



Project Implementation Report

(1 July 2021 – 30 June 2022)

Project Title:	Promotion of BAT and BEP to reduce uPOPs releases from waste open burning in the participating African countries of SADC sub-region
GEF ID:	5322
UNIDO ID:	150060
GEF Replenishment Cycle:	GEF-5
Country(ies):	Botswana, Eswatini, Lesotho, Madagascar, Mozambique, Tanzania, Zambia
Region:	AFR - Africa
GEF Focal Area:	Persistent Organic Pollutants (POPs)
Integrated Approach Pilot (IAP) Programs¹:	N/A
Stand-alone / Child Project:	Child Project
Implementing Department/Division:	ENV / IPM
Co-Implementing Agency:	N/A
Executing Agency(ies):	Min. of Environment, Wildlife and Tourism (Botswana) Eswatini Environment Authority (Eswatini) Min. of Tourism, Environment and Culture (Lesotho) Min. of Environment and Sustainable Development (Madagascar) Min. of Land, and Environment (Mozambique) Vice President's Office-Division of Environment (Tanzania) Zambia Environmental Management Agency (Zambia)
Project Type:	Full-Sized Project (FSP)
Project Duration:	60 months
Extension(s):	24 months
GEF Project Financing:	USD 6,615,000
Agency Fee:	USD 628,425
Co-financing Amount:	USD 28,361,000
Date of CEO Endorsement/Approval:	2/10/2016
UNIDO Approval Date:	4/13/2016
Actual Implementation Start:	5/13/2016
Cumulative disbursement as of 30 June 2022:	USD 3,764,443

¹ Only for GEF-6 projects, if applicable

Mid-term Review (MTR) Date:	9/17/20219
Original Project Completion Date:	14/13/2021
Project Completion Date as reported in FY21:	5/31/2023
Current SAP Completion Date:	5/31/2023
Expected Project Completion Date:	5/31/2024
Expected Terminal Evaluation (TE) Date:	3/31/2024
Expected Financial Closure Date:	3/31/2025
UNIDO Project Manager²:	Ms. Lamia Benabbas

I. Brief description of project and status overview

Project Objective		
<p>The primary objective of the project is the continuous minimization of uPOPs releases in the open burning sector of participating countries of SADC region in a sustainable manner through the introduction of BAT and BEP measures at selected priority demonstration sites.</p>		
Project Core Indicators		Expected at Endorsement/Approval stage
9.1	Solid and liquid POPs removed or disposed (uPOPs from uncontrolled burning)	341.9 gTEQ/a
11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	400 males/females

Baseline
<p>The implementation of integrated waste management practices in Africa and in particular in participating countries is generally at an infancy stage. Waste treatment facilities are very few as well as reuse/recycling facilities. Hazardous waste streams are commonly diverted to some uses other than final disposal or mixed and disposed of with other waste streams. The participating countries lack the technical and institutional capacity, regulations and financial support to monitor the releases of uPOPs and other harmful contaminants arising from open burning practices as well as awareness of the effects of uPOPs releases on environment. Decision makers in the region are aware of the need to set up waste management programmes and to upgrade open dumpsites to sanitary landfills. At the national and municipal levels, however, very few countries have taken step to set up a regulatory framework and construct, operate and maintain sound waste management facilities. Existing legislation in some countries include certain provisions to control waste disposal or prevent agricultural residues burning. However, in most of the participating countries, the EPA do not address all aspects of uPOPs releases from open burning and usually do not contain considerations about impacts of climate change on this sector of waste management. With the GEF support, the participating countries will enhance their institutional capacity and technical capability of public and private stakeholders by reviewing and updating current regulations and policies and filling in the gaps. The GEF funding will be based on viable BAT/BEP with the main goal of establishing a solid basis for progressive phasing out of open burning practices. Furthermore, institutionalizing the informal sector will enable provision of dedicated training on recycling activities and health safety protection, introducing more efficient and innovative business practices and awareness raising on risks connected with the exposure and accident prevention.</p>

² Person responsible for report content

Targeted results: The project will complement initiatives in participating countries and substantially contributes to the achievements of global environmental objectives in the region. The implementation of all components of the project will ensure a holistic and cost-effective approach in developing waste management sector in the region by introducing missing aspects of uPOPs topics and filling in the gaps. In addition, each government should provide guidance for the private and public sectors for inclusive and sustainable development, put in place the relevant regulatory framework and ensure sustainability of its implementation. The project will target institutional gaps and provides examples of BAT/BEP on selected demonstration sites. Targeted training and awareness raising campaigns as well as open burning related programmes will be undertaken in a coordinated regional cooperation and information platform. The project is structured in four (4) technical components plus monitoring and evaluation component.

Please refer to the explanatory note at the end of the document and select corresponding ratings for the current reporting period, i.e. FY22. Please also provide a short justification for the selected ratings for FY22.

In view of the GEF Secretariat's intent to start following the ability of projects to adopt the concept of adaptive management³, Agencies are expected to closely monitor changes that occur from year to year and demonstrate that they are not simply implementing plans but modifying them in response to developments and circumstances or understanding. In order to facilitate with this assessment, please introduce the ratings as reported in the previous reporting cycle, i.e. FY21, in the last column.

Overall Ratings ⁴	FY22	FY21
Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating	<i>Moderately Satisfactory (MS)</i> <i>Moderately Satisfactory (MS)</i>	<i>Moderately Satisfactory (MS)</i> <i>Moderately Satisfactory (MS)</i>
Both GEOs and Dos FY22 is expected to stay the same as FY21		
Implementation Progress (IP) Rating	<i>Moderately Satisfactory (MS)</i> <i>Moderately Satisfactory (MS)</i>	<i>Moderately Satisfactory (MS)</i> <i>Moderately Satisfactory (MS)</i>
Overall implementation progress (IP) FY22 is expected to stay same as FY21.		
Overall Risk Rating	<i>Moderate Risk (M)</i> <i>Moderate Risk (M)</i>	<i>Low Risk (L)</i> <i>Low Risk (L)</i>
The overall Risk Rating FY22 is increased to "Moderate Risk" due to the concern over completion of pilot projects in Lesotho and Madagascar, in particular. Some of these pilot projects may not be completed by planned project completion date and will require more time.		

II. Targeted results and progress to-date

³ Adaptive management in the context of an intentional approach to decision-making and adjustments in response to new available information, evidence gathered from monitoring, evaluation or research, and experience acquired from implementation, to ensure that the goals of the activity are being reached efficiently

⁴ Please refer to the explanatory note at the end of the document and assure that the indicated ratings correspond to the narrative of the report

Please describe the progress made in achieving the outputs against key performance indicator's targets in the project's **M&E Plan/Log-Frame at the time of CEO Endorsement/Approval**. Please expand the table as needed.

Please fill in the below table or make a reference to any supporting documents that may be submitted as annexes to this report.

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
Component 1 – uPOPs baseline information on open burning practices and inventory of major dumpsites/landfills in participating countries				
Outcome 1: Updated regional information on current open burning practices and establishment of uPOPs baseline inventories				
Output 1.1: National information on current locations of open burning practices validated and updated uPOPs inventories reviewed	<ul style="list-style-type: none"> Criteria for selection of priority dumpsites/ landfill sites Number of regional and national training workshops on inventories of uPOPs Number of experts (male/female) trained 	National data on open burning sites	<ul style="list-style-type: none"> One (1) regional training workshop for at least 14 experts on the preparation of uPOPs inventories One (1) national stakeholders workshop on uPOPs inventories conducted for at least 20 participants in each participating country Appropriate gender representation observed 	<ul style="list-style-type: none"> 17 experts from the participating countries trained on the preparation and updating of uPOPs inventories at a regional workshop held in Maputo, Mozambique in March 2017 (7 females/10 males) All seven (7) participating countries carried out national inventories by identifying locations of dumpsites, landfills, and other related hotspots All seven participating countries identified relevant institutions and conducted the national stakeholders' workshops on uPOPs inventories to share and update information on NIP and make the data on inventory of uPOPs releases from open burning of waste available. Over 70 people participated in these workshops (52 males/18 female) Inventories' reports for Botswana, Eswatini, Lesotho, Madagascar, Mozambique, Tanzania and Zambia were uploaded onto the database: http://stopopenburning.unitar.org/
Output 1.2: Regional information on open burning practices and data on uPOPs releases exchanged and respective regional cooperation and networking consolidate	<ul style="list-style-type: none"> Number of national and regional databases in operation Number of national workshops conducted Number of trainees (men/women) 	Data reporting not harmonized and compiled	<ul style="list-style-type: none"> Seven (7) national databases operational for accessibility of all stakeholders created One (1) regional database linking the national database established At least one workshop conducted at national level to train at least 2 national experts in each participating country 	<ul style="list-style-type: none"> The 2nd Project Steering Committee (PSC) meeting held in Antananarivo, Madagascar in March 2018 agreed that the United Nations Institute for Training and Research (UNITAR), Geneva shall take up the regional and national training component of the project including development of guidelines, guidance, awareness raising materials as well as development of the database/website. UNITAR and UNIDO signed contract in July 2018. UNITAR created the database information system in the form of a website: http://stopopenburning.unitar.org/. It includes both national and regional sub-sites. Project countries continued to create their national databases and upload of national information in project database started in June 2019. UNITAR conducted a regional training workshop as a webinar in Livingstone, Zambia, 7-8 March 2019. 18 experts participated (5 females/13 males) A manual for national data upload was also developed and to be supplemented with a video tutorial. UNITAR conducted (as part of NAT 1) national face-to-face training in Botswana, Eswatini, Lesotho, Madagascar, Mozambique, and Zambia during 2019.

				<p><i>See Output 3.1 for the number of people targeted/trained in each country.</i></p> <p>Due to COVID-19 pandemic, the NAT1 training for Tanzania planned to take place in March 2020 postponed.</p> <p>An additional regional workshop on uPOPs and BAT/BEP will take place in Q3 2022 in Tanzania. UNITAR will also conduct national workshops for stakeholders of Tanzania</p>
Component 2 – Regulatory / Legal framework review, policy development and institutional strengthening				
Outcome 1: Strengthened legislation and human resources capacity in implementing BAT/BEP at selected priority sites of open burning				
Output 2.1: Regulatory measures aimed at discouraging open burning practices of different waste streams and agricultural residues formulated or amended	<ul style="list-style-type: none"> • Number of existing laws and regulations addressing open burning of waste • Number of stakeholder consultation involving private sector 	Analysis of SC related legislation in the NIP updates	<ul style="list-style-type: none"> • Initiation/review of laws and regulations in 7 participating countries • 7 national multistakeholder consultations including private sectors on legislation and business opportunities with at least 10 participants in participating countries • Appropriate gender representation observed 	<ul style="list-style-type: none"> • All seven (7) project countries completed the review of laws and regulations in relation to open burning practices • All seven (7) project countries completed their national multi-stakeholder consultations with over 91 persons participated (64 males/27 females) • In April 2022, UNITAR developed an e-learning training module on "Developing waste management regulations and compliance mechanisms". The module is composed of a guidance document and PPT. This module will be part of UNITAR's regional training workshop to be held in Tanzania this year (2022).
Output 2.2: Country action plans for managing and phasing out the open burning of waste and agricultural residues reviewed and strengthened	<ul style="list-style-type: none"> • Number of targeted trainings on BAT/BEP and open burning issues • Number of national action plans on reduction of uPOPs from open burning • Number of male / female trained • Number of participating countries supported on prevention of irrational dumping 	Action plans addressing open burning practices not available at country level	<ul style="list-style-type: none"> • At least one (1) training on BAT/BEP concepts and management of open burning of waste at national level • At least 10 relevant stakeholders (male/female) in each participating country trained on BAT/BEP concepts • National action plans for reducing uPOPs releases in open burning in each participating country • All participating countries supported for prevention of irrational dumping 	<ul style="list-style-type: none"> • During the second half of 2021 and first half of 2022, Botswana, Eswatini, Lesotho, Madagascar, Mozambique, and Tanzania have all conducted national trainings on BAT/BEP. People trained: Botswana (31 persons: 10 females/21 males), Eswatini (29 persons: 15 females/14 males), Lesotho (11 persons: 7 females/4 males), Madagascar (15 persons: 7 females/8 males), Mozambique (26 persons: 11 females/15 males), and Tanzania (26 persons: 10 females/16 males). • National action plans will be developed by participating countries upon completing BEP pilot project in two (2) municipalities per country. , Draft waste management have been finalized in Eswatini, Lesotho, and Zambia. • In April 2022, UNITAR developed three (3) e-learning modules in: (i) "Banning of irrational dumping of waste", (ii) "Preventing open burning practices", (iii) "Promoting occupational health safety and hygienic measures at the landfills sites". These three modules are composed of a guidance document, and a PPT. The modules will be part of UNITAR's regional training workshop to be held in Tanzania this year (2022).
Output 2.3: Regional BAT/BEP guidance for uPOPs reduction formulated for respective Ministry of	<ul style="list-style-type: none"> • Number of guidance documents on BAT/BEP prepared 	Priority sectors and practices of open burning identified through the NIPs	<ul style="list-style-type: none"> • Guidance document for reducing uPOPs releases in open 	<ul style="list-style-type: none"> • A regional adaptation of the document "Guidance/guidelines by source category: Source categories in Part III of Annex C - Part III Source category (a): Open burning

Environment's adoption at country level for substantial reduction and/or collective elimination of waste and agricultural residues in open burning practices	<ul style="list-style-type: none"> and adopted at regional and national level • Number of training workshops on BAT/BEP guidelines, manuals, procedures, etc. • Number of trainees (men/women) 		<ul style="list-style-type: none"> burning in priority sectors adopted by MoE in participating countries • One (1) regional workshop on BAT/BEP guidelines with at least 14 participants (2 each participating country) • Appropriate gender representation observed 	<ul style="list-style-type: none"> of waste, including burning of landfill sites" under the Stockholm Convention has been drafted by UNITAR and has been reviewed by the project countries in Livingstone, Zambia in March, 2019 and finalised based on their feedback • UNITAR organized a workshop on BAT/BEP guidelines for the participating countries in Livingstone, Zambia in March 2019. 18 experts from the participating countries attended the regional workshop (5 females/13 males). A second round of training workshop on the BAT/BEP guidelines will be conducted by UNITAR as part of its REG2 for the participating countries in Tanzania this year (2022). • In April 2022, UNITAR developed an e-learning training module on "The preparation of manuals, procedures and guidelines using BAT/BEP measures on how to eliminate and/or reduce open burning of waste and agricultural residues". The training module is composed of a guidance document, PPT and a video. This module will be part of UNITAR's regional training workshop to be held in Tanzania this year (2022).
Output 2.4: Adequate technical infrastructure for implementing BAT/BEP and waste management best practices built	<ul style="list-style-type: none"> • Number of laboratory facilities upgraded • Provision of sampling toolkits/ devices • Number of experts (men/women) trained on BAT/BEP 	National capacities on BAT/BEP lacking in participating countries	<ul style="list-style-type: none"> • One (1) existing laboratory in each participating country provided with necessary sampling toolkits/ devices for implementation of BAT/BEP • Sampling and analysis of uPOPs releases on open burning undertaken in 7 participating countries • At least 2 experts each participating country trained on sampling / analysis of uPOPs and transfer of BAT/BEP 	<ul style="list-style-type: none"> • Implementation not yet started, largely due to COVID-19 pandemic restrictions imposed by project countries. • Discussions are currently underway between UNIDO and one potential existing laboratory in Eswatini (University of Eswatini, Chemistry Lab), whereby UNIDO is exploring providing a GC/MS to this lab. • Two (2) laboratories from Tanzania are currently considered by UNIDO to conduct training to their personnel on collection, extraction, and analysis of uPOPs. • A regional training workshop on sampling/analysis of uPOPs is scheduled to be conducted early next year (2023).
Component 3 – Pilot demonstration of BAT/BEP in selected priority sites				
Outcome 1: Implementation of BAT/BEP to reduce uPOPs releases in the open burning sector at national and regional levels				
Output 3.1: Waste management best practices carried out at two (2) selected priority demonstration municipalities in each participating country	<ul style="list-style-type: none"> • Number of municipalities for pilot projects using PPP models • Number of men/women trainees on BEP at national and regional levels • Number of waste management plans implemented 	Inventories of landfills and dumpsites available	<ul style="list-style-type: none"> • BEP introduced in two (2) selected landfills/dumpsites in each participating country • One (1) regional workshop on BAT/BEP measures with at least 20 participants (men/women) • Two (2) national workshops each in participating 	<ul style="list-style-type: none"> • All project countries selected priority demonstration municipalities to implement pilot projects on best environmental practices (BEP) implementation of waste management plans: Botswana: Kgatleng and Palapye districts Eswatini: Siteke and Matsapha Lesotho: Maseru and Maputsoe Madagascar: Talatamaty/Antehiroka and Antsirabe Mozambique: Boane and Manhica Tanzania: Kigamboni and Ubungu Zambia: Chongwe and Livingstone • UNITAR organized a workshop on BAT/BEP measures for the project countries in Livingstone, Zambia in March

			<p>countries on BEP with 25 participants (men/women)</p> <ul style="list-style-type: none"> All participating countries implementing waste management plan using PPP 	<p>2019 where 18 experts attended (5 females/13 males).</p> <ul style="list-style-type: none"> UNITAR conducted (i) national training workshops on BAT/BEP measures (ii) national awareness raising seminars on waste management plans, and (iii) awareness raising activities on the health and environmental risk and exposure hazards of open burning practices in six participating countries, except Tanzania: <ul style="list-style-type: none"> Botswana in February 2020 (27 persons attended- 11 females and 16 males) Eswatini in April 2019 ((57 persons attended- 20 females and 27 males). More workshops were conducted by Eswatini (89 persons- 40 females/49 males) Lesotho in September 2019 (23 persons attended- 13 females and 10 males) Madagascar in July 2019 (40 persons attended- 15 females and 25 males) Mozambique in December 2019 (133 persons attended- 55 females and 78 males) Zambia in December 2019 (68 persons attended- 30 females and 38 males) UNITAR will conduct national workshops in Q4 2022 for participants from Tanzania this year (back-to-back with regional training workshop for the participating countries). In April 2022, UNITAR developed an e-learning training module on "Best practices in waste management in relation to open burning of waste". This module is composed of a guidance document, a PPT and a video. This module will be part of UNITAR's regional training workshop to be held in Tanzania this year (2022). Only three (3) countries developed draft waste management plans. These three (3) countries include: Eswatini, Lesotho, and Zambia. None of these countries has started to implement the plans using PPP models, i.e. Recyclable Collection Centres (RCCs) have not been operational yet. In October 2019, UNIDO contracted the Technical University in Vienna (TU Wien) to develop a toolkit for the design of waste management plan. TU Wien completed the development of the toolkit in November 2020 with a template designed for development of waste management plan and a Software (WAPLA) on Waste Management Planning for project countries. An on-line (virtual) training course on Waste Management Planning conducted by TUV for experts from the project countries on 7-8 December and 15-17 December 2020. 27 experts participated (20 males/7 females) from project countries and one expert each from Africa Institute and SADC Secretariat. Both the template document and the WAPLA software introduced to the participants during the training course and certificates also issued.
--	--	--	---	---

<p>Output 3.2: Waste management plans introducing BAT/BEP measures (segregation system) developed and implemented in two (2) selected major dumpsites and landfills in the participating countries using PPP models</p>	<ul style="list-style-type: none"> • Number of BAT/BEP plans using PPP model • Number of waste recycling enterprises with segregation systems • g-TEQ/a of uPOPs releases avoided <p>Number of men / women trainees</p>	<p>Inventories of landfills and dumpsites</p>	<ul style="list-style-type: none"> • Detailed BAT/BEP plans developed in two (2) selected landfills/dumpsites in each participating country • Two (2) pilots of segregation systems for collecting waste materials of added value (conveyor belts, sorting, washing, compacting, etc) • One (1) national awareness seminar on BAT/BEP plans with at least 10 participants in each participating country • 17% of annual releases reduction of uPOPs <p>Appropriate gender representation observed</p>	<ul style="list-style-type: none"> • UNITAR has conducted national awareness seminars on waste management plans in Botswana, Eswatini, Lesotho, Madagascar, Mozambique, and Zambia (see progress to-date under Output 3.1 for the number of participants and gender representation in each country for the seminars) • Execution contracts for introduction of best environmental practices (BEP) in selected municipalities signed by Eswatini (July 2019), Lesotho (August 2019), Zambia (November 2019), Madagascar (March 2021), Tanzania (April 2021), and Mozambique (January 2022). • Botswana is yet to complete the baseline study in the selected municipalities. • Draft Waste Management Plans submitted to UNIDO by Eswatini (April 2021), Zambia (June 2021), and Lesotho (December 2021).
<p>Output 3.3: Biomass waste recycling and disposal options promoted in two (2) demonstration sites in selected participating countries through alternative waste management plans for better value addition</p>	<ul style="list-style-type: none"> • Agricultural residues inventoried and selected for value addition • Number of pilots for waste-to-energy using PPP model • Number of men / women trainees • Number of jobs created • g-TEQ/a of uPOPs releases avoided • Number of additional investments on recycling for replication and sustainability 	<p>Biomass waste recycling exist in some participating countries</p>	<ul style="list-style-type: none"> • At least two (2) biomass sources identified • Two (2) pilot demonstration projects on waste-to-energy (biogas, bracketing, etc.) • One (1) regional awareness seminar on BAT/BEP plans with at least 14 participants (men/women) • At least two (2) workers employed to operate pilot demonstration projects • 17% of annual releases reduction of uPOPs • At least 70 men/women trained at national level in all participating countries to promote biomass waste recycling • Recycling enterprises sustained and replicated in participating countries 	<ul style="list-style-type: none"> • No waste-to-energy pilot project has been identified in the region yet • However, Specific BAT/BEP pilot demonstration projects were initiated in three (3) project countries: <ul style="list-style-type: none"> ✓ Lesotho on Recycling of Textile Discards (RTD) in Maputsoe District. In February 2020, a study tour to Prato and Milan, Italy carried out to enable seven (7) government officials and experts (6 female/1 male) from Lesotho gather information and gain knowledge on BAT/BEP that Italian companies use in recycling textile. The Lesotho National Development Corporation (LNDC) nominated by the Ministry of Tourism, Environment and Culture to conduct a detailed inventory of textile discards in Maputsoe as well as techno-economic study (marketing survey and feasibility study). On July 31st, 2020, UNIDO and LNDC signed the contract to conduct a detailed inventory of textile discards in Maputsoe District and conduct a techno-economic study for the pilot project. To date, LNDC has completed and submitted to UNIDO final reports of the Marketing Survey (MS) and a detailed inventory of textile discards in Maputsoe district on July 11th, 2021). The final Feasibility Study report was submitted to UNIDO on 1st December 2021. And with that, the techno-economic study for the pilot project is essentially completed. ✓ Madagascar on Composting of organic waste at Antsirabe municipality. A national consultant conducted the "Assessment of organic waste generated in Antsirabe and a market

				<p>survey to explore the feasibility of the pilot plant to produce compost” where final report was submitted to UNIDO on 25th November 2020. During Q1 pf 2021, the Ministry of Environment and Sustainable Development (MESD) continued to work with Antsirabe municipality to secure the necessary permits for implementing the Composting pilot project. The Environmental Impact Assessment (EIA) permit and construction permit expected to be obtained either in Q3 or Q4 of 2022.</p> <p>✓ Zambia on Material Recovery Facility (MRF) in Livingstone to be hosted by Livingstone City Council (LCC). The tender documents for selecting a credible private sector to operate the MRF pilot project published by LCC in the end of March 2021. The Technical Committee of LCC for selecting a private company and sent its final technical report to UNIDO on 17 May 2021, whereby Waste Master Zambia Ltd (WMZL) has been selected to operate the MRF facility in August 2021. Equipment for MRF facility has been successfully procured in FY 2022. Currently, the Livingstone City Council (LCC) and WMZL are discussing the terms of the MoU/contract for operating the MRF project. Once the MoU/contract is signed between these two, the construction of the facility of the MRF project will start and should be completed by Q1 2023</p> <ul style="list-style-type: none"> • In April 2022, UNITAR developed an e-learning training module on “Waste-to-energy concepts (e.g. biomass waste recycling and disposal options)”. This module is composed of a guidance document, and a PPT. This module will be part of UNITAR’s regional training workshop to be held in Tanzania this year (2022). • UNITAR will conduct the second round of the regional awareness seminars on biomass waste recycling and disposal options for the project countries as part of regional training workshop scheduled to be conducted in Tanzania this year (2022).
<p>Output 3.4: Harmonized methodology developed to set-up uPOPs release reduction targets for open burning sector at regional level</p>	<ul style="list-style-type: none"> • Number of trainees (men/women) • Harmonized release reduction targets on open burning of waste 	<p>National reports on methodologies for uPOPs release reduction</p>	<ul style="list-style-type: none"> • One (1) regional workshop to harmonize methodology with at least 14 participants (men/women) • At least five (5) global workshops promoting replication of methodology for uPOPs releases reduction during project life • Regional methodology for uPOPs release reduction 	<ul style="list-style-type: none"> • UNITAR will conduct a regional workshop to develop a harmonized methodology to set-up uPOPs release reduction targets for open burning sector for the project countries this year (2022) as part of regional training workshop.

Output 3.5: Socio-economic impacts of the project intervention on private and informal sectors including recycling business plans assessed	<ul style="list-style-type: none"> • Number of jobs created • Baseline and result surveys • Number of trainees (men/women) • Decreased number of individuals working in poor or ultra-poor households 	Working poor and ultra-poor at low socio-economic level is the main workforce at landfills and dumpsites	<ul style="list-style-type: none"> • Two (2) PPPs in each participating country providing job opportunities to working poor and ultra-poor • One (1) national awareness seminar on PPP models with at least 10 participants (men/women) in each participating country • Baseline and results surveys evaluated in all participating countries • At least one (1) study tour for 2 individuals from each participating country • 50% improved livelihood of people 	<ul style="list-style-type: none"> • No PPP models have been established in the participating countries yet. Recyclable Collection Centres (RCCs) have not been operational yet in any of the project countries. • UNITAR rolled out part of the awareness raising seminar on PPP models. The seminars conducted (as part of UNITAR's NAT1) in Botswana, Eswatini, Lesotho, Madagascar, Mozambique, and Zambia. The seminars provided slide shows and discussions, and the media provided coverage at the seminars with interviews with representatives from the competent ministries and the participants at the seminars. (<i>See progress to-date under Output 3.1 for the number of participants and gender representation in each country for the seminars</i>) • In April 2022, UNITAR developed an e-learning training module on "Supporting of the private and informal sectors to promote recycling through alternative waste management plans". This module is composed of a guidance document, a PPT and a video. This module will be part of UNITAR's regional training workshop to be held in Tanzania this year (2022). • A study tour to Kigali, Rwanda carried out from 24-28 June 2019 for 14 participants from project countries (4 females/10 males) to learn about best practices as well as role of governments, private and informal sectors in waste management and recycling of waste in Rwanda. • Madagascar is the only country that prepared and submitted to UNIDO (in October 2021) a report on socioeconomic baseline and result surveys for evaluation of the effects of the project.
---	---	--	--	---

Component 4 – Information dissemination and awareness raising

Outcome 1: Knowledge transfer on BAT/BEP for replicability and awareness raising on uPOPs related risks and exposure in open burning sector

Output 4.1: Targeted training and awareness campaigns emphasizing health and environmental risk and exposure hazards of open burning practices for all relevant target groups observing appropriate gender representations (decision makers, professional associations, women/youth group associations, community leaders, farmers, women's groups, private industries, waste pickers, NGOs, media and the public at large) carried out	Number of individuals participating in the awareness raising programs in each participating country	Lack of awareness of health and environmental hazards at open burning sites	<ul style="list-style-type: none"> • One (1) regional training workshop to train trainers with 14 participants (men/women) • At least one (1) targeted training and awareness campaign at two (2) selected landfills/dumpsites in each participating country with 10 participants (gender representation observed) • One seminar for at least 10 workers/waste pickers (men/women) in 	<ul style="list-style-type: none"> • UNITAR conducted a regional training workshop on the health and environmental risks and exposure hazards of open burning practices in Livingstone, Zambia from 7-8 March 2019 for 18 participants from the project countries (5 females/13 males). • UNITAR conducted national awareness raising seminars on the health and environmental risk and exposure hazards of open burning practices in Botswana, Eswatini, Lesotho, Madagascar, Mozambique, and Zambia. (<i>See progress to-date under Output 3.1 for the number of participants and gender representation in each country for the seminars</i>) • UNITAR will conduct national seminars for workers/waste pickers on the health risks associated with collection, transport and segregation of waste and measures that have to be taken while handling waste, as well as on exposure hazards of open burning practices in participating countries. Training materials incl. videos have already
--	---	---	--	--

			each participating country	been developed by UNITAR and will be made available to the countries for use in their local training of waste pickers and workers.
Output 4.2: Educational programmes for introduction of lessons learned and alternatives to open burning practices established at all levels in each participating country	<ul style="list-style-type: none"> Educational programmes on alternatives to open burning introduced Number of trainees (men/women) on alternative to open burning of waste 	Waste management courses in educational curricula are not available	<ul style="list-style-type: none"> Waste management courses incorporated into curricula at high school level in all participating countries At least one (1) seminar in all participating countries on BEP 	<ul style="list-style-type: none"> Media campaigns: UNITAR provided a general set of background material for the countries' own adaptation to national media campaigns. Awareness raising activities – including media campaigns conducted in six (6) participating countries, except Tanzania. During these awareness raising activities, all key aspects were presented to invited stakeholders (slide shows and discussions), and the media provided coverage of the 1-day workshop with interviews with representatives from the Ministry of Environment in each project country and other participants <u>Educational programmes:</u> UNITAR held meetings with national universities in six (6) project countries (Botswana, Eswatini, Lesotho, Madagascar, Mozambique, and Zambia- except Tanzania) for the creation of accreditation courses on waste management and reduction of open waste burning for actors in the waste management and recycling value chain of the country. The training material developed with UNITAR under the project to be shared with the national universities for open use (various slide shows on risk, BAT/BEP, waste management planning, the Stockholm convention and occupational safety, etc.). UNITAR will conduct both media campaigns and hold meetings with a national university in Tanzania during national training scheduled to be done this year (2022).
Output 4.3: Regional cooperation on BAT/BEP and uPOPs and information sharing established through the BAT/BEP Forum	BAT/BEP information sharing system in SADC region established	BAT/BEP Forum regional action plan agreed for open burning as priority	<ul style="list-style-type: none"> A database and website created to support Regional BAT/BEP Forum One (1) regional workshop for sharing experience and information on BAT/BEP with 20 participants Networking with Global Forums and Ecotowns Appropriate gender representation observed 	<ul style="list-style-type: none"> UNITAR created a database information system in the form of a website: http://stopopenburning.unitar.org/ that included both national and regional sub-sites. Reports from six (6) project countries on inventories of countries' landfill, dumpsites, and hotspots for open burning of waste as well as baseline studies conducted at selected municipalities uploaded onto the website developed by UNITAR. Furthermore, the website will also include (i) information on the status of uPOPs releases and existing BAT/BEP implementation in the participating countries and (ii) results of this project, including the pilot demonstration projects. In December 2017, seven (7) government officials/managers participated in a seminar organized for Ecotown managers in Kitakyushu, Japan. The purpose of the seminar is to acquire an understanding of circular economy based on Japanese experience covering policy development, legal aspects and introduction of Ecotown concept and transfer of technologies related to e-waste treatment.
Component 5 – Monitoring and evaluation of results				

Outcome 1: Design and implementation of Monitoring and Evaluation (M&E) framework in accordance with UNIDO and GEF requirements					
Output 5.1: Project intervention monitored, and project progress evaluated	Project M & E conducted	A project data management system (PDMS) not available	<ul style="list-style-type: none"> • Hold stakeholder consultation workshop • Introduce monitoring and impact indicators • Hold annual Regional Project Steering Committee meetings • Prepare annual project financial audits • Prepare annual Project Implementation Reports • Carry out mid-term review (MTR) • Carry out terminal evaluation • Prepare Terminal report • Establish a project data management system (PDMS) 	<ul style="list-style-type: none"> • Stakeholder consultation and inception workshop held in Gaborone, Botswana in 27-28 May 2016 • Project Coordination Units (PCUs) in all project countries established • National POPs Focal Points involved • Contact person at national executing partners identified • Four (4) Regional Project Steering Committee (PSC) meetings were held: <ul style="list-style-type: none"> (i) 1st PSC meeting - Maputo, Mozambique, 4-5 April 2017 (ii) 2nd PSC meeting - Antananarivo, Madagascar, 20-21 March 2018 (iii) 3rd PSC meeting - Livingstone, Zambia, 5-6 March, 2019 (iv) 4th PSC meeting - Gaborone, Botswana, 29-30 August 2019 (v) 5th PSC meeting - Virtual Zoom meeting held on 10th December 2020 (vi) 6th PSC meeting – Virtual Zoom meeting held on 17th December 2021 • MTR started September 2021, and the final MTE report submitted to UNIDO by the evaluators on April 15th, 2022. 	

III. Project Risk Management

1. Please indicate the overall project-level risks and the related risk management measures: (i) as identified in the CEO Endorsement document, and (ii) progress to-date. Please expand the table as needed.

Describe in tabular form the risks observed and priority mitigation activities undertaken during the reporting period in line with the project document. Note that risks, risk level and mitigations measures should be consistent with the ones identified in the CEO Endorsement/Approval document. Please also consider the project's ability to adopt the adaptive management approach in remediating any of the risks that had been sub-optimally rated (H, S) in the previous reporting cycle.

	(i) Risks at CEO stage	(i) Risk level FY 21	(i) Risk level FY 22	(i) Mitigation measures	(ii) Progress to-date	New defined risk ⁵
1	The surveys and the updated uPOPs inventories will not be conclusive as national staff appointed to the surveys and inventory update	Low risk (L)	Low risk (L)	Information collection will address some of the representative regions/provinces and the data will be extrapolated for the whole country. National staff will be trained in proper inventory methodologies by international experts who will be recruited for conducting field surveys and review of inventories	<ul style="list-style-type: none"> • Relevant stakeholders including government authorities trained at regional and national levels on updating uPOPs inventories. Detailed inventories conducted in all project countries and data uploaded in database established for the project for information sharing. 	<input type="checkbox"/>

⁵ New risk added in reporting period. Check only if applicable.

	might not be sufficiently skilled in uPOPsevaluation.					
2	Laws and regulations are partially developed in some countries. Relevant stakeholders and technicians not sufficiently trained in BAT/BEP and uPOPs monitoring and not all participating countries have the required resources to maintain uPOPs laboratory up to the standards.	Low risk (L)	Low risk (L)	<p>Special attention and support will be given to national authorities to ensure enforceability and a full coverage of the partially developed regulatory frameworks. This will be done by institutional capacity building and conducting targeted trainings to law enforcement authorities. National technical and laboratory staff will be trained on technical aspects of BAT/BEP in open burning sector and the specific methodologies for uPOPs monitoring. The network of laboratories in the SADC region will be enabled to deal with specific requirements of uPOPs analyses. Funding for equipment purchases and supporting institutions will be mobilised.</p> <p>Even though it is not expected that all laws and regulations be amended in all participating countries, targeted awareness campaigns and seminars on best practices to manage releases of uPOPs from open burning of waste, will be undertaken focusing on law enforcement personnel and other relevant multi-stakeholders.</p>	<ul style="list-style-type: none"> Laws and regulations in relation to open burning practices reviewed by all project countries National multi-stakeholder consultations to fill gaps in reviewed laws and regulations undertaken in all project countries, but training of law enforcement personnel has not been conducted in any of the project countries. The training of law enforcement personnel is expected to take place by the first quarter in 2023. No technical training to laboratory staff has taken place yet in the project countries. It is expected that, the technical training will take place in 2022 or early 2023. 	<input type="checkbox"/>
3	BAT/BEP implementation programs in small dumpsites may not be feasible and cost efficient; BAT/BEP measures in large landfills will not achieve the assumed positive results, thus will not be cost-effective within the project lifetime.	Medium risk (M)	Medium risk (M)	<p>Upon reviewing the baseline, demonstration sites will be selected, and alternative simplified technology adoption programs will be identified. To address costs and time constraints, the project will focus on the existing hot-spot landfills to demonstrate cost-effective BAT/BEP implementation and technology transfers. The BAT/BEP will be developed and implemented using financial models that mobilize private sector participation to ensure cost effectiveness and continuation of new practices after the project life-time.</p>	<ul style="list-style-type: none"> Baseline assessments of selected potential municipalities to implement BEP measures have been completed in 6 project countries Contracts for implementation of BEP measures in 2 municipalities in each project countries issued for Eswatini (July 2019), Lesotho (August 2019), Zambia (November 2019) Madagascar (March 2021), Tanzania (April 2021), and Mozambique (January 2022). Based on baseline assessment, three (3) potential pilot demonstration projects to introduce BAT identified where private sector participation is envisaged: Recycling of Textile Discards (Lesotho); Composting of organic waste (Madagascar); and Material Recovery Facility (MRF) (Zambia). 	<input type="checkbox"/>
4	Higher cost of waste management measures may cause stakeholders to abandon the project activities; release reduction targets will not be confirmed and adopted in the national context.	Low risk (L)	Medium risk (M)	<p>Incentive and regulatory programmes, and direct technical and financial assistance will be included in the project to reduce or eliminate these risks. Adequate mechanisms for mobilizing private sector will be identified, developed and implemented. The release reduction targets will be aligned with the on-going national programs in order to set realistic and achievable targets in each participating country.</p>	<ul style="list-style-type: none"> Implementation of waste management plans introducing BEP measures in two selected municipalities in each participating country using financial models/assistance to incentivize the private sector to be engaged and help implementing these waste management plans has started in six participating countries (Eswatini, Lesotho, Madagascar, Tanzania, and Zambia, and Mozambique (signed contract in January 2022). It is very unlikely that all these six (6) countries will complete their BEP pilot project in two selected sites by mid-year 2023. Furthermore, the baseline study in the two selected municipalities in Botswana is yet to be conducted. 	<input type="checkbox"/>

5	Due to low participation and interest of stakeholders and general public the project will not be able to create the critical mass of human resources to support BAT/BEP.	Low risk (L)	Low risk (L)	Dedicated workshops will address broader issues than uPOPs, such as waste management and related agricultural activities. BAT/BEP concerning open burning will be integrated in higher level education. Experiences from BAT/BEP Forums of other regions will also be used	<ul style="list-style-type: none"> Regional and national training workshops on BAT/BEP measures as well as awareness raising campaigns on health and environmental risks associated with open burning practices carried out in six (6) participating countries. UNITAR will conduct the national training workshops in Tanzania this year. 	<input type="checkbox"/>
6	Effects of climate change will influence project implementation and minimize the results; GHG emissions from existing open burning activities and BAT/BEPs will not be considered; risks and changes in behavioral patterns arising from climate change (extreme weather events, changes in open burning practices and disaster management, etc.) will disable implementation of project components.	Medium risk (M)	Low risk (L)	National Communications to the UNFCCC and other relevant assessments of vulnerability of all participating countries to the effects of climate change will be considered. All project components will introduce adaptation aspects in waste management sector of participating countries on the basis of their specific climate change related situation. Given the infancy stage of waste management in all participating countries, open burning activities and improperly managed landfills are significant contributors to greenhouse gas releases including carbon dioxide and monoxide (from improper waste burning) and methane and nitrogen oxides (due to anaerobic digestion of waste). Introducing BAT/BEP at the disposal sites will mitigate GHG emissions compared to the baseline situation. GHG emissions from new practices and BAT/BEP will be estimated and the reductions emphasized. Climate change adaptation aspects will be assessed for each demonstration site and strongly considered when identifying, developing and implementing BAT/BEP. If necessary and appropriate, international climate change expert will be involved to estimate mitigation/adaptation effects and requirements of specific project components and activities in detail.	<p>Not applicable at this stage</p> <ul style="list-style-type: none"> UNITAR will conduct a regional workshop to develop a harmonized methodology to set-up uPOPs release reduction targets for open burning sector for the project countries this year (2022) as part of REG2 training workshop. A pending activity (Activity 2.3.2) which is aimed at, among other things, introducing climate change adaptation aspects, is scheduled to be implemented either this year (2022) or early next year (2023). An international climate change expert could be hired to implement this activity. 	<input type="checkbox"/>
7	Delay in project implementation activities at project site due to COVID-19 pandemic	Low risk (L)	Low risk (L)	Reinforce revised timelines for implementation prepared	<p>Workplan for project countries revised considering the present crisis of COVID-19 pandemic</p> <ul style="list-style-type: none"> Restrictions from COVID-19 have been lifted in almost all the participating countries earlier this year (2022). 	<input type="checkbox"/>

2. If the project received a sub-optimal risk rating (H, S) in the previous reporting period, please state the actions taken since then to mitigate the relevant risks and improve the related risk rating. Please also elaborate on reasons that may have impeded any of the sub-optimal risk ratings from improving in the current reporting cycle; please indicate actions planned for the next reporting cycle to remediate this.

The project did not receive sub-optimal risk rating in the previous PIR.

3. Please indicate any implication of the **COVID-19** pandemic on the progress of the project.

During the reporting period, the COVID-19 pandemic has continued to affect the implementation of project activities both at regional and national levels. The Annual (6th) PSC meeting was held virtually in December 2021. Restrictions has eased up as of the beginning of 2022.

Due to the pandemic and restriction on movements since March 2020, until early 2022, field work has stopped, and delivery of outputs are delayed resulting in the revision of original workplans of the project countries to accommodate the time lost during the lockdown. Most of the stakeholders have been working remotely, necessary media such as internet may not be available, and that hampered communication with the project countries.

In-person training will resume in Q3 2022 in Tanzania, for all participating countries. Field visits will be planned to accelerate the implementation of pilot projects.

4. Please clarify if the project is facing delays and is expected to request an **extension.**

The project is facing delays, especially regarding the implementation of BAT/BEP pilot demonstration projects in Lesotho, Madagascar and Zambia for the recycling of Textile Discards, composting of Organic Waste, and establishment of a Material Recovery Facility. Some stakeholders are still to provide parcels for the establishment of the facilities, or are still to be approved PPP agreement for the facilities established.

Furthermore, some countries, e.g. Botswana and Mozambique are still behind in implementing BEP pilot projects in the two municipalities. The delays are mainly attributed to the delays experienced during the restrictions implemented in the sub-region during COVID-19 pandemic, which caused the preparatory phase for the Specific BAT/BEP pilot projects to be pushed back significantly. Additionally, staff changes within competent ministries in some of the participating countries has also caused delays in implementing project activities.

An extension of one year is foreseen to ensure the successful completion of the Project.

5. Please provide the **main findings and recommendations of completed MTR, and elaborate on any actions taken towards the recommendations included in the report.**

Main Findings of the Mid-Term Review (MTR):

For this midterm evaluation, given the Covid19 pandemic, no field visits were undertaken. The assessment was mainly based on in-depth review of project documentation, skype (zoom, WhatsApp, or other forms of communication) interviews, and email communications. Based on the findings of the review and the discussions held, the evaluation came to the following conclusions;

Relevance: The project is addressing issue of open burning, one of the priorities identified in the countries' national implementation plans of the Stockholm Convention, and is consistent with the GEF5 strategy on Chemicals and Waste.

Efficiency: Due to a slow start and the Covid19 pandemic, the delivery of outputs has been significantly affected. Despite the active involvement of key stakeholders, the significant contribution of municipalities at the pilot sites as well as application of some cost-effective measures such as using most efficient options to hire consultants and service providers or building on previous initiatives, efficiency is considered moderately unsatisfactory.

Effectiveness: The assessment for this criterion was done at three levels: the achievement of outputs and outcomes and the likelihood of impact (behavioral change). The assessment of outputs and outcomes was based on the availability of their respective indicators. The project has not performed satisfactorily regarding achievement of outputs. The ratings for the 14 outputs are as follows: satisfactory: 3 outputs; moderately satisfactory: 1 output; moderately unsatisfactory: 5 outputs; unsatisfactory: 4 outputs; and highly unsatisfactory: 1 output. The four (4) substantive project outcomes have been rated moderately

unsatisfactory, unsatisfactory, unsatisfactory and satisfactory respectively. Nevertheless, there are already some visible signs of impact at the project sites.

Sustainability: Some financial, institutional framework and governance as well as sociopolitical risks that may jeopardize the project sustainability have been identified. On the other hand, risks for the environmental dimension are considered low.

Monitoring and evaluation: The logical framework proposed in the project document is adequate to allow for tracking of results and proper monitoring of progress. The monitoring and evaluation system is in place and the set of indicators in the project results framework are being used by the project team for an adequate monitoring and evaluation of the implementation process. All the planned project steering committee meetings have been held and the expected reports, such as the project implementation review reports, have been timely submitted.

Project management: The project is being satisfactorily managed by national project teams under the adequate guidance and supervision of UNIDO. However, the late issuance of contracts to countries and the non-recruitment of a regional project coordinator have contributed to a slow start of project

Assessment of the project		
	Evaluation criteria	Rating
A	Project Design	MS
B	Implementation performance	
1	• Relevance	HS
2	• Effectiveness	MU
3	• Efficiency	MU
4	• Sustainability of project outcomes	ML
5	• M & E systems	S
6	• Project management	MS
C	Gender mainstreaming	S
	Overall assessment	MS

Recommendations of MTR

To UNIDO:	
1.	The project has already been granted a two-year extension. However, the evaluation considers that this extension may not be sufficient for the successful completion of project implementation. Due to a slow start, the project suffered a delay of almost two years. With the pandemic outbreak, implementation was further delayed by at least one year. The evaluation therefore recommends another project extension of one year to allow for a smooth and successful completion of project activities that would contribute to achieve all the project objectives, and hence increase the chances of sustainability of the project results.
To UNIDO, RPC:	
2.	During the monitoring of progress and the tracking of results, project management should ensure that all indicators (for project objective, outcomes and outputs) mentioned in the Project Results Framework of the Project Document are considered for reporting (PIRs),
To UNIDO, UNITAR, RPSC:	
3.	Currently, national data, information, and results of the project are reported in the regional database information system website: http://stopopenburning.unitar.org/ created by UNITAR. The project should put in place a mechanism such that this website would still be functional and be regularly updated after project closure.
4.	UNITAR will be undertaking a number of regional as well as national training workshops for the participating countries. As far as possible and feasible, it is recommended that the training material should be available in Portuguese and French as well. It is also recommended that translation

<p>services should be available in those languages if requested by the relevant country.</p>
<p>To UNIDO, RPSC:</p>
<p>5. The BAT/BEP pilot demonstration projects at the municipalities are key outputs of the project. Some challenges such as poor internet connection and language barrier were highlighted by the countries (municipalities) during the online training on BAT/BEP for the sound management of solid waste provided by TU Wien. To ensure successful implementation of these pilot demonstrations, it is recommended that TU WIEN be sub-contracted to provide a second set of training, preferably face-to-face if possible and feasible. It should be ensured that the training material be available in French and Portuguese, and translation service as well during the training sessions if required by the relevant country.</p>
<p>To UNIDO, RPC, RPSC, Countries:</p>
<p>6. A number of countries are lagging behind for a number outputs (Outputs 1.2; 2.2; 2.3 3.1 and 3.2) in terms of execution of activities or reporting for these outputs, and these should have been completed by Year 1, 2, or 3 of implementation. The project is currently in the 6th year of implementation, project management should closely monitor progress and ensure that these are completed in the shortest delay.</p>
<p>To UNIDO, RPSC, Countries:</p>
<p>7. Output 2.4 should have been completed by the end of Year 4 of implementation. Currently the project is in the 6th year of implementation, and activities for this output have not started yet. The evaluation recommends that the project take immediate actions to identify an existing laboratory (or two) in the region that could be strengthened to provide training to the participating countries on UOPs monitoring (sampling and if possible, analysis).</p> <p>8. Awareness raising activities are planned for the last part of the project. It is recommended that women, children and population at risks (waste pickers, etc.) should be particularly targeted and the project should also consider involving local NGOs to carry out these activities.</p> <p>9. The pilot projects will soon be operational, and this will involve waste picker communities or associations. It is planned to raise their awareness regarding health risk posed by exposure to toxic chemicals at the dumpsites. The project should also consider providing them with personal protective equipment to protect their health and if possible, with small equipment such plastic or paper compactors as incentives to secure their engagement in the project (socio-economic benefits)</p> <p>10. Africa Institute has been sub-contracted to monitor project progress and measure impact indicators. In that context, it has developed an instrument (template) that it transmitted to the countries to gather information. It is understood that the countries are not timely reporting, it is recommended that countries should report as agreed to allow Africa Institute complete their work satisfactorily.</p>
<p>To UNIDO and Lesotho:</p>
<p>11. UNIDO is developing a regional initiative: <i>Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Lesotho, Madagascar and South Africa</i> (GEF ID 10543), in which Lesotho is a participating country. Given that Lesotho is implementing the pilot project on the recycling of textile discard, it is recommended that the project should create linkages / synergies with this initiative.</p>
<p>Main actions taken to implement MTR recommendation:</p>

- Component 2: Capacity-building is underway for national stakeholders, and UNIDO is working towards strengthening monitoring and enforcement capacities regarding uPOPs emission. UNIDO has already requested and received proposals from laboratories for capacity upgrade and training of personnel. By the end of this year (2022) or by early next year (2023), the activities of this output will be completed.
- Component 3: Due the delays experienced in implementing the major pilot projects, largely due to the restrictions imposed by COVID-19, UNIDO is considering applying for one year extension, to allow for a smooth and successful completion of project activities that would contribute to achieve all the project objectives, and hence increase the chances of sustainability of the project results. UNIDO is leading consultation with national stakeholders in Lesotho and Tanzania to accelerate the implementation of BAT/BEP pilot projects.
- Component 4: Face-to-face training on uPOPs emission and BAT/BEP to representatives from the project countries in Tanzania will resume in Q4 2022. Furthermore, UNITAR will also conduct national level training workshops and seminars in Tanzania as well. UNIDO also has engaged SADC Secretariat and discussed with them the possibility of having the latter to host and maintain the regional website created by UNITAR. No commitment from SADC Secretariat has been secured yet, but it possible that the Secretariat will respond positively to UNIDO's request. Furthermore, a series of targeted awareness raising workshops and seminars for waste pickers, women, children, and other vulnerable groups, are planned. Special emphasis will be given to the training of the trainers concept, as UNITAR has developed a number of modules, videos, etc, to help the participating countries conduct national level workshops, seminars, etc.

IV. Environmental and Social Safeguards (ESS)

1. As part of the requirements for **projects from GEF-6 onwards**, and based on the screening as per the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), which category is the project?

☐ Category A project

☐ Category B project

☐ Category C project

(By selecting Category C, I confirm that the E&S risks of the project have not escalated to Category A or B).

Notes on new risks:

- *If new risks have been identified during implementation due to changes in, i.e. project design or context, these should also be listed in (ii) below.*
- *If these new/additional risks are related to Operational Safeguards #2, 3, 5, 6, or 8, please consult with UNIDO GEF Coordination to discuss next steps.*
- *Please refer to the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP) on how to report on E&S issues.*

Please expand the table as needed.

	E&S risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
--	----------	--	--

(i) Risks identified in ESMP at time of CEO Endorsement	NA	NA	NA
(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)	NA	NA	NA

V. Stakeholder Engagement

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes** regarding engagement of stakeholders in the project (based on the Stakeholder Engagement Plan or equivalent document submitted at CEO Endorsement/Approval).

During the reporting period, stakeholders' involvement was secured as follows:

- The 6th Regional PSC meeting via Zoom platform on 17th December 2021 whereby all seven (7) POPs Focal Points from project countries, a representative from Africa Institute, two (2) representatives from UNITAR and the two (2) MTR evaluators attended the meeting.
- Botswana, Eswatini, Lesotho, Madagascar, Mozambique and Tanzania submitted either one or two sets of reports (each) on national activities conducted and implementation of BEP pilot project in selected sites. Each set of reports involves implementation of 2-7 activities depending on what stage of implementation each country is at, and what national activities these countries have implemented.
- UNITAR (as per its revised contract signed with UNIDO) developed nine (9) e-learning modules. Each module is equipped with a guidance document and a PPT. Three (3) of the modules will have a video. The modules will be introduced to the participating countries this year (2022) in Tanzania as part of UNITAR's REG2 regional training workshop. The modules will be available to the participating countries (through the regional website created by UNITAR) for use to conduct national trainings, seminars, etc, at the countries' level.
- The Lesotho National Development Corporation (LNDC) from Lesotho (as per its contract signed with UNIDO) has completed and submitted to UNIDO final reports of the Marketing Survey (MS) and a detailed inventory of textile discards in Maputsoe district as well as the final Feasibility Study in Maputsoe district in Lesotho for implementing a pilot demonstration project in Recycling of Textile Discards. And with that, the techno-economic study for the pilot project is essentially completed.
- For the Material Recovery Facility (MRF) pilot demonstration project, UNIDO led consultations with Livingstone City Council in Tanzania and provided technical assistance for the prompt signature of an MoU establishing a PPP for waste management with a selected private operator.
- Due to COVID-19 restrictions in the sub-region which went well into early 2022, UNIDO has continued to hold several consultative meetings via Zoom and other social media means (e.g. WhatsApp) with representatives from the competent Ministries in the participating countries. As the result of these consultations, the Department of Waste Management and Pollution Control (DWMPC) in Botswana received approval from the competent ministry to conduct the baseline study in the two (2) districts for implementing the BEP pilot project in two (2) districts
- Mozambique signed its BEP pilot project in the two (2) municipalities contract with UNIDO in January 2022;

2. Please provide any feedback submitted by national counterparts, GEF OFP, co-financiers, and other partners/stakeholders of the project (e.g. private sector, CSOs, NGOs, etc.).

During the 6th PSC meeting held virtually on 17th December 2021, project countries recommended the following:

- (i) Existing laboratory/ies in participating countries will be identified to strengthen their capacities for the sampling and analysis of uPOPs. Criteria for selection will be prepared and priority will be given to those countries that are not currently hosting any of the specific BAT/BEP pilot projects.
- (ii) Countries shall submit their concepts for a particular issue related to open burning and COVID-19 for funding consideration.
- (iii) The MTR Evaluators' recommendations shall be taken into consideration and followed through until the conclusion of the project.
- (iv) Africa Institute's contract in conducting the M&E for the project shall be renewed.
- (v) UNIDO shall contact and discuss with SADC Secretariat the possibility of having the latter to host and maintain the regional project's website created by UNITAR.

3. Please provide any **relevant stakeholder consultation** documents.

6th virtual PSC meeting (17th December 2021) documents:

- 5322_Aide Memoire- 6th PSC meeting- 17th December 2021.pdf
- 5322_Meeting Agenda- 6th PSC meeting- 17th December 2021.pdf
- 5322_Proceedings- 6th virtual PSC meeting - finalized 15th January 2022.pdf
- 5322_Recommendations email thread- 6th virtual PSC meeting open burning - 17th December. 2021.pdf

Countries Reports

- 5322_Botswana PR2 report for national coordination activities_Nov2021.pdf
- 5322_Eswatini PR1 report for BEP pilot project_April2021.pdf
- 5322_Eswatini PR2 report for national coordination activities_Sept2021.pdf
- 5322_Lesotho PR1 report for BEP pilot project_Dec2021.pdf
- 5322_Lesotho PR1 report for national coordination contract_Oct2021.pdf
- 5322_Lesotho PR2 report for national coordination contract_Oct2021.pdf
- 5322_Madagascar kickoff report for BEP pilot project- March2022.pdf
- 5322_Madagascar PR4 report for national coordination contract_Sept2021.pdf
- 5322_Madagascar Workplan for Antehiroka Talatamaty municipalities- March2022.pdf
- 5322_Madagascar Workplan for Antsirabe municipality- March2022.pdf
- 5322_Mozambique PR2 report for national coordination contract_Sept2021.pdf
- 5322_Tanzania kickoff report for BEP pilot project- Oct2021.pdf
- 5322_Tanzania PR2 report for national coordination contract_Oct2021.pdf
- 5322_Tanzania work plan for Ubungu and Kigamboni municipalities for BEP pilot project- Oct2021.pdf

Countries Quarterly Progress Reports

- 5322_Botswana quarterly progress reporting- Up to Q1 2022- Received May2022.pdf
- 5322_Eswatini quarterly progress reporting- Up to Q1 2022- Received June2022.pdf

- 5322_Lesotho quarterly progress reporting- Up to Q1, 2022- Received July 2022.pdf
- 5322_Madagascar quarterly progress reporting- Up to Q1 2022- Received May2022.pdf
- 5322_Tanzania quarterly progress reporting- Up to Q1 of 2022 for national activities- June2022.pdf
- 5322_Tanzania quarterly progress reporting- Up to Q1 of 2022 for BEP pilot project- June2022.pdf
- 5322_Zambia quarterly progress reporting- Up to Q1 2022- Received July2022.pdf

Co-financing reports

- 5322_Eswatini co-financing report- 2017 to 2021- Received July2022.pdf
- 5322_Lesotho co-financing report- 2016 to 2021- Received July2022.pdf
- 5322_Madagascar co-financing report- 2016 to 2021- Received March2022.pdf
- 5322_Tanzania co-financing Report - 2018 to 2021- Received June2022.pdf
- 5322_Zambia co-financing report- Up to until Q1 of 2022- Received Feb2022.pdf

UNITAR reports for the reporting period

- 5322_UNITAR updated workplan for REG2 and NAT2- June2022.pdf

Minutes of conference calls meetings with some project countries for the reporting period

- 5322_Zambia MRF project- Minutes and resolutions of Zoom meeting- Sept23rd- 2021.pdf
- 5322_Zambia MRF project- Minutes and resolutions of Zoom meeting- Sept28th- 2021.pdf

Project progress reports

- 5322_RC Final report - Dec21.pdf
- 5322_RC Progress Report- Jan to June 2022.pdf

Mid-Term Evaluation Report

- 5322_MTE final report- April2022.pdf

VI. Gender Mainstreaming

1. Using the previous reporting period as a basis, please report on the **progress achieved **on implementing gender-responsive measures** and **using gender-sensitive indicators**, as documented at CEO Endorsement/Approval (in the project results framework, gender action plan or equivalent),.**

Gender considerations in POPs management plays a crucial role because of the transfer of POPs chemicals from childbearing mothers to unborn children making this group in particular risk. In most of the project countries, women and children are predominant as waste pickers in dumpsites that receives large organic and inert rubbish and where open burning activities is taking place. Little they know the negative effect on their health due to unhygienic conditions and nature of their work that exposes them to infectious diseases and toxic substances that may cause illnesses.

Thus far, a total of 522 people (234 females/288 males- 45% of female participation) participated and benefited from workshops, seminars conducted at the regional and national levels for this project.

VII. Knowledge Management

1. Using the previous reporting period as a basis, please elaborate on any knowledge management activities / products, as documented at CEO Endorsement / Approval.

- The tool for waste management plans developed by TU Wien is an innovative IT-based tool allowing municipal stakeholders to visualize waste flow and to develop waste management plans based on quantities, constraints and technologies available
- A techno-economic study in Maputsoe District in Maputsoe, Lesotho, as part of implementing the Recycling of Textile Discards has been completed by Lesotho National Development Corporation (LNDC) in Lesotho.
- Cooperation Agreements (CAs) and/or Memorandum of Understanding (MoU) documents for establishing BEP pilot projects in two municipalities were signed in four (4) countries.
- A Memorandum of Understanding establishing a PPP for waste management in Livingstone, Zambia, was developed by the Project and should be signed by Q4 2022
- Plans for establishing Recyclable Collection Centres (RCCs) prepared by two (2) countries.
- Nine (9) e-learning training modules were developed by UNITAR, three of which include videos. Each module is composed of a guidance document and a PPT. UNITAR will hold regional training workshop for the participating countries this year (2022). Below is the list of the modules developed by UNITAR:
 1. BAT/BEP concept, procedures, and guidelines on reduction and/or elimination of open burning of waste and agricultural residues- VIDEO IS INCLUDED.
 2. Preventing irrational dumping of waste
 3. Preventing open burning practices
 4. Promoting occupational health safety and hygienic measures at the landfill sites
 5. Best practices in waste management in relation to open burning of waste including case studies- VIDEO IS INCLUDED
 6. The role of private and informal sectors in waste recycling- VIDEO IS INCLUDED
 7. Waste-to-energy concepts (e.g. biomass waste recycling and disposal options)
 8. Developing waste management regulations and compliance mechanisms
 9. COVID-19 and the sound management of medical/ healthcare waste
- Draft Waste Management Plans (WMPs) prepared by three (3) countries.
- Awareness raising materials developed by UNITAR and Lesotho.

2. Please list any relevant knowledge management mechanisms/ tools that the project has generated.

TU Wien Tools and Documents

- 5322_TU Wien- Case study- Busia Uganda- Solid Waste Management Plan- Dec2020.pdf
- 5322_TU Wien- Toolkit of Solid Waste Management Plan- Dec2020.pdf

- 5322_TU Wien WAPLA software manual for preparing Solid Waste Management Plan- Dec2020.pdf
- 5322_TU Wien-Template document for designing Solid Waste Management Plan- Dec2020.pdf

Techno-Economic Study documents for the Recycling of Textile Discards pilot project

- 5322_LNDC Feasibility Study of Techno-Economic Study- Dec2021.pdf
- 5322_LNDC Marketing Survey of Techno-Economic Study- July2021.pdf
- 5322-LNDC Detailed inventory report on textile discards- March2021.pdf

Cooperation Agreements (CAs) and/or Memorandum of Understanding (MoU) documents for BEP pilot projects in the two municipalities

- 5322_Eswatini- MoU signed with Matsapha Municipality- April2020.pdf
- 5322_Eswatini- MoU signed with Siteki Town Council-EEA- Nov2019.pdf
- 5322_Madagascar CA signed with Anteh-Tala municipalities_March2022.pdf
- 5322_Madagascar Cooperation Agreement signed with Antsirabe municipality- March2022.pdf
- 5322_Tanzania Cooperation Agreement signed with Kigamboni municipality- Oct2021.pdf
- 5322_Tanzania Cooperation Agreement signed with Ubungu municipality- Oct2021.pdf
- 5322_Zambia Cooperation Agreement signed with Chongwe Municipality- Feb2020.pdf
- 5322_Zambia Cooperation Agreement signed with Livingstone Municipality- Feb2020.pdf
- 5322_Lesotho MoU_ MTEC and MLGC for BEP pilot project- July2022.pdf

Memorandum of Understanding (MoU) for MRF project

- 5322_Zambia MRF MOU to be signed between LCC and WMZL- June2022.pdf

Plans for establishing Recyclable Collection Centers (RCCs)

- 5322_Eswatini Plans for establishing RCCs in two municipalities_June2021.pdf
- 5322_Zambia Plan for establishing RCCs in Chongwe municipality - Aug2021.pdf
- 5322_Zambia Plan for establishing RCCs in Livingstone municipality- Aug2021.pdf

UNITAR Modules, Documents, Videos and Website link

- 5322-UNITAR_Module1_Guidance document_Best practices in WM- March2022.pdf
- 5322-UNITAR_Module1_PPT presentation_Best practices in WM- March2022.pptx
- 5322-UNITAR_Module2_Guide doc_Practices to prevent obw_March2022.pdf
- 5322-UNITAR_Module2_PPT_Practices to prevent obw_March2022.pptx
- 5322-UNITAR_Module3_Guide doc_Developing WM regulations_March2022.pdf
- 5322-UNITAR_Module3_PPT presentation_Developing WM regulations- March2022.pptx
- 5322-UNITAR_Module4_Guidance document_Preventing and abandonment of littering of waste- March2022.pdf
- 5322-UNITAR_Module4_PPT presentation_Preventing and abandonment of littering of waste- March2022.pptx
- 5322-UNITAR_Module5_BAT BEP Guidance document- March2022.pdf

- 5322-UNITAR_Module5_PPT presentation_BAT BEP Guidance document- March2022.pptx
- 5322-UNITAR_Module6_Guide doc_Private sector and waste recycling_March2022.pdf
- 5322-UNITAR_Module6_PPT_Private sector and waste recycling_March2022.pptx
- 5322-UNITAR_Module7_Guide doc_Promoting health and safety at Landfills_March2022.pdf
- 5322-UNITAR_Module7_PPT_Promoting health and safety at landfills_March2022.pptx
- 5322-UNITAR_Module8_Guidance doc_Waste to energy concepts- March2022.pdf
- 5322-UNITAR_Module8_PPT presentation_Waste to energy concepts- March2022.pptx
- 5322-UNITAR_Module9_Guide doc_COVID-19 and the SM of Med-HCW_March2022.pdf
- 5322-UNITAR_Module9_PPT_COVID-19 and the SM of Medical-HCW_March2022.pptx
- 5322_UNITAR_Links to videos of modules 1, 5 and 6- March2022.pdf
- 5322_Regional Website: <http://stopopenburning.unitar.org/>

Waste Management Plans documents

- 5322_Eswatini draft WMP for Kwaluseni Inkhundla municipality- April2021.pdf
- 5322_Eswatini draft WMP for Malindza Chieftdom municipality- April2021.pdf
- 5322_Lesotho draft WMPs for Maseru and Maputsoe municipalities- May2021.pdf
- 5322_Zambia draft WMP for Chongwe municipality- Aug2021.pdf
- 5322_Zambia draft WMP for Livingstone municipality- Aug2021.pdf

UNITAR Awareness Raising Materials

- 5322_UNITAR general leaflet.pdf
- 5322_UNITAR general public- do not burn waste poster1.pdf
- 5322_UNITAR PPE for waste picker poster.pdf
- 5322_UNITAR waste picker – what is open burning of waste poster.pdf
- 5322_UNITAR waste picker poster1.pdf
- 5322_UNITAR waste picker poster2.pdf
- 5322_UNITAR general public segregate your waste.pdf

Lesotho Awareness Raising Materials

- 5322_Lesotho 3Rs Billboard- Dec2021.pdf
- 5322_Lesotho 3Rs Brochure- Dec2021.pdf
- 5322_Lesotho 3Rs Poster- Dec2021.pdf
- 5322_Lesotho Billboard poster- Dec2021.pdf
- 5322_Lesotho Brochure on solid waste management- Dec2021.pdf
- 5322_Lesotho Consolidated Publicity Materials- Dec2021.pdf

VIII. Implementation progress

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes achieved/observed** with regards to project implementation.

Progress made during the reporting period is as follows:

Outcomes 1 & 2:

- Reports covering the establishment of national databases information systems; review and strengthening of country action plans for managing and phasing out the open burning of waste and agricultural residues; identification of two (2) municipalities to carry out waste management best practices (BEP); and carrying out national workshops on best practices in waste management as well as carrying out national awareness raising seminars on waste management plans submitted by Botswana, Eswatini, Lesotho, Mozambique and Tanzania.

Outcome 3:

- Due to COVID-19 pandemic, and the delay experienced in extending UNITAR's contract with UNIDO, the second set of national workshops and seminars could not be conducted by UNITAR
- Respective contracts for introduction of best environmental practices (BEP) in selected municipalities was signed by Mozambique in January 2022. Botswana is yet to conduct the baseline study for the two selected districts for the BEP project.
- The detailed inventory report on textile discards in Maputsoe District and a Marketing Survey Report for the Recycling of Textile Discards to be hosted by Lesotho, have been completed and submitted to UNIDO in June 2021. The Feasibility Study was completed, and the final report submitted to UNIDO on December 1st, 2021.
- For the Composting of organic waste pilot project to be hosted by Antsirabe municipality in Madagascar, the preparatory activities for the establishment of the pilot on composting is at the stage of obtaining Environmental Impact Assessment (EIA) and construction permits.
- For the Material Recovery Facility (MRF) pilot project to be hosted by Zambia, the equipment for the pilot project were purchased and delivered to Livingstone City (where the pilot project will be established).

Outcome 4:

Due to COVID-19 pandemic, UNITAR was unable to conduct the face-to-face training of the regional activities (as part of its REG2 activities) and the national activities (as part of its NAT2 activities) as travel restrictions were imposed at the project countries. UNIDO then agreed to UNITAR's proposal to develop online training modules, which could be used by the countries to conduct its training workshops locally. By April 2022, UNITAR has fully developed all nine (9) e-learning training modules. A regional training workshop on these modules, for project countries, is scheduled to take place in Tanzania this year (2022).

Outcome 5:

- The 6th PSC meeting held virtually on 17th December 2021 was attended by Focal Points and/or their representatives from all project countries, UNITAR, Africa Institute, MTR evaluators, and UNIDO.

The following depicts the resolution of the 6th PSC meeting:

- All participating countries shall submit their work plan for 2022-2023 to UNIDO no later than March 2022.
- An extraordinary PSC meeting will be held in March 2022 to discuss and agree on 2022-2023 project work plan.
- UNITAR's proposed work plan in conducting regional and national (online eLearning) workshops as part of REG2 and NAT2 for year 2022 shall be finalized and presented in the PSC meeting to be held in March 2022. UNITAR will discuss with UNIDO additional activities to be undertaken and amend the ongoing contract as possible.
- Existing laboratory/ies in participating countries will be identified to strengthen their capacities for the sampling and analysis of uPOPs. Criteria for selection will be prepared and priority will be given to those countries that are not currently hosting any of the specific BAT/BEP pilot projects.
- Countries shall submit their concepts for a particular issue related to open burning and COVID-19 for funding consideration.
- The MTR Evaluators' recommendations shall be taken into consideration and followed through until the conclusion of the project. MTR report will be circulated to participating countries for comments.
- All countries and project partners shall submit their co-financing reports not later than 28th February 2022.
- Africa Institute's contract in conducting the M&E for the project shall be renewed.

- UNIDO shall contact and discuss with SADC Secretariat the possibility of having the latter to host and maintain the regional project's website created by UNITAR.
- The continuous services of the Regional Project Coordinator is of importance for the successful coordination of project activities and therefore his contract shall be extended up to May 2023.

Challenges that affected implementation of project's activities include:

- COVID-19 pandemic restrictions imposed by project countries have had a profound effect in implementing project activities at the countries' level. Restrictions have eased up earlier this year (2022)
- In April 2021, the Government of Tanzania released the hold it has put on implementing the project due to new process/measures imposed by the government since the beginning of 2020. As a result, the VPO-Division of Environment countersigned the BEP pilot project's contract only end of April 2021. Furthermore, Tanzania could also start implementing other outstanding activities from the national coordination contract.
- Difficulties noted in allocation of lands to set up Recyclable Collection Centres in almost all participating countries as part of implementing BEP measures in selected municipalities in the countries. Additionally, obtaining of required permits has also become a problem.
- The process of obtaining of the Environmental Impact Assessment Permit for the Composting pilot project to be established in Antsirabe municipality in Madagascar is taking long to complete. Additionally, the Engineering Department within Antsirabe municipality failed, to provide UNIDO with a reliable cost estimate for constructing the facility of the warehouse that will host the Composting pilot project.
- The warehouse for hosting the Recycling of Textile Discards pilot project in Lesotho, is yet to be allocated by Lesotho National Development Corporation (LNDC), as most of the tenants of the warehouses managed by the former in Maputsoe district are under long-term leases.
- The main Programme Officer from Africa Institute who has been conducting the M&E for the project since the project's inception in 2016, has left the Institute in May of this year (2022). This could cause delays in following through the documents (templates) prepared by the Institute with project countries.

2. Please briefly elaborate on any **minor amendments⁶ to the approved project that may have been introduced during the implementation period or indicate as not applicable (NA).**

Please tick each category for which a change has occurred and provide a description of the change in the related textbox. You may attach supporting documentation, as appropriate.

<input type="checkbox"/>	Results Framework	N/A
<input type="checkbox"/>	Components and Cost	N/A
<input type="checkbox"/>	Institutional and Implementation Arrangements	N/A
<input type="checkbox"/>	Financial Management	N/A
<input type="checkbox"/>	Implementation Schedule	An extension was granted by GEF until 05/31/2023
<input type="checkbox"/>	Executing Entity	N/A
<input type="checkbox"/>	Executing Entity Category	N/A
<input type="checkbox"/>	Minor Project Objective Change	Since no waste-to-energy pilot project has been identified in the region (Output 3.3), instead three specific BAT/BEP

⁶ As described in Annex 9 of the *GEF Project and Program Cycle Policy Guidelines*, **minor amendments** are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5%.

		pilot demonstration projects were initiated in three project countries: Recycling of Textile Discards in Lesotho, Composting of organic waste in Madagascar, and Material Recovery Facility (MRF) project in Zambia.
<input type="checkbox"/>	Safeguards	N/A
<input type="checkbox"/>	Risk Analysis	A couple of risk levels associated with implementing of some pilot demonstration projects for Component 3, have been upgraded as the time remaining to complete the project (May 31 st , 2023) will likely not be enough to complete these pilot projects.
<input type="checkbox"/>	Increase of GEF Project Financing Up to 5%	N/A
<input type="checkbox"/>	Co-Financing	N/A
<input type="checkbox"/>	Location of Project Activities	N/A
<input type="checkbox"/>	Others	N/A

3. Please provide progress related to the **financial implementation** of the project.

- For the implementation of BAT/BEP to reduce POPs releases from the open burning sector at national and regional levels under Component 3, US\$ 74,935.79 was spent on staff and intern consultants, US\$ 203,642.75 on contractual services, US\$ 245,937.66 on equipment, and other direct costs amounted to US\$ 17,817.98
- For the activities developed under Component 4 to ensure knowledge transfer on BAT/BEP for replicability and awareness of risks and exposure to POPs in the open burning sector, an amount of US\$ 32,385.13 was spent on staff and intern consultants.
- US\$ 6,902.00 was spent on staff and intern consultants to fund project management and US\$ 25,992.75 was spent on staff and intern consultants to conduct the mid-term review.

IX. Work Plan and Budget

1. Please provide **an updated project work plan and budget** for the remaining duration of the project, as per last approved project extension. Please expand/modify the table as needed.

Please fill in the below table or make a reference to a file, in case it is submitted as an annex to the report.

Outputs by Project Component	Year2022				Year2023		GEF Grant Budget Available (US\$)
	Q1	Q2	Q3	Q4	Q1	Q2	
Component 1 – uPOPs baseline information on open burning practices and inventory of major dumpsites/landfills in participating countries							
Outcome 1: Updated regional information on current open burning practicesand establishment of uPOPs baseline inventories							992.34 USD
Output 1.1: National information on current locations of open burning practices validated and updated uPOPsinventories reviewed							
Output 1.2: Regional information on open burning practices and data on uPOPs releases exchanged and			x	x	x	x	

respective regional cooperation and networking consolidate							
Component 2 – Regulatory / Legal framework review, policy development and institutional strengthening							
Outcome 2: Strengthened legislation and human resources capacity in implementing BAT/BEP at selected priority sites of open burning							83,074.79 USD
Output 2.1: Regulatory measures aimed at discouraging open burning practices of different waste streams and agricultural residues formulated or amended							
Output 2.2: Country action plans for managing and phasing out the open burning of waste and agricultural residues reviewed and strengthened			x	x	x	x	
Output 2.3: Regional BAT/BEP guidance for uPOPs reduction formulated for respective Ministry of Environment's adoption at country level for substantial reduction and/or collective elimination of waste and agricultural residues in open burning practices			x	x	x	x	
Output 2.4: Adequate technical infrastructure for implementing BAT/BEP and waste management best practices built			x	x	x	x	
Component 3 – Pilot demonstration of BAT/BEP in selected priority sites							
Outcome 3: Implementation of BAT/BEP to reduce uPOPs releases in the open burning sector at national and regional levels							2,685,853.27 USD
Output 3.1: Waste management best practices carried out at two (2) selected priority demonstration municipalities in each participating country			x	x	x	x	
Output 3.2: Waste management plans introducing BAT/BEP measures (segregation system) developed and implemented in two (2) selected major dumpsites and landfills in the participating countries using PPP models			x	x	x	x	
Output 3.3: Biomass waste recycling and disposal options promoted in two (2) demonstration sites in selected participating countries through alternative waste management plans for better value addition			x	x	x	x	
Output 3.4: Harmonized methodology developed to set-up uPOPs release reduction targets for open burning sector at regional level			x	x	x	x	
Output 3.5: Socio-economic impacts of the project intervention on private and informal sectors including recycling business plans assessed			x	x	x	x	

Component 4 – Information dissemination and awareness raising							
Outcome 4: Knowledge transfer on BAT/BEP for replicability and awareness raising on uPOPs related risks and exposure in open burning sector							18,552.64 USD
Output 4.1: Targeted training and awareness campaigns emphasizing health and environmental risk and exposure hazards of open burning practices for all relevant target groups observing appropriate gender representations (decision makers, professional associations, women/youth group associations, community leaders, farmers, women's groups, private industries, waste pickers, NGOs, media and the public at large) carried out			x	x	x	x	
Output 4.2: Educational programmes for introduction of lessons learned and alternatives to open burning practices established at all levels in each participating country			x	x	x	x	
Output 4.3: Regional cooperation on BAT/BEP and uPOPs and information sharing established through the BAT/BEP Forum					x	x	
Component 5 – Monitoring and evaluation of results							
Outcome 5: Design and implementation of Monitoring and Evaluation (M&E) framework in accordance with UNIDO and GEF requirements							16,452.61 USD
Output 5.1: Project intervention monitored, and project progress evaluated			x	x	x	x	
Project Management			x	x	x	x	

X. Synergies

1. Synergies achieved:

UNIDO is developing a regional initiative: *Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Lesotho, Madagascar and South Africa* (GEF ID 10543), in which Lesotho is a participating country. Given that Lesotho is implementing the pilot project on the recycling of textile discards, the project should easily create linkages / synergies with this initiative.

In Mozambique, the National Directorate for Environment in partnership with the National Association of Municipalities and the National Fund for Sustainable Development in Mozambique is implementing since February 2019 an \$80 million project financed by the French Development Agency, NAMA Facility and GIZ, Germany. The project aim to prepare and review municipal waste management plans in Mozambique covering 20 municipalities out of 53 existing municipalities in the country. If the selected project municipalities (Boane or Manhica) will be included in the above, guidelines and tools for the preparation of the waste management plans will be made available.

3. Stories to be shared (Optional)

EXPLANATORY NOTE

1. **Timing & duration:** Each report covers a twelve-month period, i.e. 1 July 2021 – 30 June 2022.
2. **Responsibility:** The responsibility for preparing the report lies with the project manager in consultation with the Division Chief and Director.
3. **Evaluation:** For the report to be used effectively as a tool for annual self-evaluation, project counterparts need to be fully involved. The (main) counterpart can provide any additional information considered essential, including a simple rating of project progress.
4. **Results-based management:** The annual project/programme progress reports are required by the RBM programme component focal points to obtain information on outcomes observed.

Global Environmental Objectives (GEOs) / Development Objectives (DOs) ratings	
Highly Satisfactory (HS)	Project is expected to achieve or exceed <u>all</u> its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice".
Satisfactory (S)	Project is expected to <u>achieve most</u> of its <u>major</u> global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings.
Moderately Satisfactory (MS)	Project is expected to <u>achieve most</u> of its major <u>relevant</u> objectives but with either significant shortcomings or modes overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environmental benefits.
Moderately Unsatisfactory (MU)	Project is expected to achieve <u>some</u> of its major global environmental objectives with major shortcomings or is expected to <u>achieve only some</u> of its major global environmental objectives.
Unsatisfactory (U)	Project is expected <u>not</u> to achieve <u>most</u> of its major global environmental objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, <u>any</u> of its major global environmental objectives with no worthwhile benefits.

Implementation Progress (IP)	
Highly Satisfactory (HS)	Implementation of <u>all</u> components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice".
Satisfactory (S)	Implementation of <u>most</u> components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.
Moderately Satisfactory (MS)	Implementation of <u>some</u> components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
Moderately Unsatisfactory (MU)	Implementation of <u>some</u> components is <u>not</u> in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of <u>most</u> components is <u>not</u> in substantial compliance with the original/formally revised plan.
Highly Unsatisfactory (HU)	Implementation of <u>none</u> of the components is in substantial compliance with the original/formally revised plan.

Risk ratings	
Risk ratings will assess the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risk of projects should be rated on the following scale:	
High Risk (H)	There is a probability of greater than 75% that assumptions may fail to hold or materialize, and/or the project may face high risks.
Substantial Risk (S)	There is a probability of between 51% and 75% that assumptions may fail to hold or materialize, and/or the project may face substantial risks.
Moderate Risk (M)	There is a probability of between 26% and 50% that assumptions may fail to hold or materialize, and/or the project may face only moderate risk.
Low Risk (L)	There is a probability of up to 25% that assumptions may fail to hold or materialize, and/or the project may face only low risks.