is women and children who are exposed to pesticide risks partly through empty pesticide containers. Empty containers are frequently re-used by Sahelian women as liquid foodstuff containers. By improving the management of the containers and raising awareness on the dangers of hazardous pesticides, the health risks to women and children will be reduced. Participation of women in FFS will also be ensured.

### **5.2 ENVIRONMENTAL SUSTAINABILITY**

The project objective and associated activities directly contributes to environmental sustainability. The project's is primarily intended to remove key source contaminants from the environment: obsolete pesticide stocks; empty pesticides containers; and heavily contaminated sites. These chemicals will be repackaged, transported, and destroyed in an environmentally-sound manner, in compliance with Stockholm Convention and the Basel Convention on the Transboundary Movement of Hazardous Wastes, thereby mitigating the risk that they will be released to the receiving environment. The project also aims to prevent future accumulation of obsolete stocks and use of highly hazardous pesticides by building the capacity at all critical levels (policy, institutional and community). It has taken seriously the need to prevent the further accumulation of such legacy issues, and therefore included activities related to enforcement and inspection and quality control of pesticide products at the key entry points to Sahel and west Africa and in each country, helping participating countries to ensure that banned POPs do not find their way back into agricultural black markets. As an additional compliment to promote sustainability, the project will communicate the risks of highly hazardous pesticides, and the availability of alternatives, in an effort to spur demand for alternatives.

### **5.3 FINANCIAL AND ECONOMIC SUSTAINABILITY**

The project is focusing on enhancing the capacity of existing institutions funded by Governments and regional bodies. It is expected that this financial support will continue beyond the project. Among the challenges the project will try to tackle is the operationalization of National Pesticide Management Committees (NPMCs) that should have work plans and budgets from Governments.

One of the key outputs that the project will deliver is a regional action plan for the promotion of IPM alternatives to POPs and other highly hazardous pesticides which will be based on a strong evidence base from the farming systems “Typology<sup>16</sup>” and pesticide risk assessment surveys and analysis. This plan will include estimates of costs and benefits to adoption IPM alternatives, and financing needs for the implementation of the plan to further scale up IPM.

#### **5.4 SUSTAINABILITY OF CAPACITIES DEVELOPED**

To sustain capacities developed through the project, and as mentioned in earlier sections, the project will make available existing training and educational materials at tertiary (post graduate) and other levels. Through the project, existing materials developed in cooperation with the University of Cape Town and WHO will be adapted and translated into French. The project will partner with academic institutions to offer the materials as either new courses in the national curriculum in each country or as an extension of existing courses. The project will also encourage the identification of new areas where formal training can be developed to supplement the existing materials.

#### **5.5 APPROPRIATENESS OF TECHNOLOGY INTRODUCED**

The project has taken into consideration the importance of introducing appropriate technology. As such, the pilot activities on non-toxic alternatives will focus on affordable, low cost, readily available alternatives, to ensure they are within reach of farmers. Further to this, Component 1 involves the remediation of contaminated sites. Remediation will employ locally available, cost-effective techniques, ensuring it can be repeated on further identified sites by trained national staff, post-project.

#### **5.6 REPLICABILITY AND SCALING UP**

This project includes nine participating countries, however, the strengthening of regional regulatory frameworks will benefit six additional West African countries who are members of ECOWAS and have expressed interest in, and are expected to adopt the revised integrated regulatory framework. Sharing the common registration system with its supporting institutional arrangements will facilitate the replication of results in the six countries.

In addition, the project approach is executing pilot activities, and then improving the design of activities based on the results of pilots. This approach will ensure activities are well developed, locally appropriate, and replicable in neighbouring countries.

With regard to alternatives to conventional hazardous pesticides, the project will develop an action plan which should provide a clear vision and the way forward for scaling up IPM alternatives in the region.

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<sup>16</sup> A cohort, longitudinal study based on a gender-disaggregated network of representative of farmers stratified across principal agricultural production zones, where pesticides are heavily used.

## APPENDICES

## APPENDIX 1: RESULTS MATRIX

OBJECTIVE		ASSUMPTIONS	
To reduce risk to public health and the environment from POPs and hazardous pesticide waste and contaminated materials.		Security conditions remain stable and allow project staff to operate in all project countries.	
<b>Component 1: Safe disposal of POPs and other obsolete pesticides and remediation of heavily contaminated sites</b>		Strong political support from key regional and national institutions.	
Outcome 1	Outcome Indicator	Baseline	Milestones and targets
Identified risks from existing obsolete stocks eliminated and risk from heavily pesticide-contaminated sites reduced.	a) Approximately 850 tonnes of POPs and other obsolete pesticides disposed of by the end of the project (PY4);	567 tonnes of obsolete pesticides and associated waste have been inventoried in Burkina Faso, Niger, Chad, Mauritania and Senegal.  Cape Verde, Gambia, and Guinea Bissau reported no or little obsolete stocks. This will be verified during PY1.	<p><b>Year 1:</b> Updated and validated national inventories of stocks and contaminated sites in each project country.</p> <p>Risk reduction strategies for obsolete stocks developed and approved in each project country.</p> <p><b>Year 2:</b> Implementation of risk reduction strategy started for obsolete stocks.</p> <p><b>Year 3:</b> All verified obsolete pesticides safeguarded.</p> <p><b>Year 4:</b> All safeguarded pesticides destroyed.</p>
	b) About 8 highly contaminated sites remediated and risks reduced by at least 50% (decline in contaminants in soil) (PY4);	Eight heavily pesticides contaminated sites have been identified in Burkina Faso (3), Mauritania,(1) Niger (1) & Senegal (3)	<p><b>Year 1 &amp; 2:</b> Risk reduction strategies for contaminated sites developed and approved in each project country.</p> <p>Remediation started in PY2.</p> <p><b>Year 3 &amp; 4:</b> Remediation completed in all 8 sites.</p>
			Assumptions  Safeguarding and disposal prices do not exceed USD 4500 /tonne  Budget is sufficient to remediate 8 sites based on specific proposals for each site

Component 1: Safe disposal of POPs and other obsolete pesticides and remediation of heavily contaminated sites								
Output	Indicator	Baseline	Milestones and target values				Data Collection and reporting	
			Year 1	Year 2	Year 3	Year 4	Means of verification	Responsibility for data collection
1.1 Inventory of obsolete pesticides and associated wastes updated/validated in all 9 countries	Inventory data entered and validated in PSMS	Inventories completed in Senegal and Mauritania (2010-2013); Inventories updated in Burkina Faso (2012) and Niger (2012-2013); Inventory training completed in Chad.	Inventory completion and data entry into PSMS for all 9 countries				Project Progress Report (PPR) PSMS records	Project Management Unit/CTA National project teams
1.2 Up to 850 metric tons of POPs pesticides and other obsolete pesticides safely destroyed in an environmentally sound manner.	Number of metric tons destroyed	567 metric tons of obsolete pesticides and associated waste have been inventoried in Burkina Faso, Niger, Chad, Mauritania and Senegal. This amount is expected to go up with updating of inventories in all 9 countries.		Environmental Assessments completed and Risk reduction strategies for obsolete stocks developed and approved in each project country	All materials safeguarded	All materials exported and destroyed in line with Basel Convention	PPR, relevant documents PSMS risk profile; EA and EMP reports; Basel Convention destruction certificates.	Project Management Unit/CTA National project teams

Component 1: Safe disposal of POPs and other obsolete pesticides and remediation of heavily contaminated sites								
Output	Indicator	Baseline	Milestones and target values				Data Collection and reporting	
			Year 1	Year 2	Year 3	Year 4	Means of verification	Responsibility for data collection
1.3 Risks from eight highly contaminated sites quantified, remediation strategies developed and implemented	Risk quantified and risks reduced at priority sites	Eight contaminated priority sites have been identified in Burkina Faso, Mauritania, Niger and Senegal	Identification and prioritisation of contaminated sites in all countries completed  Detailed investigation of the eight most heavily contaminated sites completed.	Remediation strategies developed and approved in eight priority sites	Remediation of the eight sites initiated	Remediation completed and risks from eight contaminated sites reduced by 50%	PPR Detailed investigations reports Remediation strategy documents Analytical reports	Project Management Unit/CTA National project teams



Component 2: Development and implementation of empty pesticides containers management systems				
Outcome 2	Outcome Indicator	Baseline	Milestones and targets	Assumptions
Risks to the environment and human health from empty pesticide containers used in cotton production reduced	a) Container management programmes operational in four countries (Burkina Faso, Chad Mali and Senegal).	A pilot container management programme in the cotton production areas in seven communes in Mali. None in the other countries.	<p><b>Year 1:</b> Critical review of pilot programme in Mali and strategy developed for scaling up. Assessment of container management in the three other countries</p> <p><b>Year 2:</b> Pilot container management programmes designed and approved in three countries. Existing pilot programme in Mali is scaled up.</p> <p><b>Year 3:</b> Pilot programme in Burkina Faso, Chad and Senegal operational.</p> <p><b>Year 4:</b> Regional container management strategy design completed.</p>	Farmers are willing and able to carry out triple rinsing.  Government institutions and private sector cooperate.
	<p>b) 90% of empty containers triple rinsed in cotton production areas covered by the container management programmes in Burkina Faso, Chad, Mali, and Senegal.</p> <p>c) 40% of the containers entering the market for use in cotton in the target countries are recycled.</p>	<p>Approximately 3,565,000 empty containers generated in the cotton production areas of <b>Burkina Faso, Chad, Mali and Senegal</b></p> <p>About 100,745 empty container are collected annually and of which 77000 are secured and 25 000 are triple rinsed in <b>Mali</b> .</p> <p>In <b>Burkina Faso, Chad, and Senegal</b> empty pesticides containers are not collected in the cotton production areas.</p>		

Component 2: Development and implementation of empty pesticides containers management systems							
Output	Indicator	Baseline	Milestones and target values				Data Collection and reporting
			Year 1	Year 2	Year 3	Year 4	
2.1 Pilot container management scheme in Mali scaled up in Kita and Koutiala cotton production areas	Cotton production areas (number of communes) covered by container management scheme in Mali.	Current activities implemented in Kita (3 of 18 communes) and Koutiala (4 of 17 communes).	Critical evaluation of the effectiveness of the current pilot scheme completed.	Strategy for the roll-out to other communes finalized. Implementation of the roll-out strategy underway in the cotton production areas of 17 communes.	All cotton producing areas in all 35 communes covered by the container management scheme.	Farmer surveys. Project reports. Field visits.	Project Management Unit
2.2 Containers management systems piloted in cotton producing areas in three project countries (Burkina Faso, Chad and Senegal)	Operational container management systems in the three countries.	No empty container management exists at present in these countries.	Needs assessment and situation analysis completed in the three countries.	Design schemes for three countries completed.	Container management schemes operational in two countries.	Project reports. Field visits.	Project Management Unit

2.3 A regional strategy for the management of empty pesticides containers developed	A regional strategy.	No regional strategy exists at the moment.	Community based baseline assessment on impacts on human health and environment from empty containers completed in Mali.	Baseline assessment completed in 2 additional countries.	Baseline assessment completed in the remaining target countries.	A regional strategy for sustainable management of empty pesticides containers based on the baseline assessments and results of the pilots finalized.	Strategy document	Project Management Unit
<b>Component 3: Strengthening the regulatory framework and institutional capacity for sound management of pesticides</b>								
Outcome 3 Regulatory framework and institutional capacity for sound management of pesticides throughout their lifecycle strengthened.	Outcome Indicator a) Revised registration system adopted by CILSS, ECOWAS and UEMOA and the countries. Regional regulation and revised national legislations enabling the regional harmonized system enacted or undergoing enactment by the end of the project.	Baseline A draft CILSS-ECOWAS-UEMOA harmonized registration and management of pesticides in Western Africa was developed in 2012. National pesticides legislation exists but do not currently support regional harmonization of post registration activities including inspections at import and throughout national pesticides supply channels.	Milestones and targets	<p><b>Year 1:</b> Draft harmonized regulation for the registration and post-registration management of pesticides in West Africa finalized;</p> <p><b>Year 2:</b> Harmonized registration system submitted for adoption by the three regional bodies, CILSS, ECOWAS and UEMOA and by CILSS countries;</p> <p><b>Year 3:</b> Harmonized regional regulation undergoing adoption by regional bodies and countries</p> <p><b>Year 4:</b> Revised draft legislations completed and undergoing adoption process in each country.</p>	Assumptions CILSS, ECOWAS and the UEMOA and the countries continue to support the creation and adoption of the common registration and post registration management of pesticides in West Africa. Countries support the restructuring and operationalization of NPMCs.			

Component 3: Strengthening the regulatory framework and institutional capacity for sound management of pesticides				
Outcome 3	Outcome Indicator	Baseline	Milestones and targets	Assumptions
	<p>b) National Pesticide Management Committees (NPMC) operational with work plan and approved budget.</p> <p>National systems for inspection and quality control of pesticides in all nine project countries.</p>	<p>NPMCs were created in all project countries (except Guinea Bissau) in 2002. NPMC Mali is operational and the rest are not.</p> <p>No proper functioning inspection and quality control systems in the countries.</p>	<p><b>Year 1:</b> NPMCs are operational in all project countries.</p> <p><b>Year 4:</b> Regional and national systems for inspection and quality control of pesticides operational in 9 participating countries</p>	

Component 3: Strengthening the regulatory framework and institutional capacity for sound management of pesticides								
Output	Indicator	Baseline	Milestones and target values				Data Collection and reporting	
			Year 1	Year 2	Year 3	Year 4	Means of verification	Responsibility for data collection
3.1 A regional pesticide registration system for participating CILSS member states and drafted and submitted for endorsement by regional and national authorities	Revised regulation submitted and undergoing adoption by regional and national authorities.	Separate Registration regulation exists in each of the three regional bodies (CILSS, UEMOA and ECOWAS). Initial draft CILSS-UEMOA-ECOWAS harmonized instrument for registration and management of pesticides was developed in 2012	Harmonized regulation for the registration and post-registration management of pesticides in West Africa reviewed	The harmonized regulation revised and finalized	The harmonized regulation submitted for adoption by regional authorities.	Revised national pesticide legislations undergoing adoption by national authorities.	FAO Legal Unit (LEGN)  CILSS Institut du Sahel  Project Management Unit  CILSS National Coordinators	
3.2 The common registration system operational.	The common registration system adopted and operational. All new registrations done through the common system.	A common CILSS registration system currently exists.	All currently registered and banned pesticides in Western African countries identified.	A common list adopted by the African Pesticides Registration Committee (WAPRC) .  Procedures, manuals and training modules developed.	WAPRC technical and administrative staff trained to implement the new registration procedures (about 10 staff).	All new registrations, deregistration and re-registration of pesticides in the region through the common system.	Project Management Unit  CILSS Institut du Sahel	Project reports Expert Panel report  Registration list

Component 3: Strengthening the regulatory framework and institutional capacity for sound management of pesticides								
Output	Indicator	Baseline	Milestones and target values				Data Collection and reporting	
			Year 1	Year 2	Year 3	Year 4	Means of verification	Responsibility for data collection
3.3 Action plans to monitor pesticide life-cycle stages developed and implemented by NPMCs and systems for inspection piloted	Action plans under implementation for each country and systems for inspection operational.	NPMCs established in 8 participating countries but only operational in Mali. Inspection and control of pesticides currently very weak in the countries.	Existing guidelines and tools on inspection and other pesticide lifecycle management aspects available through regional French speaking academic institution <sup>17</sup>	National action plans to monitor pesticides at import, stock management and distribution, and use at farm level developed. A system for inspection of pesticides including the Harmonized System code piloted in Mali.	Implementation of national plans underway.	System for inspection rolled out in the region based on the results of the pilot in Mali.	Publications, guidelines and tools Project reports National action plan documents.	NPMCs Project Management Unit CILSS Institut du Sahel

<sup>17</sup> This is a cross-cutting activity which supports training in all project outcomes

Component 3: Strengthening the regulatory framework and institutional capacity for sound management of pesticides								
Output	Indicator	Baseline	Milestones and target values				Data Collection and reporting Means of verification	Responsibility for data collection
			Year 1	Year 2	Year 3	Year 4		
3.4 Regional analytical services and quality control of pesticides strengthened to serve nine participating countries	Upgraded Laboratoire Central Veterinaire with samples analysed in conformance to ISO 17025.	Preliminary assessment of analytical laboratory capacities for the quality control of pesticides has been done.	Updated assessment of Laboratoire Central Veterinaire analytical capacities for Q/C pesticides.	Lab upgraded and accreditation to ISO 17025 initiated.		Evaluation of the lab to verify the conformance to ISO 17025 completed.	Analytical reports. Project progress reports.	Project Management Unit.  CILSS Institut du Sahel

Component 4: Promotion of alternatives to chemical pesticides and communication strategy				
Outcome 4	Outcome Indicator	Baseline	Milestones and targets	Assumptions
IPM alternatives to conventional pesticides successfully promoted in the region and the quantity of highly hazardous pesticides (HHPs) reduced in cotton production areas in three project countries <sup>18</sup> .	a) % reduction in the number of conventional pesticide registrations and increase in the number of registered bio-pesticides.	208 chemical pesticides currently registered and 5 bio-pesticides registered in CLSS countries	<p><b>Year 1:</b> Typology studies completed and representative farmer networks established.</p> <p><b>Year 2:</b> List of most promising alternatives to highly hazardous chemical pesticides for the control of key pests finalized and field experiments conducted.</p> <p><b>Year 3:</b> Registration of bio-pesticides underway.</p>	Farmers willing to participate in FFS and alter current practices and adopt IPM alternatives. Communication strategy effective in changing the behaviour of target stakeholders.
	b) changes in use patterns of highly hazardous pesticides and IPM alternatives: % reduction in annual quantity of Highly Hazardous Pesticides <sup>19</sup> used and % increase in use of IPM alternatives Behavioural change at farmer level.	Baseline to be established in year 1.  Baseline Knowledge Attitudes and Practices (KAP) survey to be completed in year 1.	<p><b>Year 2:</b> Endorsed regional strategy for the promotion of alternatives.</p> <p><b>Year 3:</b> Farmer Field Schools sessions on identified IPM alternatives in cotton-systems (includes vegetables and cereals) in Senegal, Mali and Burkina Faso underway.</p>	

<sup>18</sup> Cotton producing areas also include extensive production of horticultural and high-value cereal crops (maize)

<sup>19</sup> According to the definition of HHP in the Rotterdam Convention



Component 4: Promotion of alternatives to chemical pesticides								
Output	Indicator	Baseline	Milestones and target values				Data Collection and reporting Means of verification	Responsibility for data collection
			Year 1	Year 2	Year 3	Year 4		
4.1 A regional action plan for the promotion of IPM developed.	Regional action plan developed and endorsed.	No action plan.		Field data on pest control practices/alternatives collected from representative farmer networks and analyzed.	A regional action plan including estimates of costs and benefits to the adoption of identified IPM alternatives finalized and endorsed.	Action plan updated based on results in the 3 countries (output 4.3).	The action plan document.	Project Management Unit.  IITA
4.2 List of proven IPM alternatives established	Number of IPM alternatives identified and registered based on solid evidence based studies.	5 Bio-pesticides registered in CILSS countries.	Typology studies completed and representative networks of male and female farmers established (about 300 farmers in each network).	Field tests of IPM alternatives conducted in Burkina Faso, Mali and Senegal.  Value-chain analysis of promising IPM alternatives conducted.	Review of field demonstrations completed.  List of proven IPM alternatives adopted by WAPRC.	Technical reports presented to the project steering committee for review prior to submission to international journals for publication.	Official report on the list of IPM alternatives  Value chain assessment reports  Peer-reviewed publication(s)	Project Management Unit.  IITA

Component 4: Promotion of alternatives to chemical pesticides								
Output	Indicator	Baseline	Milestones and target values				Data Collection and reporting Means of verification	Responsibility for data collection
			Year 1	Year 2	Year 3	Year 4		
4.3 Selected promising IPM alternatives scaled up in Burkina Faso, Mali and Senegal.	At least 100 Farmer Field Schools organized and 3000 male and female farmers participating.	Existing network of farmer field schools in the three countries.	Sites in the three countries selected.	Existing training curriculum updated to include most-promising IPM alternatives.  FFS IPM training undertaken in Senegal, Mali and Burkina Faso.	FFS training continues in Senegal, Mali and Burkina Faso.	IPM training outcomes presented to the steering committee for review prior to submission to international journals for publication.	Published curriculum for FFS training  Peer-reviewed publication(s)  Field visits.	Farmer School coordination units in Senegal, Mali and Burkina Faso.  National Ministries of Agriculture.  Project Management Unit.  IITA  PAN Africa  Project Management Unit.
4.4 Communication strategy for the communication of risk and promotion of IPM alternatives developed and implemented in all 9 countries	A communication strategy, number of communication materials and events conducted.	PAN Africa and WWF developed communication strategies for ASP activities in Mali.	Communication strategy developed.  Baseline Knowledge Attitudes and Practices (KAP) survey completed.	Strategy under implementation.	Mid-term Knowledge Attitudes and Practices (KAP) survey completed.	Strategy under implementation	Strategy documents.  Awareness materials.  KAP survey reports.	

Component 5: Monitoring and Evaluation									
Output	Indicator	Baseline	Milestones and target values				Data Collection and reporting		Responsibility for data collection
			Year 1	Year 2	Year 3	Year 4	Means of verification		
5.1 Project monitoring system providing six-monthly reports on progress in achieving project outputs and outcomes	Quality and timely project reports.	Project Matrix with outcome output indicators and targets.	Two six-monthly progress reports. Annual project implementation review report.	Two six-monthly progress reports. Annual project implementation review report.	Two monthly progress reports. Annual project implementation review report.	Two monthly progress reports. Annual project implementation review report.	Reports	Project Management Unit FAO LTO/BH	
5.2 Midterm and final evaluation reports	Two evaluation conducted.		Mid-term evaluation and report		Final evaluation and report		Evaluation reports.	FAO	
5.3 Project “best-practices” and “lessons-learned” disseminated via publications, project website and others.	Frequently updated website Newsletter Publications		Project website established and updated frequently throughout project implementation.	Newsletters throughout implementation.		Publications in international journals	Website, newsletters, peer-reviewed publication(s)	Project Management Unit	

## APPENDIX 2: PROVISIONAL WORK PLAN

Output	Activities	Responsible entity	Year 1				Year 2				Year 3				Year 4				
			Q.1	Q.2	Q.3	Q.4	Q.1	Q.2	Q.3	Q.4	Q.1	Q.2	Q.3	Q.4	Q.1	Q.2	Q.3	Q.4	
<b>Component 1: Safe disposal of POPs and other obsolete pesticides and remediation of heavily contaminated sites</b>																			
Output 1.1: Inventory of obsolete pesticides and associated wastes updated/validated in all 9 countries	1.1.1 Data collection	Project Management Unit, Technical Adviser and national teams	X	X	X														
	1.1.2 Data entry into PSMS			X	X	X													
	1.1.3 Data validation in PSMS					X													
Output 1.2: Up to 850 metric tons of POPs pesticides and other obsolete pesticides safely destroyed in an environmentally sound manner	1.2.1 Environmental Assessment (EA) and Environmental Management Plan (EMP) development	Project Management Unit, national teams, disposal company, consultant(s)				X	X												
	1.2.2 Safeguarding of obsolete stocks									X	X	X							
	1.2.3 Disposal of obsolete stocks														X	X	X		
Output 1.3: Risks from eight highly contaminated sites quantified, remediation strategies developed and implemented	1.3.1 Site investigations and prioritizations	Project Management Unit; international consultant, National project teams		X	X	X													
	1.3.2 Development of remediation/risk reduction plans								X	X									
	1.3.3 Implementation of remediation/risk reduction plans													X	X	X	X		X
<b>Component 2: Development and implementation of empty pesticides containers management systems</b>																			
Output 2.1: Pilot container	2.1.1 Evaluation of the pilot and design for scale up	Project Management	X	X	X														

Output	Activities	Responsible entity	Year 1				Year 2				Year 3				Year 4				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
management scheme in Mali scaled up in Kita and Koutiala cotton production areas	2.1.2 Phase I of scale up.	Unit, consultant(s)					X	X	X	X					X	X	X	X	
	2.1.3 Phase II of scale-up														X	X	X	X	
Output 2.2: Containers management systems piloted in cotton producing areas in three project countries (Burkina Faso, Chad and Senegal)	2.2.1 Needs assessment and situation analysis	Project Management Unit, national teams (consultants)		X															
	2.2.2 National strategy development						X	X											
	2.2.3 Implementation of the pilot schemes														X	X	X	X	
Output 2.3: A regional strategy for management of empty pesticides containers	2.3.1 Community baseline assessment of impacts on human health and environment from empty containers in Mali	Project Management Unit, national consultants, international consultant		X										X	X				
	2.3.2 Community baseline assessment of impacts in 2 additional countries																	X	
	2.3.3 Community baseline assessment of impacts in remaining country																X		
	2.3.4 Regional strategy for sustainable management of empty pesticides containers																	X	X
<b>Component 3: Strengthening the regulatory framework and institutional capacity for sound management of pesticides</b>																			
Output 3.1: A regional regulation for a common pesticide	3.1.1 Review of the three existing common regulations for registration and post-registration management of pesticides in West Africa	Internal national experts, Institut du Sahel, and legal CILSS		X															

Output	Activities	Responsible entity	Year 1				Year 2				Year 3				Year 4				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
registration system for participating CILSS member states drafted. and submitted for endorsement by regional and national authorities	3.1.2 Revise and finalize the draft harmonized regulation for the registration and post-registration management of pesticides in West Africa	ECOWAS, UEMOA				X	X												
	3.1.3 Review of national pesticide legislations for incorporation of key elements of the harmonized regulation for the registration and post-registration management of pesticides in West Africa							X	X										
	3.2.1 Development and adoption a common list of registered, banned and restricted pesticides in West Africa			X															
Output 3.2: The common registration system made is operational	3.2.2 Development of procedures, manuals and training modules on the common registration system	Regional expert committee, regional/international consultant, Institute du Sahel						X	X										
	3.2.3 Organization of training sessions																		
	3.2.4 Implementation and evaluation of the new registration system																		X
Output 3.3: Action plans to monitor pesticide life -cycle stages developed and implemented by NPMCs; and systems for inspection tested.	3.3.1 Restructuration of NPMCs and training their members on the new registration system and all key aspects of post-registration management of pesticides	CILSS Executive Secretariat, regional committee, Project Management Unit, NPMCs.		X			X	X											
	3.3.2 Development and implementation of national action plans to monitor pesticide life-cycle								X	X									
	3.3.3 Assessment of the effectiveness of NPMCs in the management of pesticide life-cycle																		X

Output	Activities	Responsible entity	Year 1				Year 2				Year 3				Year 4				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Output 3.4: Regional analytical services and quality control of pesticides strengthened to serve nine participating countries	3.4.1 Assessment of the analytical capacities of the Laboratoire Central Veterinaire, located in Bamako Mali	International expert, Project Management Unit		X	X	X													
	3.4.2 Up-grading the Laboratoire Central Veterinaire to perform appropriate quality control analysis and initiate its accreditation to ISO 17025					X	X	X											
	3.4.3 Evaluation of the analytical capacity of the upgraded Laboratoire Central Veterinaire.											X	X						
<b>Component 4: Promotion of alternatives to chemical pesticides</b>																			
Output 4.1: A regional action plan for the promotion of IPM	4.1.1 Establishment of a representative farmer network	National teams, IITA, Project Management Unit	X		X														
	4.1.2 Collection of field data on pest control practices				X		X												
	4.1.3. Data Analysis						X										X		
	4.1.4. Preparation of a regional strategy for the promotion of IPM alternatives																X	X	X
Output 4.2: List of IPM alternatives established.	4.2.1 Field demonstrations on potential alternatives	IITA, national teams				X	X	X	X	X	X	X	X	X	X	X	X	X	X
	4.2.2 Selection of IPM alternatives						X	X	X	X	X	X	X	X	X	X	X	X	X
	4.2.3 Evaluation of the value chain (import, local production, distribution, availability to farmers) of the selected alternatives																		
Output 4.3 The most promising IPM alternatives are scaled up in Burkina Faso, Mali and Senegal	4.3.1 Update existing FFS training curriculum to include most-promising IPM alternatives.	Project Management Unit, national teams						X	X										
	4.3.2 Implementation of Farmer Field School programme														X	X	X	X	X

Output	Activities	Responsible entity	Year 1				Year 2				Year 3				Year 4				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Output 4.4 Communication strategy for the promotion of IPM alternatives to conventional pesticides and sustainable container management developed and implemented in project countries	4.4.1 Development of a communication strategies and complete Knowledge Attitudes and Practices (KAP) surveys	PAN-Africa			X	X													
	4.4.2 Implementation of the strategy and conduct a midterm KAP survey						X	X	X	X	X	X	X	X	X	X	X	X	X
	4.4.3 Revision of the strategy as necessary and continue implementation																		



## APPENDIX 3: RESULTS BUDGET

### Component 1: Disposal and Remediation

Output 1.1 Inventory update  
 Output 1.2 Disposal  
 Output 1.3 Sites remediation

Oracle Code	Description (ORACLE)	Units	No. of units	Unit Cost	Expenditures by Component			Total GEF	Expenditure by Year					
					Component 1: Disposal and Remediation				Year 1	Year 2	Year 3	Year 4	Total	
					1.1	1.2	1.3							
<b>5300</b>	<b>SALARIES PROFESSIONAL</b>													
	Chief Technical Advisor	Month	15.2	18,000	91,200	91,200	91,200	273,600	68,400	68,400	68,400	68,400		273,600
	Budget and Operations Officer	Month	0	8,785	-	-	-	0	-	-	-	-	-	0
<b>5300</b>	<b>TOTAL SALARIES PROFESSIONAL</b>				<b>91,200</b>	<b>91,200</b>	<b>91,200</b>	<b>273,600</b>	<b>68,400</b>	<b>68,400</b>	<b>68,400</b>	<b>68,400</b>		<b>273,600</b>
<b>5570</b>														<b>CONSULTANTS</b>
<b>5542</b>	<b>INTERNATIONAL CONSULTANTS</b>													
	Inventory and PSMS	Month	6	12,000	72,000			72,000	72,000					72,000
	EMP development	Month	7.5	12,000		90,000		90,000		90,000				90,000
<b>5542</b>	<b>Sub-total (international)</b>				<b>72,000</b>	<b>90,000</b>	<b>-</b>	<b>162,000</b>	<b>72,000</b>	<b>90,000</b>	<b>0</b>	<b>0</b>		<b>162,000</b>
<b>5543</b>	<b>NATIONAL CONSULTANTS</b>													
	National Project Coordinators (9)	Month	78	2,000	51,840	51,840	51,840	155,520	38,880	38,880	38,880	38,880		155,520
	Inventory and PSMS	Month	33	1,200	40,000			40,000	40,000					40,000
<b>5543</b>	<b>Sub-total (national)</b>				<b>91,840</b>	<b>51,840</b>	<b>51,840</b>	<b>195,520</b>	<b>78,880</b>	<b>38,880</b>	<b>38,880</b>	<b>38,880</b>		<b>195,520</b>
<b>5570</b>	<b>TOTAL CONSULTANTS</b>							<b>357,520</b>	<b>150,880</b>	<b>128,880</b>	<b>38,880</b>	<b>38,880</b>		<b>357,520</b>

Oracle Code	Description (ORACLE)	Expenditures by Component				Total GEF	Expenditure by Year				Total	
		Units	No. of units	Unit Cost	Component 1: Disposal and Remediation		Year 1	Year 2	Year 3	Year 4		
<b>5900</b>	<b>TRAVEL</b>											
	International + CTA				7,200	11,960				11,960		19,160
	National + national teams				50,400	21,600	2,400		20,400	21,600	2,400	74,400
<b>5900</b>	<b>TOTAL TRAVEL</b>				<b>57,600</b>	<b>33,560</b>	<b>2,400</b>		<b>20,400</b>	<b>33,560</b>	<b>2,400</b>	<b>93,560</b>
<b>5920</b>	<b>TRAINING</b>											
	Inventory and PSMS				120,000					120,000		120,000
	<b>TOTAL Training</b>				<b>120,000</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>		<b>120,000</b>
<b>5650</b>	<b>CONTRACTS</b>											
	Disposal					1,760,000				1,760,000		1,760,000
	Contaminated sites						150,000				150,000	150,000
<b>5650</b>	<b>Contracts budget</b>				<b>-</b>	<b>1,760,000</b>	<b>150,000</b>		<b>0</b>	<b>1,760,000</b>	<b>150,000</b>	<b>1,910,000</b>
<b>6000</b>	<b>EXPENDABLE PROCUREMENT</b>											
	Personal Protective Equipment				36,000					36,000		36,000
	IT (computers, printers)				9,000					9,000		9,000
<b>6000</b>	<b>Expendable procurement Budget</b>				<b>45,000</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>45,000</b>
<b>6100</b>	<b>NON-EXPENDABLE PROCUREMENT</b>											
	Vehicle X 1				30,000					30,000		30,000
<b>6100</b>	<b>TOTAL Non expendable procurement</b>				<b>30,000</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>30,000</b>
<b>6300</b>	<b>GENERAL OPERATING EXPENSES</b>											

Oracle Code	Description (ORACLE)	Expenditures by Component					Total GEF	Expenditure by Year						
		Units	No. of units	Unit Cost	Component 1: Disposal and Remediation			Year 1	Year 2	Year 3	Year 4	Total		
					1.1	1.2	1.3							
	Car hire + other GOE				19,490			19,490	5,900		13,590			19,490
6300	TOTAL GOE				19,490	-	-	19,490	5,900	0	13,590	0	0	19,490
TOTAL	Component 1				527,130	2,026,600	295,440	2,849,170	457,380	217,680	1,914,430	259,680	0	2,849,170

### Component 2: Container Management

Output 2.1 Container management scale-up Mali  
 Output 2.2 Container management in Burkina, Chad and Senegal  
 Output 2.3 Regional strategy container management

Oracle Code	Description (ORACLE)	Units	No. of units	Unit Cost	Expenditures by Component			Expenditure by Year							
					Component 2: Container Management			Total GEF	Year 1	Year 2	Year 3	Year 4	Total		
					2.1	2.2	2.3								
<b>5300</b>	<b>SALARIES PROFESSIONAL</b>														
	Chief Technical Advisor	Month	10	18,000	60,000	60,000	60,000	180,000	45,000	45,000	45,000	45,000	45,000	180,000	
	Budget and Operations Officer	Month	0	8,785	-	-	-	0	-	-	-	-	-	0	
<b>5300</b>	<b>TOTAL SALARIES PROFESSIONAL</b>				<b>60,000</b>	<b>60,000</b>	<b>60,000</b>	<b>180,000</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>180,000</b>	
<b>5570</b>	<b>CONSULTANTS</b>														
<b>5542</b>	<b>INTERNATIONAL CONSULTANTS</b>														
	Container Management	Month	7	12,000	12,000	45,000	24,000	81,000	20,250	20,250	20,250	20,250	20,250	81,000	
<b>5542</b>	<b>Sub-total (international)</b>				<b>12,000</b>	<b>45,000</b>	<b>24,000</b>	<b>81,000</b>	<b>20,250</b>	<b>20,250</b>	<b>20,250</b>	<b>20,250</b>	<b>20,250</b>	<b>81,000</b>	
<b>5543</b>	<b>NATIONAL CONSULTANTS</b>														
	National Project Coordinators (9)	Month	56	2,000	37,431	37,431	37,431	112,293	28,073	28,073	28,073	28,074	28,074	112,293	
	Container Management	Month	35	1,200	6,000	36,000		42,000	10,500	10,500	10,500	10,500	10,500	42,000	
<b>5543</b>	<b>Sub-total (national)</b>				<b>43,431</b>	<b>73,431</b>	<b>37,431</b>	<b>154,293</b>	<b>38,573</b>	<b>38,573</b>	<b>38,573</b>	<b>38,574</b>	<b>38,574</b>	<b>154,293</b>	
<b>5570</b>	<b>TOTAL CONSULTANTS</b>				<b>55,431</b>	<b>118,431</b>	<b>61,431</b>	<b>235,293</b>	<b>58,823</b>	<b>58,823</b>	<b>58,823</b>	<b>58,824</b>	<b>58,824</b>	<b>235,293</b>	
<b>5900</b>	<b>TRAVEL</b>														
	International + CTA					26,600	7,500	34,100	8,525	8,525	8,525	8,525	8,525	34,100	

Expenditures by Component										Expenditure by Year				
Oracle Code	Description (ORACLE)	Units	No. of units	Unit Cost	Component 2: Container Management			Total GEF	Year 1	Year 2	Year 3	Year 4	Total	
					2.1	2.2	2.3							
	National + national teams				7,540	46,000		53,540	13,385	13,385	13,385	13,385	53,540	
<b>5900</b>	<b>TOTAL TRAVEL</b>				<b>7,540</b>	<b>72,600</b>	<b>7,500</b>	<b>87,640</b>	<b>21,910</b>	<b>21,910</b>	<b>21,910</b>	<b>21,910</b>	<b>87,640</b>	
<b>5920</b>	<b>TRAINING</b>													
	Container Management				120,000			120,000					120,000	
	Regional Strategy workshop/consultations					60,000		60,000				60,000	60,000	
	<b>TOTAL TRAINING</b>				<b>120,000</b>	<b>0</b>	<b>60,000</b>	<b>180,000</b>	<b>120,000</b>	<b>0</b>	<b>0</b>	<b>60,000</b>	<b>180,000</b>	
<b>5650</b>	<b>CONTRACTS</b>													
	Container Management				271,034	185,000		456,034	114,009	114,009	114,009	114,009	456,034	
<b>5650</b>	<b>TOTAL CONTRACTS</b>				<b>271,034</b>	<b>185,000</b>	<b>-</b>	<b>456,034</b>	<b>114,009</b>	<b>114,009</b>	<b>114,009</b>	<b>114,009</b>	<b>456,034</b>	
<b>TOTAL</b>	<b>Component 2</b>				<b>514,005</b>	<b>436,031</b>	<b>188,931</b>	<b>1,138,967</b>	<b>359,742</b>	<b>239,742</b>	<b>239,742</b>	<b>299,743</b>	<b>1,138,967</b>	

### Component 3: Capacity Building

- Output 3.1 Regional regulation and national legislation
- Output 3.2 Registration system
- Output 3.3 National action plans
- Output 3.4 Regional analytical and quality control

Oracle Code	Description (ORACLE)	Units	No. of units	Unit Cost	Expenditures by Component				Total GEF	Expenditure by Year						
					3.1	3.2	3.3	3.4		Year 1	Year 2	Year 3	Year 4	Total		
<b>5300</b>	<b>SALARIES PROFESSIONAL</b>															
	Chief Technical Advisor	Month	10	18,000	45,000	45,000	45,000	45,000	180,000	45,000	45,000	45,000	45,000	180,000		
	Budget and Operations Officer	Month	0	8,785	-	-	-	0	0	-	-	-	-	0		
<b>5300</b>	<b>TOTAL SALARIES PROFESSIONAL</b>				<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>180,000</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>180,000</b>		
<b>5570</b>	<b>CONSULTANTS</b>															
<b>5542</b>	<b>INTERNATIONAL CONSULTANTS</b>															
	Legal	Month	2.5	12,000	30,000			30,000		15,000				30,000		
	Pest Management	Month	3.5	12,000		15,000	18,000	9,000	42,000	10,500	10,500	10,500	10,500	42,000		
	Pesticide management	Month	12.5	12000		75,000	75,000	150,000		75,000				150,000		
<b>5542</b>	<b>Sub-total (international)</b>				<b>30,000</b>	<b>90,000</b>	<b>93,000</b>	<b>9,000</b>	<b>222,000</b>	<b>100,500</b>	<b>100,500</b>	<b>10,500</b>	<b>10,500</b>	<b>222,000</b>		
<b>5543</b>	<b>NATIONAL CONSULTANTS</b>															
	National Project Coordinators (9)	Month	56	2,000	28,074	28,073	28,073	28,073	112,293	28,074	28,073	28,073	28,073	112,293		
	Legal	Month	42	1,200	50,000			50,000				25,000	25,000	50,000		
<b>5543</b>	<b>Sub-total (national)</b>				<b>78,074</b>	<b>28,073</b>	<b>28,073</b>	<b>28,073</b>	<b>162,293</b>	<b>28,074</b>	<b>53,073</b>	<b>53,073</b>	<b>28,073</b>	<b>162,293</b>		
<b>5570</b>	<b>TOTAL CONSULTANTS</b>				<b>108,074</b>	<b>118,073</b>	<b>121,073</b>	<b>37,073</b>	<b>384,293</b>	<b>128,574</b>	<b>153,573</b>	<b>63,573</b>	<b>38,573</b>	<b>384,293</b>		

Expenditures by Component										Expenditure by Year				
Oracle Code	Description (ORACLE)	Units	No. of units	Unit Cost	Component 3: Capacity Building				Total GEF	Year 1	Year 2	Year 3	Year 4	Total
					3.1	3.2	3.3	3.4						
<b>5900</b>	<b>TRAVEL</b>													
	International +CTA				10,000	10,000	10,000	30,000	7,500	7,500	7,500	7,500	30,000	
	National + national teams					8,500		8,500	2,834	2,833	2,833		8,500	
<b>5900</b>	<b>TOTAL TRAVEL</b>				<b>10,000</b>	<b>10,000</b>	<b>18,500</b>	<b>38,500</b>	<b>10,334</b>	<b>10,333</b>	<b>10,333</b>	<b>7,500</b>	<b>38,500</b>	
<b>5920</b>	<b>TRAINING</b>													
	Quality control and inspection						100,000	100,000		100,000			100,000	
	Registration					50,000		50,000			50,000		50,000	
	Pesticide life cycle management					75,000	75,000	150,000	25,000	25,000	100,000		150,000	
	<b>TOTAL Training</b>				<b>0</b>	<b>125,000</b>	<b>75,000</b>	<b>300,000</b>	<b>25,000</b>	<b>125,000</b>	<b>150,000</b>	<b>0</b>	<b>300,000</b>	
<b>5650</b>	<b>CONTRACTS</b>													
	Lab Analytical and Q/C upgrade (?)						130,000	130,000		65,000	65,000		130,000	
<b>5650</b>	<b>TOTAL Contracts</b>						<b>130,000</b>	<b>130,000</b>		<b>65,000</b>	<b>65,000</b>		<b>130,000</b>	
<b>TOTAL</b>	<b>COMPONENT 3</b>				<b>163,074</b>	<b>298,073</b>	<b>259,573</b>	<b>1,032,793</b>	<b>208,908</b>	<b>398,906</b>	<b>333,906</b>	<b>91,073</b>	<b>1,032,793</b>	

**Component 4: Alternatives**

Output 4.1 Regional IPM Action plan  
 Output 4.2 Potential alternatives  
 Output 4.3 Promotion through FFS in Burkina Faso, Mali, Senegal  
 Output 4.4 Communication strategy

Oracle Code	Description (ORACLE)	Units	No. of units	Unit Cost	Expenditures by Component				Total GEF	Expenditure by Year				
					Component 4: Alternatives					Year 1	Year 2	Year 3	Year 4	Total
					4.1	4.2	4.3	4.4						
<b>5300</b>	<b>SALARIES PROFESSIONAL</b>													
	Chief Technical Advisor	Month	10	18,000	45,000	45,000	45,000	45,000	180,000	45,000	45,000	45,000	45,000	180,000
<b>5300</b>	<b>TOTAL SALARIES PROFESSIONAL</b>				<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>180,000</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>	<b>180,000</b>
<b>5570</b>	<b>CONSULTANTS</b>													
<b>5542</b>	<b>INTERNATIONAL CONSULTANTS</b>													
	Pest and Pesticide Management	Month	1.5	12,000			18,000		18,000	6,000	6,000	6,000		18,000
	Typology and data collection development	Month	22.5	12,000			270,000		270,000	270,000				270,000
<b>5542</b>	<b>Sub-total (international)</b>				-	-	<b>288,000</b>	-	<b>288,000</b>	<b>6,000</b>	<b>276,000</b>	<b>6,000</b>	-	<b>288,000</b>
<b>5543</b>	<b>NATIONAL CONSULTANTS</b>													
	National Project Coordinators (9)	Month	69	2,000	34,500	34,500	34,500	34,500	138,000	34,500	34,500	34,500	34,500	138,000
<b>5543</b>	<b>Sub-total (national)</b>				<b>34,500</b>	<b>34,500</b>	<b>34,500</b>	<b>34,500</b>	<b>138,000</b>	<b>34,500</b>	<b>34,500</b>	<b>34,500</b>	<b>34,500</b>	<b>138,000</b>
<b>5570</b>	<b>TOTAL CONSULTANTS</b>				<b>34,500</b>	<b>34,500</b>	<b>322,500</b>	<b>34,500</b>	<b>426,000</b>	<b>40,500</b>	<b>310,500</b>	<b>40,500</b>	<b>34,500</b>	<b>426,000</b>
<b>5900</b>	<b>TRAVEL</b>													
	International						14,390		14,390	3,598	3,598	3,597	3,597	14,390
<b>5900</b>	<b>TOTAL TRAVEL</b>				<b>0</b>	<b>0</b>	<b>14,390</b>	<b>0</b>	<b>14,390</b>	<b>3,598</b>	<b>3,598</b>	<b>3,597</b>	<b>3,597</b>	<b>14,390</b>



CONTRACTS												
5650												
	Typology, field data collection & training					118,760	200,000				159,380	318,760
	IPM implementation & training				225,000							225,000
	Communications Strategy								349,864		87,466	349,864
5650	<b>TOTAL Contracts</b>				<b>225,000</b>	<b>118,760</b>	<b>200,000</b>		<b>349,864</b>		<b>246,846</b>	<b>893,624</b>
<b>GENERAL OPERATING EXPENSES</b>												
6300	General Operating Expenses					10,000	10,000		10,000		7,500	30,000
6300	<b>TOTAL General Operating Expenses</b>				<b>0</b>	<b>10,000</b>	<b>10,000</b>		<b>10,000</b>		<b>7,500</b>	<b>30,000</b>
<b>TOTAL</b>	<b>Component 4</b>				<b>606,890</b>	<b>208,260</b>	<b>289,500</b>		<b>439,364</b>		<b>613,444</b>	<b>1,544,014</b>

**Component 5: M&E and Project Management**

Expenditures by Component										Expenditure by Year				
Oracle Code	Description (ORACLE)	Units	No. of units	Unit Cost	Component 5: M&E			Project Management	Total GEF	Year 1	Year 2	Year 3	Year 4	Total
					5.1	5.2	5.3							
<b>5300</b>	<b>SALARIES PROFESSIONAL</b>													
	Chief Technical Advisor	Month	2.8	18,000	50,400		50,400	50,400	12,600	12,600	12,600	12,600	50,400	
	Budget and Operations Officer	Month	48	8,785			-	421,680	105,420	105,420	105,420	105,420	421,680	
<b>5300</b>	<b>TOTAL SALARIES PROFESSIONAL</b>				<b>50,400</b>		<b>50,400</b>	<b>421,680</b>	<b>118,020</b>	<b>118,020</b>	<b>118,020</b>	<b>118,020</b>	<b>472,080</b>	
<b>5570</b>	<b>CONSULTANTS</b>													
<b>5542</b>	<b>INTERNATIONAL CONSULTANTS</b>													
	Evaluation expert(s)	Lumpsum				140,000	140,000	140,000	70,000	70,000		70,000	140,000	
<b>5542</b>	<b>Sub-total (international)</b>				-	<b>140,000</b>	<b>140,000</b>	<b>140,000</b>	<b>0</b>	<b>70,000</b>	<b>0</b>	<b>70,000</b>	<b>140,000</b>	
<b>5543</b>	<b>NATIONAL CONSULTANTS</b>													
	National Project Coordinators	Month	0	2,000				0					0	
	Regional Admin Assistant	Month	48	1,937	92,976		92,976	92,976	23,244	23,244	23,244	23,244	92,976	
<b>5543</b>	<b>Sub-total (national)</b>					-	<b>92,976</b>	<b>92,976</b>	<b>23,244</b>	<b>23,244</b>	<b>23,244</b>	<b>23,244</b>	<b>92,976</b>	
<b>5570</b>	<b>TOTAL CONSULTANTS</b>					<b>140,000</b>	<b>232,976</b>	<b>232,976</b>	<b>23,244</b>	<b>93,244</b>	<b>23,244</b>	<b>93,244</b>	<b>232,976</b>	
<b>5900</b>	<b>TRAVEL</b>													
	CTA Travel				20,000		20,000	20,000	5,000	5,000	5,000	5,000	20,000	
	National Consultants					10,000	10,000	10,000	2,500	2,500	2,500	2,500	10,000	
<b>5900</b>	<b>TOTAL TRAVEL</b>				<b>30,000</b>	<b>0</b>	<b>30,000</b>	<b>30,000</b>	<b>7,500</b>	<b>7,500</b>	<b>7,500</b>	<b>7,500</b>	<b>30,000</b>	
<b>5920</b>	<b>TRAINING</b>													
	Inception and closing workshop, PSC				140,000		140,000	140,000	50,000	20,000	20,000	50,000	140,000	

Expenditures by Component										Expenditure by Year				
Oracle Code	Description (ORACLE)	Units	No. of units	Unit Cost	Component 5: M&E			Project Management	Total GEF	Year 1	Year 2	Year 3	Year 4	Total
					5.1	5.2	5.3							
	meetings													
	TOTAL Training				140,000	0	0	0	140,000	50,000	20,000	20,000	50,000	140,000
<b>6300</b>	<b>GENERAL OPERATING EXPENSES</b>							0	10,000					
	General Operating Expenses								10,000	2,500	2,500	2,500	2,500	10,000
<b>6300</b>	<b>TOTAL General Operating Expenses</b>							-	10,000	2,500	2,500	2,500	2,500	10,000
<b>TOTAL</b>					313,376	140,000	0	453,376	431,680	201,264	241,264	171,264	271,264	885,056

## APPENDIX 4: DRAFT TERMS OF REFERENCE

### Chief Technical Adviser – Pest and Pesticide Management

A Chief Technical Adviser (CTA) will be selected by FAO and the executing partners. Under the overall supervision of the Project Steering Committee (PSC) and the FAO Budget Holder, and under the direct supervision of the FAO Lead Technical Officer, the CTA will be responsible for the day-to-day management of the project. The CTA will have the primary responsibility for all technical aspects of the project, supervising regional, international and national consultants to ensure the delivery of quality technical outputs. Additionally, the CTA will train national teams in specific areas related to inventory, environmental assessment, safeguarding of pesticides etc. Specifically, the CTA will carry out the following tasks:

- Act as Secretary to the Project Steering Committee (PSC);
- Prepare and follow up on annual project work plans and budgets;
- Manage the project monitoring system tracking output and outcome indicators as established in the project's Results Matrix;
- Coordinate and manage the various project component teams;
- Monitor and supervise short-term consultants and contracts to ensure timely delivery and quality of outputs;
- Conduct periodic monitoring visits to project sites;
- Consolidate all reports and outputs from the component teams and prepare and submit project progress reports and other reports to the FAO Lead Technical Officer;
- Dissemination of technical guidelines related to various aspects of integrated pest and pesticides management;
- Update and delivery of training programmes for national teams of participating countries on aspects related to elimination of obsolete pesticides, containers management, pesticides management etc;
- Ensure the timely drafting of specifications and terms of reference as required (consultants, equipment, contracts, supplies, etc.) for different project activities;
- Identification and supervision of specialist training suppliers, and participation as lecturer in workshops and training courses related to pest and pesticides management as appropriate;
- Ensure information sharing with other GEF-funded POPs projects in and outside the region.

#### Requirements:

1. University degree in Agronomy and / or plant protection or integrated pests and pesticide management pest or in a related subject matter.
2. A minimum of ten years experience in field project implementation of pest and pesticides management .
3. A minimum of ten years working in West Africa and /or with developing countries to develop capacity in the area of pest and pesticides management.
4. Detailed understanding of international conventions, internationally accepted best practice and relevant agreements on pest and pesticide management.
5. Knowledge or ability of understanding the FAO Guidelines.
6. Excellent oral and written communication skills in French and English.

Duty Station: Project Management Unit in Bamako, Mali, with travel in project countries.

## National Project Coordinators – 9 Posts

Under the overall supervision of the CILSS National Coordinators/Permanent Secretaries, the FAO Budget Holder and the PSC, and with direct technical support and guidance from the CTA, the National Project Coordinators (NPCs) will be responsible for:

- Coordinating all project activities at national level;
- Under the guidance and direction of the CTA, implement monitoring and evaluation activities at national level;
- In accordance with approved annual work plans and budgets, organize and facilitate national workshops, training exercises and official meetings;
- Supervise national consultants and contracts;
- Support the National Pesticide Management Committees in the preparation and implementation of action plans for pesticide life cycle management under component 3;
- Provide inputs to the CTA in the preparation of project progress reports;
- Liaise with relevant national organizations and partners and support communication, coordination and collaboration;
- Compile information on co-financing from national partners; and
- Perform other related duties as required.

### Requirements:

1. University degree in Agronomy and / or plant protection or integrated pests and pesticide management pest or in a related subject matter;
2. Five years of relevant professional experience;
3. Excellent oral and written communication skills in French/English;
4. Familiarity with pest and pesticide management issues in the country;
5. At least two years project management/coordination experience;

Duty Station: In each participating country hosted by the Ministries of Agriculture<sup>1</sup>, with travel as required.

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<sup>1</sup> To be confirmed at the start of project implementation.

## **International Consultant – Soil Decontamination**

Under the direct supervision of the Chief Technical Adviser and the FAO Lead Technical Officer, the consultant will be responsible for the following activities:

- Train national teams of technicians from the Ministries of Agriculture, Environment and Health and national analytical laboratories in the application of rapid environmental assessment (REA) tools;
- Based on a rapid assessment of the contaminated sites by the teams, lead the development of detailed site specific sampling plans ;
- Following the completion of the sampling and analysis programme, which will be completed in a stepwise progression to allow for the identification of hot spots, the consultant, working with national teams, will use the data to:
  - Develop site specific Environmental Management Plans (EMPs);
  - Develop site specific remediation strategies based on risk management approach;
  - Complete site specific technology assessment for the treatment of the contaminated materials based on technical and economic feasibility assessment.
- Present and discuss with the national counterparts the site specific proposals; and
- Supervise and monitor the implementation of each proposal for soil remediation.

### Requirements:

1. Advanced degree in chemistry, geology, environmental science or related subject matter;
2. Professional qualifications related to waste management.
3. 10 years experience in waste management with a focus on contaminated site assessment;
4. 10 years experience related to implementation of contaminated site remediation;
5. Excellent communication skills;
6. Excellent communication skills in French and English.

### **International Consultant(s) – Safeguarding Pesticide Stocks**

Under the supervision of the CTA and FAO Lead Technical Officer, the consultant(s) will undertake the following:

- Train national teams in safeguarding based on FAO developed guidelines;
- Review and update the list of equipment and supplies, and associated budget, required for the completion of the safeguarding operations;
- Develop detailed environmental management plans (EMP) for the safeguarding operation, working with national teams including health and safety procedures
- Supervise and monitor the safeguarding operations

#### Requirements:

1. A degree in agriculture, chemistry, environmental science or a related subject;
2. At least 10 years of relevant working experience;
3. Experience of developing EMP's in relation to safeguarding operations;
4. Understanding of international standards and good practice in relation to safeguarding operations;
5. Experience of safeguarding pesticides.

### **Budget and Operations Officer**

Under the direct supervision of the FAO Budget Holder, the Budget and Operations Officer will:

- Ensure smooth and timely implementation of project activities in support of an approved, results-based workplan, through operational and administrative procedures according to rules and regulations of FAO and the donor(s);
- Coordinate the project's operational arrangements through contractual agreements with key project partners;
- Be operationally responsible for Letter of Agreements with relevant project partners;
- Responsible for the day to day management of the project's budget including monitoring of cash availability, and for preparation of budget and project revisions for review by the Budget Holder;
- Ensure accurate recording of all relevant data for operational, financial and results-based monitoring;
- Ensure that relevant reports on expenditures, forecasts, progress against work-plans, and closure of projects are prepared and submitted in accordance with defined procedures and reporting formats, schedules and communication channels, as required;
- Assist with preparation of Terms of Reference of consultants and short-term staff assigned to the project;
- Undertake any other duties as required.

#### Requirements:

1. Degree in finance or related subject;
2. 5 years experience in project operation and management;
3. Excellent communication skills in French and English.

**APPENDIX 5: PROCUREMENT PLAN**

(To be completed during the inception phase of the project)

**DATE:**

**PROJECT TITLE AND SYMBOL:**

Ref. No.	Requirement	Unit	Estimated Quantities	Estimated Cost	Unit Price	Solicitation Method	Procurement Method	Buyer	Targeted Tender Launch Date	Targeted Contract Award Date	Targeted Delivery Date	Final Destination and Delivery Terms	Status	Other Constraints/Considerations