

## Independent Mid-Term Evaluation

### Regional Africa

### ***Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African Least Developed Countries (LDCs) of the SADC sub-region***



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



# UNIDO Independent Mid-Term Evaluation

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This document has not been formally edited.

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## Acronyms and abbreviations

|        |   |
|--------|---|
| AMCEN  | African Ministerial Conference on Environment     |
| ASP    | African Stockpiles Programme                      |
| BAT    | Best available techniques                         |
| BCRCC  | Basel Convention Regional Coordinating Centre     |
| BEP    | Best environmental practices                      |
| BMC    | Botswana Meat Commission                          |
| BTOMR  | Back-to-office-mission-report                     |
| COMESA | The Common Market for Eastern and Southern Africa |
| COP    | Conference of Parties                             |
| CUs    | Coordination Units                                |
| DSI    | Detailed Site Investigation                       |
| EAC    | The East African Community                        |
| ECEXA  | Environment Concepts Exchange Association         |
| ECOWAS | Economic Community of Western African States      |
| ESM    | Environmentally Sound Management                  |
| FAO    | Food and Agriculture Organization                 |
| FSP    | Full Size Project                                 |
| GEF    | Global Environment Facility                       |
| GOT    | Global Organic Textiles                           |
| HIMCG  | High Intra-Ministerial Coordination Group         |
| IA     | Implementing Agency                               |
| ISA    | Individual Service Agreement                      |
| ISID   | Inclusive and Sustainable Industrial Development  |
| KTSC   | Kombolcha Textile Share Company                   |
| LDC    | Least Developed Country                           |
| LLPI   | Leather and Leather Products Institute            |
| M&E    | Monitoring and Evaluation                         |
| MIS    | Management Information System                     |
| MOA    | Ministry of Agriculture                           |
| MOST   | Ministry of Science and Technology                |
| MTR    | Mid-term Review                                   |
| NEMC   | National Environmental Management Council         |
| NFP    | National Focal Point                              |

|             |  |
|-------------|--|
| NIP         | National Implementation Plan   |
| NLTC        | National Leather Technology Center   |
| NPC         | National Project Coordinator   |
| NPT         | National Project Team  |
| ODG/EVQ/IEV | UNIDO Office of Independent Evaluation   |
| PCB         | Project Coordinating Body  |
| PCBs        | Polychlorinated biphenyls  |
| PCDD        | Polychlorinated dibenzo-p-dioxins  |
| PCDF        | Polychlorinated dibenzo-furans   |
| PIF         | Project Identification Form  |
| PM          | Project Manager  |
| PMO         | Programme Management Office  |
| POPs        | Persistent Organic Pollutants  |
| PPO         | Plant Protection Office  |
| PPP         | Public Private Partnership   |
| PSC         | Project Steering Committee   |
| PSI-SI      | Preliminary Site Investigation Stage I   |
| RC          | Regional Coordinator   |
| REC         | Regional Economic Commission   |
| REMA        | Rwanda Environmental Management Authority  |
| RENAP       | Regional Network on Safe Pesticide Production and Information for Asia and Pacific |
| SADC        | The Southern African Development Community   |
| SC          | Stockholm Convention   |
| SMART       | Specific, Measurable, Achievable, Relevant, Time-bound                             |
| TC          | Technical Cooperation  |
| TCG         | Technical Coordination Group   |
| TIDI        | Textile Industry Development Institute   |
| TOR         | Terms of Reference   |
| TPRI        | Tropical Pesticides Research Institute   |
| TUT         | Tshwane University of Technology   |
| UNEP        | United Nations Environment Programme   |
| UNIDO       | United Nations Industrial Development Organization                                 |
| UP-POPs     | Unintentionally Produced POPs  |

## Glossary of evaluation terms

| Term                                     | Definition  |
|--|---|
| Baseline                                 | The situation, prior to an intervention, against which progress can be assessed.  |
| Effect                                   | Intended or unintended change due directly or indirectly to an intervention.  |
| Effectiveness                            | The extent to which the objectives of a development intervention were or are expected to be achieved.   |
| Efficiency                               | A measure of how economically inputs (through activities) are converted into outputs.   |
| Impact                                   | Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention.  |
| Indicator                                | Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention.  |
| Intervention                             | An external action to assist a national effort to achieve specific development goals.   |
| Lessons learned                          | Generalizations based on evaluation experiences that abstract from specific to broader circumstances.   |
| Logframe<br>(logical framework approach) | Management tool used to guide the planning, implementation and evaluation of an intervention. System based on MBO (management by objectives) also called RBM (results based management) principles. |
| Outcome                                  | The achieved or likely effects of an intervention's outputs.  |
| Outputs                                  | The products in terms of physical and human capacities that result from an intervention.  |
| Relevance                                | The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donor's policies.              |
| Risks                                    | Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives.   |
| Sustainability                           | The continuation of benefits from an intervention, after the development assistance has been completed  |
| Target group                             | The specific individuals or organizations for whose benefit an intervention is undertaken.  |



## Executive summary

### Introduction

The independent mid-term evaluation of the project projects “*Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African Least Developed Countries (LDCs) of the SADC<sup>1</sup> sub-region*” was carried out during May-August 2016. It was conducted by an independent international evaluation consultant, Ms. Suman Lederer. It was carried out to assess the current status of implementation and to provide a comprehensive and systematic account of the project performance to date. It is a forward-looking exercise to identify best practices, areas for improvement and lessons to be incorporated in the remaining duration of the project as well as in future UNIDO interventions in the African region and in other UNIDO programmes and projects as applicable.

The main purpose of this evaluation is to enable governments, counterparts, the GEF, UNIDO and other stakeholders to:

- verify prospects for development impact and sustainability
- Enhance project relevance, effectiveness, efficiency and sustainability
- Draw lessons of wider applicability

The key question of the evaluation is to what extent the project is making a significant contribution to reducing the effects of POPs on human health and the environment.

### Key findings and conclusions

#### Relevance and Design

The project received a GEF grant of USD 1,500,000 and project implementation commenced in June 2011. The project is one of the three projects in three African sub-regions making up the capacity strengthening and technical assistance for the implementation of the Stockholm Convention NIPs in African LDCs and SIDs program. According to the project document, the overall objective of the project is to strengthen and/or build capacity required in LDCs of the SADC Sub-region to implement their NIPs in a sustainable, effective and comprehensive manner while building upon and contributing to strengthening the country’s capacities for sound management of POPs chemicals. The immediate objective is to create an enabling environment to implement the NIPs in the LDCs of the SADC Sub-region.

The project is highly relevant for the countries as they are parties to the Stockholm Convention and have to implement the requirements of the SC, based on their national priorities and the requirements of the SC. The thematic areas covered under the project are mentioned in the NIPs of the participating countries. Interview data with the national stakeholders also confirmed the high relevance of the project to the countries. Overall, the project presents an

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<sup>1</sup> Lesotho, Mozambique, Swaziland, Tanzania.

appropriate and timely response to an urgent development challenge, the reduction/elimination of UP-POPs.

### **Efficiency at current stage of implementation**

Initial project duration was 5 years and was in the fifth year of implementation at the time of the MTE. UNIDO is the implementing agency and a full-agency execution mode was applied, with UNIDO managing all the funds. Some funds were transferred to the countries for activities to be carried out at the national level. The project suffered a delay of one year, however, this did not have any effect on costliness of project activities. The evaluation did not receive figures on co-finance.

### **Effectiveness at current stage of implementation**

Project document includes a logical framework which encompasses 3 outcomes and 34 activities, besides project management and M&E. Regional inception workshop has been conducted; however, no national inception workshops were conducted. PSC and PCB meetings have taken place on a regular basis. Pilot demonstrations were ongoing at the time of the MTE. Overall, the project is expected to be effective as the results achieved so far, which will be built upon till project completion, provide a foundation for delivering key project outcomes.

### **Likelihood of Sustainability**

Project results/pilot demonstrations lack visibility. At the time of the MTE, the evaluation did not evidence any elements of project activities/pilots being incorporated in national strategy/plans/programmes of the participating countries, which would be crucial for sustaining project results after completion of project.

### **Cross-cutting issues**

UNIDO project coordination and management is considered to be satisfactory by the stakeholders.

Gender-disaggregated data has not been compiled so far.

Project encompasses aspects of South-South cooperation, which seems to be working very well.

### **Key recommendations**

UNIDO should:

Provide support to participating countries on co-finance;

Achieve analysis of samples at the laboratory at the TUT, Pretoria, South Africa;

Undertake measures to enhance visibility of project results/pilot demonstrations;

Prepare a final documentation including information on BAT/BEP in pilots, best practices, for dissemination of knowledge;

Provide support to countries to identify possibility to incorporate project results in national strategy/annual plans;

Create synergies with other organizations.

Participating countries:

Keep a record of actual co-finance figures;

Continued and active participation in project activities;

Compile gender-disaggregated data;

### **Lessons learned**

- Involvement of stakeholders in project design contributes to higher ownership.
- Adequate time for procurement and delivery of equipment, including time for transportation and for customs clearance, in project planning would avoid delays.
- High commitment of all involved stakeholders contributes to effective implementation of the project.
- Support and follow-up is necessary to document co-finance figures of the participating countries.



# 1. Evaluation objectives, scope and methodology

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## 1.1 Scope and objectives

As foreseen in the project document, and according to the GEF M&E policy<sup>2</sup>, the independent mid-term evaluation (MTE) of the UNIDO regional projects “*Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African Least Developed Countries (LDCs) of the SADC<sup>3</sup> sub-region*” was carried out during May-August 2016. It was conducted by an independent international evaluation consultant, Ms. Suman Lederer. The evaluation mission took place from 15-21 May 2016 to Pretoria, South Africa and from 01-05 August 2016 to the United Republic of Tanzania. The MTE also included the evaluation of the project “*Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African Least Developed Countries (LDCs) of the COMESA sub-region*”, as both the projects share common regional activities and have the same activities to be carried out at the national level. The mid-term evaluation reports reflect these overlaps, also in the content of the reports.

The independent mid-term evaluation was carried out to assess the current status of implementation and to provide a comprehensive and systematic account of the project performance to date. It is a forward-looking exercise to identify best practices, areas for improvement and lessons to be incorporated in the remaining duration of the project as well as in future UNIDO interventions in the African region and in other UNIDO programmes and projects as applicable. The Terms of Reference (TOR) for the independent MTE is attached as Annex 5.3.

According to the TOR, the main purpose of this evaluation is to enable governments, counterparts, the GEF, UNIDO and other stakeholders to:

- (a) verify prospects for development impact and sustainability, providing an analysis of the attainment of the main project objective and specific objectives, global environmental objectives, delivery and completion of project outputs / activities, and outcomes / impacts based on indicators. The assessment includes re-examination of the relevance of the objectives and other elements of project design according to the project evaluation parameters defined in chapter IV.
- (b) Enhance project relevance, effectiveness, efficiency and sustainability by proposing a set of recommendations with a view to ongoing and future activities.
- (c) Draw lessons of wider applicability for the replication of the experience gained in the projects at national and regional levels.

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<sup>2</sup> [https://www.thegef.org/gef/sites/thegef.org/files/documents/ME\\_Policy\\_2010.pdf](https://www.thegef.org/gef/sites/thegef.org/files/documents/ME_Policy_2010.pdf)

<sup>3</sup> Lesotho, Mozambique, Swaziland, Tanzania.

The key question of the evaluation is to what extent the project is making a significant contribution to reducing the effects of POPs on human health and the environment.

Intended users of the MTE are the UNIDO management and staff at Headquarters, UNIDO experts, the Governments of the participating countries, counterpart agencies and other organizations in the countries cooperating with UNIDO, donors and project beneficiaries. The MTE findings and recommendations are expected to provide key inputs for the planning and continual improvement of future activities of the project being evaluated, as well as other similar projects.

## **1.2 Information sources and availability of information**

This MTE assessment included a comprehensive desk review; one-to-one interviews with the UNIDO PM, UNIDO Director of the Regional Office (RO) in Pretoria, South Africa (former PM of the project), the Regional Coordinators (RCs) of both sub-regions, the Africa Institute, which is also implementing some of the project activities and is carrying out monitoring; as well as the National Focal Points (NFPs) for the Stockholm Convention (SC) of the 4 participating countries; moreover, the evaluator also visited the analysis laboratory, Faculty of Science, at the Tshwane University of Technology (TUT), and the Tengeru pilot site in Arusha, Tanzania. The UNIDO Project Manager (PM) provided the evaluation with written documents and reports in a very timely manner, such as inter alia project documents, monitoring reports, back-to-office mission reports (BTOMR), presentations from meetings, PIRs, and progress reports, which were reviewed. A detailed list of documents is provided in Annex 5.2. Comprehensive information and documents were also provided by the Regional Coordinator (RC), who have very meticulously documented the proceedings of meetings and workshops, and prepared, on a regular basis detailed progress reports. Further, the NFPs provided the evaluation with additionally-requested information and documents. All the documents and information readily made available to the evaluation by all people met and interviewed facilitated the work of the MTE enormously.

## **1.3 Methodological remarks and validity of the findings**

The GEF grant is altogether USD 3,000,000 for the project, with UNIDO having received USD 1,500,000, for implementing the below-mentioned 4 outcomes; the other outcomes being implemented by UNEP. This mid-term evaluation covers the activities being carried out by UNIDO.

The project implementation commenced in June 2011. According to the project document, the MTE was planned to take place in June 2014. However, owing to non-execution of the MTE and non-delivery of the MTE report by the evaluator initially recruited for this purpose, the MTE was delayed.

The MTE was carried out in the period May-August 2016 by an independent evaluation consultant, and consisted of document review, interviews with project stakeholders and visit to the laboratory at the TUT as well as the pilot site in Arusha, United Republic of Tanzania. The following key instruments were used to collect data and evidence, based on a participatory mixed-methods approach, and included:

- A comprehensive desk review of reports and documents collected;
- Interviews with stakeholders;
- Visit to the laboratory at the TUT;
- Visit to the Tengeru pilot site in Arusha, Tanzania.

Activities carried out until 30 April 2016 have been considered in the MTE. After the desk review of available documents, initial interviews were carried out with the UNIDO PM in May 2016. Interviews with the UNIDO Director of the RO in South Africa, as well as the two RCs (COMESA and SADC), the Africa Institute and the Laboratory at the TUT took place in Pretoria from 16-19 May 2016. The 8<sup>th</sup> Project Steering Committee (PSC) was scheduled from 03-05 August 2016; this was deemed to be a good opportunity to meet the National Focal Points (NFPs) of all the 4 participating countries in person. Hence, the evaluation included a mission to Tanzania from 01-05 August 2016 to interview the NFPs, as well as visit the Tengeru pilot site in Arusha, Tanzania. The evaluation was able to verify and confirm the previously provided information and presented the preliminary findings of the MTE to the project stakeholders present at the 8<sup>th</sup> PSC on 04 August 2016.

The GEF evaluation parameters have been operationalized into an evaluation matrix which is provided in Annex 5.4. The evaluation matrix contains the evaluation questions, sources of verification and relevant indicators.

## 1.4 Limitations of the evaluation

The independent MTR is based on a document review and interviews with the project stakeholders, including the NFPs and RCs. Owing to time and resource constraints – the project is in its 5<sup>th</sup> year of implementation – no site visit was carried out to the pilot demonstration sites in Ethiopia and Sudan, which is a significant limitation of the MTE. Nevertheless, the evaluation conducted the interviews and presented the findings to the stakeholders to verify and confirm the information provided in the documents.

## 2. Country and project background

### 2.1 Fact sheet

|                            |  |
|----------------------------|--|
| Project Title              | Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African Least Developed Countries (LDCs) of the SADC Sub-region |
| UNIDO project No. / SAP ID | GFRAF11008   |
| GEF project ID             | 3942   |
| Region / Country           | Regional Africa: Lesotho, Mozambique,  |

|  |  |
|--|--|
|  | Swaziland, Tanzania                                  |
| GEF focal area(s) and operational programme  | POPs: POPs-1   |
| GEF implementing agency  | UNIDO  |
| GEF executing partner(s)   | Ministries of Environment in participating countries |
| Project size (FSP, MSP, EA)  | FSP (with UNEP together USD 3,000,000)               |
| Project CEO endorsement / Approval date  | 16 March 2011  |
| Project implementation start date (First PAD issuance date)  | June 2011  |
| <b>Expected implementation end date</b> (as per CEO endorsement document)                                | 31 March 2016  |
| Revised expected implementation end date (if applicable)   | 31 July 2017   |
| GEF project grant (Excluding PPG, USD)   | 1,500,000  |
| <b>GEF PPG</b> (if applicable, in USD)   |  |
| UNIDO co-financing (in USD)  | 700,000 (in-kind)                                    |
| Total co-financing at CEO endorsement (in USD)   | 2,900,000 (cash and in-kind)                         |
| <b>Total project cost</b> USD (excluding PPG; GEF project grant + total co-financing at CEO endorsement) | 5,900,000  |
| Mid-term review date   | May-August 2016                                      |
| Planned terminal evaluation date   | March-April 2017                                     |

Source: project document, GEF website.

## 2.2 Project description

The Southern African Development Community (SADC) is an inter-governmental organization headquartered in Botswana. Its goal is to further socio-economic

cooperation and integration as well as political and security cooperation among 15 southern African states<sup>4</sup>. It complements the role of the African Union.

SADC member countries mentioned in the project document as participating countries in the project are: Lesotho, Mozambique, Swaziland and Tanzania.

The LDCs of the SADC sub-region have been active participants in the negotiations of the Stockholm Convention since 1998. These countries have participated in each of the COP meetings of the Convention and in other related Convention meetings, such as the meetings of the Expert Group on Best Available Techniques and Best Environmental Practices (BAT/BEP) and in the meetings of the POPs Review Committee.

Most LDCs in the SADC sub-region have conducted preliminary inventories to better understand the status of POPs production, distribution, use, import, export, emissions, obsolete stockpiles, contaminated sites and POPs wastes. Industrial sectors with significant potential for PCDD/PCDF releases have also been identified, and a dioxins release inventory have been conducted based on the UNEP Toolkit. The NIPs of these countries have assessed the current institutional settings, policies and regulations and technologies for POPs treatment, disposal as well as substitutions and have also reviewed objectives, strategies and action plans to control, reduce and eliminate POPs.

During the preparation of the NIP, analysis on gaps between the Convention requirements and the present situation was carried out. According to interview data, countries expressed to UNIDO, to meet SC requirements, the need for strengthened capacity in a range of areas namely: building capacity through providing technical support; institutional; legislation, regulation, implementation and enforcement capacities; research, development and dissemination of technical capability for alternative technologies; capacities in POPs stockpiles and wastes identification, management and disposal; capacities in identifying and remediating contaminated sites; capacities in information exchange, public information, awareness raising and education.

The project was initiated by UNEP, UNIDO and the governments, as part of their efforts to fulfil the requirements of the Stockholm Convention.

The project is one of the three projects in three African sub-regions making up the capacity strengthening and technical assistance for the implementation of the Stockholm Convention NIPs in African LDCs and SIDs program. It is a five-year project and is being jointly implemented by UNEP and UNIDO. The FSP (UNEP and UNIDO components together) was endorsed by the GEF CEO in March 2011. Initial project duration was 5 years. At the time of the MTE, it was in its fifth year of implementation.

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<sup>4</sup> Angola, Botswana, D. R. Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe.

According to the project document, the overall objective of the project is to strengthen and/or build capacity required in LDCs of the SADC sub-region to implement their NIPs in a sustainable, effective and comprehensive manner while building upon and contributing to strengthening the country's capacities for sound management of POPs chemicals.

The immediate objective is to create an enabling environment to implement the NIPs in the LDCs of the SADC sub-region by

- establishing/amending laws, regulations, policies, standards;
- strengthening institutions for remediation of contaminated sites;
- introducing BAT/BEP to industrial processes;
- managing municipal wastes including e-wastes and health-care wastes;
- supporting the phasing out of agricultural use of POP pesticides through the promotion of production and use of bio-botanical pesticides;
- promoting technology transfer;
- facilitating data and information collection and dissemination; and
- ensuring continuous improvement and awareness raising of stakeholders on POPs issues.

Expected project outcomes are:

1. BAT/BEP in industrial production processes – Introduction of BAT/BEP in industrial production processes mentioned in Annex C of Article 5 of the Stockholm Convention
2. Reduction on exposure to POPs – Reduction to POPs exposure at workplace and close proximity to POPs wastes and UP-POPs emitting sources
3. Contaminated sites – Identification and assessment of contaminated sites
4. Project management including monitoring and evaluation (M&E)

As per project document, project activities do not include POPs disposal, but address the issue of environmentally sound management and disposal of PCBs in African LDCs.

### **2.3 Project implementation**

Participating countries from the SADC sub-region, as per project document, are Angola, Lesotho, Mozambique, Swaziland, Tanzania. According to PSC meeting reports, as well as other training workshops' reports, the countries except Angola have been participating regularly in the meetings and workshops.

As mentioned in the project document, the institutional framework is as follows:

**UNIDO** is implementing the issues of BAT and BEP, technology transfer and private sector investments and public-private partnerships (PPP) at national and sub-regional level; project implementation commenced in June 2011.

**UNEP** is implementing the following components: policies, legislative and regulatory framework enforcement and global data collection, management and processing to enhance global monitoring of POPs releases, which are described in the UNEP project document.

**Programme Coordination Body (PCB):** comprising representatives from UNEP, UNIDO, executing agencies, Regional Economic Commissions (REC), and the Basel Convention Regional Coordinating Centre (BCRCC), to oversee program implementation.

**Sub-regional Steering Committees (SRSC):** comprising representatives from UNEP, UNIDO, executing agency staff, POPs/NFPs, BCRCC and other relevant organizations, to approve annual work plans, and oversee project activities.

Project Implementation Arrangement is as follows:

**UNIDO** is the GEF Implementing Agency (IA) for the project.

**Regional Coordinator (RC):** A regional coordinator is mentioned in Annex C of the revised document submitted to the GEF for CEO endorsement, Consultants to be hired for the project using GEF resources. The RC was foreseen to coordinate all activities of the project linking both vertically and horizontally given in the project organizational chart. He/she was to oversee the work of the NPC and make sure that all activities are performed in a timely manner in accordance with the workplan and support M&E activities of the project.

Moreover, RC was to provide overall technical assistance on workshops, trainings, develop a workplan for management and reduction/elimination of POPs; provide assistance in drafting technical specifications of equipment procurement; provide technical advice on establishment of MIS for the project and provide corrective measures for accidental issues that may arise.

An RC has been recruited for the SADC sub-region since July 2011 and continuously serving the project on a part-time basis.

**National Project Coordinator (NPC):** A NPC is mentioned in the Annex C 'Consultants to be hired for the project using GEF resources' of the revised document submitted to the GEF for CEO endorsement. NPC was to prepare project's Annual Workplan and its indicators; monitor day-to-day project implementation progress; coordinate project implementation activities in participating countries incl. preparation of TORs for technical consultants/experts, subcontracts, support organization of workshops and preparation of project quarterly and annual progress reports.

No NPC has been recruited. As evidenced by the evaluator, and confirmed by the interview data, the above-mentioned tasks are carried out by the two RCs.

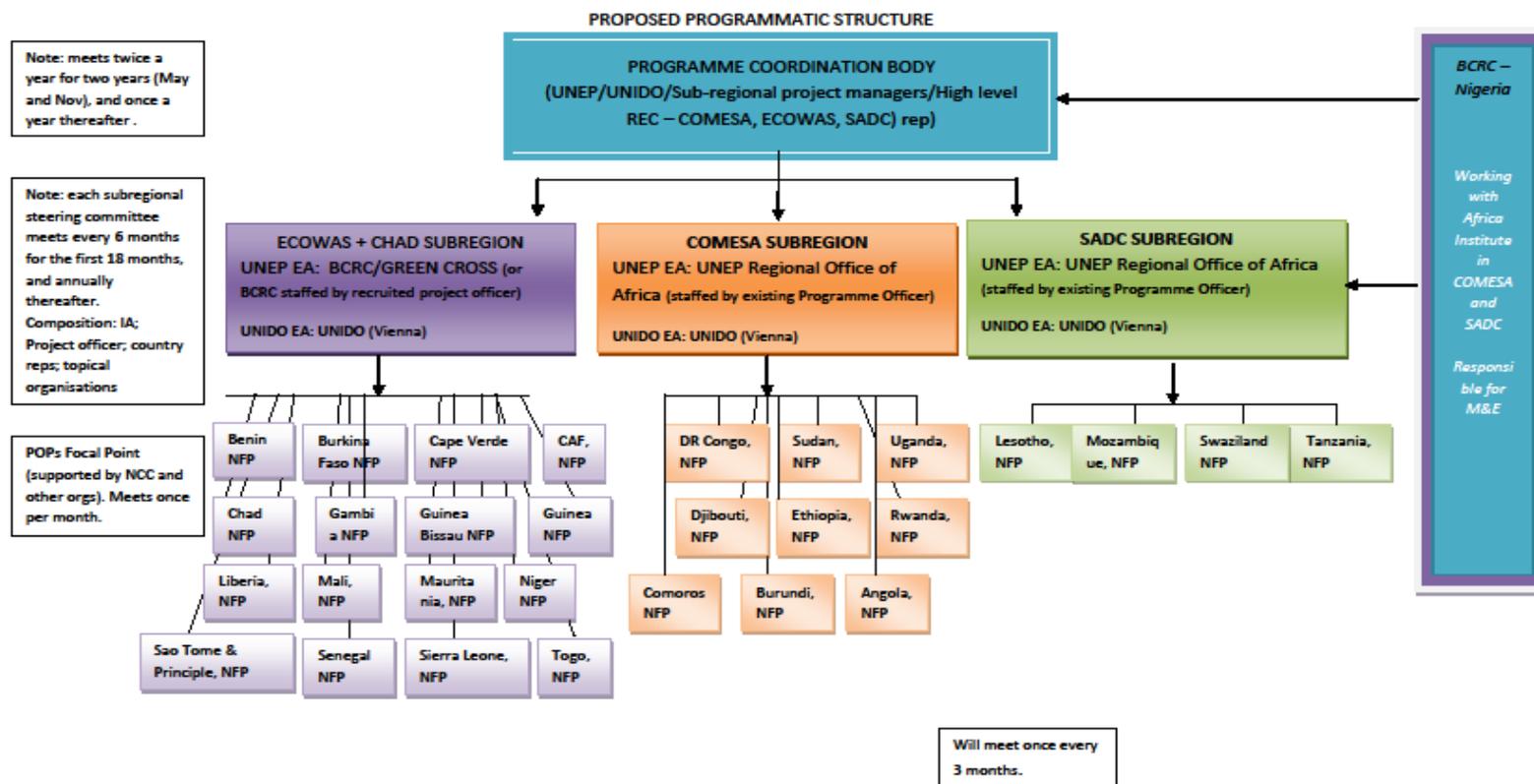
**National Project Teams (NPT):** coordinated by the POPs NFPs, responsible for project execution at the national level. NPT is to include members of the NIP National coordinating committee and other relevant stakeholders. NPTs are scheduled to meet once every three months to plan upcoming project activities and evaluate completed activities.

Other experts on contaminated sites, BAT/BEP, pesticides and wastes management have been recruited, as necessary, during the project.

The following diagram is included in the project document, and illustrates the above-described implementation structure:

Comoros  
NFP

CAPACITY STRENGTHENING AND TECHNICAL ASSISTANCE FOR THE IMPLEMENTATION OF STOCKHOLM CONVENTION NATIONAL IMPLEMENTATION PLANS (NIPS) IN AFRICAN LEAST DEVELOPED COUNTRIES (LDCS) AND SMALL ISLANDS DEVELOPING STATES (SIDS)



## 2.4 Positioning of the UNIDO project

The SADC Member States, including the project partner countries, have adopted the Stockholm Convention on POPs and have agreed to comply with it. There is a need for capacity building to support them to comply with the obligations set under the Stockholm Convention.

Most of the countries in the SADC sub-region have conducted preliminary inventories to better understand the status of POPs production, distribution, use, import, export, emissions, obsolete stockpiles, contaminated sites and POPs wastes. Industrial sectors with significant potential for PCDD/PCDF releases have also been identified, and a dioxins release inventory have been conducted based on the UNEP Toolkit. The NIPs of these countries have assessed the current institutional settings, policies and regulations and technologies for POPs treatment, disposal as well as substitutions and have also reviewed objectives, strategies and action plans to control, reduce and eliminate POPs. The plans have identified capacity building as one of the most fundamental activities that should be taken into consideration when implementing the NIPs.

During the preparation of the NIP, analysis on gaps between the Stockholm Convention requirements and the existing situation was carried out. This gap analysis showed that in order to meet the Convention requirements, there was a need for strengthened capacity in a range of areas namely: building capacity through providing technical support; institutional; legislation, regulation, implementation and enforcement capacities; research, development and dissemination of technical capability for alternative technologies; capacities in POPs stockpiles and wastes identification, management and disposal; capacities in identifying and remediating contaminated sites; capacities in information exchange, public information, awareness raising and education, which are hence included in the project activities.

In November 2009, UNIDO received preparatory grant of USD200,000 from the GEF for preparing the project document for both the SADC and COMESA sub-regions. In March 2011, CEO endorsement was received for the project for the SADC sub-region, and project implementation commenced in June 2011.

## 2.5 Counterpart organization(s)

|            |   |
|------------|---|
| Lesotho    | Department of Environment/Ministry of Tourism, Environment & Culture                    |
| Mozambique | National Directorate of Environment/Ministry of Land, Environment and Rural Development |
| Swaziland  | Ministry of Tourism and Environmental Affairs / Swaziland Environment Authority         |
| Tanzania   | Vice President's Office / Division of Environment                                       |

### 3. Assessment

The following evaluation criteria has been analysed based on interviews with the main project stakeholders and document review, with reference to project objectives and the objectives of the GEF and the Stockholm Convention.

#### 3.1 Relevance and Design

***Relevance to national development and environmental agendas, recipient country commitment, and regional and international agreements. See possible evaluation questions under “country ownership/drivenness” below.***

The project is highly relevant for the countries as they are parties to the Stockholm Convention and have to implement the requirements of the SC, based on their national priorities and the requirements of the SC. The thematic areas covered under the project are mentioned in the NIPs of the participating countries.

Interview data with the national stakeholders also confirmed the high relevance of the project to the countries.

***Relevance to target groups: relevance of the project’s objectives, outcomes and outputs to the different target groups of the interventions (e.g. companies, civil society, beneficiaries of capacity building and training, etc.).***

According to interviewed national stakeholders, project is highly relevant to the countries. According to the project document, experts from respective fields (BAT/BEP, leather sector, textile sector) from the participating countries participated in the capacity building/training workshops.

The training workshop on BAT/BEP measures in the textile industry in Uganda in May 2012 was attended by 35 participants from the 9 participating countries, including the respective POPs FPs.

35 participants from the 9 participating countries, as well as from South Africa, also attended the training workshop on BAT/BEP measures in leather dyeing and finishing in Botswana in May 2013.

Relevance to the target groups is very high; however, sustainability of training outcomes would depend on the transfer of knowledge, implementation and expansion of outreach within the countries, as well as the continuation of the work of the trained experts in the respective field.

***Relevance to the GEF and UNIDO: In retrospect, were the project’s outcomes consistent with the focal areas / operational program strategies of GEF? Ascertain the likely nature and significance of the contribution of the project outcomes to the wider portfolio of the GEF Operational Programme (OP).***

Project outcomes are consistent with the operational program strategies of the GEF<sup>5</sup>. The GEF's goal in the POPs focal area is to protect human health and the environment by assisting countries to reduce and eliminate production, use and releases of POPs, and consequently contribute generally to capacity development for the sound management of chemicals. Under GEF-4, this goal was to be achieved by amongst others: strengthening capacities for National Implementation Plan (NIP) implementation, including assisting those countries that lag farthest behind to establish basic, foundational capacities for sound management of chemicals.

The lack of capacity and awareness of POPs issues in developing countries, and particularly in Least Developed Countries (LDCs) can lead to contamination of the environment by POPs, resulting in damage to health of human beings; the risk to the poor is particularly high<sup>6</sup>. The project aims at strengthening capacity to enable the countries to comply with their obligations set out in the SC, lay a sound foundation in the sub-region to fulfill its commitments; and supports their chemical management regimes; which in turn would contribute to protect human health and environment from the threat of POPs.

The project is in line with the objectives of the Stockholm Convention and national priorities.

***Were they in line with the UNIDO mandate, objectives and outcomes defined in the Programme & Budget and core competencies?***

The project is also in line with UNIDO priorities and the renewed mandate on Inclusive and Sustainable Industrial Development (ISID). UNIDO's Mission Statement (IDB.39/13/Rev.1) includes safeguarding the environment – “UNIDO aspires to reduce poverty through sustainable industrial development. We want every country to have the opportunity to grow a flourishing productive sector, to increase their participation in international trade and to safeguard their environment”, and reiterates the flexible UNIDO approach for ISID – “Differentiate and adapt our approaches and methodologies according to the needs of countries at different stages of development”.

One of the pillars of the ISID is “Safeguarding the Environment - environmentally sustainable growth, via cleaner industrial technologies and production methods, including in the fields of waste management and recycling”, “...the promotion, adaptation and transfer of environmentally sound technologies...”, under which UNIDO aims to “...assist countries in reaching compliance with the Stockholm

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<sup>5</sup> Focal Area Strategies and Strategic Programming for GEF-4, October 4, 2007. GEF Policy Paper, October 2007.

<sup>6</sup> Ibid. “Although most intentionally-produced POPs have been banned and are being phased out in OECD countries, the situation in developing countries, and particularly in Least Developed Countries, is one characterized in many instances by inadequate legislative and regulatory frameworks, coupled with the near absence of capacity for enforcement and lack of awareness of the hazards associated with POPs exposure. As a result, the limited local capacity can lead to regional and ultimately global contamination of the environment by POPs, with damage to the health and well-being of human populations, particularly the poor that are at greatest risk.”

Convention and aims at developing capacities in developing countries to protect their populations and their environmental resources from POPs-related pollution”.

***Was a participatory project identification process applied and was it instrumental in selecting problem areas and national counterparts?***

The project identification process applied was participatory and instrumental in selecting problem areas and national counterparts. According to interview data, the participating countries stressed a need for strengthened capacity, to implement the obligations under the SC, in a range of areas namely: building capacity through providing technical support; institutional, legislation, regulation, implementation and enforcement capacities; research, development and dissemination of technical capability for alternative technologies; capacities in POPs stockpiles and wastes identification, management and disposal; capacities in identifying and remediating contaminated sites; capacities in information exchange, public information, awareness raising and education. The project includes thematic areas requested by the countries, as well as those mentioned in their NIPs.

***Does the project have a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators? Was the project formulated based on the logical framework approach?***

The project has a clear thematically focused development objective, namely, to reduce POPs emissions through strengthening and /or building capacity required in LDCs of the SADC sub-region to implement their NIPs in a sustainable, effective and comprehensive manner while building upon and contributing to strengthening the country's capacities for sound management of POPs chemicals, and verifiable indicators to determine its achievement. The project is formulated based on the logical framework approach, with verifiable indicators, as well as, realistic assumptions.

***Is the project's design adequate to address the problems at hand?***

The project's design is considered to be adequate to address the problems at hand. The project includes 3 outcomes, besides project management and M&E:

Outcome 1: Introduction of BAT/BEP in industrial production processes listed in Annex C of Article 5 of the Convention; this encompasses BAT/BEP in leather dyeing and finishing; as well as in textile dyeing and finishing

Outcome 2: Reduction of exposure to POPs at workplace and at close proximity to POPs wastes and UP-POPs emitting sources and encompasses waste management, e-waste management, and bio-botanical pesticides

Outcome 3: Identification and assessment of risk in contaminated land/sites.

It is a capacity building and demonstration project, with a wide scope, covering different thematic areas – BAT/BEP, waste management, bio-botanical pesticides, and contaminated sites. The participating countries have the opportunity to actively participate in the training workshops and expand their network of experts in these areas.

***Was the project formulated with the participation of national counterpart and/or target beneficiaries?***

Although requested by the participating countries, and based on the identified areas in the NIPs of the participating countries, interview data pointed out that the national counterparts and/or beneficiaries were not involved in the formulation of the project.

## 3.2 Effectiveness at current stage of implementation

***What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects?***

Project document includes a logical framework which encompasses 3 outcomes and 34 activities, besides project management and M&E. Achievement of activities, outputs and outcomes detailed below is based on the document review and interview data with the RC of the SADC sub-region; the same was presented to the NFPs of the 4 participating countries on 04 August 2016 in Arusha, Tanzania:

***Outcome 1: Introduction of BAT/BEP in Industrial production processes indicated in Annex C of Article 5 of the Convention***

**Output 1.1:** SADC Sub-Regional BAT/BEP Forum established

3 activities of the output 1.1 (A1.1.1, A1.1.2 and A1.1.3) were completed within the framework of a workshop, which was held in Addis Ababa from 23-27 January 2012, and attended by participants from 14 countries, which included POPs Focal Points (FPs) from the respective Ministries and UP-POPs experts from the countries.

The regional workshop in Addis Ababa was held to prepare the declaration for establishing the SADC and COMESA BAT/BEP Forum, an informal entity, to support the implementation of the Stockholm Convention through exchange of information and experience in the field of POPs. Fourteen countries<sup>7</sup> from both COMESA and SADC sub-regions participated in the workshop, during which the Terms of Reference of the Regional BAT/BEP Forum were finalized and endorsed by the participants, as well as the Declaration Document for launching of the Forum which was then to take place at the end of 2012 in Tanzania;

Moreover, the Action Plan for the Forum for the years 2013 to 2018 was discussed and decided upon.

Further, the roadmap for the new project “Open Burning of Waste and Landfills” was also agreed upon in the workshop. A draft PIF document was presented at

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<sup>7</sup> Quarterly Report of the SADC Regional Coordinator, Minutes of the Meeting: The total number of participants at the Addis workshop was twenty eight (28) participants. Five COMESA countries which were: Burundi, Ethiopia, Rwanda, Sudan and Uganda. Eight countries from SADC which were: Lesotho, Madagascar, Mauritius, Mozambique, Swaziland, Tanzania, Zambia and Botswana. Also in attendance; a representative from COMESA Secretariat, two participants from Africa Institute, two participants from UNIDO headquarters, and three regional coordinators for the three Africa Sub-Regions. The workshop was held in Addis Ababa, Ethiopia at Ghion Hotel during the period of January 23-27, 2012.

the workshop by UNIDO. Part I of the draft document (Project Justification) was discussed by the participants, who then finalized and endorsed the proposed project components, outcomes, outputs as well as the Indicative Grant Amount from GEF and the Indicative Co-Financing amount per each country.

According to the Final Report of the SADC RC for 2012, the Launch of the BAT/BEP Forum took place on 12 September 2012 at a High-Level Intra-Ministerial Meeting, which was organized as a side-event at The African Ministerial Conference on the Environment (AMCEN) in Arusha, Tanzania, which is organized by the UNEP. It was attended by Ministers of Environment of the respective countries, UNIDO, the RCs, as well as by representatives of the Stockholm Convention and Secretariats of the Basel, Rotterdam and Stockholm Conventions. The high-level Ministerial meeting unanimously adopted the establishment of the BAT/BEP Forum for Africa which comprises of three sub-forums, namely COMESA, ECOWAS and SADC. In the end, ministers and representatives of the countries who attended the event signed the declaration to officially establish the BAT/BEP Forum for Africa Region.



According to interview data, the Chair and Vice-Chair, as well as UNIDO, met in 2014 at the Tanzanian Minister's office, in Dar-es-Salaam to discuss the Forum's Action Plan which was adopted by the member states in Addis Ababa in January 2012 and to plan a Global BAT/BEP Forum, scheduled to take place in Bahrain. According to the TOR for the COMESA and SADC BAT/BEP Forum, the Chair and Vice-Chair are to meet regularly. However, no further meeting has taken place since then.

**Output 1.2:** Human resources for BAT/BEP developed, technical knowledge shared in SMEs and informal sector

As foreseen in the Logical Framework, a regional training workshop on BAT/BEP measures in relation to the textile industry, especially those that use chloranil in

dyeing and alkaline extraction in finishing, was held in Kampala, Uganda during the period May 7-11, 2012. According to the Report on the Kampala Workshop, 35 participants from nine countries from both SADC and COMESA participated at the workshop. Burundi, Lesotho, Mozambique, Rwanda, Sudan and Tanzania participated with three experts each including the POPs Focal Point; Ethiopia and Swaziland sent two experts each including the POPs focal point; and Uganda sent a total of six experts at the workshop including the POPs Focal Point.

The regional workshop envisaged to achieve the following outcomes:

- Dioxin/furan releases from textile dyeing and finishing assessed;
- National capacity built by training experts on BAT/BEP in textile dyeing and finishing (experts from the textile sector trained on reduction and elimination of emissions of dioxin/furans from textile factories that use chloranil for dyeing and alkaline extraction in finishing);
- BAT/BEP pilot demonstration project site in textile dyeing and finishing identified and visited.

The workshop topics included:

- Country presentation on the assessment of Dioxin/Furan releases from textile dyeing and finishing;
- Overview and training workshop on BAT/BEP in textile dyeing and finishing;
- Identification of potential site for BAT/BEP pilot demonstration project in textile dyeing and finishing;
- BAT/BEP measures in relation to the textile industry, especially those that use Chloranil in dyeing and alkaline extraction in finishing.

As part of the workshop, a field trip was organized to a Textile Dyeing and finishing factory called Southern Range Nyanza Ltd in the town of Jinja which is located 84 km southeast of Kampala city. Southern Range Nyanza Ltd, also known as Nytil, is a textile subsidiary of Picfare Group; one of Uganda's largest printed paper-products solutions providers. Nytil is a state of the art integrated textile and garment manufacturing unit, with facilities for dyeing, washing and embroidery, to demonstrate to the participants the process of dyeing and finishing and the usage of chemicals therein, as the focus of the project is on dyeing and finishing of the textile industry.

Further, a regional training workshop in BAT/BEP in leather dyeing and finishing was conducted from 13-16 May 2013 in Gaborone, Botswana.

According to the Report on Gaborone workshop on leather dyeing and finishing, all nine countries of both SADC and COMESA countries were represented at the workshop; moreover, Botswana, the host country, provided six experts including the POPs Focal Point; and three participants from a cooperative organization, KYN Veterinary Services, South Africa. According to interview data, South African representatives had expressed their interest in the workshop to the UNIDO Representative at the UNIDO Regional Office in Pretoria, South Africa. They presented their work with livestock, which included training activities in value-added basic leather tanning. They were interested in the workshop with the

aim of enhancing the leather-processing activities of the members of the cooperative<sup>8</sup>.

The workshop aimed to achieve the following objectives:

- Dioxin/furan releases from leather dyeing and finishing assessed;
- Experts from the leather sector trained on reduction and elimination of emissions of dioxin/furans from leather factories that use chloranil for dyeing and alkaline extraction in finishing;
- Criteria established to select a site in the region to conduct a BAT/BEP pilot demonstration project in leather dyeing and finishing.

Within the framework of the workshop, the participants also visited the Botswana Meat Commission (BMC), during which the participants visited the tannery facility where the drum salting of hides takes place (leather wet salting). Semi-wet leather is then exported to South Africa.

Activity A1.2.3 - Carry out training workshops in BAT/ BEP in waste oil refinery – is foreseen only for the ECOWAS sub-region, and will not be carried out in the SADC and COMESA sub-regions.

A1.2.4: Undertake targeted awareness-raising campaigns in BAT/BEP for informal sector

#### **SADC:**

In Quarter 2, 2015, UNIDO signed individual contracts with 3 of the SADC countries – Mozambique, Swaziland and Tanzania, to carry out the awareness-raising activity for BAT/BEP in the informal sector, and seven other activities belonging to outcome 2. To carry out all 8 activities nationally, UNIDO signed contracts with the countries to transfer USD30,000 to each country.

According to the Progress Report for SADC Sub-Region January – February 2016, owing to national rules and regulations of the Ministry of Finance, Lesotho – Division of Environment – was unable to sign the contract with UNIDO. Therefore, in the case of Lesotho, individual contracts (ISA) were signed with 2 experts from the National University of Lesotho, to carry out these activities.

**Output 1.3:** BAT/BEP in textile and leather dyeing and finishing and waste oil refinery source categories initiated

A1.3.1: Pilot demonstration of BAT/ BEP in textile dyeing and finishing

– Regional activity for both SADC and COMESA sub-regions, completed in 2013 in Ethiopia.

This is a regional activity, being carried out in Ethiopia, and knowledge transfer takes place to member countries of the SADC sub-region. The results of this pilot demonstration, being conducted in the COMESA sub-region, will be disseminated to SADC member countries for replication. Moreover, the SADC project partner countries participated in training activities.

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<sup>8</sup> Presentation: KZN Veterinary Services. Dr. Mbaga Lukubisa and Mr. P. Khumbulani Hadebe on 14 May 2013.

As planned and mentioned in the Logical Framework, and according to report of the RC (June 2012), a regional training workshop on BAT/BEP measures in the textile industry, especially those that use chloranil in dyeing and alkaline extraction in finishing, “BAT/BEP Training Workshop on Textile Dyeing and Finishing” was held in Kampala, Uganda from May 7-11, 2012.

UNIDO recruited an expert in textile processing from May-June 2012 to review the textile processing and do a presentation on emissions of dioxins and furans during the processing.

The regional workshop was attended by nine of the SADC and COMESA countries. Thirty five (35) participants in total took part in the workshop. Burundi, Lesotho, Mozambique, Rwanda, Sudan and Tanzania participated with three experts each including the POPs Focal Point (FP); Ethiopia and Swaziland sent two experts each including the POPs FP; and Uganda sent a total of six experts at the workshop including the POPs FP. A field trip was also organized to a Textile Dyeing and finishing factory called Southern Range Nyanza Ltd in Jinja, located 84 km southeast of Kampala city, where the participants visited the different production departments like combing, winding, sizing, waxing, weaving, knitting, visual inspection, dyeing and printing, as well as the waste disposal area (open burning).

A questionnaire on dioxins and furans in the industrial sector, with particular focus on the textile sector, was distributed to the countries based on criteria discussed during the workshop, with a time of 6 weeks, until 25 June 2012, given to provide the requested information.

Based on the information provided by the countries, Ethiopia was selected for the textile pilot demonstration.

A contract was signed between UNIDO and the Ethiopian Textile Industry Development Institute (TIDI)<sup>9</sup> in March 2013, which covers the whole textile industry in Ethiopia. The TIDI was to conduct the study on identifying the chemicals and processes which possibly can be causes for the formation of dioxin precursors and then dioxin/furan emission and the Kombolcha Textile Share Company<sup>10</sup> (KTSC) was selected to be the pilot facility.

Objective of the pilot is to assess the chemicals used in dyeing and in the finishing of the textile dyeing processes, and to identify sources of dioxins and furans; in case of affirmed identification, to replace the identified chemicals. A

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<sup>9</sup> The TIDI, according to information from the TIDI website: <http://www.tidi.gov.et/Background.html> was established as the government of Ethiopia planned to give due attention to the textile industry and its development. Its vision is “By 2024... to be a world-class Institute that enables the Ethiopian textile industry competitive in the global market.” Its mission is to enable “... the Ethiopian textile industry competent in the global market by providing sustained investment promotion, consultancy, training study and research, laboratory and marketing support and services.” And its objective is “To facilitate the development and transfer of textile and apparel industries’ technologies and enable the industries to become competitive and beget rapid development.”

<sup>10</sup> The Kombolcha Textile Share Company (KTSC) is an integrated Textile Mill established in 1986 as a public enterprise with a design & attainable capacity of 22 & 18 million square meters of fabric per year respectively. The total investment was 220 million birr & now it has been reorganized and recognized as a share company since 1998.  
<http://kombolchatextilesharecompany.webs.com/about-us>

replacement of technology, if necessary, owing to the replacement of chemicals, is also part of the project. The TIDI completed the feasibility study in September 2014.

According to the RC for the COMESA countries [interview data], KTSC buys the chemicals it uses on the world market, using their trade names (general business practice). Hence, the actual name as well as the chemical composition was not known and could not be found out, as the companies trading the chemicals do not wish to reveal the actual names and chemical composition, referring to trade secret. Therefore, the TIDI, using the UNEP Toolkit, could identify a few chemicals, but not all chemicals, as sources of dioxins and furans.

Therefore, the Environment Concepts Exchange Association (ECEXA)<sup>11</sup> was contracted by UNIDO in 2<sup>nd</sup> half of 2014 to identify those chemicals which could not be identified and thus to fill the gaps. However, the same challenge mentioned above was faced by them and no further chemicals could be identified.

Project team (PT), together with the Ethiopian stakeholders, decided to consider other options for example, of discarding all the chemicals currently in use in textiles in Ethiopia and replacing them with chemicals according to European standards. In Europe, certified chemicals are in use, certified by the Global Organic Textiles (GOT). Therefore, the PT, together with the Ethiopian stakeholders, decided to replace the chemicals at the KTSC with the GOT certified chemicals, and the ECEXA was given the task of identifying the GOT-certified chemicals used in dyeing and finishing. The project is committed to cover the difference in costs for replacing the chemicals. At the time of the MTE, this was in the process of being finalized.

Further, international experts from ECEXA visited Kombolcha and validated the feasibility study prepared by the TIDI. Initially not foreseen in the project, the ECEXA experts also made suggestions process optimization via changes in technology to enhance efficiency with respect to usage of chemicals which would result in minimizing UPOPs releases; and identified the following equipment:

- Data color machine for textile processing; and
- 2-Roll Laboratory padder with accessories.

At the time of the MTE, the procurement procedure had been completed, and delivery of equipment was expected.

To achieve demonstration of BAT/BEP, based on the consultants' reports, the PT decided to include a combination of the following 2 activities:

- Replacement of chemicals; and
- Optimization of process via replacement of equipment.

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<sup>11</sup> E.C.E.X.A. is an Austrian network (Cluster) of internationally acknowledged experts in the field of environmental management and environmental technologies with its main purpose to promote the exchange of experience and know-how transfer regarding environmental protection, for both hazardous and non-hazardous material <http://www.ecexa.at/?&wslanguage=en>

Though initially not foreseen in the project document, the project team also considered Chemical Leasing<sup>12</sup> to be demonstrated at the KTSC. Under Chemical Leasing, an enhancement of efficiency is expected, as the factory does not face the risk of buying a bigger quantity than is actually needed, hence, no wastage; moreover, the risk of wastage by spilling is also reduced, as the chemicals are handled by experts from the manufacturer company; and a win-win-situation is expected for both manufacturer, and the factory. An International Consultant, Mr. Reinhard Joas, was recruited by UNIDO in October 2015, to prepare a study to identify areas in KTSC where Chemical Leasing can be applied and demonstrated.

At the time of the MTE, the PT was considering signing a contract with the KTSC on Chemical Leasing being carried out at the KTSC, subject to availability of funds.

Further, the ECEXA was to prepare a Marketing report for Ethiopian textiles and their potential outlets.

At the time of the MTE, a regional validation workshop on textile pilot findings was planned to take place in August 2016 with the following focus:

1. Feasibility study on chemicals and quantity identified by Kombolcha and chemicals and quantity identified by ECEXA, including the difference in costs
2. Optimization of processes by change of equipment
3. Chemical Leasing
4. Discussion on way forward

#### A1.3.2: Pilot demonstration of BAT/ BEP in leather dyeing and finishing

– Regional activity to be carried out in Sudan.

This is a regional activity, being carried out in Sudan, and knowledge transfer takes place to member countries of the SADC sub-region. The results of this pilot demonstration, being conducted in the COMESA sub-region, will be disseminated to SADC member countries for replication. Moreover, the SADC project partner countries participated in training activities.

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<sup>12</sup> With the support of the Government of Austria, in 2004, UNIDO introduced Chemical Leasing, a business model that marks a paradigm shift from the selling of chemical goods to the delivery of chemical services, leading to a more efficient use of chemicals.

Instead of selling chemicals in tons or liters, Chemical Leasing partners agree on a value-based unit of payment such as cleaned area in square meters or coated number of bottles. In doing so, partners commit to developing a strong cooperation based on trust, exchange of experiences, financial as well as environmental benefits.

Chemical Leasing seeks to be a win-win situation: it increases the efficient use of chemicals; it reduces the risks to human health brought about by their use; it improves the economic and environmental performance of participating companies and it therefore enhances their access to new markets. <http://www.unido.org/chemical-leasing.html>

In May 13-17, 2013, a regional workshop was organized in Gaborone, Botswana on leather dyeing and finishing. Representatives/leather experts from all the nine SADC and COMESA participating countries attended the “Regional Training Workshop on Leather Dyeing and Finishing”. Moreover, representatives of the hosting country, Botswana, as well as a Cooperative organization from South Africa also attended the regional workshop.

A similar procedure, as in the case of the textile pilot, took place - a questionnaire was developed and distributed to the participating countries after the Botswana workshop. Based on the responses and information provided in the questionnaire, and also taking into consideration the meagre information provided by the SADC countries, the shortlisted countries for the leather pilot demonstration were Sudan and Ethiopia. Since Ethiopia had already been selected for the textile pilot demonstration, Sudan was selected for leather pilot demonstration.

A contract was signed between UNIDO and the National Leather Technology Centre (NLTC)<sup>13</sup> of the Industrial Research & Consultancy Centre in Sudan, which is a National Centre for Excellence for the Leather industry and a part of the Ministry of Science & Technology (MOST) in August 2014, to carry out, inter alia, the following:

- Feasibility study as well as recommendations on chemical alternatives and technological changes (BAT/BEP)
- Workshop/training report to validate the outcome of the feasibility study

The POPs FP in Sudan, from the Higher Council for the Management of Natural Resources and Environment, carried out an assessment considering all leather factories in Sudan and recommended the Al Amatong (Khartoum) Tannery & Leather Industry Company Limited (Ind. Co. Ltd.), which was then selected as the pilot facility.

The NLTC prepared a draft feasibility study about emission sources in factory and reduction of emission in leather dyeing and finishing, which was updated with further required information and finalised and submitted by the NLTC in January 2016. The product – leather – was analysed to identify the chemical composition, in order to locate the sources of dioxins and furans.

UNIDO contracted Resposify, Sweden, in February 2016 to verify and validate the above-mentioned feasibility study, including factory visit and source verification. The validation report was submitted on 18 March 2016. At the time of the MTE, UNIDO was going through the validation report to confirm if all the

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<sup>13</sup> NLTCs main objectives are:

- Research & Development;
- Consultation in the leather & related field.

The centre is a part of Ministry of Science & Technology (MOST) and contains:

Pilot tannery: fairly equipped

Laboratory : Physical & chemical testing of Leather

Leather & leather Products Dept., with Design Unit.

<http://legacy.intracen.org/Appli2/Leather/AfricanPlatform/CountryMultipleItems.aspx?id=16&info=Insitut&countryid=20&countryname=Sudan&lang=en>

terms of the TOR had been included. According to the RCs, a regional validation workshop is expected to take place after the finalization of the report.

A1.3.3: Pilot demonstration of BAT/ BEP in waste oil refinery – is foreseen only for the ECOWAS sub-region and will not be carried out in the SADC and COMESA sub-regions.

## ***Outcome 2: Reduction of exposure to POPs***

**Output 2.1:** Concept of Cleaner Solid Municipal Waste Management System introduced to the national plans of waste management system in the participating countries (prevention and mitigation of U-POPs releases from open burning and landfill fires)

A2.1.3: Support the establishment of a regional programme for training on cleaner municipal solid waste and health care waste management through the BCRCS, CPCentres and/or the SCTechnical centres as appropriate

The Africa Institute secured the cooperation of the Ethekwini Metropolitan Municipality of Durban to organise a training workshop for waste management personnel from the participating SADC and COMESA countries (Activity 2.1.3).

According to the Proceedings on the Durban Regional Training Workshop on Municipal Solid Waste Management for SADC and COMESA Sub-Regions, the training workshop for waste management personnel was conducted from 4-6 September 2013 in Durban, South Africa, with special focus on risk reduction and concept of cleaner municipal solid and health care waste management (Activity 2.1.2)

Twelve countries in total from both SADC and COMESA sub-regions were represented at the workshop, which included: 3 participants each from Botswana, Burundi, Lesotho, Namibia, Sudan, Swaziland, Tanzania, and Uganda; 2 participants each from Mozambique and Mauritius; and 1 participant each from Ethiopia and Rwanda; 3 experts from the private sector in Botswana who were sponsored by their institutions; 6 UNIDO staff and experts and an expert in Eco-town management and recycling from Japan; 3 representatives from the Africa Institute; and one senior officer from the Ethekwini Metropolitan Municipality of Durban – altogether 44 participants attended the workshop.

Topics discussed at the workshop included:

- Country presentations on the assessment of municipal waste management;
- Overview of training workshop in municipal solid waste management;
- Policy, institutional and legislative framework for waste management;
- Characterization and quantification of waste;
- Waste collection, transport and disposal by sanitary land filling;
- Financing municipal waste management system;
- Socio-economic and health impacts and cleaner waste management options of waste;

- Emerging challenges in municipal waste management.

A2.1.1: In 2014, all the participating countries have organised national awareness-raising workshops on cleaner waste management with the aim to promote business and job opportunities in the field of waste management.

SADC:

All four SADC countries signed contracts with UNIDO to conduct national workshops on cleaner waste management. Swaziland conducted its national workshop on October 7<sup>th</sup>, 2014; According to Monthly Activities Progress Report for SADC Sub-Region May 2015, Mozambique and Tanzania conducted their workshops in 16-17 April 2015 and 8-9 April 2015 respectively; and Lesotho, owing to issue regarding the transfer of the funds, as mentioned before, was unable to sign the contract. Hence, an expert Dr. Timothy Thamae from the National University of Lesotho was recruited in November 2014, who then conducted the workshop on 26 May 2015, which was also attended by the RC for SADC.

**Output 2.1:** Concept of Cleaner Solid Municipal Waste Management System introduced to the national plans of waste management system in the participating countries (prevention and mitigation of U-POPs releases from open burning and landfill fires)

**A2.1.4 :** Update and adapt the health care waste management manual developed under GEF/ UNDP demonstration project for training purposes in medical health schools

- is foreseen to be implemented in collaboration with an expert from Tanzania and the COMESA Secretariat in 2016, whereby, a regional strategy on cleaner healthcare waste management will be developed.

**A2.1.5:** Carry out pilot demonstration of cleaner health care waste management

- after the development of aforementioned regional strategy, a pilot on cleaner healthcare waste management is envisaged to be conducted in 2016.

**Output 2.2:** Bio-botanical pesticide produced and formulated in agriculture including market gardening in urban areas through existing south-south cooperation programmes and with the participation of an association of market gardeners (alternatives to Annex A pesticides)

**A2.2.1:** Organise (in cooperation with FAO/RENAP/MOA) an awareness raising workshop for market gardeners on integrated pest management in crop protection and post-harvest management with particular focus on the use of bio-botanical pesticides.

This activity is envisaged to be conducted at the national level, as well as at the regional level. The part of this activity to be conducted at the national level is included in the afore-mentioned contract between UNIDO and the individual countries to carry out 8 project activities at the national level.

**National level:**

SADC:

Some countries have already completed this activity – according to the Monthly Activities Progress Report for SADC Sub-Region, May 2015, Swaziland conducted the workshop on 27 May 2015, which was also attended by the RC for the SADC sub-region. Tanzania conducted the workshop on 7th September 2015. The other 2 SADC participating countries, Lesotho and Mozambique, have yet to conduct this activity.

### **Regional level:**

According to the Proceedings of UNIDO Regional training workshop on bio-pesticides, the training workshop was held in Manzini, Swaziland, from 31 August – 02 September, 2015. 28 participants from 10 participating countries, including D.R.Congo, attended the training workshop; as well as 1 participant each from the COMESA Secretariat and the Africa Institute; 2 participants from the UNIDO RO in Pretoria, South Africa; and the RC for the SADC sub-region.

#### **A2.2.2: Review existing data and conduct national inventory of existing bio-pesticide formulations**

This activity, envisaged to be conducted by each country at the national level, is also included in the earlier-mentioned contract between UNIDO and the individual countries to carry out 8 activities.

SADC:

Some countries have already completed this activity – Swaziland completed this activity end of February 2016 (Study on bio-pesticides produced, imported and exported by Swaziland, February 2016). Tanzania has also completed this activity which was conducted from 7<sup>th</sup>-28<sup>th</sup> September, 2015 and submitted its report on October 12<sup>th</sup>, 2015. The other 2 SADC participating countries, Lesotho and Mozambique, have yet to conduct this activity.

#### **A2.2.3: Facilitate field testing of bio-pesticides in cooperation with research institutions, RENPAP, FAO and farmer associations**

After the aforementioned regional training workshop on bio-botanical pesticides (Activity 2.2.1) which was held from 31 August – 02 September 2015 in Manzini, Swaziland, COMESA Secretariat expressed its interest of up-scaling the utilization of bio-pesticides in the COMESA region. Such an upscaling requires a well-thought regional strategy on bio-pesticides as well as implementation of such. This regional strategy was prepared by the RENPAP.

Moreover, based on a questionnaire prepared by RENPAP, and answered by the participating countries, coupled with the site visits conducted by RENPAP in 2 countries each in SADC – Mozambique and Swaziland; and COMESA sub-regions - Rwanda and Uganda [Presentation 22 April 2016]. The latter have been selected to host a pilot to demonstrate the use, production and application of bio-botanical pesticides. The selected countries were presented at the validation workshop in Lusaka, Zambia on 22 April 2016 [Report RC April 2016, Presentation RENPAP], which was attended by representatives from

Mozambique, Lesotho, Rwanda, Swaziland, Uganda, and Zambia; UNIDO PM, as well as the RCs from both sub-regions; COMESA Secretariat was represented at the meeting by Dr. Mclay Kanyangarara and Mr. Gift Bundo.

According to interview data, the next steps are to be as follows:

- The validated regional strategy for COMESA and SADC sub-regions has been approved during the above-mentioned meeting<sup>14</sup>;
- This activity will be undertaken in the member countries of the COMESA sub-region for pilot demonstration and SADC sub-region for training and knowledge transfer<sup>15</sup>.

**A2.2.4:** Support PPP model for the creation of a national Micro- or Small Enterprise to produce and promote the use of bio-botanical pesticides

This activity is planned to be carried out, after initiation of the field testing of bio-pesticides (aforementioned Activity 2.2.3),

**Output 2.3:** Strategy developed to audit, formalized and scale-up to macro and small enterprises informal management practices of PCBs, solid and liquid waste, plastic wastes, used paper and e-waste

**A2.3.1:** Identify the informal collection system of PCBs and used oil and perform environmental audits to determine the need for enhancing collection and channelling of the PCBs streams on an ESM manner in line with GEF/UNEP Pilot Project in the Sub region

This is part of the 8 activities to be conducted by the individual countries at the national level.

Swaziland completed this activity in April 2016 and Tanzania in November 2015. Both Mozambique and Lesotho have yet to conduct this activity.

**A2.3.2:** Conduct a survey on existing concepts for plastic waste management including the reuse of waste plastic bags as raw material for various articles (bags, ropes, civil engineering materials, etc.)

Part of the 8 activities to be conducted by the individual countries at the national level

SADC: to be initiated

**A2.3.3:** Develop a concept for plastic waste management including the reuse of waste plastic bags as raw material for various articles (bags, ropes, civil engineering materials, etc.)

Part of the 8 activities to be conducted by the individual countries at the national level.

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<sup>14</sup> Information provided by the PM as feedback to the draft evaluation report.

<sup>15</sup> Ibid.

SADC: to be initiated

**A2.3.4:** Support the creation of a national Micro- or Small Enterprise for an environmentally sound recycling of plastic bags

Part of the 8 activities to be conducted by the individual countries at the national level.

SADC: to be initiated

**A2.3.5:** Investigate the current informal paper and e-waste management and the management of other halogenated solid and liquid waste

Part of the 8 activities to be conducted by the individual countries at the national level.

SADC: to be initiated

The following table provides an overview of the 8 activities which have been completed by the countries:

| Activities | 1.2.4 | 2.2.1            | 2.2.2 | 2.3.1 | 2.3.2 | 2.3.3           | 2.3.4 | 2.3.5 |
|------------|-------|------------------|-------|-------|-------|-----------------|-------|-------|
| Lesotho    | X     | Work in progress |       |       |       |                 |       |       |
| Mozambique | X     | X                | X     | X     | X     | Planned         |       |       |
| Swaziland  | X     | X                | X     |       | X     |                 | X     |       |
| Tanzania   | X     | X                | X     | X     | X     | To be initiated |       |       |

Table: Status of 8 national activities

Source: Country presentations

**A2.3.6:** Provide support for activities to prevent irrational dumping and open burning of paper and other halogenated solid and liquid wastes

SADC: to be initiated

**A2.3.7:** Support PPP model for creation of a national Micro- or Small Enterprise for an environmentally sound recycling of paper and e-wastes in the sub-region

At the 7<sup>th</sup> PSC meeting from 29.02.-01.03.2016 in Maputo, Mozambique, it was decided to carry out this regional activity in collaboration with the Africa Institute.

The pilot is planned to be carried out in Lesotho. According to interview data, major bottlenecks in e-waste management are lack of awareness and lack of system of collection. Together with the government of Lesotho, 2 companies have been identified in Lesotho to conduct the regional pilot demonstration - one of them is in paper recycling and the other one is a small e-waste business.

**Outcome 3: Identification and assessment of Contaminated Land / sites**

**Output 3.1:** Site identification strategies, protocols and guidelines formulated and applied in the sub-region based on the UNIDO toolkit<sup>16</sup>

**A3.1.1:** Prepare manuals, procedures/protocols/guidelines for local use for the identification of POPs contaminated sites and for conducting risk assessment of these sites

Under project GFRAF07024 “*Regional project to Develop Appropriate Strategies for Identifying Sites Contaminated by Chemicals listed in Annex A, B and/or C of the Stockholm Convention*”, UNIDO prepared a Toolkit for the identification, risk assessment and management of contaminated sites, which was completed in 2012.

At the time of GEF CEO endorsement of the project, in April 2011, the project on UNIDO Toolkit was ongoing. The UNIDO Toolkit presents a tool/manual/guideline for the identification and management of POPs contaminated sites and for conducting risk assessment of these sites. Hence, this activity was encompassed in the UNIDO Toolkit, and is completed.

**A3.1.2:** Develop methodology for the selection of economically feasible and environmentally sound POPs contaminated site remediation technologies

This activity is yet to commence.

**A3.1.3:** Conduct study to identify environmentally sound remediation technologies or benign ways of cleaning up of the contaminated sites

The study is related to low-cost and benign remediation technologies, which are appropriate for the African countries (economically). This activity is related to the next activity A3.1.4. It is envisaged to conduct this study with the collaboration of a selected institution (according to interview data, discussions are ongoing with a university in Tanzania) with expertise required in this field, and is currently in the process of selection of the said institution.

**A3.1.4:** Undertake pilot demonstration project to verify the effectiveness of the low cost remediation technology and validate contaminated site identification methodology

Regional activity in Arusha, Tanzania – PPO Tengeru site

For activities under this outcome, UNIDO recruited an international expert, who is working in the field of geo-environmental engineering, contaminated site investigation and management, environmental monitoring, risk and impact assessment, soil-contaminant interactions, mobility and migration of contaminants, remediation technology, mine tailings waste disposal and treatment processes, Dr. Loretta Li. Following the regional training workshop on UNIDO Toolkit (Activity 3.2.1), a questionnaire was prepared by Dr. Li to select a country to host the pilot demonstration foreseen under this activity. Based on the answers provided by the countries in the questionnaire<sup>17</sup>, Tanzania proved to be

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<sup>16</sup> UNIDO Contaminated Site Investigation and Management Toolkit: <http://www.unido.org/what-we-do/environment/implementation-of-multilateral-environmental-agreements/stockholm-convention/e-learning/unido-contaminated-site-investigation-and-management-toolkit.html>

<sup>17</sup> Summary of COMESA and SADC countries questionnaire on pilot project on phytoremediation- October- 2013.

the most qualified country to host the pilot project in Phytoremediation; moreover, Tanzania also provided details about their expertise in the area of phytoremediation which was considered to be an asset.

From 08-15 December 2013, the UR from the URO in South Africa and the SADC RC visited the two potential demonstration sites in Tanzania, namely, and Plant Protection Office (PPO)-Tengeru (BTOMR of Mohammed Eisa), after which, also taking the available budget for this activity as well as closeness of the office to the contaminated area, the PPO Tengeru was selected as the main pilot site for the demonstration; whereas only the PSI-S2 (surface sampling) was to be carried out at NHC-Morogoro.

Dr. Li was recruited to carry out the demonstration in May 2014 as the lead expert to conduct the pilot demonstration under this activity. She conducted a workshop 'Tengeru Training Workshop on Investigation and Management of POPs Contaminated Sites' from 13-16 May 2014, for 10 Tanzanian participants, which included the Division of Environment; National Environmental Management Council (NEMC); Ministry of Agriculture, Food Security and Cooperatives; Tropical Pesticides Research Institute; Government Chemists Laboratory Agency; and Dar es Salaam City Council. Moreover, Dr. Ephraim Massawe, expert in nano-technology from Southeastern Louisiana University, USA, presented 'Risk management and remediation: The US Experience of using engineered nanoparticles in its remediation activities for EPA's Superfund sites program'.

#### **Phase I:**

On 17 May 2014, all the workshop participants and Dr. Li visited the selected demonstration site – PPO-Tengeru – she initiated the preliminary site investigation Stage I (PSI-S1), which included visiting the surrounding area, interviews with employees of the PPO-Tengeru – which is located next to the demonstration site; and interviews with the residents from the surrounding areas.

#### **Phase II:**

Phase-2 of the pilot demonstration included PSI-S2 (surface sampling) and Detailed Site Investigation (DSI) of the site. Both the RCs – SADC and COMESA - attended Phase II.

According to the Report on Phase-2 of pilot demo project on contaminated sites-Tengeru, July-August- 2014, and Report Dr. Li, July 31, 2014, the pilot site was cleared of all objects on the site, including old vehicles. The site survey using survey equipment was conducted on August 1 and 2, 2014. On August 4-5, 2014, surface sampling using a hand auger was taken from twenty nine points in the site for chemical and physical properties analysis. The maximum depth used to collect the surface sampling was 20cm. Additionally, four surface samples were taken from the maize field which is adjacent to the contaminated site as well as two more samples were taken for chemical analysis from downstream spring water which is about 1.5km from PPO site. The Tropical Pesticides Research Institute (TPRI) - UNIDO contractor in Arusha helped in collecting the surface samples. Fourteen (14) samples out of the twenty nine samples taken during the PSI-S2 were sent to TPRI's laboratory for analysis.

On August 12-15, 2014, a detailed site investigation was conducted at the PPO-Tengeru site. With the help of Water Solutions Drilling Company- UNIDO

Contractor, eight (8) boreholes were dug at different locations in the site with special emphasis on the heavily contaminated area. The whole DSI process entailed drilling of eight boreholes and profile soil sample at interval of 50cm for each borehole was taken for chemical and physical properties analysis. Two boreholes were dug to a depth of seven (7) meters each and they were located about a half meter from the Old Storage Building, while the other six were dug to three (3) meters deep each. During the drilling for all boreholes, a sample was taken at every half a meter (50cm) level using air extraction. The samples were collected in amber bottles provided by TPRI and those samples were taken to TPRI's laboratory. In addition to samples collected in amber bottles for laboratory analysis, samples were also simultaneously collected in zip-lock bags (at each 50cm depth) to conduct soil particles analysis.

Phase I and II of this activity are completed. What remains to be done under this activity is the remediation of the site. As mentioned earlier, this activity is related to the previous activity A3.1.3. The institution selected for activity A3.1.3 will also carry out the remediation part of this activity, using low-cost and benign remediation technology.

Initially, Tanzania had provided details about another 3 sites with potentially high risk of contamination, in addition to the PPO-Tengeru. According to interview data, at the request of Tanzania, a second site from the 4 identified sites, NHC-Morogoro, was selected additionally, to be part of this activity and be another (co-) pilot demonstration site. However, since only one pilot demonstration site was foreseen in the project, and owing to budget allocated to this activity, it was decided to conduct PSI-S2 (surface sampling) only on this site; and applying the selected low-cost remediation technology (phytoremediation). First sampling was carried out on 23-24 December 2015; the second was scheduled to take place in May 2016 (after the cut-off date of the MTE).

**A3.1.5:** Prepare contaminated site remediation plans of the identified hot spots in the sub-region

To be initiated.

**Output 3.2:** Capacity to manage the contaminated sites strengthened

Activity A3.2.1: Launch training workshop, using UNIDO toolkit, to experts from the relevant institutions to enable them collect scientific data from contaminated sites and assess potential risks to humans, wildlife and the environment

2 training workshops were conducted under this activity on the usage of the UNIDO Toolkit:

- A regional training workshop in Addis Ababa, Ethiopia from 06-10 August 2012; and
- A national training workshop in Arusha, Tanzania, from 13-16 May 2014 (details can be referred to under Activity A3.1.4).

Dr. Li conducted the regional training workshop (06-10 August 2012) in Addis Ababa, Ethiopia, on the usage of the UNIDO toolkit, for experts from the relevant institutions in SADC and COMESA to enable them to collect scientific data from contaminated sites and assess potential risks to humans, wildlife and the environment. 18 participants from the nine participating countries from both SADC and COMESA participated in the workshop.

Workshop topics included:

- Investigation and Identification of contaminated sites;
- Risk assessment of contaminated sites;
- Remediation of contaminated sites;
- Case Studies from Ghana and Nigeria were presented at the workshop.

**A3.2.2:** Create database and website, linked to UNIDO website, to share and disseminate data/information collected from contaminated sites and hot spots

This activity is yet to be accomplished.

**A3.2.3:** Raise awareness among the major stakeholders, including decision makers, on the health risk that may result from exposure to POPs contaminated sites

This activity was planned to be conducted nationally by and in each participating country in the SADC sub-region. According to the reports provided to the evaluation, the awareness-raising workshops were conducted as follows:

|            |                     |
|------------|---------------------|
| Lesotho    | 16-18 January 2013  |
| Mozambique | 17-22 February 2013 |
| Swaziland  | Not conducted       |
| Tanzania   | 12-13 March 2013    |

**A3.2.4:** Assess aspects of involvement of technology providers for the development of PPP in managing contaminated sites

This activity is yet to commence.

**A3.2.5:** Develop mechanism to mobilize funds from within the COMESA/SADC member states for the remediation of contaminated sites to ensure project sustainability

This activity is yet to be initiated.

#### ***Outcome 4: Establishment of Project Management structure and M&E Mechanism***

Project management structure, as mentioned in the project document, has been established. A common Project Coordinating Body (PCB) has been established in June 2011 in Pretoria, South Africa, for the two sub-regions, and according to Minutes of the Meetings and reports, has met on an annual basis 5 times, so far. The PSC meetings have been taken place twice annually since 2014. 2 RCs are on board, one for each of the two sub-regions. The Africa Institute, as well as the RCs, are responsible for monitoring. The independent mid-term evaluation is currently being conducted, and the terminal evaluation is scheduled to take place in 2017, at the end of the project.

The following table provides an overview of PSC and PCB meetings held:

| <b>PSC Meetings</b>  |                        | <b>PCB Meetings</b> |                        |
|----------------------|------------------------|---------------------|------------------------|
| 1. 26-30.09.2011     | Pretoria, South Africa | 1. 20-23.06.2011    | Pretoria, South Africa |
| 2. 28-31.01.2013     | Maputo, Mozambique     | 2. 18-19.10.2012    | Nairobi, Kenya         |
| 3. 27-28.01.2014     | Durban, South Africa   | 3. 04-06.11.2013    | Accra, Ghana           |
| 4. 15-17.07.2014     | Durban, South Africa   | 4. 02-03.12.2014    | Maputo, Mozambique     |
| 5. 17-18.02.2015     | Durban, South Africa   | 5. 07-08.12.2015    | Durban, South Africa   |
| 6. 03-04.09.2015     | Manzini, Swaziland     |                     |                        |
| 7. 29.02.-01.03.2016 | Maputo, Mozambique     |                     |                        |
| 8. 03-05.08.2016     | Arusha, Tanzania       |                     |                        |

#### **A4.1.2: Organize HIMCG and TAG at the sub regional level**

High Intra Ministerial Coordination Group HIMCG – covered under Output 1.1

#### **A4.1.3: Establish National POPs Coordination Units**

During the NIP of the participating countries, POPs CUs were established. For their continuation, UNIDO transferred USD 5,000 to each participating country to cover their costs.

***Are the actual project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs / inputs, the evaluators should assess if there were any real outcomes of the project and, if there were, determine whether these are commensurate with realistic expectations from such projects.***

The evaluation evidenced that the ongoing project activities, outputs and outcomes are commensurate with the original project objectives. One additional activity was being considered to be undertaken, which was initially not foreseen in the project document, i.e. chemical leasing under Output 1.3. However, this does not modify the initial project objectives. Most of the activities are currently in the process of being implemented. The envisaged outcomes, as the project is being implemented, would be commensurate with the envisaged project objectives.

***To what extent have the expected outputs and outcomes been achieved or are likely to be achieved? How do the stakeholders perceive their quality? Were the targeted beneficiary groups actually reached?***

The project is delayed by one year. At the time of the MTE, it was in its fifth year of implementation.

Outcome 1 – Introduction of BAT/BEP in industrial production processes – is ongoing. Training workshops have taken place, as well as procurement of equipment. Arrival of equipment at the pilot companies is awaited.

Outcome 2 – Reduction on exposure to POPs – is ongoing. Training workshops have taken place; and countries to demonstrate the pilot have been selected.

Outcome 3 – Identification and assessment of contaminated sites – is ongoing. Pilot sites have been identified and assessment has taken place.

Actual stage of implementation of activities and outputs has been described above. As per the current stage of implementation, the outcomes can be expected to be achieved, as initially envisaged.

Interview data confirmed the high relevance of the various components of the project to the different participating countries. The likelihood of replicability and reaching the beneficiaries, companies in the given sectors, as well as population at large, would be high, with the commitment and support of the RECs, the SADC Secretariat, as well as the participating countries.

***Identify the potential longer-term impacts or at least indicate the steps taken to assess these (see also below “monitoring of long term changes”). Wherever possible, evaluators should indicate how findings on impacts will be reported to the GEF in future.***

At the current stage of implementation, potential longer-term impacts are in line with those foreseen in the project document. As such, national regulatory framework and alignment with the requirements of the Stockholm Convention would contribute to longer-term impacts. National regulatory framework is part of the project being implemented by the UNEP, to ensure compliance with the requirements of the Stockholm Convention.

***Catalytic or replication effects: the evaluation will describe any catalytic or replication effect of the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out.***

As mentioned before, Activity A1.3.1: ‘Pilot demonstration of BAT/ BEP in textile dyeing and finishing’ is a regional activity for both SADC and COMESA sub-regions, and was carried out in Ethiopia. SADC project countries participated in training and results of this pilot demonstration, being conducted in the COMESA sub-region, will be disseminated to SADC member countries for replication, thus ensuring knowledge transfer.

Similarly, Activity A1.3.2: ‘Pilot demonstration of BAT/ BEP in leather dyeing and finishing’ is a regional activity being carried out in Sudan. SADC project countries participated received training and results of this pilot demonstration will be disseminated to SADC member countries for replication.

Under Activity A2.2.3: 'Facilitate field testing of bio-pesticides in cooperation with research institutions, RENPAP, FAO and farmer associations', the regional training workshop was also attended by SADC participating countries.

Replication has not taken place so far; however, with the support of the SADC Secretariat, the above-mentioned activities have a high potential for replication in the SADC member countries.

### 3.3 Efficiency at current stage of implementation

***Was the project cost effective? Was the project the least cost option? Was project implementation delayed, and, if it was, did that affect cost effectiveness? Wherever possible, the evaluator should also compare the costs incurred and the time taken to achieve outcomes with that for similar projects.***

The CEO endorsement date was 14 April 2011. Project implementation started officially at UNIDO on 02 June 2011. The date of signing of commitment letters by the participating countries is illustrated in the table below:

|               |             |
|---------------|-------------|
| May 2010      | UR Tanzania |
| November 2010 | Lesotho     |
| December 2010 | Mozambique  |
| December 2010 | Swaziland   |

Project was planned to have a duration of 5 years and end in June 2016. It has been extended by one year and is now expected to end in June/July 2017. A full agency mode of execution was applied with UNIDO managing the GEF funds. However, for 8 activities mentioned under the Section on Effectiveness, UNIDO transferred funds, USD30,000, to the participating countries to conduct the activities at the national level.

Project implementation is delayed by one year. However, this has not affected cost effectiveness. Project duration has been extended by one year and project is expected to end in July 2017. The evaluation was not informed of any issues regarding cost-effectiveness of the project.

***Have the donor, UNIDO and Government / counterpart inputs been provided as planned and were adequate to meet requirements? Was the quality of UNIDO inputs and services as planned and timely?***

On technical assistance, interview data evidenced that countries are satisfied with the inputs provided by the UNIDO HQ, the RC as well as the international experts. No issues were reported regarding communication with UNIDO PM or with the RC; communication was regular and in case of queries, both the UNIDO PM and the RC could be contacted via e-mail or telephone easily; and the queries were answered. Further, transfer of payment from UNIDO to the

participating countries for carrying out the 8 aforementioned activities went smoothly.

During the interviews, one issue raised by almost all the participating countries was about the workload of the NFPs. The NFPs are de facto NPCs of the project in the participating countries, which increases their workload considerably, as they have the tasks and responsibilities under the project, in addition to their daily work. All the NFPs are very committed to the project, and have contributed to achieving project results.

Regarding co-finance from participating countries, the following table provides an overview of co-finance committed by the participating countries:

|             | <b>Cash</b><br><b>\$</b> | <b>In-kind</b><br><b>\$</b> |
|-------------|--------------------------|-----------------------------|
| UR Tanzania | 100,000                  | 250,000                     |
| Lesotho     | 100,000                  | 250,000                     |
| Mozambique  | 100,000                  | 250,000                     |
| Swaziland   | 100,000                  | 50,000                      |

Source: Signed commitment letters of the participating countries

Actual co-finance figures have not been received by the evaluator.

Project expenditure as per 30 April 2016, the cut-off date for the MTE, is illustrated in the table below:

|                                       | <b>2011-2012</b>  | <b>2013</b>       | <b>2014</b>       | <b>2015</b>       | <b>30.Apr.16</b>  | <b>Total</b>        |
|---------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|
| <b>Staff &amp; Intern Consultants</b> | 18.418,94         | 51.263,17         | 55.487,21         | 64.622,87         | 29.571,43         | 219.363,62          |
| <b>Local travel</b>                   | 35.281,28         | 36.277,43         | 39.121,60         | 31.541,20         | 25.016,86         | 167.238,37          |
| <b>Nat.Consult./Staff</b>             |                   | 10.371,72         | 4.899,29          | 1.711,82          | 30.866,09         | 47.848,92           |
| <b>Contractual Services</b>           |                   | 34.990,64         | 89.138,22         | 157.920,23        | -13.643,26        | 268.405,83          |
| <b>Train/Fellowship/ Study</b>        | 41.473,22         | 4.323,37          | 17.719,94         | 4.100,57          | 9.796,52          | 77.413,62           |
| <b>International Meetings</b>         | 129.975,62        | 98.331,24         | 19.392,41         | 30.340,11         | -1.127,14         | 276.912,24          |
| <b>Equipment</b>                      | 1.671,35          | -197,86           | 80.133,32         | 3.075,84          | 69.441,30         | 154.123,95          |
| <b>Other Direct Costs</b>             | 1.446,84          | 3.522,96          | 42.247,82         | 2.791,37          | -50,15            | 49.958,84           |
| <b>Support Cost IDC</b>               |                   |                   |                   | 2.500,00          | -2.500,00         | 0,00                |
| <b>Total</b>                          | <b>228.267,25</b> | <b>238.882,67</b> | <b>348.139,81</b> | <b>298.604,01</b> | <b>147.371,65</b> | <b>1.261.265,39</b> |

Source: SAP database

### 3.4 Likelihood of sustainability of project outcomes

The evaluation has assessed the likelihood of sustainability of the Project as **Likely** in light of the findings of the evaluation, which are presented in this report, provided ongoing support and commitment of all stakeholders, particularly, national stakeholders continues, as well as, steps are taken to ensure sustainability of project results, including the following:

As mentioned before, SADC participating countries have received training under Activity A1.3.1: 'Pilot demonstration of BAT/ BEP in textile dyeing and finishing', Activity A1.3.2: 'Pilot demonstration of BAT/ BEP in leather dyeing and finishing', and Activity A2.2.3: 'Facilitate field testing of bio-pesticides in cooperation with research institutions, RENPAP, FAO and farmer associations'. Results from the pilot demonstrations will be disseminated to SADC member countries, ensuring knowledge transfer. Replication has not taken place so far; however, with the support of the SADC Secretariat, the above-mentioned activities have a high potential for replication in the SADC member countries.

Analysis equipment has been procured for the laboratory at the TUT, Pretoria. Therefore, it is embedded in a proper institutional structure, does not require additional financing, and is hence sustainable. Interview data confirmed that it would be possible to carry out soil/water/air analysis even after the project ends. This is an opportunity which could be put to use by the participating countries, and also speaks for sustainability of project outputs.

The evaluation has not evidenced any national plans or strategies for implementation of project results in future. This would be crucial for implementation/incorporation of project results at a national level after the project ends.

***Sustainability is understood as the likelihood of continued benefits after the GEF project ends. Given the uncertainties involved, it may be difficult to have a realistic a priori assessment of sustainability of outcomes. Therefore, assessment of sustainability of outcomes will give special attention to analysis of the risks that are likely to affect the persistence of project outcomes. The following four dimensions or aspects of risks to sustainability will be addressed:***

***Financial risks, Sociopolitical risks, Institutional framework and governance risks, and Environmental risks.***

Financial risks are considered to be high. The evaluation has not received co-finance figures for the ongoing project. Moreover, the evaluation has not been provided with any national plan or strategy to incorporate project results at a national level, which would also have meant, designation of appropriate budget for that activity. However, project is expected to end in July 2017; and this risk could be reduced by incorporating project results in national plan or strategy, as well as allocating budget for it.

Social or political risks that may jeopardize sustainability of project outcomes are considered to be low. National commitment for the project has been confirmed during the interviews. However, above-mentioned incorporation of project results

in national plan/strategy would ensure stakeholder ownership and that project benefits continue to flow, even after project ends.

Institutional framework and governance risks. This component is being implemented by the UNEP.

Environmental risks are considered to be low. There is no evidence of the project results facing any environmental risks.

### 3.5 Project coordination, monitoring and management

#### **M&E, Monitoring of Long-Term Changes, Project management, Implementation approach**

Overall, the coordination mechanisms have been effective and efficient. UNIDO PM has overall coordinating responsibility, and is supported by two RCs, one for each of the two sub-regions. The RCs report regularly to the PM and the reports were provided to the evaluator by the PM, as well as the RCs. Interview data confirmed that the participating countries are satisfied with overall coordination mechanisms. However, owing to the extra workload of the NFPs, it was pointed out during the interviews that a mechanism to recruit a person nationally would support the work of the NFPs.

UNIDO HQ-based management, coordination, quality control and technical inputs were efficient, timely and effective. No issues in this regard were raised to the evaluation. UNIDO RO in Pretoria, South Africa, is actively involved in the project, mainly through facilitating communication and contact, advisory services and selection of pilot sites. The Director of the UNIDO RO is the former PM of the project. Communication between the national stakeholders, the RCs and the UNIDO PM was carried out in a non-complicated manner and was considered by everyone<sup>18</sup> to be effective. For contracts and procurement of equipment, UNIDO procedures were followed, where applicable.

Monitoring has been carried out on a regular basis by the RC and the Africa Institute throughout project implementation, although without visiting each participating country once a year. Regular reports, according to their allocated tasks, have been submitted by both the RCs as well as the Africa Institute. Budget was allocated appropriately in the project for M&E. The MTE has been carried out, albeit with delay.

UNIDO applied a full agency mode of execution, i.e. all the GEF funds were managed by UNIDO. However, funds were transferred to the participating countries to carry out 8 activities at the national level. For this, USD30,000 were transferred to the participating countries. The approach complies with the principles of the Paris Declaration and with the requirements of the GEF. The approach did not involve any significant risks.

### 3.6 Cross-Cutting Issues

#### **Gender**

Gender data has currently not been compiled for the project activities. At the time of project formulation, inclusion of gender consideration was not a requirement

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<sup>18</sup> Interview data.

under the GEF. However, although the project does not focus on gender in any of its activities, it does not exclude members of any gender in its activities or in its project management team.

### South-South Cooperation

The evaluation found one example of South-South cooperation. Experts from RENPAP, India, carried out the training workshop for bio-botanical pesticides in Manzini, Swaziland, from 31 August – 02 September, 2015. Further, a regional strategy was also prepared by the RENPAP, India, and validated in Lusaka, Zambia, in April 2016.

According to feedback received from the COMESA Secretariat, on the draft mid-term evaluation report, as a follow-up to the recommendations of the above-mentioned Manzini workshop, another workshop was organized on “Production and Application of Bio-botanical Pesticide Formulations”, in Nantong, China, from 26-28 October 2015. Moreover, a Regional Skills Development Training Workshop on Production and Application of User and Environmentally Friendly Pesticide Formulations, quality assurance and instrumental methods of analysis with special emphasis on Bio-botanical pesticides was carried out in New Delhi, India, from 25<sup>th</sup> - 29<sup>th</sup> July, 2016. However, this has taken place after the cut-off date of the mid-term evaluation, 30 April 2016.

## 4. Conclusions, recommendations, lessons learned

| Conclusions   | Recommendations  |
|---|--|
| <p><b>Relevance and Design</b></p> <p>Considered highly relevant by the stakeholders</p> <ul style="list-style-type: none"> <li>• GEF</li> <li>• UNIDO (in line with ISID)</li> <li>• Governments (Stockholm Convention obligations, NIP/Updated NIP)</li> <li>• RECs (COMESA, SADC)</li> <li>• Overall, appropriate and timely response to an urgent development challenge – and reduction of UP-POPs</li> <li>• Potential to contribute to effectiveness of countries' environmental policy (UNEP component)</li> <li>• However, no high involvement of countries in project formulation</li> </ul> | <p>For continued relevance and high ownership, as far as possible and feasible, to ensure that activities are continued at the national level and included in national</p> |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>•</li> </ul>   | <p>action plans/strategies</p>  |
| <p><b>Efficiency</b></p> <ul style="list-style-type: none"> <li>• Mainly a full-agency execution mode applied - UNIDO managed the funds</li> <li>• Some funds transferred to the participating countries to carry out 8+ activities</li> <li>• Project implementation delayed by 1 year</li> <li>• Longer planning time required than initially expected</li> <li>• Review of quality of outputs in the pilot sites to be included in the terminal evaluation in 2017</li> <li>• Actual co-finance figures yet to be received by the evaluation</li> </ul>  | <p>Participating countries should document/keep a record of actual Co-finance figures - cash and in-kind (per country)</p>  |
| <ul style="list-style-type: none"> <li>• Regional Inception Workshop conducted</li> <li>• No National Inception Workshop conducted</li> <li>• Awareness-raising and Capacity-building workshops conducted</li> <li>• 7 PSC meetings held</li> <li>• 5 PCB meetings held</li> <li>• Pilot demonstrations - ongoing <ul style="list-style-type: none"> <li>- leather - Sudan</li> <li>- textile - Ethiopia</li> <li>- contaminated sites - Tanzania</li> <li>- bio-botanical pesticides - Rwanda + Uganda</li> <li>- e-waste - Lesotho</li> </ul> </li> <li>• However, a delay of one year</li> <li>• Low involvement of SADC Secretariat</li> <li>• Low to no involvement of countries in project formulation</li> <li>• Analysis of dioxins and furans, before and after intervention, not yet done; though possible at the TUT, Pretoria, South Africa</li> <li>• A3.2.3: Raise awareness among the major stakeholders, including decision makers, on the health risk that may result from exposure to POPs contaminated sites - one workshop</li> </ul> | <p>To enhance effectiveness and ownership, UNIDO should consider National Inception Workshops in future projects</p> <p>UNIDO should ensure stronger involvement of stakeholders in project formulation in future projects</p> <p>Continued and active support and participation of participating countries</p> <p>UNIDO and participating countries should try to achieve analysis at the laboratory at the TUT, Pretoria, South Africa</p> <p>UNIDO and participating countries should ensure continuous awareness-raising in future projects</p> |

|   |   |
|---|---|
| <p>conducted in 2013/14 per country</p> <ul style="list-style-type: none"> <li>Overall, the project is expected to be effective as the results achieved so far—which will be built upon—provide a foundation for delivering key project outcomes</li> </ul>   | <p>UNIDO and participating countries should ensure stronger support and involvement of the SADC Secretariat</p>   |
| <p><b>Likelihood of Sustainability</b></p> <ul style="list-style-type: none"> <li>No evidence of a final documentation (at the time of this MTE) with best practices from the project</li> <li>Lack of visibility for project activities/results/pilots</li> <li>No evidence yet of elements of project activities/pilots planned to be incorporated in national strategy / plans / programmes, according to country priorities</li> <li>Low involvement of SADC Secretariat</li> </ul> | <p>UNIDO should prepare a final documentation for dissemination of knowledge, including information on BAT/BEP in pilots, best practices</p> <p>UNIDO and participating countries should undertake measures to enhance visibility of project outputs and outcomes</p> <p>UNIDO should provide support to countries to identify possibility to incorporate project results in national strategy/annual plans</p> <p>UNIDO and participating countries should ensure enhancement of involvement of SADC Secretariat</p> |
| <p><b>Cross-cutting Issues</b></p> <p>UNIDO project coordination and management considered to be satisfactory by the stakeholders</p> <p>Gender-disaggregated data not compiled</p> <p>South-South cooperation - component incorporated</p> <p>Active involvement of UNIDO RO</p>   | <p>UNIDO and participating countries should compile gender data</p> <p>UNIDO and participating countries should try to enhance and promote South-South cooperation</p> <p>Ensure continued involvement and participation of UNIDO RO</p>  |

## 4.1 Lessons learned

- Involvement of stakeholders in project design contributes to higher ownership.
- Adequate time for procurement and delivery of equipment, including time for transportation and for customs clearance, in project planning would avoid delays.
- High commitment of all involved stakeholders contributes to effective implementation of the project.
- Support and follow-up is necessary to document co-finance figures of the participating countries.

## 5. Annexes

- I Organizations visited and persons interviewed
- II Documents consulted/reviewed
- III Terms of Reference (ToR)
- IV Logical Framework
- V Evaluation Matrix

## 5.1 Organizations visited and persons interviewed

| Name                                   | Organization          | Position   | Role in Project           |
|--|-----------------------|--|---------------------------|
| Ms. Erlinda Galvan                     | UNIDO                 | Industrial Development Officer   | Project Manager           |
| <b>South Africa</b>                    | <b>16.-19.05.2016</b> |  |                           |
| Mr. Mohammed Eisa                      | UNIDO Regional Office | UNIDO Representative   | Former Project Manager    |
| Mr. Nouri Abdalla                      | UNIDO                 | Consultant   | Regional Coordinator      |
| Mr. Tequam Tesfamariam                 | UNIDO                 | Consultant   | Regional Coordinator      |
| Tshwane University of Technology (TUT) | TUT                   | Department of Environmental, Water & Earth Sciences, Faculty of Science                          | Laboratory                |
| Prof. Mr. Jonathan Okonkwo             | TUT                   | Environmental Chemist<br>Department of Environmental, Water & Earth Sciences, Faculty of Science |                           |
| Mr. Koebu Khalema                      | Africa Institute      |  | M&E                       |
| <b>United Republic of Tanzania</b>     | <b>01.-05.08.2016</b> |  |                           |
| Mr. Gift Bundo                         | COMESA                | Project Officer  | Focal Point at the COMESA |

## Annexes

|                        |   |  |                             |
|------------------------|---|--|-----------------------------|
| Mr. Alphonse Polisi    | Burundi<br>Environment and climate in change in Burundi Office for Environment Protection (OBPE) in Ministry of Water, Environment, Urban Planning (DECC/OBPE/MEEATU) | Head of Environment and Climate Change and National Focal Point                    | National Coordinator        |
| Mr. Mehari Taye        | Ethiopia<br>Ministry of Environment, Forest and Climate Change<br>Compliance Monitoring and Control Directorate   | Director/<br>Stockholm<br>Convention Focal<br>Person                               | National Coordinator        |
| Mr. Thabo Tsasanyane   | Lesotho<br>Department of Environment/Ministry of Tourism, Environment & Culture   | Senior Environment Officer-Pollution Control                                       | National POPs Focal Point   |
| Mr. Felicio Fernando   | Mozambique<br>National Directorate of Environment/ Ministry of land, Environment and Rural Development  | Senior Hazardous Waste Management officer  | Project Support             |
| Mr. Ali Mahmoud        | Sudan<br>Higher Council for Environment and Natural Resources   | National Coordinator of Stockholm Convention                                       | Coordinator                 |
| Ms. Christine Kasedde  | Uganda<br>National Environment Management Authority (NEMA)  | Senior Environmental Assessment Officer / POPs Focal Point                         | National Project Manager    |
| Ms. Magdalena J Mtenga | Tanzania<br>Vice President's Office, Division of Environment  | Assistant Director of Environment and Focal point for Stockholm Convention on POPs | Country Project Coordinator |

## Annexes

|                       |   |   |  |
|-----------------------|---|---|--|
| Mr. Ishmael Ndwandwe  | Swaziland Ministry of Tourism and Environmental Affairs Swaziland Environment Authority (SEA) | National Focal Point for the Stockholm Convention on POPs | Project Coordinator/ Director                                |
| Ms. Mary Leina        | Plant Protection Office Tengeru, Tanzania   | Pilot Project Technial Assistant                          | Pilot Project Technical Assistant                            |
| Dr. Hamisi Tindwa     | Sokoine University of Agriculture, Morogoro, Tanzania   | Professor   | Supervision of remediation of the pilot projects in Tanzania |
| Mr. Issaria Mangalili | Vice President's Office, Division of Environment, Tanzania                                    | Pilot Project National Coordinator                        | Pilot Project National Coordinator                           |

## 5.2 Documents consulted/reviewed

Project document

Logical framework

BAT BEP Forum documents

Africa Institute: M&E reports 2013, 2014, 2015

Regional Coordinators: monthly reports, quarterly reports, yearly reports

Back-to-office-mission-reports

PSC Meeting reports and country presentations

PCB Meeting reports

Reports on pilot demonstrations

TOR EXECA

TOR Experts

PIRs

Workshop agenda, proceedings and reports

### 5.3 Terms of Reference (ToR) for the MTE



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

#### **Terms of Reference**

#### **Independent Mid-Term Evaluation of the UNIDO Project**

Project Numbers/SAPID/Grant  
GFRAF11008/104063/200000296 and  
GFRAF11012/104065/200000298

***Capacity Strengthening and Technical Assistance for the  
Implementation of Stockholm Convention National  
Implementation Plans (NIPs) in African Least Developed  
Countries (LDCs) of the COMESA and SADC sub-regions***

April 2016

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## I. Project Background and overview

### Project origin and objectives

The LDCs of the COMESA and SADC sub-regions have been active participants in the negotiations of the Stockholm Convention since 1998. These countries have participated in each of the COP meetings of the Convention and in other related Convention meetings, such as the meetings of the Expert Group on Best Available Techniques and Best Environmental Practices (BAT/BEP) and in the meetings of the POPs Review Committee (POPsRC).

Most LDCs in the COMESA and SADC sub-regions have conducted preliminary inventories to better understand the status of POPs production, distribution, use, import, export, emissions, obsolete stockpiles, contaminated sites and POPs wastes. Industrial sectors with significant potential for PCDD/PCDF releases have also been identified, and a dioxins release inventory have been conducted based on the UNEP Toolkit. The NIPs of these countries have assessed the current institutional settings, policies and regulations and technologies for POPs treatment, disposal as well as substitutions and have also reviewed objectives, strategies and action plans to control, reduce and eliminate POPs. The plans have identified capacity building as one of the most fundamental activities that should be taken into consideration when implementing the NIPs.

The COMESA and SADC projects are two of the three projects in African sub-regions (COMESA, ECOWAS and SADC) making up the capacity strengthening and technical assistance for the implementation of the Stockholm Convention NIPs in African LDCs and SIDs programme. The two (2) projects are jointly implemented by UNEP and UNIDO. UNIDO is implementing the three components discussed in the UNIDO project documents and UNEP is implementing the other three components described in the UNEP project document

The implementation of the two (2) projects through the financial support from the GEF and other donors will lay a solid foundation for the LDCs in the respective sub-regions to fully and smoothly fulfil strengthening and/or building capacity required in LDCs of the COMESA and SADC sub-regions to implement their NIPs in a sustainable, effective and comprehensive manner while building upon and contributing to strengthening country's capacities for sound management of POPs chemicals.

In the approved project documents, the participating LDCs countries in COMESA sub-region are Burundi, Djibouti, D.R. Congo, Ethiopia, Rwanda, Sudan and Uganda while those in SADC sub-region are Angola, Lesotho, Mozambique, Swaziland and Tanzania.

The overall objective of the projects is to reduce POPs emissions through strengthening and/or building capacity required in LDCs of COMESA and SADC sub-regions to implement their NIPs in a sustainable, effective and

comprehensive manner while building upon and contributing to strengthening the country(ies) capacities for sound management of POPs chemicals.

The immediate objective is to create an enabling environment to implement the NIPs in the LDCs of the COMESA and SADC sub-regions by establishing/amending laws, regulations, policies, standards; strengthening institutions for remediation of contaminated sites; introducing BAT/BEP to industrial processes; managing municipal wastes including e-wastes, health-care wastes; supporting the phasing out of agricultural use of POP pesticides through the promotion of production and use of bio- botanical pesticides; promoting technology transfer; facilitating data and information collection and dissemination; and ensuring continuous improvement and awareness raising of stakeholders on POPs issues.

The total project budget for COMESA is US\$ 5,198,796 where **US\$ 2,500,000** is GEF and US\$ 2,698,796 is co-financing. The total project budget for SADC is US\$ 3,330,864 where **US\$ 1,500,000** is GEF and US\$ 1,830,864 is co-financing.

According to the Project Documents, the expected outcomes were defined as follows:

**Outcome 1: Introduction of BAT/BEP in industrial production processes listed in Annex C of Article 5 of the Convention**

**Outcome 2: Reduction of exposure to POPs at workplace and close proximity to POPs wastes and uPOPs emitting sources**

**Outcome 3: Identification and assessment of contaminated land/sites**

**Outcome 4: Establishment of project management and project M&E mechanisms**

#### **Outcome 1: Introduction of BAT/BEP in industrial production processes**

This outcome will result in enhanced efficiency and in reducing, avoiding and eliminating uPOPs releases and reducing releases of other pollutants by coordinating the implementation of the Stockholm Convention action plans with cleaner production activities in the industry and review and possibly improve national policies and regulations. The programme will implement the principles of both environmentally and economically sustainable development and critically review trends and lessons learnt to integrate them in coordinated actions.

Information on key national trends, including sources of UP-POPs and hotspots, vulnerability and impacts of these sources on the environment, human health, socio-economic development and public participation will be readily available. This will help establishing the BAT/BEP Forum for the LDCs in the COMESA and SADC Sub-regions. BAT/BEP Forum will be established (same as in the case of Asia, Central Europe, and the Arab Gulf countries) by calling upon countries to collectively compare their NIP PCDD/F emissions from the industry and develop and implement a regional plan. Countries will be grouped by sectors, according to

the highest PCDD/F emissions from that sector, and encourage them to cooperate and exchange information on how to reduce/eliminate these emissions. Using this programmatic sector approach, countries could develop regional GEF projects by sector and achieve substantial reductions on their emissions and thereby contribute to the global monitoring plan.

The strategy of the introduction of BAT/BEP in selected key industrial sectors as pilot projects will generate and substantiate technical knowledge for up-scaling and further replication in other facilities and sectors. The practical application of the strategy will contribute to the national and international discussion on unintentionally produced POPs (uPOPs) releases and their impacts on environment and a meaningful response will be obtained to make new management change through the adaptation of policies and measures. The reduction in the release of UP-POPs will also have positive contribution in the reduction of greenhouse gases and the climate change. The introduction of BAT/BEP into the industrial processes besides reducing greenhouse gases is also expected to reduce UP-POPs such as PCDD/F releases into the atmosphere. The sectors selected by the countries, based on their NIPs, are textile, tanneries, used oil refineries and open burning of waste at dumpsites. The countries will identify and nominate the entities that will host the pilots according to the ability to co-finance and availability of the adequate human resources to carry out the pilot demonstration and disseminate the technical information for replication. Special reference to the STAP's guidance on synergies and tradeoffs between energy conservation and release of uPOPs will be considered during implementation.

## **Outcome 2: Reduction of exposure to POPs at workplace and close proximity to POPs wastes and uPOPs emitting sources**

African LDCs have identified in their NIPs that workers in the formal or informal sectors as well as the population in general are exposed to PCBs (Annex A), pesticides (Annex A and Annex B) and uPOPs (Annex C) from various sources. The NIPs have also indicated that the severity of the exposure to POPs remain unknown due to weak monitoring capacities and absence of emission standards. Establishing micro-enterprises (plastics, paper, and e-waste) would maximize the reuse of the materials and prevent open burning. Enterprises will create linkages with suppliers of these goods to maximize recycling to the industry (such as paper and plastics industries that can completely absorb its used products as recyclables). In the case of e-waste, the strategy is to prolong the use of these articles through refurbishment and maintenance skills readily available and avoid the present practices of open burning for recovery of useful materials.

Outcome 2 of the programme is focusing on informal activities with certain level of POPs exposure risk, and its aim is to build an enabling environment in countries, through case studies, in order to sufficiently raise the level of public awareness and knowledge to better understand sound management of chemicals and wastes as an opportunity for creating business in the private sector for non-skilled citizens, while protecting human health and the environment from POPs and other hazardous chemicals releases. The planned project activities will take into account current and scheduled activities and initiatives and create synergy and sustainability through well established country-driven development, environmental preservation and public health protection programmes.

### **Outcome 3: Identification and assessment of contaminated land/sites**

Section 1(e) of Article 6 of the Stockholm Convention states that Parties would "endeavour to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annex A, B and C; if remediation of those sites is required it should be performed in an environmentally sound manner". This implies that countries which ratified the Convention will need to rehabilitate sites contaminated with POPs chemicals. The LDCs in the COMESA and SADC Sub-regions, which are parties to the Convention are therefore required to develop appropriate legislative framework a strategy to identify sites contaminated by POPs chemicals. Many countries in Africa including the member states of SADC Sub-region have recognized the problem of sustainability that POPs projects would face when they deal only with the disposal of stockpiles ignoring the related problem of subsequent clean-up and remediation of sites contaminated with POPs stockpiles and chemicals.

In the NIP documents of the COMESA and SADC LDCs Member States, the non existence of appropriate strategy and legislative framework that deals with contaminated sites has been identified as a major gap. The absence of such strategy and legislative framework is the first major barrier to properly manage POPs contaminated sites in these countries.

Under Outcome 3 of the projects, identification, management and clean-up of contaminated sites will be undertaken. Outcome 3 also aimed to introduce appropriate strategy useful for identifying sites contaminated with POPs chemicals and also ensure effective planning for implementation of remediation measures to clean-up contaminated sites.

UNIDO and UNEP with their mandates and the existing initiatives have agreed to jointly assist the LDCs in the COMESA and SADC Sub-regions in their effort to clean up POPs contaminated sites. UNIDO through the use of the Toolkit developed by the project implemented in Ghana and Nigeria for the management of POPs contaminated sites (with emphasis in low cost technologies) will be used to build capacities of the LDCs in the COMESA and SADC Sub-regions and the rest of Africa. The two agencies will provide sufficient information and experiences that would enable countries of the region to initiate clean-up programmes and directly measure the reduction of POPs releases and directly enhance their positive impact on human health and the environment.

### **Outcome 4: Project management**

The existence of the Project Management Office (PMO) will ensure stockholder's partnership and coordination at regional and national levels. Similarly, the Office will facilitate the recruitment of technical experts and support staff that will constitute the Project Team. The project office will be responsible for the design and implement of monitoring and evaluation (M&E) framework in accordance with the GEF procedures in order to measure impact indicators on an annual basis. The PMO will be entrusted to hold annual tripartite review meetings and prepare mid-term progress reports and project terminal reports. The PMO will establish project management information system (MIS), including project website to

disseminate information to stakeholders and also put in place adequate communication strategy and perform regular updates with UNIDO website.

### **Relevance to GEF programmes**

The projects is expected to respond effectively to the articles of the Convention, including:

*Article 7:* Each party shall prepare NIP and submit to the convention Secretariat in two years after the Convention is ratified. The GEF used the finalization of the NIP as criteria for the LDC countries in the Sub-regions to be included in the project.

*Article 9:* Each Party shall facilitate or undertake the exchange of information. Each Party shall designate a national focal point for the exchange of such information.

*Article 10:* Each Party shall, within its capabilities, promote and facilitate awareness among its policy and decision makers with regard to persistent organic pollutants, provision to the public of all available information, development and implementation of educational and public awareness programs, public participation, training of workers, scientists, educators and technical and managerial personnel, development and exchange of educational and public awareness materials at the national and international levels, and development and implementation of education and training program at the national and international levels. In addition, Article 10 also states that each Party shall, within its capabilities, ensure that the public has access to public information and that the information is kept up-to-date. Each Party shall, within its capabilities, encourage industry and professional users to promote and facilitate the provision of the information at the national level and, as appropriate, sub-regional, regional and global levels. Each Party shall give sympathetic consideration to developing mechanisms, such as pollutant release and transfer registers, for the collection and dissemination of information on estimates of the annual quantities of the chemicals listed in Annex A, B or C of the Convention that are released or disposed of.

*Article 11:* The Parties shall, within their capabilities, at the national and international levels, encourage and/or undertake appropriate research, development, monitoring and cooperation pertaining to persistent organic pollutants and, where relevant, to their alternatives and to candidate persistent organic pollutants. The Parties shall, within their capabilities, support national and international efforts to strengthen national scientific and technical research capabilities, particularly in developing countries and countries with economies in transition.

*Article 12:* The Parties shall cooperate to provide timely and appropriate technical assistance to developing country Parties and Parties with economies in transition, to assist them, taking into account their particular needs, to develop and strengthen their capacity to implement their obligations under this Convention.

*Article 13:* The Convention sets out the principles on which “developed country Parties shall provide new and additional financial resources to enable developing

country Parties and Parties with economies in transition to meet the agreed full incremental costs of implementing measures that fulfill their obligations under the Convention". Article 14 of the Convention states that "The institutional structure of the Global Environment Facility (GEF) shall, on an interim basis, be the principal entity entrusted with the operations of the financing mechanism referred to in Article 13..."

*Article 16:* Comparable and reliable monitoring data is the basis for the effectiveness evaluation. Therefore, each Party has the obligation to allocate such monitoring data, in accordance with their technical and financial capacities, using existing programmes and mechanisms to the extent possible and promoting harmonization of approaches.

According to OP#14, the GEF will provide funding, on the basis of agreed incremental costs, for three types of activities to address POPs issues (i.e. capacity building, on-the-ground interventions and targeted research. The activities under capacity building include:

- 1) strengthening of human and institutional capacity;
- 2) strengthening and harmonization of the policies and regulations;
- 3) strengthening of monitoring and enforcement capacity;
- 4) developing capacity to assess technologies and management practices, and promoting and facilitating the transfer of viable and cost-effective options and management practices;
- 5) developing and implementing public awareness / information / environmental education programs; and
- 6) facilitating dissemination of experiences and lessons learned and promoting information exchange.

Most all of these activities are contained in the projects.

GEF-3 POPs management programme was aimed to support the preparation of NIPs while GEF-4 will focus on the implementation of the NIPs. In order to achieve the long-term success of the POPs Convention, strong emphasis will be placed on the sustainability of GEF interventions, focusing especially on countries whose policies and action plans demonstrate their firm commitment to implement the Stockholm Convention. While some LDC countries in the COMESA and SADC sub-regions are completing the NIPs development, Capacity Strengthening and Technical Assistance for the Implementation of the NIPs are consistent with the second Strategic Objectives of GEF-4 in the focal area of POPs, which include:

- Continuing the GEF's National Implementation Plan (NIP) Programme.
- Strengthening national capacities for NIP implementation, including assisting those countries that lag behind to establish basic capacities for sound management of chemicals.
- Partnering in investment needed for NIP implementation to achieve impacts in POPs reduction
- Partnering in the demonstration of feasible, innovative technologies and practices for POPs reduction.

## Implementation arrangements

The COMESA and SADC projects are two of the three projects in African sub-regions (COMESA, ECOWAS and SADC) making up the capacity strengthening and technical assistance for the implementation of the Stockholm Convention NIPs in African LDCs and SIDs programme. The programme has been organized following the structure of the regional economic commissions. This approach will make use of existing networks and also consider South-South cooperation.

The two (2) projects focusing on LDCs in the COMESA and SADC sub-regions are jointly implemented by UNEP and UNIDO. UNIDO is implementing the three components discussed in the UNIDO project documents and UNEP is implementing the other three components described in the UNEP project document. The following paragraphs describe the institutional framework for the overall programme.

**Programme Coordination Body (PCB)** will be established at the highest level. The programmatic structure includes a PCB, comprising of representatives from UNEP, UNIDO, executing agencies, RECs, the Stockholm Convention Centres (SCC) and the Basel Convention Regional Centre (BCRC). The PCB will meet twice per year for the first two years, and has the role of overseeing programme implementation. The PCB may invite any number of specialist and experts to contribute to its tasks or attend meetings, as agreed by members.

**Sub-regional Steering Committee (SRSC)** is responsible for project execution. SRSC include representatives from UNEP, UNIDO, executing agency staff, POPs/ National Focal Points (NFPs), the Secretariat of the Stockholm Convention (SSC), Basel Convention Regional Centres (BCRC) and relevant organizations relating to project execution. SRSC approve annual work plans, agree terms of reference for external consultants and oversee project activities. The steering committee provides guidance to the executing agency and will meet once every six months for the first 18 months, and annually thereafter. Key responsibilities of the steering committee include: ensuring the project's outputs meet the programme objectives; monitoring and review of the project; ensuring that scope aligns with the agreed portfolio requirements; foster positive communication outside of the focal points regarding the project's progress and outcomes; advocate for programme objectives and approaches; advocate for exchanges of good practices between countries; and report on project progress. An inception meeting will be convened for each sub-regional steering committee at the beginning of the project. At this meeting the project log frames and work plans will be reviewed and finalized.

National project teams, coordinated by the POPs NFPs will be responsible for executing activities at the national level. National project teams are likely to include members of the NIP National coordinating committee and other relevant stakeholders. National project teams will meet once every three months to plan upcoming project activities and evaluate recently completed ongoing activities.

A project focal point will be established within UNIDO to assist in the project execution. This focal point will be comprised of a part-time professional and support staff that will be engaged in the management and coordination of UNIDO's programme of support to the Stockholm Convention. UNIDO will make these services available as part of its in-kind contribution to the project.

UNIDO and UNEP Regional Office of Africa will act as the Sub-regional executing agency that will oversee the development, implementation and management of the project.

# Annexes

## CAPACITY STRENGTHENING AND TECHNICAL ASSISTANCE FOR THE IMPLEMENTATION OF STOCKHOLM CONVENTION NATIONAL IMPLEMENTATION PLANS (NIPS) IN AFRICAN LEAST DEVELOPED COUNTRIES (LDCs) AND SMALL ISLANDS DEVELOPING STATES (SIDS)

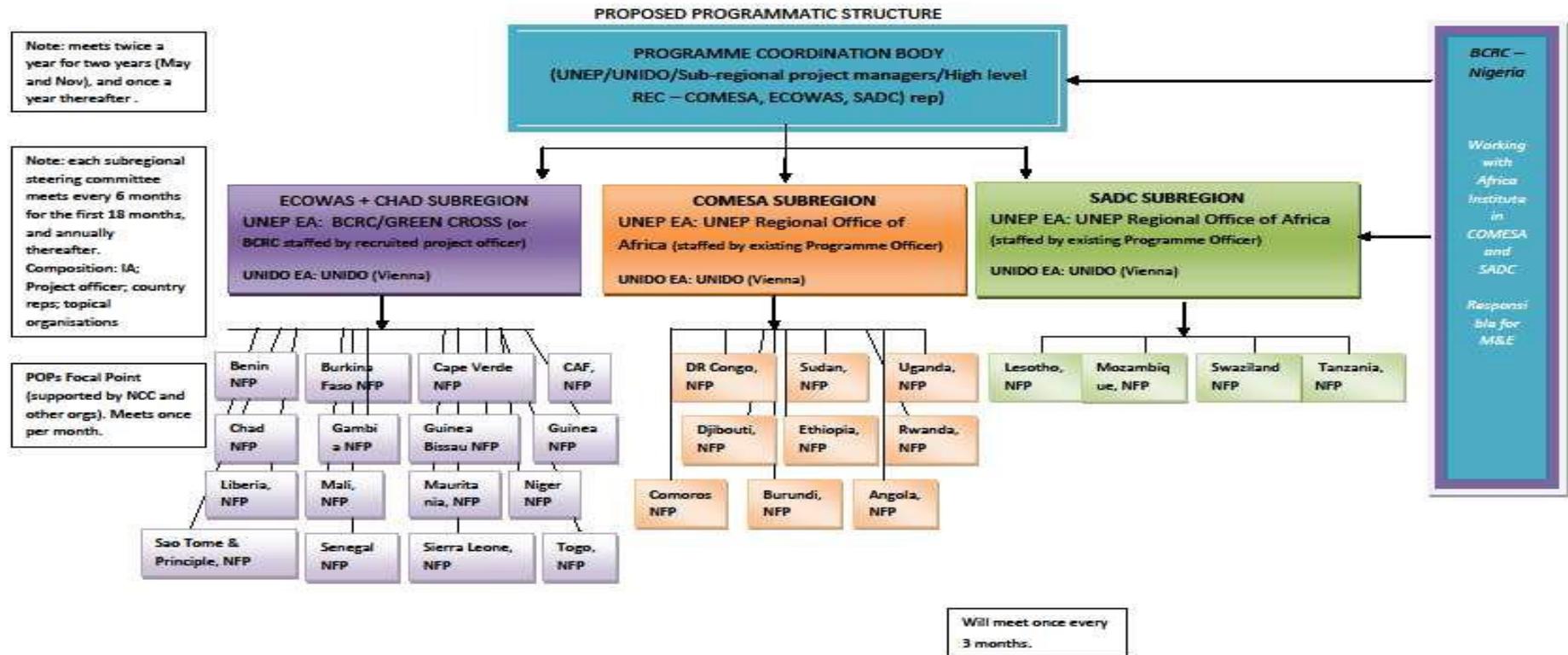


Figure 1: Organogram for project implementation

## BUDGET INFORMATION

### a) Overall Cost and Financing (including co-financing):

#### GFRAF11012 (COMESA)

| <b>Outcomes</b>  | <b>GEF<br/>(US\$)</b> | <b>UNIDO<br/>(US\$)</b> | <b>Government<br/>(US\$)</b> | <b>TOTAL<br/>Co-Financing<br/>(US\$)</b> | <b>TOTAL<br/>(US\$)</b> |
|--|-----------------------|-------------------------|------------------------------|--|-------------------------|
| 1. Introduction of BAT/BEP in industrial production processes listed in Annex C of Article 5 of the Convention | <b>1,205,500</b>      |                         | 629,500                      | <b>629,500</b>                           | <b>1,835,000</b>        |
| 2. Reduction of exposure to POPs at workplace and at close proximity to POPs wastes and uPOPs emitting sources | <b>574,000</b>        |                         | 534,000                      | <b>534,000</b>                           | <b>1,108,000</b>        |
| 3. Identification and assessment of contaminated land/sites  | <b>510,500</b>        | 765,000                 | 441,296                      | <b>1,206,296</b>                         | <b>1,716,796</b>        |
| 4. Establishment of project management and project M&E mechanisms  | <b>210,000</b>        | 235,000                 | 94,000                       | <b>329,000</b>                           | <b>539,000</b>          |
| <b>GRAND TOTAL</b>   | <b>2,500,000</b>      | <b>1,000,000</b>        | <b>1,698,796</b>             | <b>2,698,796</b>                         | <b>5,198,796</b>        |

*Source: project document*

#### GFRAF11008 (SADC)

| <b>Outcomes</b>  | <b>GEF<br/>(US\$)</b> | <b>UNIDO<br/>(US\$)</b> | <b>Government<br/>(US\$)</b> | <b>TOTAL<br/>Co-Financing<br/>(US\$)</b> | <b>TOTAL<br/>(GEF+co-<br/>financing)<br/>(US\$)</b> |
|--|-----------------------|-------------------------|------------------------------|--|---|
| 1. Introduction of BAT/BEP in industrial production processes listed in Annex C of Article 5 of the Convention | <b>711,600</b>        |                         | 367,000                      | <b>367,000</b>                           | <b>1,078,600</b>                                    |
| 2. Reduction of exposure to POPs at workplace and at close proximity to POPs wastes and uPOPs emitting sources | <b>289,300</b>        |                         | 320,000                      | <b>320,000</b>                           | <b>609,300</b>                                      |
| 3. Identification and assessment of contaminated land/sites  | <b>349,100</b>        | 510,000                 | 331,864                      | <b>841,864</b>                           | <b>1,190,964</b>                                    |
| 4. Establishment of project management and project M&E mechanisms  | <b>150,000</b>        | 190,000                 | 112,000                      | <b>302,000</b>                           | <b>452,000</b>                                      |
| <b>GRAND TOTAL</b>   | <b>1,500,000</b>      | <b>700,000</b>          | <b>1,130,864</b>             | <b>1,830,864</b>                         | <b>3,330,864</b>                                    |

Source: project document

b) UNIDO budget (GEF funding excluding agency support cost):

**GFRAF11012 (COMESA)**

|                | <b>Total Allotment<br/>(US\$)</b> | <b>Disbursement<br/>(US\$)</b> | <b>Unliquidated<br/>Obligation<br/>(US\$)</b> | <b>Uncommitted<br/>Balance (US\$)</b> |
|----------------|-----------------------------------|--------------------------------|---|---------------------------------------|
| Personnel      | 535,335                           | 125,407                        | 12,000  | 397,928                               |
| Project travel | 203,060                           | 62,526                         | 48,672  | 91,862                                |
| Contracts      | 871,819                           | 48,907                         | 20,530  | 802,382                               |
| Training       | 668,421                           | 207,824                        | 144,127                                       | 316,470                               |
| Equipment      | 183,098                           | 3,492                          | 0   | 179,606                               |
| Miscellaneous  | 38,267                            | 7,708                          | 0   | 30,559                                |
| <b>Total</b>   | <b>2,500,000</b>                  | <b>455,864</b>                 | <b>225,329</b>                                | <b>1,818,807</b>                      |

Source and date of information: UNIDO SAP as of 15 February 2014

**GFRAF11008 (SADC)**

|                | <b>Total Allotment<br/>(US\$)</b> | <b>Disbursement<br/>(US\$)</b> | <b>Unliquidated<br/>Obligation<br/>(US\$)</b> | <b>Uncommitted<br/>Balance (US\$)</b> |
|----------------|-----------------------------------|--------------------------------|---|---------------------------------------|
| Personnel      | 308,481                           | 72,105                         | 23,949  | 212,427                               |
| Project travel | 111,833                           | 28,239                         | 45,275  | 38,319                                |
| Contracts      | 548,830                           | 12,921                         | 22,060  | 549,849                               |
| Training       | 394,958                           | 163,636                        | 115,423                                       | 115,899                               |
| Equipment      | 91,671                            | 1,473                          | 0   | 90,198                                |
| Miscellaneous  | 8,227                             | 4,415                          | 825   | 3,257                                 |
| <b>Total</b>   | <b>1,500,000</b>                  | <b>282,519</b>                 | <b>207,532</b>                                | <b>1,009,949</b>                      |

Source and date of information: UNIDO SAP as of 15 February 2014

## II. Objectives and scope of the evaluation

The purpose of the mid-term evaluation is to enable the Government, counterparts, the GEF, UNIDO and other stakeholders and donors to:

- (d) verify prospects for development impact and sustainability, providing an analysis of the attainment of the main project objective and specific objectives, global environmental objectives, delivery and completion of project outputs / activities, and outcomes / impacts based on indicators. The assessment includes re-examination of the relevance of the objectives and other elements of project design according to the project evaluation parameters defined in chapter IV.
- (e) Enhance project relevance, effectiveness, efficiency and sustainability by proposing a set of recommendations with a view to ongoing and future activities.
- (f) Draw lessons of wider applicability for the replication of the experience gained in the projects at national and regional levels.

**The key question of the evaluation is to what extent the projects are making a significant contribution to reducing the effects of POPs on human health and the environment.**

## III. Methodology

The evaluation will follow UNIDO and GEF evaluation guidelines and policies. It will be carried out as an independent in-depth evaluation using a participatory approach whereby the UNIDO staff associated with the projects is kept informed and regularly consulted throughout the evaluation. The evaluation team leader will liaise with the UNIDO Evaluation Group (EVA) on any methodological issues and with the Project Manager with regard to project-related information and logistical arrangements to properly conduct the review.

The methodology will be based on the following:

1. A desk review of project documents including, but not limited to:
  - (a) The original project documents, monitoring reports (such as progress and financial reports to UNIDO and GEF annual Project Implementation Review reports), output reports (case studies, action plans, sub-regional strategies, etc.) and relevant correspondence.

- (b) Reports from the Project Steering Committee (PSC) and Programme Coordination Body (PCB) meetings and consultants.
  - (c) Other project-related material produced by the project.
2. The evaluation team will use available models of (or reconstruct if necessary) theory of change for the different types of intervention (enabling, capacity, investment, demonstration). The validity of the theory of change will be examined through specific questions in interviews and possibly through a survey of stakeholders.
  3. Counterfactual information: In those cases where baseline information for relevant indicators is not available the evaluation team will aim at establishing a proxy-baseline through recall and secondary information.
  4. Interviews with the project management and technical support including UNIDO Project Managers and staff associated with the project's administrative and financial administration, if necessary.
  5. Interviews with project partners including POPs NFPs, national experts, partner facilities, RECs, Regional Coordinators, others.
  6. On-site observation of results achieved in demonstration projects, including interviews of actual and potential beneficiaries of improved technologies and practices.
  7. Interviews and telephone interviews with intended users for the project outputs and other stakeholders involved with the projects. The evaluator shall determine whether to seek additional information and opinions from representatives of any donor agencies or other organisations.
  8. Interviews with the UNIDO Country Offices staff involved in the project as necessary.
  9. Other interviews, surveys or document reviews as deemed necessary by the evaluator and/or UNIDO Independent Evaluation Division.

## **IV. Project Evaluation Parameters**

The **ratings for the parameters described in the following sub-chapters A to E will be presented in the form of a table** with each of the categories rated separately and with **brief justifications for the rating** based on the findings of the main analysis. An overall rating for the project should also be given. The rating system to be applied is specified in [Annex 5](#).

## **A. Project relevance and design**

*Relevance to national development and environmental agendas*, recipient country commitment, and regional and international agreements. See possible evaluation questions under “country ownership/drivenness” below.

*Relevance to target groups*: relevance of the project’s objectives, outcomes and outputs to the different target groups of the interventions (e.g. companies, civil society, beneficiaries of capacity building and training, etc.).

*Relevance to the GEF and UNIDO*: In retrospect, were the project’s outcomes consistent with the focal areas / operational program strategies of GEF? Were they in line with the UNIDO mandate, objectives and outcomes defined in the Programme & Budget and core competencies? Ascertain the likely nature and significance of the contribution of the project outcomes to the wider portfolio of the GEF Operational Programme (OP).

Is the project’s design adequate to address the problems at hand? Was a participatory project identification process applied and was it instrumental in selecting problem areas and national counterparts? Does the project have a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators? Was the project formulated based on the logical framework approach? Was the project formulated with the participation of national counterpart and/or target beneficiaries?

## **B. Effectiveness: attainment of objectives and planned results (progress to date):**

Assessment of project objectives and outcomes should be a priority:

- What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects?
- Are the actual project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs / inputs, the evaluators should assess if there were

any real outcomes of the project and, if there were, determine whether these are commensurate with realistic expectations from such projects.

- To what extent have the expected outputs and outcomes been achieved or are likely to be achieved? How do the stakeholders perceive their quality? Were the targeted beneficiary groups actually reached?
- Identify the potential longer-term impacts or at least indicate the steps taken to assess these (see also below “monitoring of long term changes”). Wherever possible, evaluators should indicate how findings on impacts will be reported to the GEF in future.
- Catalytic or replication effects: the evaluation will describe any catalytic or replication effect of the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the project’s catalytic role.

### **C. Efficiency**

Was the project cost effective? Was the project the least cost option? Was project implementation delayed, and, if it was, did that affect cost effectiveness? Wherever possible, the evaluator should also compare the costs incurred and the time taken to achieve outcomes with that for similar projects.

Have the donor, UNIDO and Government / counterpart inputs been provided as planned and were adequate to meet requirements? Was the quality of UNIDO inputs and services as planned and timely?

### **D. Assessment of sustainability of project outcomes:**

Sustainability is understood as the likelihood of continued benefits after the GEF project ends. Given the uncertainties involved, it may be difficult to have a realistic a priori assessment of sustainability of outcomes. Therefore, assessment of sustainability of outcomes will give special attention to analysis of the risks that are likely to affect the persistence of project outcomes. This assessment should explain how the risks to project outcomes will affect continuation of benefits after the GEF project ends. It will include both exogenous and endogenous risks. The following four dimensions or aspects of risks to sustainability will be addressed:

- a. **Financial risks.** Are there any financial risks that may jeopardize sustainability of project outcomes? What is the likelihood of financial and economic resources not being available once GEF assistance ends? (Such resources can be from multiple sources, such as the public and private sectors or income-generating activities; these can also include

trends that indicate the likelihood that, in future, there will be adequate financial resources for sustaining project outcomes.)

- b. **Sociopolitical risks.** Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that project benefits continue to flow? Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?
- c. **Institutional framework and governance risks.** Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits? Are requisite systems for accountability and transparency, and required technical know-how, in place?
- d. **Environmental risks.** Are there any environmental risks that may jeopardize sustainability of project outcomes? The evaluation should assess whether certain activities will pose a threat to the sustainability of the project outcomes. For example, construction of a dam in a protected area could inundate a sizable area and thereby neutralize the biodiversity-related gains made by the projects.

#### **E. Assessment of monitoring and evaluation systems and project management:**

- **M&E design.** Does the project have a sound M&E plan to monitor results and track progress towards achieving project objectives? The Evaluation will assess whether the project met the minimum requirements for the application of the Project M&E plan (see Annex 4).
- **M&E implementation.** The evaluation should verify that an M&E system was in place and facilitated timely tracking of progress toward project objectives by collecting information on chosen indicators continually throughout the project implementation period; annual project reports were complete and accurate, with well-justified ratings; the information provided by the M&E system was used during the project to improve performance and to adapt to changing needs; and projects had an M&E system in place with proper training for parties responsible for M&E activities to ensure that data will continue to be collected and used after project closure.
- **Budgeting and Funding for M&E activities.** In addition to incorporating information on funding for M&E while assessing M&E design, the evaluators will determine whether M&E was sufficiently budgeted for at the project planning stage and whether M&E was funded adequately and in a timely manner during implementation.
- **Monitoring of Long-Term Changes.** The monitoring and evaluation of long-term changes is often incorporated in GEF-supported projects as a

separate component and may include determination of environmental baselines; specification of indicators; and provisioning of equipment and capacity building for data gathering, analysis, and use. This section of the evaluation report will describe project actions and accomplishments toward establishing a long-term monitoring system. The review will address the following questions:

- a. Did the projects contribute to the establishment of a long-term monitoring system? If it did not, should the projects have included such a component?
  - b. What were the accomplishments and shortcomings in establishment of this system?
  - c. Is the system sustainable—that is, is it embedded in a proper institutional structure and does it have financing?
  - d. Is the information generated by this system being used as originally intended?
- **Project management.** Were the national management and overall coordination mechanisms efficient and effective? Did each partner have specific roles and responsibilities from the beginning? Did each partner fulfill its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions...)? Were the UNIDO HQ based management, coordination, quality control and technical inputs efficient, timely and effective (problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits...)
  - **Implementation approach**<sup>19</sup>. Is the implementation approach chosen different from other implementation approaches applied by UNIDO and other agencies? Does the approach comply with the principles of the Paris Declaration? Does the approach promote local ownership and capacity building? Does the approach involve significant risks?

## V. Evaluation Team and Timing

One (1) international evaluation consultant will be recruited to conduct the exercise and will be selected by UNIDO.

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<sup>19</sup> Implementation approach refers to the concrete manifestation of cooperation between UNIDO, Government counterparts and local implementing partners. Usually POPs projects apply a combination of agency execution (direct provision of services by UNIDO) with elements of national execution through sub-contracts.

UNIDO project manager will be responsible for the quality control of the evaluation process and report, ensuring that the evaluation report is in compliance with UNIDO and the GEF evaluation policy and the terms of reference.

The evaluator will be able to provide information relevant for follow-up studies, including evaluation verification on request to the GEF partnership up to three years after completion of the evaluation.

The international evaluation consultant will be contracted by UNIDO. The tasks of the consultant are specified in the job description attached to the terms of reference.

The evaluator must not have been directly involved in the design and/or implementation of the programme/projects.

Project Coordination Units in the participating countries will support the evaluator as necessary.

### **Timing**

The evaluation is scheduled to take place in the period April-August 2016 where the findings and recommendations will be shared to the project counterparts.

## **VI. REPORTING**

### **Inception report**

**Inception report:** After a first set of interviews and review of key documents has been carried out and before the other evaluation activities start (including especially the field visits), the evaluator will present an inception report, in which the evaluation approach outlined here is operationalised. The inception report will focus on preliminary project theory model(s); elaboration of evaluation methodology including quantitative and qualitative approaches through an evaluation framework (“evaluation matrix”), concrete strategy for the field visits and possible surveys and a draft Table of Content (TOC) of the project.

### **Evaluation report format and review procedures**

The evaluation team will produce two separate reports for both projects covered under the TOR.

The reports should be brief, to the point and easy to understand. It must explain the purpose of the evaluation, exactly what was evaluated and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Evidence, findings, conclusions and recommendations should be presented in a complete and balanced manner. The evaluation report shall be written in English and follow the structure given in Annex 1.

***Review of the Draft Report:*** A draft report will be shared with the UNIDO project manager for initial review and consultation, who will share it with other project stakeholders. The consultation also seeks agreement on the findings and recommendations. The evaluator will take the comments into consideration in preparing the final version of the report.

## Annex 1 - Outline of an in-depth project evaluation report

### 1.1.1.1.1.1.1 Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be maximum 3 pages in length

### I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

### 1.1.1.1.1.1.2

### II. Country and project background

- Brief country and project context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Project summary:
  - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
  - Brief description including history and previous cooperation
  - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
  - Positioning of the UNIDO project (other initiatives of government, other donors, private sector, etc.)
  - Counterpart organization(s)

### III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR (see section III Evaluation Criteria and Questions). Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

#### A. Relevance and Design

#### B. Effectiveness at current stage of implementation

**C. Efficiency at current stage of implementation**

**D. Likelihood of Sustainability of project outcomes**

**E. Project coordination, monitoring and management**

**F. Cross-cutting issues**

At the end of this chapter, an overall project achievement rating should be developed as required in Annex 2. The overall rating table required by the GEF should be presented here.

#### **IV. Conclusions, Recommendations and Lessons Learnt**

Conclusions

**Conclusions should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.**

Recommendations

**Recommendations should be succinct and contain few key recommendations. They should:**

- be based on evaluation findings
- realistic and feasible within a project context
- indicate institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- be commensurate with the available capacities of project team and partners
- take resource requirements into account.

Recommendations should be structured by addressees:

- UNIDO
- Government and/or Counterpart Organizations

- Donor

#### Lessons Learnt

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation.
- For each lessons the context from which they are derived should be briefly stated.

**Annexes** should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.

## Annex 2 - Checklist on evaluation report quality

| Report Quality Criteria   | UNIDO Evaluation Group Assessment notes | Rating |
|---|---|--------|
| A. The evaluation report presented an assessment of all relevant outcomes and achievement of project objectives in the context of the focal area program indicators if applicable.  |   |        |
| B. The evaluation report was consistent, the evidence presented was complete and convincing, and the ratings were well substantiated.   |   |        |
| C. The evaluation report presented a sound assessment of sustainability of outcomes.  |   |        |
| D. The lessons and recommendations listed in the terminal evaluation report are supported by the evidence presented and are relevant to the GEF portfolio and future projects.  |   |        |
| E. The evaluation report included the actual project costs (totals, per activity, and per source) and actual cofinancing used. <sup>1</sup>   |   |        |
| F. The evaluation report included an assessment of the quality of the M&E plan at entry, the operation of the M&E system used during implementation, and the extent M&E was sufficiently budgeted for during preparation and properly funded during implementation. |   |        |

### Rating system for quality of evaluation reports

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1, and unable to assess = 0.

## Annex 3 - GEF Minimum requirements for M&E<sup>20</sup>

### Minimum Requirement 1: Project Design of M&E

All projects will include a concrete and fully budgeted monitoring and evaluation plan by the time of work program entry for full-sized projects and CEO approval for medium-sized projects. This monitoring and evaluation plan will contain as a minimum:

- SMART indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management;
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, indicators identified at the corporate level;
- baseline for the project, with a description of the problem to be addressed, with indicator data, or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation;
- identification of reviews and evaluations that will be undertaken, such as mid-term reviews or evaluations of activities; and
- organizational set-up and budgets for monitoring and evaluation.

### Minimum Requirement 2: Application of Project M&E

Project monitoring and supervision will include implementation of the M&E plan, comprising:

- SMART indicators for implementation are actively used, or if not, a reasonable explanation is provided;
- SMART indicators for results are actively used, or if not, a reasonable explanation is provided;
- the baseline for the project is fully established and data compiled to review progress reviews, and evaluations are undertaken as planned; and
- the organizational set-up for M&E is operational and budgets are spent as planned.

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<sup>20</sup> [http://gefco.org/uploadedFiles/Policies\\_and\\_Guidelines-me\\_policy-english.pdf](http://gefco.org/uploadedFiles/Policies_and_Guidelines-me_policy-english.pdf)

## Annex 4. Required Project Identification and Financial Data

The evaluation report should provide information on project identification, time frame, actual expenditures, and co-financing in the following format, which is modeled after the project identification form (PIF).

### I. Project Identification

GEF Project ID: *[Assigned by the GEF Secretariat at pipeline entry.]*

GEF Agency Project ID:

Countries:

Project Title: *[As per the project appraisal document submitted to the GEF.]*

GEF Agency (or Agencies):

### II. Dates

| Milestone                      | Expected Date | Actual Date |
|--------------------------------|---------------|-------------|
| CEO Endorsement/Approval       |               |             |
| Agency Approval date           |               |             |
| Implementation start           |               |             |
| Midterm evaluation             |               |             |
| Project completion             |               |             |
| Terminal evaluation completion |               |             |
| Project closing                |               |             |

Expected dates are as per the expectations at the point of CEO endorsement/approval.

### III. Project Framework

| Project | Activity | GEF Financing (in \$) | Co-financing (in \$) |
|---------|----------|-----------------------|----------------------|
|         |          |                       |                      |

| Component             | Type | Approved | Actual | Promised | Actual |
|-----------------------|------|----------|--------|----------|--------|
| 1.                    |      |          |        |          |        |
| 2.                    |      |          |        |          |        |
| 3.                    |      |          |        |          |        |
| 4.                    |      |          |        |          |        |
| 5.                    |      |          |        |          |        |
| 6. Project Management |      |          |        |          |        |
| Total                 |      |          |        |          |        |

Activity types are investment, technical assistance, or scientific and technical analysis. Promised co-financing refers to the amount indicated at the point of CEO endorsement / approval.

#### IV. Co-financing

| Source of co-financing     | Type | Project preparation |        | Project implementation |        | Total    |        |
|----------------------------|------|---------------------|--------|------------------------|--------|----------|--------|
|                            |      | Expected            | Actual | Expected               | Actual | Expected | Actual |
| Host gov't contribution    |      |                     |        |                        |        |          |        |
| GEF Agency (ies)           |      |                     |        |                        |        |          |        |
| Bilateral aid agency (ies) |      |                     |        |                        |        |          |        |
| Multilateral agency (ies)  |      |                     |        |                        |        |          |        |
| Private sector             |      |                     |        |                        |        |          |        |
| NGO                        |      |                     |        |                        |        |          |        |
| Other                      |      |                     |        |                        |        |          |        |
| Total co-financing         |      |                     |        |                        |        |          |        |

Expected amounts are those submitted by the GEF Agencies in the original project appraisal document. Co-financing types are grant, soft loan, hard loan, guarantee, in kind, or cash.

## Annex 5. Job Descriptions

### Independent Mid-Term Evaluation of UNIDO project:

#### GFRAF11008 and GFRAF11012

Capacity strengthening and technical assistance for the implementation of the Stockholm Convention National Implementation Plans (NIPs) in African Least Developed Countries (LDCs) of COMESA and SADC sub-regions

#### Job Description

|                     |  |
|---------------------|--|
| <b>Post title</b>   | International Evaluation Consultant – Mid-term Evaluator     |
| <b>Duration</b>     | 25 work days spread over 2 months                            |
| <b>Started date</b> | August-September 2016  |
| <b>Duty station</b> | Home base (travels to be authorized separately, if required) |

#### Duties

The consultant will evaluate the projects according to the Terms of Reference. S/he will act as leader of the evaluation team and will be responsible for preparing the final draft evaluation report, according to the standards of the UNIDO Evaluation Group. S/he will perform the following tasks:

| Main duties  | Duration/ location              | Deliverables   |
|--|---------------------------------|--|
| Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data); determine key data to collect in the field and prepare key instruments (questionnaires, logic models) to collect these data through interviews and/or surveys during and prior to the field missions | 3 days                          | List of detailed evaluation questions to be clarified; questionnaires/ interview guide; logic models; list of key data to collect, draft list of stakeholders to interview during the field missions |
| Briefing with the UNIDO Evaluation Group, project managers and other key stakeholders at HQ  | 1 day<br>(telephone, interview) | Interview notes, detailed evaluation schedule and list of stakeholders to interview during the field missions  |
| Prepare inception report and discuss with UNIDO EVA  | 1 day                           | inception report   |

| <b>Main duties</b>  | <b>Duration/<br/>location</b>    | <b>Deliverables</b>   |
|---|----------------------------------|---|
| Conduct field mission to selected countries as agreed with the project counterparts   | 5 days                           | Detailed mission programme; initial interview/mission notes |
| Present overall findings and recommendations to the stakeholders  | 3 days<br>(debriefing in Vienna) | Presentation of preliminary findings                        |
| Prepare the evaluation report according to TOR and template provided in annex 1 of the TOR  | 9 days                           | 2 Draft evaluation reports                                  |
| Revise the draft project evaluation reports based on comments from UNIDO Evaluation Group and stakeholders and edit the language and form of the final version according to UNIDO standards | 3 days                           | Final report  |
| <b>TOTAL</b>  | <b>25 days</b>                   |   |

**Qualifications and skills:**

- ✓ Advanced degree in environmental science, engineering, chemistry, development studies or related areas
- ✓ Minimum of 5 years of experience Extensive knowledge and experience in POPs, the Stockholm Convention and environmental projects
- ✓ Knowledge and experience in the field of evaluation (of development projects)
- ✓ Experience in GEF projects and knowledge of UNIDO activities an asset
- ✓ Knowledge of and experience in the Project region an asset

**Language:** English

**Absence of Conflict of Interest:**

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract related to this evaluation.

## 5.4 Logical Framework

| Intervention Logic  | Objectively Verifiable Indicators   | Sources of Verification   | Assumptions and Risks   |
|---|---|---|---|
| <b>Outcome 1: Introduction of BAT/BEP in industrial production processes mentioned in Annex C of Article 5 of the Convention</b>  |   |   |   |
| <b>Output 1.1 : SADC Sub-regional BAT/BEP Forum established</b>   | <ul style="list-style-type: none"> <li>➤ Regional Forum on BAT/BEP Forum in place</li> </ul>  | <ul style="list-style-type: none"> <li>➤ Participants of the regional BAT/BEP Forum</li> </ul>  | <ul style="list-style-type: none"> <li>➤ Willingness in the sub-region to establish the Forum</li> </ul>  |
| <p><i>Activity 1.1.1:</i> Convene workshop to prepare a Declaration for establishing the SADC sub-regional BAT/BEP Forum</p> <p><i>Activity 1.1.2:</i> Launch the Regional Forum for development and formulation of a regional action plan on BAT/BEP</p> <p><i>Activity 1.1.3:</i> Assist in enhancing industry performance in the region in conformity with the BAT/BEP guidelines and provisional guidance document including regional, local and traditional practices and socio-economic considerations</p> <p><i>Activity 1.1.4:</i> Develop partnerships in the region for successful implementation of the regional action plan</p> | <ul style="list-style-type: none"> <li>➤ Verify the physical presence of the declaration</li> <li>➤ Launching and existence of Regional Forum</li> <li>➤ At least two industries per country in conformity with BAT/BEP in the region</li> <li>➤ Memorandum of Understanding to develop partnership for the implementation of regional action plan</li> </ul> | <ul style="list-style-type: none"> <li>➤ Workshop proceeding and copy of Declaration</li> <li>➤ Activity report on establishment of the Regional Forum</li> <li>➤ Report on laboratory test</li> <li>➤ Signed MoU for the implementation of regional action plan</li> </ul> | <ul style="list-style-type: none"> <li>➤ Willingness of experts to participate in the forum</li> <li>➤ Resistance to develop partnership</li> </ul> |

| Intervention Logic   | Objectively Verifiable Indicators   | Sources of Verification  | Assumptions and Risks   |
|--|---|--|---|
| <b>Output 1.2: Human Resource for BAT/BEP developed, technical knowledge shared in SMEs and informal sector</b>  | ➤ Number of experts per country per year trained in BAT/BEP   | ➤ Existence of experts in the sub-region knowledgeable with BAT/BEP                                  | ➤ Lack of budget to carry out training                        |
| <p><i>Activity 1.2.1:</i> Carry out training workshops in BAT/ BEP in textile dyeing and finishing</p> <p><i>Activity 1.2.2:</i> Carry out training workshops in BAT/ BEP in leather dyeing and finishing</p> <p><i>Activity 1.2.3:</i> Carry out training workshops in BAT/ BEP in waste oil refinery</p> <p><i>Activity 1.2.4:</i> Undertake targeted awareness raising campaigns in BAT/BEP for informal sector</p> | <p>➤ At least two experts per country per year in BAT/BEP in textile sector trained on BAT/BEP</p> <p>➤ At least two experts per country per year in the leather sector trained on BAT/BEP</p> <p>➤ At least two experts per country per year trained in BAT/BEP in used oil refinery sector</p> <p>➤ Network of the informal sector in each country for awareness on principles of BAT/BEP</p> | <p>➤ Check the existence of such experts in the factories</p> <p>➤ Training and activity reports</p> | <p>➤ Willingness to participate in the awareness campaign</p> |

| Intervention Logic  | Objectively Verifiable Indicators   | Sources of Verification     | Assumptions and Risks   |
|---|---|-----------------------------|---|
| <b>Output 1.3: BAT/BEP in textile and leather dyeing and finishing and waste oil refinery source categories initiated</b> | ➤ BAT/BEP introduced in two textiles, two tanneries and two oil refineries per country per year | ➤ Detailed activity reports | <p>➤ High cost involved in introducing BAT/BEP into the process</p> <p>➤ Willingness of the part of the factories to introduce pilot projects</p> |

| Intervention Logic  | Objectively Verifiable Indicators  | Sources of Verification  | Assumptions and Risks  |
|---|--|--|--|
| <p><i>Activity 1.3.1:</i> Carry out pilot demonstration of BAT/ BEP in textile dyeing and finishing</p> <p><i>Activity 1.3.2:</i> Carry out pilot demonstration of BAT/ BEP in leather dyeing and finishing</p> <p><i>Activity 1.3.3:</i> Carry out pilot demonstration of BAT/ BEP in waste oil refinery</p> | <ul style="list-style-type: none"> <li>➤ Availability of at least one pilot demonstration in the textile sector in the sub-region</li> <li>➤ Availability of at least one pilot demonstration in the leather sector in the sub-region</li> <li>➤ Availability of at least one pilot demonstration in waste oil refinery sector in the sub-region</li> </ul>                          | <ul style="list-style-type: none"> <li>➤ Visit pilot demonstration sites</li> </ul>  |  |
| <b>Outcome 2: Reduction of exposure to POPs at workplace and close proximity of POPs wastes and UP-POPs emitting sources</b>  |  |  |  |
| <p><b>Output 2.1</b></p> <p><b><i>Concept of Cleaner Solid Municipal Waste Management System introduced to the national plans of waste management system in the participating countries (prevention and mitigation of UP-POPs releases from open burning and landfill fires)</i></b></p>                      | <ul style="list-style-type: none"> <li>➤ Integrate Solid Municipal Waste Management system in national plans in each of the participating countries</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Copy of national plans on waste management system</li> </ul>  | <ul style="list-style-type: none"> <li>➤ Municipalities are well informed on the existence and objective of the SC and are active stakeholders for the implementation of the action plan on UP-POPs as per Article 5 of the SC</li> <li>➤ Resistance from the part of smallholder farmers to use bio-botanical pesticides</li> </ul> |
| <p><i>Activity 2.1.1.</i> Organize national awareness raising workshop on cleaner waste management with the aim to promote business and job opportunities in the field of waste management</p> <p><i>Activity 2.1.2</i> Organize a sub-regional training workshop for waste</p>                               | <ul style="list-style-type: none"> <li>➤ Minimum of two awareness raising workshops on solid municipal waste management organised for national and local decision makers per country</li> <li>➤ At least one technical workshop held for waste management personnel at sub-regional level</li> <li>➤ At least one sound municipal solid waste management option show case</li> </ul> | <ul style="list-style-type: none"> <li>➤ Workshop materials and proceedings</li> <li>➤ Reports on the ongoing demonstration activities on selected site</li> <li>➤ Document on the Regional Programmes for training on sound waste management</li> </ul> | <ul style="list-style-type: none"> <li>➤ Willingness and commitment of decision makers to promote implementation of sound waste management measures</li> <li>➤ Personnel involved in solid municipal waste aware of the challenge of meeting sound waste management</li> </ul>   |

| Intervention Logic   | Objectively Verifiable Indicators | Sources of Verification | Assumptions and Risks |
|--|-----------------------------------|-------------------------|-----------------------|
| management personnel with special focus on risk reduction and concept of cleaner municipal solid and healthcare waste management | demonstrated                      | ➤                       | criteria and          |

| Intervention Logic  | Objectively Verifiable Indicators  | Sources of Verification   | Assumptions and Risks   |
|---|--|---|---|
| <p><i>Activity 2.1.3</i> Support the establishment of a regional programme for training on Cleaner municipal solid waste and healthcare waste through the BCRC, CPCs and/or Stockholm Convention Technical centres as appropriate</p> <p><i>Activity 2.1.4</i> Update and adapt the healthcare management manual developed under the GEF/UNDP demonstration project for training purposes in medical health schools</p> <p><i>Activity 2.1.5</i> Carry out pilot demonstration of cleaner healthcare waste management based on the lessons learned from GEF/UNDP demonstration project and support replication activities in the sub-region</p> | <ul style="list-style-type: none"> <li>➤ Existence of regional programme on sound waste management</li> <li>➤ Courses /modules related to waste management included in teaching programmes at school</li> <li>➤ Participating countries implementing a sound health-care waste management system at pilot scale</li> </ul> | <ul style="list-style-type: none"> <li>➤ School syllabus curriculum of education, Ministry of Health and Ministry of Environment collaborate to take the lead in the production and dissemination of the training manual</li> <li>➤ Pilot scale to implement the innovative strategy</li> </ul> | <p>receives sufficient support from various waste management staffs to apply BAT/BEP in their daily job</p> <ul style="list-style-type: none"> <li>➤ Municipal waste management staff is stakeholder in the demonstration operation and is willing to integrate lessons learnt in the national waste management system</li> <li>➤ Availability of qualified human resources to elaborate update and implement the training programme on a regular basis</li> <li>➤ MoH has or elaborates a sound health-care waste management strategy and</li> </ul> |

| Intervention Logic   | Objectively Verifiable Indicators  | Sources of Verification  | Assumptions and Risks   |
|--|--|--|---|
|  |  |  | <p>endeavours to implement</p> <ul style="list-style-type: none"> <li>➤ Mechanism in place for consultation among various factors involved at the hospital's level</li> <li>➤ Management and coordination capacity exists and is operational</li> </ul> |
| <p><b><i>Output 2.2: Bio-botanical pesticides produced and formulated in agriculture including market gardening in urban areas through existing south-south cooperation programmes and with the participation of an association market gardeners (alternative to Annex A pesticides)</i></b></p> | <ul style="list-style-type: none"> <li>➤ At least two Micro- or small enterprises per country produce and market bio-botanical pesticides</li> <li>➤ At least two informal waste recyclers per country are formalized to become Micro- or small enterprises</li> </ul> | <ul style="list-style-type: none"> <li>➤ Stores of bio- botanical pesticides providers</li> <li>➤ Lack of resource to upgrade waste recycling of the informal sector to the formal sector</li> </ul> | <ul style="list-style-type: none"> <li>➤ Market gardeners are organised on a national basis and involved in the implementation of the measures in the NIP targeting the phase out of agricultural use of Annex A pesticides</li> </ul>                  |

| Intervention Logic   | Objectively Verifiable Indicators  | Sources of Verification  | Assumptions and Risks  |
|--|--|--|--|
| <p><i>Activity 2.2.1</i> Organize (in cooperation with FAO/RENAP/MOA) an awareness raising workshop for market gardeners on integrated pest management in crop protection and post-harvest management with particular focus on the use of bio-pesticides</p> <p><i>Activity 2.2.2</i> Review existing data and conduct national inventory of existing bio-pesticides formulations</p> <p><i>Activity 2.2.3</i> Facilitate field testing of bio-pesticides in cooperation with research institutions, RENPAP, FAO and farmer associations</p> <p><i>Activity 2.2.4</i> Support Public-Private partnership (PPP) model for the creation of a national Micro- or Small Enterprise to produce and promote the use of bio-botanical pesticides. Continuous evaluation will ensure adaptation and thereby success of the model</p> | <ul style="list-style-type: none"> <li>➤ At least one awareness workshops per country to be held for smallholder farmers on integrated pest management and use of bio-botanical pesticides</li> <li>➤ Availability of database in each country</li> <li>➤ Inventory reports on pesticide plants in each country</li> <li>➤ Availability of solid or liquid botanical pesticide in the market</li> <li>➤ At least two producers per country using and/or willing to use individually or in co-operatives the new natural bio-botanical pesticide formulations</li> <li>➤ Research activities on field application of bio- pesticides for pest management</li> <li>➤ Micro- or small enterprises producing and/or providing bio- pesticides</li> </ul> | <ul style="list-style-type: none"> <li>➤ Workshop reports</li> <li>➤ Data base management report and Inventory reports</li> <li>➤ Availability in the market</li> <li>➤ Reports on field visits to enterprises producing bio-botanical pesticides</li> <li>➤ Activity reports</li> </ul> | <ul style="list-style-type: none"> <li>➤ The academia, the Ministries of Agriculture, Environment and various actors in urban and peri-urban agriculture collaborate to eliminate the usage of Annex A or Annex B pesticides in agriculture</li> <li>➤ Organic agriculture is seen by the various actors as an opportunity for business</li> <li>➤ MoA promotes and supports integrated pest management in crop protection and post harvest management</li> <li>➤ Smuggling of non-registered pesticides controlled</li> <li>➤ Bio-botanical pesticides are economically affordable</li> </ul> |
| <p><b><i>Output 2.3. Strategy developed to audit, formalized and scale-up to macro and small enterprises informal management of PCBs, solid and liquid waste plastic wastes, used paper and e-waste</i></b></p>  | <ul style="list-style-type: none"> <li>➤ At least two informal waste recyclers per country are formalized to become Micro- or small enterprises</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Site visits to informal waste recycling system</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Lack of resources to upgrade waste recycling of the informal sector t</li> <li>➤ o the formal sector</li> </ul>   |

| Intervention Logic  | Objectively Verifiable Indicators   | Sources of Verification  | Assumptions and Risks  |
|---|---|--|--|
| <p><i>Activity 2.3.1</i> Identify the informal collection system of PCB and used oil and perform environmental inventory audits to determine the need for enhancing collection and channeling of the PCBs streams on an ESM manner in line with GEF/UNEP pilot project in the sub-region</p> <p><i>Activity 2.3.2</i> Conduct a survey on existing concepts for plastic waste management including the reuse of waste plastic bags as a raw material for various articles</p> | <ul style="list-style-type: none"> <li>➤ Validated national Inventory audit report</li> <li>➤ Concept paper on existing plastic waste management options developed</li> <li>➤ Verify the existence of a national micro or small enterprises that are having environmentally sound recycling of paper and e-waste at the national level</li> <li>➤ Existence of national/sub-regional micro- or small enterprise recycling paper and e-waste in an ESM manner</li> </ul> | <ul style="list-style-type: none"> <li>➤ Inventory audit reports</li> <li>➤ Stakeholders consultation reports</li> <li>➤ Copy of Concept paper on plastic waste management</li> <li>➤ Reports on site visit and field visit to the informal sector doing this activity</li> <li>➤ Stakeholders consultation reports</li> <li>➤ Inventory report</li> </ul> | <ul style="list-style-type: none"> <li>➤ The national power companies, private owners of electrical transformers and the handicraftsmen using/recycling PCBs waste collaborate in implementing the NIP's action plan on the management of PCBs and their wastes.</li> <li>➤</li> </ul> |

| Intervention Logic   | Objectively Verifiable Indicators   | Sources of Verification                             | Assumptions and Risks   |
|--|---|---|---|
| <p><i>Activity 2.3.3</i> Develop a concept for plastic waste management including the reuse of waste plastic bags as a raw material for various articles</p> <p><i>Activity 2.3.4</i> Support the creation of a national micro or small enterprises for an environmentally sound recycling of plastic bags</p> <p><i>Activity 2.3.5</i> Investigate the current informal paper and e-waste management and the management of other halogenated solid and liquid</p> | <ul style="list-style-type: none"> <li>➤ Existence of such enterprises model in participating countries</li> <li>➤</li> </ul> | <ul style="list-style-type: none"> <li>➤</li> </ul> | <ul style="list-style-type: none"> <li>➤ The academia and the various actors in the management of municipal solid waste collaborate to mitigate the risk posed by the land filling, open burning of plastic bags, open burning of paper, dumping of e-waste and the like</li> <li>➤ Private investors are willing to promote green micro- or</li> </ul> |

| Intervention Logic  | Objectively Verifiable Indicators   | Sources of Verification   | Assumptions and Risks  |
|---|---|---|--|
| <p>wastes</p> <p><i>Activity 2.3.6</i> Provide support for activities to prevent irrational dumping and open burning of paper and other halogenated solid and liquid wastes</p> <p><i>Activity 2.3.7</i> Support PPP model for creation of a national Micro- or Small Enterprise for an environmentally sound recycling of paper and e-wastes in the sub-region</p> |   |   | <p>small enterprises recycling paper and e-waste and recycling of other halogenated solid and liquid wastes in the production of various consumer products</p> <p>➤</p>  |
| <b>Outcome 3: Identification and assessment of contaminated sites</b>   |   |   |  |
| <p><b>Output 3.1: Site identification strategies, protocols and guidelines formulated and applied in the Sub-region based on the UNIDO toolkit</b></p>  | <ul style="list-style-type: none"> <li>➤ Existence of site identification strategies protocols and guidelines in each of the participating countries</li> <li>➤ Soil and water analysis carried out to verify the effectiveness of the remediation technology at the pilot scale</li> <li>➤ Existence of contaminated sites remediation plan in each country</li> </ul> | <ul style="list-style-type: none"> <li>➤ Remediation plan of the contaminated sites</li> <li>➤ Report on the effectiveness of the demonstration pilot project</li> <li>➤ Cost benefit analysis report on various mediation technology options</li> <li>➤</li> </ul> | <ul style="list-style-type: none"> <li>➤ Commitment of LDCs/SADC member states to clean up contaminated sites (hot spots)</li> <li>➤ Least costly technologies may not always be efficient</li> <li>➤ Willingness to host pilot demonstration project</li> </ul> |
| <p><i>Activity 3.1.1</i> Prepare manuals, procedures, protocols and guidelines for local use for the identified POPs contaminated sites and for conducting risk assessment of these sites</p>   | <ul style="list-style-type: none"> <li>➤ Physical presence of the strategy document</li> <li>➤ Document that stipulate the step by step approach to select benign technology and cleanup of contaminated sites</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Letter of endorsement of the strategy and methodology documents by SADC member states</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Stakeholders involvement during the process of formulating the strategy</li> </ul>  |

| Intervention Logic   | Objectively Verifiable Indicators   | Sources of Verification   | Assumptions and Risks   |
|--|---|---|---|
| <p><i>Activity 3.1.2</i> Develop methodology for selection of economically feasible and environmentally sound POPs contaminated site remediation technologies</p> <p><i>Activity 3.1.3</i> Conduct study to identify environmentally sound remediation technologies or benign ways of cleaning up of the contaminated sites</p> <p><i>Activity 3.1.4</i> Undertake pilot demonstration project to verify the effectiveness of the low cost remediation technology and validate contaminated site identification methodology</p> <p><i>Activity 3.1.5</i> Prepare contaminated site remediation plans of the identified hot spots in the sub-region</p> | <ul style="list-style-type: none"> <li>➤ Cost benefit analysis on the effectiveness and viability of various remediation technologies</li> <li>➤ Soil and water quality analysis results of samples taken from the cleaned up sites to verify efficiency and cost effectiveness of the remediation technologies</li> <li>➤ Physical presence of contaminated site plans for the identified hot spots</li> </ul>                       | <ul style="list-style-type: none"> <li>➤ Report on comparison of costs of various remediation technological options</li> <li>➤ Soil and water quality analysis results of the samples taken from the cleaned up sites</li> <li>➤ Analysis results from Central laboratories</li> <li>➤ Institution responsible for the remediation of contaminated sites</li> </ul> | <ul style="list-style-type: none"> <li>➤ Stakeholders involvement during the process of formulating the methodology</li> <li>➤ Resistance to use new technology on the part implementers</li> <li>➤ Availability of reliable laboratory that can carry out the required analysis</li> <li>➤ Availability of resources to implement those plans</li> </ul> |
| <p><b>Output 3.2: Capacity to manage the contaminated sites strengthened</b></p>   | <ul style="list-style-type: none"> <li>➤ At least 5 personnel trained in each participating country in the management and remediation of contaminated from each country</li> <li>➤ 50 % of the population in each country that are aware of the danger of contaminated sites to human health and environment</li> <li>➤ Number of experts and stakeholders that regularly uses the website and data base from each country</li> </ul> | <ul style="list-style-type: none"> <li>➤ Proceedings of various training and awareness raising workshops</li> <li>➤ Feed back from the data base and web site users on contaminated sites</li> <li>➤ Report on water and soil sample results from the reclaimed site</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Create the enabling environment to put in place strategy and identify contaminated site</li> </ul>   |

| Intervention Logic  | Objectively Verifiable Indicators   | Sources of Verification  | Assumptions and Risks  |
|---|---|--|--|
| <p><i>Activity 3.2.1</i> Launch training workshop using UNIDO Tool kit to experts from relevant institutions to enable them collect scientific data from contaminated sites and assess potential risks to humans, wildlife and the environment</p> <p><i>Activity 3.2.2</i> Create database and website within the SADC sub-region, linked to UNIDO website to share and disseminate data / information collected from contaminated sites and hot spots</p> | <ul style="list-style-type: none"> <li>➤ Five experts trained with a capacity to manage POPs contaminated site in each participating country</li> <li>➤ Participation of the private sector</li> <li>➤ Suggestions and recommendations to remove barriers to market oriented operations</li> <li>➤</li> </ul> | <ul style="list-style-type: none"> <li>➤ Training materials and training reports on contaminated sites</li> <li>➤ Reports on incentives, risks, reasonable rate of return and copy of strategy report</li> <li>➤ Workshop reports</li> <li>➤ Reports on pilot demonstration projects in relation with policy development, incentives and PPP</li> <li>➤</li> </ul> | <ul style="list-style-type: none"> <li>➤ Willingness of the Government to consider suggestions and recommendations by private investors on the strategy</li> <li>➤ Willingness of stakeholders to participate in fund raising workshops</li> </ul> |

| Intervention Logic  | Objectively Verifiable Indicators  | Sources of Verification                             | Assumptions and Risks                               |
|---|--|---|---|
| <p><i>Activity 3.2.3</i> Raise awareness among the major stakeholders, including decision makers, on the health risk that may result from exposure to POPs contaminated sites</p> <p><i>Activity 3.2.4</i> Assess aspects of involvement of technology providers for the development of PPP in managing contaminated sites</p> <p><i>Activity 3.2.5</i> Develop mechanism to mobilize funds from within the SADC member states for the remediation of contaminated sites to ensure project sustainability</p> | <ul style="list-style-type: none"> <li>➤ Availability of fund for co-financing</li> <li>➤ Number of workshops on fund raising</li> <li>➤ Number of countries willing to replicate the pilot</li> </ul> | <ul style="list-style-type: none"> <li>➤</li> </ul> | <ul style="list-style-type: none"> <li>➤</li> </ul> |

## 5.5 Evaluation Matrix

|  | <b>Indicators</b>   | <b>Sources</b>   | <b>Data collection tools</b> |
|--|---|--|------------------------------|
| <b>Design</b>  |   |  |                              |
| To what extent was a participatory (national counterparts and/or target beneficiaries) project identification process applied and was it instrumental in selecting problem areas and national counterparts?  | Involvement of national counterparts and/or beneficiaries in project identification and formulation | project staff<br>national stakeholders<br>project document | Desk review<br>Interviews    |
| Does the project have a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators?   | Indicators and outputs - which lead to the envisaged goal   | Project document   | Desk review                  |
| <b>Relevance</b>   |   |  |                              |
| Is the project concept in line with the sectoral and development priorities and plans of the country or of participating countries, in the case of multi-country projects?<br>Are projects outcomes contributing to national development priorities and plans? | Alignment between project (outcomes) and national policies/priorities/strategies                    | National policies, strategies, government representatives  | Desk review<br>Interviews    |
| Has the government—or governments in the case of multi-country projects—approved policies or regulatory frameworks in line with the project's objectives?  | National policies and/or regulatory framework   | National policies, strategies, government representatives  | Desk review<br>Interviews    |

|   |   |   |                           |
|---|---|---|---------------------------|
| Relevance to GEF: to what extent are the project's outcomes consistent with the focal areas/OP strategies of the GEF? | Alignment between project and the focal areas of the GEF  | GEF documents<br>NIP                                      | Desk review               |
| Relevance to UNIDO: alignment with UNIDO's mission/vision/work plan   | Alignment between project and UNIDO's thematic priorities   | UNIDO's thematic priorities                               | Desk review               |
| <b>Effectiveness (progress to date)</b>   |   |   |                           |
| What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)?                | Outputs and outcomes to date vs. expected outputs and outcomes at current stage of implementation | Project document<br>Project staff<br>Project stakeholders | Desk review<br>Interviews |
| Are the actual project outcomes commensurate with the original or modified project objectives?                        | Alignment with the project goal   | Project document<br>Project staff<br>Project stakeholders | Desk review<br>Interviews |
| How do the stakeholders perceive their quality?   | Level of satisfaction of project stakeholders   | Project stakeholders                                      | Interviews                |
| Were the targeted beneficiary groups actually reached?  | Number of beneficiaries reached   | Project stakeholders<br>Progress reports                  | Desk review<br>Interviews |
| Identify the potential longer-term impacts or at least indicate the steps taken to assess these                       | Steps to assess and document long-term impact   | Project document<br>Project staff<br>Project stakeholders | Desk review<br>Interviews |

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| <b>Efficiency</b>   |  |   |                           |
| To what extent has the project been cost effective so far?  | Adequacy of financial management; outputs vs. costs                        | Project document<br>Project staff                         | Desk review<br>Interviews |
| Have there been delays so far? What are the reasons? Did the delays affect project outcomes and/or sustainability?  | Actual outputs vs. expected outputs at the current stage of implementation | Project document/work plan<br>Project staff               | Desk review<br>Interviews |
| To what extent were the UNIDO inputs as planned, adequate and timely?   | Resources and time dedicated to project implementation                     | Project document<br>Project staff<br>Project stakeholders | Desk review<br>Interviews |
| To what extent has the government provided their inputs as planned? Are they adequate and timely?   | Co-finance and other resources provided for project implementation         | Project document<br>Project staff<br>Project stakeholders | Desk review<br>Interviews |
| If there was a difference in the level of expected co-financing and the co-financing actually realized, what were the reasons for the variance? Did the extent of materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages? | Co-finance, cash and in-kind realised vs. expected/planned                 | Project document<br>Project staff<br>Project stakeholders | Desk review<br>Interviews |
| <b>Likelihood of sustainability of project outcomes</b>   |  |   |                           |
| <b>Financial risks.</b> Are there any financial risks that may jeopardize sustainability of project outcomes? What is the likelihood of financial and economic resources being available once GEF assistance ends?  | Available financial resources  | Project document<br>Project stakeholders                  | Desk review<br>Interviews |

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| <b>Sociopolitical risks.</b> Are there any social or political risks that may jeopardize sustainability of project outcomes?   | Existence of socio-political risks   | Project document<br>Project stakeholders                  | Desk review<br>Interviews |
| <b>Institutional framework and governance risks.</b> Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits? | Possibility of any new laws, policies, governance structure which pose risk to project results | Project document<br>Project staff<br>Project stakeholders | Desk review<br>Interviews |
| <b>Environmental risks.</b> Are there any environmental risks that may jeopardize sustainability of project outcomes?  | Any forthcoming new environmental policies affecting project outcomes                          | Project document<br>Project staff<br>Project stakeholders | Desk review<br>Interviews |
| <b>Monitoring and Evaluation</b>   |  |   |                           |
| <b>M&amp;E design.</b> Does the project have a sound M&E plan to monitor results and track progress towards achieving project objectives?  | Existence of realistic M&E plan  | Project document<br>Project staff                         | Desk review<br>Interviews |
| <b>M&amp;E implementation:</b> To what extent was an M&E system in place and information on chosen indicators tracked continually throughout the project?  | Existence of indicators, and regular monitoring/ progress reports                              | Project document<br>Reports<br>Project staff              | Desk review<br>Interviews |
| <b>Budgeting and Funding for M&amp;E activities:</b> To what extent was M&E sufficiently budgeted for at the project planning stage  | Adequacy of M&E budget   | Project document<br>Project manager                       | Desk review<br>Interviews |
| <b>Monitoring of long-term changes:</b> a. Did the projects contribute to the establishment of a long-term monitoring system?  | Existence of long-term monitoring system   | Establishment plan<br>Project document<br>Project staff   | Desk review<br>Interviews |

|  |  |                                    |                           |
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| <b>Project Management</b>  |  |                                    |                           |
| Were the UNIDO HQ based management, coordination, quality control and technical inputs efficient, timely and effective (problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits...) | Resources and time dedicated to project implementation | Project documents<br>Project staff | Desk review<br>Interviews |

