



Project Implementation Report

(1 July 2021 – 30 June 2022)

Project Title:	Environmentally sound management of municipal and hazardous waste to reduce emissions of unintentional POPs
GEF ID:	4888
UNIDO ID:	100114
GEF Replenishment Cycle:	GEF-5
Country(ies):	Senegal
Region:	AFR - Africa
GEF Focal Area:	Persistent Organic Pollutants (POPs)
Integrated Approach Pilot (IAP) Programs¹:	N/A
Stand-alone / Child Project:	Stand-alone
Implementing Department/Division:	ENV / IPM
Co-Implementing Agency:	NA
Executing Agency(ies):	Ministry of the Environment and Sustainable Development (MEDD) - Directorate of Environment and Hazardous Facilities (DEEC)
Project Type:	Full-Sized Project (FSP)
Project Duration:	60 Months
Extension(s):	3
GEF Project Financing:	2,000,000 USD
Agency Fee:	190,000 USD
Co-financing Amount:	17,030,186 USD
Date of CEO Endorsement/Approval:	10/14/2014
UNIDO Approval Date:	10/30/2014
Actual Implementation Start:	1/20/2015
Cumulative disbursement as of 30 June 2022:	USD 1,944,846
Mid-term Review (MTR) Date:	8/26/2019

¹ Only for GEF-6 projects, if applicable

Original Project Completion Date:	1/19/2020
Project Completion Date as reported in FY21:	1/19/2022
Current SAP Completion Date:	10/19/2022
Expected Project Completion Date:	10/19/2022
Expected Terminal Evaluation (TE) Date:	11/30/2022
Expected Financial Closure Date:	11/30/2023
UNIDO Project Manager²:	First name: BENABBAS Last name: Lamia

I. Brief description of project and status overview

Project Objective					
<p>This Project aims to reduce POPs releases from hazardous and municipal wastes by strengthening technical and institutional capacities of a group of private sectors which can sustain and replicate the best available technique and best environmental practice (BAT/BEP) demonstrated in the project. Waste management has become a top strategic priority of the Republic of Senegal. PNGD, "Programme National de Gestion des Déchets" is a national initiative of the government funded by the</p> <p>Islamic Bank of Development to promote the sound waste management in Senegal. This UNIDO/GEF project will focus on an improvement in the waste management operations of main stakeholders, especially existing private and informal sectors to revamp their business and operations for sound waste management in Senegal. The project will contribute to strengthening of the local capacities to properly absorb the knowhow and develop business in a competitive manner so as to offer waste management services sustainably and reduce POPs emissions.</p> <p>This is a GEF-5 project so please see the POPs tracking tool attached. Adapted to GEF-6 Core Indicators, please see the following table:</p> <table border="1" data-bbox="289 1507 1010 1738"> <thead> <tr> <th>Project Core Indicators</th> <th>Expected at Endorsement/Approval Stage</th> </tr> </thead> <tbody> <tr> <td>Core Indicator 10: Reduction, avoidance of emissions of POPs to air from point and non-point sources</td> <td>13 gTEQ</td> </tr> </tbody> </table>		Project Core Indicators	Expected at Endorsement/Approval Stage	Core Indicator 10: Reduction, avoidance of emissions of POPs to air from point and non-point sources	13 gTEQ
Project Core Indicators	Expected at Endorsement/Approval Stage				
Core Indicator 10: Reduction, avoidance of emissions of POPs to air from point and non-point sources	13 gTEQ				

Baseline

² Person responsible for report content

Senegalese municipalities have major difficulties to cope with the waste. In the best cases, there is only a primary waste collection done by an NGO or small local companies. The waste is either left in a transfer site which becomes a dump site or dumped in an open and uncontrolled landfill, where waste is incinerated in an open-burning condition. Waste characterization conducted by PNGD is a major step in the implementation of an efficient waste management system. This constitutes a reliable baseline that could then be used to establish further contracts and specifications for the collection, sorting, reuse, recycling and final disposal of wastes and for impact assessment studies. In total, 21 municipalities will benefit from this initiative. To ensure the ownership of the project at the municipality level among the pre-selected three cities of Kaolack, Tivaouane, and Ziguinchor, a competitive based selection process was applied. The submitted proposals were evaluated by criteria such as the investment and performance of the past 5 years and plans for the next 5 years, sustainability of the project intervention, and cofinancing opportunities. Targeted results: This project aims to reduce by 50% the currently estimated uPOPs emissions from open burning (0.6 gTEQ/year in Tivaouane and 25 gTEQ/year in Ziguinchor in worst scenario). The project activities conducted in the two selected municipalities will serve as examples to be replicated in other municipalities at both national and regional levels. The driving force of the replication would be mainly by private sectors which are chartered by the national government and municipalities.

The reduction of unintentional POPs (uPOPs) will be achieved by better preventing plastics and metallic wastes from being mixed with the municipal and organic wastes that are subject to spontaneous combustion and consequently causes higher emissions of uPOPs. The spontaneous combustion will be also better controlled by improving uncontrolled dump sites

through separation, segregation, recycling of municipal and hazardous waste as well as more frequent top soil coverage and other measures to prevent uncontrolled fire.

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 Ratings⁴	FY22	FY21
Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating	<i>Moderately Satisfactory (MS)</i>	<i>Satisfactory (S)</i>
Implementation Progress (IP) Rating	<i>Moderately Satisfactory (MS)</i>	<i>Moderately Satisfactory (MS)</i>
Following recent municipal elections, staff of municipalities in Tivaouane and Ziguinchor has recently been entirely changed, delaying the implementation of remaining project activities.		
Overall Risk Rating	<i>Substantial Risk (S)</i>	<i>Moderate Risk (M)</i>

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

New municipal teams in Tivaouane and Ziguinchor have just started their mandate and do not realize the urgency for the remaining activities.

II. Targeted results and progress to-date

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 to-date (FY 2022)
Component 1: Legal framework and institutional capacities				
Outcome 1: Legal framework and institutional capacities for sound management of hazardous and other wastes strengthened, put in place, and sustained				
Output 1.1: Existing laws and regulations on the sound management of hazardous and other wastes assessed and the gaps and needs identified	<ul style="list-style-type: none"> - Copies of relevant texts and laws and regulations exist relating to the environmentally sound management of municipal and hazardous waste (2) - Number of text proposals from the evaluation (at least 1) 	<p>Lack of relevance of the regulations in force governing the management of municipal solid waste and hazardous waste.</p> <p>Existence of a gap between the current framework governing hazardous wastes and the mandate conferred by the Stockholm Convention</p>	<ul style="list-style-type: none"> - 1 - 1 	<ul style="list-style-type: none"> - Gaps / inadequacies are identified and analysed for each category of actors in hazardous waste management in Senegal and at all levels. For non-hazardous waste, a study had been carried out by the national waste management program (PNG) - Following a study on the legal and institutional gaps in the management of hazardous waste, a proposal for texts to improve the legal and institutional framework was made in 2018 <p>Target reached: no additional activity conducted in FY 2022</p>
Output 1.2: Legal frameworks and institutional capacities to support the environmentally sound management of hazardous and other wastes strengthened	<ul style="list-style-type: none"> - Number of legal frameworks newly approved and enacted - Number of new guidelines and tools adopted for potential waste management operators 	Legal gap in the environmentally sound management of hazardous wastes, in particular hazardous wastes potentially containing POPs as well as processes for treating hazardous wastes with POPs emissions	<ul style="list-style-type: none"> - 1 - 1 	<p>A bill on hazardous and solid municipal waste was endorsed by all stakeholders at national level on March 25, 2019. The document has been submitted to the regulatory authority</p> <p>Target reached: no additional activity conducted in FY 2022</p>
Output 1.3: Technical guideline/toolkit on BAT/BEP (in a gender sensitive way) on how to conduct sound waste management in the country developed	<ul style="list-style-type: none"> - Number of technical directives and / or adapted toolbox 	Lack of national technical guidelines for the management of municipal solid waste and hazardous waste	<ul style="list-style-type: none"> - 1 	<p>Technical Guidelines for Private Operators and government representatives on the environmentally sound management of hazardous wastes and solid municipal waste in Senegal using best available techniques and best environmental practices (BAT / BEP) to reduce emissions of unintentional persistent organic pollutants have been</p>

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress to-date (FY 2022)
				developed in July 2018 and are being disseminated. Target reached: no additional activity conducted in FY 2022
Output 1.4: National government and municipality officers trained with gender considerations to develop sound waste management complying with the regulation and enforcement requirement	<ul style="list-style-type: none"> - Number of trainings - Number of participants/trainees (male/female) 	Poor consideration of the gender dimension in the environmentally sound management of hazardous wastes and other wastes	<ul style="list-style-type: none"> - 3 - 80/20 	<ul style="list-style-type: none"> - A 3-day training workshop was organized in Tivaouane in December 2018. 21 people benefited from this training with a participation rate of 24%, women - A 2-day training workshop was organized in Ziguinchor in April 2019, with the participation of 29 people including 9 women composed of civil servants and Municipal Agents (31% women participation rate) - A 1-day training workshop was organized in Dakar in June 2019 with the participation of 9 people including 2 women (i.e. a participation rate of 22%) composed of civil servants and state agents <p>Target reached: no additional activity conducted in FY 2022</p>
Component 2: Stakeholder engagement in waste management				
Outcome 2: Stakeholders ready to be engaged in properly disposing, sorting and recycling hazardous and other wastes				
Output 2.1: National government officers trained on how to establish sound waste management	<ul style="list-style-type: none"> - Number of training - Number of participants/trainees (male/female) 	Lack of awareness and effective coordination on issues related to waste management between ministries and municipalities	<ul style="list-style-type: none"> - 2 - 32/8 	<p>One training session completed in Dakar in January 2018 with the following objectives: 1) to raise awareness and improve the knowledge of government officials on how to effectively coordinate actions between ministries and municipalities; 2) develop private entrepreneurship; and 3) Enforce regulations on the sound management of waste, taking into account the gender dimension at the national level</p> <p>The training saw the participation of 24 people with a participation rate of 29% of women</p> <p>Target reached: no additional activity conducted in FY 2022</p>
Output 2.2: Municipal government officers trained on how to conduct sound waste management	<ul style="list-style-type: none"> - Number of training - Number of participants/trainees (male/female) 	Municipal officers are not sufficiently trained in how to ensure environmentally sound management of waste	<ul style="list-style-type: none"> - 2 - 32/8 	<p>Training completed in 2017</p> <p>Two training sessions were held first in Ziguinchor (12 and 13 December 2017, 25 people benefited from this training including 5 women and 20 men) and then in Tivaouane (27 and 28 December 2017, 25 people benefited from this training including 7 women and 18 men), with the aim of strengthening the skills of civil servants and municipal officials on how to ensure the environmentally sound management of waste</p> <p>Target reached: no additional activity conducted in FY 2022</p>

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress to-date (FY 2022)
Output 2.3: Gender-sensitive awareness raising events held and relevant materials on sound waste management activities distributed for the general public	<ul style="list-style-type: none"> - Number of awareness campaigns - Number of materials distributed to the public 	The public is not sufficiently aware of good sorting practices and the gender dimension	<ul style="list-style-type: none"> - 3 - ND 	<ul style="list-style-type: none"> - One (01) Communication strategy was developed, shared and validated in August 2019 in Dakar - Three (03) awareness campaigns were carried out including two (02) in Tivaouane and one (1) in Ziguinchor - Six (06) radios including three community radio stations covered the campaign in Tivaouane - Five (05) radio shows organized in Ziguinchor - A video report produced in Tivaouane and Ziguinchor - Dahiras are sensitized on the danger of burning waste - 4 Cooperatives, 3 of which are women, are made aware of the danger of burning waste in Tivaouane - 1000 flyers, 1000 Caps and T-shirts were distributed in Tivaouane and Ziguinchor - District Delegates are made aware of the ESM of waste in Tivaouane - ASCs are made aware of waste management in Tivaouane - Badienoux Goox are sensitized on the ESM of waste in Tivaouane <p>Target reached: no additional activity conducted in FY 2022</p>
Output 2.4: General public trained on reduce, reuse and recycle (3R) and good waste separation practice	<ul style="list-style-type: none"> - Number of awareness raising events - Percentage of neighbourhood committees formed (100%) - Number of community actors trained (male/female) 	The public is not sensitized / trained on the reduction, reuse and recycling (3R) trilogy as well as on good sorting practices	<ul style="list-style-type: none"> - 2 - 100 - ND 	<ul style="list-style-type: none"> - In December 2019, an awareness-raising session on 3Rs for the public in the commune of Tivaouane was carried out during the Tivaouane forum through a presentation led by the National Expert in Business Management from PRODEMUD and exchanges with the general public - 400 community actors (women's cooperatives, neighborhood chief representatives, carters' cooperatives and religious guides) are made aware of the 3R trilogy and good sorting practices in Tivaouane - In 2021, a "toolbox" (hands-on technical illustrated guide) was developed to support staff from health centres in implementing sound practices for biomedical waste. - In November 2021, an awareness-raising session was held in Tivaouane for

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress to-date (FY 2022)
				<p>health actors on good biomedical waste sorting practices. 62 people were sensitized, including 35 men and 27 women, with 10 image boxes and 20 posters.</p> <ul style="list-style-type: none"> - In October 2021, an awareness-raising session was held in Ziguinchor for health care workers on good practices for sorting biomedical waste. 20 focal points were sensitized with 10 image boxes and 20 posters distributed. - In 2022, the project developed a comic book on environmentally sound waste management. This album deals with several themes and in particular with waste separation.
Output 2.5: Business operations in private sectors working on sound waste management improved	<ul style="list-style-type: none"> - Number of private concessionaires having improved their rational management of waste 	The informal sector working in waste management in the 2 municipalities is not well enough organized, even less well trained in good ESM practices	- 4	<ul style="list-style-type: none"> - A 3-day training workshop was organized in Tivaouane in December 2018, with the participation of 14 men and 9 women (39% women participation rate). 25 healthiness committees trained in financial management, 75 waste pickers (not organized) and 1 cooperative of 25 carters - 3-day training workshop was organized in Ziguinchor in April 2019, with the participation of 19 men and 8 women (29% women participation rate). 1 concessionaire, 2 discharge staff, 16 economic interest groups (GIE) - More training activities are expected in Q4 2022
Component 3: Improvement of sound waste management operations				
Outcome 3: Sound management operations of hazardous and other wastes improved				
Output 3.1: Hazardous waste Management Action Plans reviewed and formulated at municipality levels	<ul style="list-style-type: none"> - Number of hazardous waste management plans developed and approved at the municipality level 	Lack of operational management plan for hazardous waste management in the 2 municipalities At the national level, the last hazardous waste management plan dates from 1999	- 2	<ul style="list-style-type: none"> - The project developed 3 technical documents: one (01) update of the National Hazardous Waste Management Action Plan and (02) two five-year plans for hazardous waste management in Tivaouane and Ziguinchor. - In this framework and in a participatory approach, stakeholder consultation workshops were organized in Tivaouane (9-10 October 2018), Ziguinchor (23-24 October 2018) and Dakar (7-8 November 2018).

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress to-date (FY 2022)
				<ul style="list-style-type: none"> - Field missions were also carried out for data collection and quantification of waste (surveys of stakeholders in the sector). - In March 2019, a workshop was held in Tivaouane to validate the five-year plan for the management of hazardous waste in the municipality of Tivaouane. - In August 2019, a restitution and validation meeting of the five-year hazardous waste management plan was organized in Ziguinchor - In December 2019, a workshop to share and validate the updated national action plan for hazardous waste management was organized in Dakar <p>Target reached: no additional activity conducted in FY 2022</p>
<p>Output 3.2: Facilities established and used to properly collect hazardous and other wastes within the municipalities</p>	<ul style="list-style-type: none"> - Number of appropriate equipment used 	<p>Lack of adequate equipment for the proper collection of hazardous and other wastes within municipalities</p>	<ul style="list-style-type: none"> - ND 	<ul style="list-style-type: none"> - Medical waste collection and transportation equipment has been delivered to Tivaouane in Q3 2020 (883 needle collectors, 222 municipal black garbs and 12 four-wheeled garbs, 221 two-wheeled yellow bin for biomedical waste and 2 tricycles) - In Ziguinchor, the same material has been received in Q3 2020 (599 needle collectors, 150 municipal waste bins and 9 4-wheeled garbage bins, 150 two-wheeled yellow bin for biomedical waste and 2 tricycles) - This equipment was officially received during the inauguration ceremonies of biomedical waste treatment units respectively on 24 August 2021 in Ziguinchor and on December 24 2020 in Tivaouane.
<p>Output 3.3: Waste interim storage and sorting facilities established and used by the stakeholders of the selected municipalities</p>	<ul style="list-style-type: none"> - Number of storage and sorting facilities in place 	<p>Lack of adequate equipment for the temporary storage and sorting of hazardous waste and other waste within municipalities</p>	<ul style="list-style-type: none"> - ND 	<ul style="list-style-type: none"> - In 2020, a feasibility study for the establishment of a platform for dismantling and recovery of WEEE was conducted in Tivaouane. The platform will be established in Q4 2021 - In 2020, a technical and management plan for the construction of a waste collection center (CRC) in Ziguinchor was developed, shared and validated by the

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress to-date (FY 2022)
				<p>Municipality. The waste collection centre will be operational at the end of Q4 2021. The center will ensure the sound collection, sorting and preparation for recycling of solid municipal waste in Ziguinchor.</p> <ul style="list-style-type: none"> - A protocol was developed for the implementation of environmental and social management system within the framework of the construction of the waste collection and marketing center in Ziguinchor - In Tivaouane, in view to establish a WEEE platform, a number of activities have been carried out by the project in 2021 and Q1 2022: 1) A field study was carried out in order to analyse the value chain, 2) A strategy for the implementation of the WEEE platform was developed and shared with municipality of Tivaouane, approval received on 23 June 2021 , 3) Finalization of the strategy according to feedback received during consultation meeting with stakeholders, including WEEE dismantlers - Also, in March 2022, the project and the municipality of Tivaouane have received equipment procured for sound WEEE management, which will be installed into a platform in Q3 2022 - In Ziguinchor, as part of the establishment of a waste collection and marketing center (CRC), several activities have been carried out and documents developed during the last quarter of 2021: Technical and environmental feasibility studies, environmental clauses, safety prescriptions, environmental and social prescriptions, site notebook, bonus measures sheets and negative impact mitigation measures sheet. - In 2022, the construction of the CRC has started and should be delivered by the end of July 2022. - In January 2022, equipment for sound municipal waste management CRC equipment was received and

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress to-date (FY 2022)
				is temporarily stored in the annexed premises of the municipality of Ziguinchor
Output 3.4: Recycling facilities established and used within the municipalities	<ul style="list-style-type: none"> - Number of hazardous waste recycling facilities set up - Number of functional hazardous waste recycling facilities - Percentage of recycled waste 	Lack of recycling facilities for hazardous waste within municipalities	- ND	<ul style="list-style-type: none"> - The Center for waste collection in Ziguinchor will include a platform for pre-treatment of plastic waste managed by a selected private operator (Sodiaplast). This is an example of effective PPP implemented for waste management within this project. - The Center is under construction and will be delivered in Q3 2022
Output 3.5: The management of final disposal facilities reinforced for hazardous and other wastes in the municipalities	<ul style="list-style-type: none"> - Ultimate Hazardous Waste Disposal Rate 	Lack of final disposal facilities for hazardous waste within municipalities	- ND	<ul style="list-style-type: none"> - In Ziguinchor, the Project established and inaugurated, on 24 September 2020, a biomedical waste treatment unit in the regional hospital. The unit is equipped with the sterilwave 100 technology. It was inaugurated on 24 August 2020 by high-level national stakeholders. This unit is operational and has a processing capacity of 60 kg / day of biomedical waste - In Tivaouane, the Project established and inaugurated, on 24 December 2020, a biomedical waste treatment unit in the regional hospital. The unit is equipped with the sterilwave 100 technology. It was inaugurated on 24 December 2020 by high-level national stakeholders. This unit has been operational since January 2021 and has a treatment capacity of 60 kg / day of biomedical waste. - A plan is under development for the implementation of BAT/BEP and the upgrading of the final disposal facility of Mamatoro in Ziguinchor <p>In Ziguinchor Cap Skirring, the project transferred technology and provided training on processing of biodegradable waste to reduce open burning. Equipment was delivered in December 2020 and hands-on training organized in March 2021. The training was conducted exclusively in Wolof with a total participation of 15 people</p>

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress to-date (FY 2022)
				<p>(including 5 women, 33% female participation rate).</p> <ul style="list-style-type: none"> - To ensure the after-sales service of the biomedical waste treatment equipment (sterilwave 100) installed in Tivaouane and Ziguinchor, a mission of Bertin technologies was carried out on the 2 sites in March 2022. During this mission, defective parts were replaced and the technical capacities of the staff were further strengthened. At the same time, a remote access modem was installed in each machine for remote monitoring and maintenance.
Output 3.6: Waste management operations by the companies at the municipal levels improved	<ul style="list-style-type: none"> - Number of companies having adopted best practices - Number of standard procedure documents developed specifically for disposal sites in cities(2) 	Private and informal actors involved in waste management within municipalities do not have sufficient capacity in the separation, collection, sorting, storage and disposal of waste	<ul style="list-style-type: none"> - ND - ND 	<ul style="list-style-type: none"> - Implementation of BAT/BEP at a plastic recycler (TRANSTECH INDUSTRIES) was finalized in 2020 - Guidelines for the management of biomedical waste approved in Q3 2020 in Ziguinchor (August 2020) with a total of 21 people (including 12 women) and Q4 in Tivaouane (October 2020) with a total of participants 30 people (including 15 women). - In August 2021, the project team and the service provider HOUDATECH conducted a follow-up mission to TRANSTECH INDUSTRIE to assess together the level of BAT/BEP upgrading. Results: <ul style="list-style-type: none"> - Reduction of the cooking time from 1h to 30mn - The new burner offers a better combustion, which reduces the emissions of POPPNI - 50% reduction in gas consumption
Output 3.7: Open burning controlled to reduce uPOP emissions	<ul style="list-style-type: none"> - Total quantity of uPOP emitted due to the burning of open-air waste before and after the project (reduction target of 13 g-TEQ / year) - Tivaouane: 0,3 – 0,6 g-TEQ/an - Ziguinchor; 12 – 25 g-TEQ/an pour le brûlage à l'air libre et 1,6 – 3,2 g- 	UPOPs emissions resulting from poor waste management practices, including open burning of waste at landfills/ illegal dumps	<ul style="list-style-type: none"> - 13gTEQ avoided 	

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress to-date (FY 2022)
	TEQ/an pour l'incinération			
Component 4 : Monitoring and Evaluation				
Outcome 4: Project progress properly monitored and evaluated				
Output 4.1: Project results monitored and reported including gender dimension	<ul style="list-style-type: none"> - Rate of physical execution - Financial budget execution rate 		<ul style="list-style-type: none"> - 100% - 100% 	<ul style="list-style-type: none"> - 85%
Output 4.2: Project evaluated meeting the GEF's evaluation criteria	<ul style="list-style-type: none"> - Mid-term evaluation according to GEF standards - An evaluation is carried out at the end of the project according to GEF standards 		<ul style="list-style-type: none"> - 1 - 1 	<ul style="list-style-type: none"> - An international consultant carried out the mid-term evaluation of the project. Evaluation mission in Senegal took place from August 17 to 25, 2019. - Terminal independent evaluation is planned in Q3 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	(i) Risk level	(i) Mitigation measures	(ii) Progress to-date	New defined risk ⁵
1	Lack of interests to replicate the project approaches and strategies in other cities of the country	Low risk (L)	The civil society "Association des Maires du Senegal" will be involved to incorporate local customs and replicate the project's approach through the Association's network. The private sector whose capacity and business development skills will be strengthened by this project is expected to be a driving force of its replication. The legal framework will be updated for private sector to be able to easily replicate the same business model to other regions in the country	<p>The project identified a private partner to operate a pre-recycling center for plastic waste in Ziguinchor. A tripartite agreement was signed in 2018 with the municipality of Ziguinchor. This agreement implements PPP for waste management in Ziguinchor and paves the way for sustainable operations beyond the scope of the Project</p> <p>The newly developed technical guidelines have been widely shared with representatives from</p>	<input type="checkbox"/>

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

				<p>the private sector and from the government and the municipalities</p> <p>Broad awareness raising campaigns have been led including on national TV and radio channels and are expected to trigger the interest of stakeholders in other cities of the country</p>	
2	Weak commitment of counterparts in waste management - political leaders at the national and municipal level, the private sector, and the general public to participate and adopt sound waste management practices and techniques	Substantial risk	<p>Project activities are designed in consultation with the national and municipal governments. The municipalities have been chosen on a competitive basis by reviewing their proposals. An emphasis will need to be put on awareness raising and capacity building of national and municipality officers and private sector operators as well as general public throughout the country</p>	<p>Municipal officials are well involved in training, meetings of technical committees and monitoring of activities at local level and national level.</p> <p>A broad awareness raising campaign was undertaken in 2019 and 2020, and gathered strong support from the general public, private sector and public stakeholders.</p>	<input type="checkbox"/>
3	Government and municipality officials are either not willing or not available to participate in training activities and lawmaking/regulatory bodies are not responsive to recommendations	Low risk (L)	<p>Government officials are closely involved in project planning so that they are aware that new regulations need to be practical and financially feasible at the national and municipality levels. Stakeholders, as steering committee members, are informed and involved in the project's needs regarding the new regulations. Government officials will be kept abreast of the progress of the project and training activities for their officers.</p>	<p>The municipal authorities and all the actors involved in waste management have been involved in all activities since the beginning of the project.</p> <p>The project met with the new municipal authorities to exchange and share all relevant information and documents to support the implementation of the remaining activities.</p>	<input type="checkbox"/>
4	Lack of enforcement to implement sound management of municipal and hazardous waste throughout the county	Substantial risk	<p>The inspectorate team of the Ministry and other enforcing wings of the government will be invited to the training and consulted before initiating related project activities. Tools and guidelines will be prepared for enforcement.</p> <p>Land is not made available by municipalities for the establishment of waste interim storage and recycling facilities</p>	<p>Municipal officials are well involved in training, meetings of technical committees and monitoring of activities at local level.</p> <p>The municipality of Ziguinchor allocated a parcel of land for the construction of a municipal waste collection and treatment center. This center will operate in close collaboration with the selected private operator Sodiaplast, in charge of plastic recycling on-site.</p> <p>The Project developed all technical specifications for the center, including a detailed management plan, and call for bids for construction and equipment are on-going.</p> <p>The project has developed partnership agreements to support municipalities in the sustainable operation of the platforms set up</p> <p>New mayors have been elected in Ziguinchor and Tivaouane at the end of 2021. The NEA lost its usual counterparts, who had been following project activities</p>	<input checked="" type="checkbox"/>

				since its start. Partnership foreseen and land allocation for the WEEE platform is impacted by this change. All efforts are deployed to sustain a strong collaboration with the municipalities and finalize project activities as planned.	
5	Local private companies are not capable of absorbing technical competitiveness needed to emerge as a waste management sector	Substantial risk	There are some small companies identified which are willing to invest their resources to develop sorting and recycling facilities. Those local companies will be invited to the project's trainings. If necessary, internationally and regionally active private sectors will be invited as the trainer who would be also expected to play advisory role while seeking investment opportunities in the country. UNIDO's technical resources in the area of business development	The Project successfully identified a private recycler willing to invest their resources in the project activities. PPP (Public Private Partnership) signed with identified partner paves the way for sustainable solid waste management and recycling in Ziguinchor. In addition, BAT/BEP were successfully implemented in selected private recyclers, who invested in-kind co-financing to contribute to their eco-technological upgrading.	<input type="checkbox"/>
6	Lack of financial flow to sustain the waste management operations established by the project	Substantial risk	In designing the project's public-private sector partnership modality, a financial mechanism will be an important aspect of the waste management system. Waste management operators will be given a certain level of financial incentives that are proportional to the quality and quantity of the waste management treatment tasks performed by the operators.	The Project developed a management plan for the waste collection center to be established in Ziguinchor. Management of the center will rely on the involvement of private partner, financial public support from the municipality and fee paid by households for waste collection. Furthermore, the Project implemented a number of training activities on administrative and financial management for waste operators.	<input type="checkbox"/>
7	The waste may not be adequately separated as planned due to a lack of proper collection points and cooperative actions by households and business offices	Substantial risk	Awareness raising opportunities will be offered to the general public. The collection points will be monitored by personnel responsible for proper use of the waste management facility. Incentives and penalties will be set by the municipalities. The project will ensure the collection vehicles (trucks, tractors, and/or donkeys) put into place should be able to collect wastes in separate categories	The National waste management Program (PNGD) started the construction of collection points in Tivaouane. In Ziguinchor, the waste treatment center will include equipment for waste segregation. The Project conducted a broad awareness raising campaign on 3Rs (reduce, reuse, recycle,) which contributed to behavioural change in selected municipalities. The project also developed a picture book on the ecological management of biomedical waste and a comic book on the ecological management of municipal waste and other waste to encourage sorting	<input type="checkbox"/>
8	The co-financing contributions may be delayed causing	Substantial risk	Multiple potential external resources have been currently contacted to seek	Co-financing contributions from the private sector has	<input type="checkbox"/>

	a delay or unsuccessful deliver of the project results		co-financing cash resources by UNIDO as well as the city of Ziguinchor. This project strategy will be finalized depending on which and when those cofinancing funding opportunities will be made available. For the worst case scenario where no funding is available, the project will proceed by leveraging resources provided by national government and private sectors with minimum hardware facility construction funded by the project.	materialized in a number project activities: - a selected private partner will operate the pre-processing plastic facility in Ziguinchor with its human resources and equipment in line with BAT/BEP. - the municipalities of Ziguinchor and Tivaouane are covering the running costs related to the collection of biomedical waste for sound treatment in the newly built biomedical waste treatment units - the selected health facilities are covering the costs of the staff appointed to run the newly built biomedical waste treatment units - the project is currently improving the final disposal site of Cap Skirring, building on the existing processes of the platform in this very touristic area. - The Government of Senegal mobilized co-financing for the implementation of the project for the duration of the project and covered the fees of most team members	
9	(Climate Change Risk) Flood risks at the waste management facilities as well as final disposal locations	Low risk (L)	The feasibility study prior to the construction of project facilities should consider the historical flood records and changes in the weather in the area to avoid or mitigate the flood risk	Not observed at this stage.	<input type="checkbox"/>
10	(Climate Change Risks) Increased methane emissions from landfills	Low risk (L)	Reduction in uPOPsemission could be achieved by avoiding spontaneous combustion at the dump sites. However, methane in biogas produced from an organic component at dump sites will increase when combustion is suppressed. Compost facilities are expected to minimize the carbon transformation to methane. The collection of biogas will be also considered as a technical option and the price and benefits will be compared to see if biogas collection would make sense in the two selected cities.	Improvement of the final disposal site of Cap Skirring include increased recovery of organic waste Achieved GEB amount to 13g TEQ of uPOPs reduction.	<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.

N/A

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

Due to strict containment measures implemented in Senegal, the COVID-19 pandemic has strongly impacted the activities of the Project:

- The construction work of the 2 biomedical waste treatment units in Ziguinchor and Tivaouane stopped for several weeks and suffered significant delays. However, the construction was finalized and received in March 2020 for Ziguinchor and December 2020 for Tivaouane and the two biomedical units are now operational.
- The awareness campaigns planned for the first half of 2020 could not take place and has been rescheduled when the sanitary situation will allow it
- The steering committee and local technical committee meetings could not take place
- The national coordination team could not travel in the field until June 2020, but national and local coordinators based in Dakar, Ziguinchor and Tivaouane were able to properly monitor the field activities.

With the progressive lifting of sanitary constraints linked to COVID 19, all activities have resumed in the field. UNIDO conducted an international mission in March 2022 and met national project stakeholders.

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

NA

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

All the recommendations made during the mid-term evaluation have been taken into account.

To UNIDO:

The project benefited from 2 extensions that allowed the setting up of the regrouping and sorting center including the pretreatment center for plastic waste in Ziguinchor and the WEEE platform in Tivaouane.

To national Government of Senegal:

As part of the implementation of the "Emerging Senegal Plan (ESP) Green" by the Government of Senegal, reflections are underway for an institutional reform in all areas, including on waste. The government has also created, in place of the PNGD/UCG, the national company for waste management (SONAGED). The government has also received a loan from the World Bank for the implementation of PROMOGED.

To PRODEMUD:

To ensure the sustainability of the achievements, the project continues to involve and sensitize the populations and actors concerned.

For the logical framework, it has been revised, updated and validated by the steering committee;

In addition to quarterly and semi-annual reports, the project prepares a detailed annual report on its activities each year. This report is presented and validated by the steering committee.

The project continues to work with all project stakeholders at both the local and national levels. Good communication is also ensured with the national representation and the UNIDO headquarter The project continues to work with all project stakeholders at both the local and national levels. Good communication is also ensured with the national representation and the UNIDO headquarters

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).

The Government of Senegal is leading national activities through the Directorate of Environment and Hazardous Facilities (DEEC) of the Ministry of Environment. The leading role of the DEEC was crucial to strengthen the legal and regulatory framework on hazardous waste, to adopt technical guidelines on the environmentally sound management of hazardous waste and to implement capacity-building activities for municipal and government officials.

As chair of the project's national steering committee, DEEC played an important role in supporting the project team in mobilizing government counterpart funds needed to continue activities.

The National Waste Management Program (PNGD) is leading the technical activities related to municipal solid waste in Tivaouane and has provided a solid foundation for focusing on environmentally sound management of hazardous waste. The GEF project has created strong synergies with PNGD to establish a municipal solid waste sorting center in Ziguinchor.

The municipalities of Ziguinchor and Tivaouane support the Project and cover the operating costs of medical waste collection for sound treatment in units built and equipped by the Project at the Ziguinchor regional hospital and the Tivaouane health center. The selected health facilities are particularly involved in the Project's intervention and training activities. The Project has developed collaboration protocols formalizing the area of collaboration and responsibility between the municipalities and the health structures, which have been signed by all parties. The project continues to support the environmentally sound management system

that has been put in place.

The private sector is mobilized in the Project's activities. A tripartite agreement was signed in 2018 between PRODEMUD, the municipality of Ziguinchor and a private company (SODIAPLAST) for the establishment of a plastic waste pre-treatment platform. Some activities (acquisition of equipment, facilities, training) have been carried out to implement BAT/BEP in two selected private recycling companies. Other activities are underway in both municipalities.

The municipality of Ziguinchor has allocated land to the project for the construction of a waste collection, sorting and recycling facility. The project is also receiving support from DEEC to ensure that environmental and social considerations are taken into account in the construction and operation of the facility.

The Solid Waste Coordination Unit (UCG), in agreement with the municipality of Tivaouane, has agreed to host the WEEE platform that the project will set up to support the actors of the sector in BAT/BEP.

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.).

"We have 45 health facilities in the town of Ziguinchor and none of them has a standard biomedical waste treatment facility. This gap has been breached by this project by setting up a biomedical waste treatment unit within the regional hospital, which processes waste of other health structures" said Mr. Abdoulaye BALDE, Mayor of the municipality of Ziguinchor, during the official inauguration of the unit in September 2020.

"The biomedical waste management unit is intended to collect all biomedical waste from the department of Tivaouane which used to be transported to Thiès or Louga for treatment," said Mr. Mamadou Diagne Sy Mbengue, Mayor of Tivaouane, on December 24, 2020 at the inauguration of the environmentally sound treatment unit of biomedical waste in Tivaouane.

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

4888_Report mission Tivaouane

4888_Report mission Tivaouane_Management of the WEEE

4888_Report mission Tivaouane_visit WEEE site and meeting with actors

4888_Report mission Tivaouane_meeting with the new mayor Tivaouane

4888_Letter PRODEMUD letter to the new Mayor of Tivaouane

4888_Letter PRODEMUD to the new Mayor of Ziguinchor

4888_Letter from the Minister of the Environment to the Governor of Thiès _Tivaouane WEEE platform

4888_PRODEMUD information note to the new mayor of Ziguinchor

4888_PRODEMUD information note to the new mayor of Tivaouane

4888_Minutes of provisional contract award CRC Ziguinchor

4888_Minutes of the opening of the offers_CRC Ziguinchor_commission marchés MEDD

4888_Tender evaluation report CRC Ziguinchor_PRODEMUD_Commision des marchés MEDD

4888_Mission report of the coordinator in Ziguinchor_follow-up and meeting with new mayor

4888_Mission Report_Monitoring DBM and CRC Ziguinchor

4888_Report on the CRC market procedure Ziguinchor

4888_Mission report Ziguinchor coordinator_Reception of CRC equipment

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),.

The gender dimension is a transversal component of PRODEMUD. The project team has kept it in mind in all its activities. As a result, 587 people (private sector, government employees, agents of the beneficiary communes and the informal sector) have been trained during twenty-five (25) training/sensitization activities conducted since the start of the project. Out of 587 people trained, 112 were women. The participation rate of women is 34%.

The Project Management Unit involves a woman in charge of technical and commercial management activities, which are crucial to the Project's objective.

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 Project focuses on improving the regulatory framework related to hazardous and solid municipal waste, raising awareness on 3R and circular economy approach, strengthening waste management operations and implementing BAT/BEP for hazardous waste (medical waste and e-waste) and municipal waste.

On policy and legal work, the Project developed one bill for the sound management of industrial waste in Senegal, which was approved and endorsed by all stakeholders.

As part of technical assistance and capacity-building activities, the Project developed 4 strategies and actionable plans at national level and local level and a set of technical guidelines for the sound management of hazardous waste. Over 150 government officials were trained on these tools, and 787 representatives from waste operators, private recyclers or waste collectors. Expertise and engagement in the project were built during workshops, at municipal and national level. The development of management plans for hazardous waste for two municipalities and the update of a similar plan at national level were key guidelines to ensure the sustainability of the intervention. The same level of expertise was built for the private sector and cooperatives in charge of the collection of such waste. The Project thereby contributed to strengthen the local capacities to develop business and offer waste management services while ensuring reduced POPs emissions.

The Project is implementing BAT/BEP through investments in equipment, infrastructures and capacity-building in Tivaouane and Ziguinchor in 3 main sectors: e-waste, municipal waste, plastic waste and biomedical waste. The project built, established and fully equipped 2 biomedical waste treatment units equipped with the best technology for medical waste decontamination (Sterilwasve 100), thereby drastically reducing uPOPs emissions related to the open burning of such waste. The 2 biomedical waste treatment units were inaugurated by the mayors of the 2 municipalities in the presence of the administrative authorities, the National Project Coordinator, UNIDO Representative, and the Director of Environment and Classified Institutions (GEF Operational Focal Point) respectively on 24 august 2020 for Ziguinchor and on 24 december 2020 for Tivaouane. Sustainability has been ensured by protocols developed by the Project and signed between the municipalities and the health facilities on the management of the biomedical waste management units. Guidelines, manuals and communication material have been developed on sound waste management practices to keep building capacities of all actors involved in the operations.

Regarding plastic recycling, the project developed a PPP (public-private partnership) between the municipality of Ziguinchor and a selected plastic recycler for recycling plastic waste, which was signed in

2018. With the municipality of Ziguinchor allocating land for the construction of a waste collection, sorting, and pre-recycling center, the Project has developed a technical note, management plans, construction plans, and an environmental management plan for the center. Construction will be completed by the end of the third quarter of 2022. The center will be equipped with the best available technology to ensure proper sorting and pretreatment of Ziguinchor's solid waste (equipment is temporarily stored in the Ziguinchor municipality's annexed premises). The selected plastic recycler will operate within the center, contributing its equipment and technical expertise.

In addition, the project has implemented BAT/BEP for a plastic recycler and a waste disposal facility, improving the recycling of plastic and biodegradable waste, respectively.

For WEEE, the project is waiting for a final site to set up the dismantling and sorting platform equipped with the best available technologies. The equipment is temporarily stored in the annexed premises of the municipality of Tivaouane. The management strategy of the platform developed by the project has been updated taking into account the orientations of the new municipal team.

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

4888_Agreement for the regrouping and sorting of waste_Ziguinchor
4888_Agreement WEEE Platform_Tivaouane
4888_Technical concept note_CRC_Ziguinchor
4888_Concept note WEEE platform Tivaouane
4888_WEEE Strategy_Tivaouane
4888_Environmental requirement_CRC Ziguinchor
4888_Comic book ESM of waste
4888_CRC Zig - Waste Training
4888_Ewaste Plastic Waste Management Training
4888_Ewaste - Dismantling training
4888_Ewaste - PPE training
4888_Environmental follow-up sheet_CRC Ziguinchor
4888_Training _ Anatomical Waste Management
4888_Environmental, social and safety management_CRC Ziguinchor
4888_Measures to prevent risks and accidents CRC Ziguinchor
4888_Updated Tivaouane WEEE platform concept note
4888_CRC Ziguinchor Security Plan
4888_Plans for the construction of a waste collection and sorting center for the commune of Ziguinchor
4888_Annual work plan PRODEMUD 2022
4888_Report visit CRC Ziguinchor N°01
4888_Reportvisit CRC Ziguinchor N°02
4888_Reportvisit CRC Ziguinchor N°03
4888_Reportvisit CRC Ziguinchor N°04
4888_Reportvisit CRC Ziguinchor N°05
4888_Reportvisit CRC Ziguinchor N°06
4888_Reportvisit CRC Ziguinchor N°07

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.

Significant progress was made during the reporting period since, despite the Covid 19 pandemic, the equipment for the Ziguinchor waste treatment and sorting center and the Tivaouane WEEE platform was received. The construction of the waste treatment and sorting center in Ziguinchor is well underway on the 1ha 800 site allocated for this purpose and will be delivered in the third quarter. The selected private partner, Sodioplast, with whom a public-private partnership was concluded several years ago, will provide equipment and expertise for the recycling of plastic waste.

For the Tivaouane WEEE platform, the project is awaiting the allocation of the site by the new municipal team. A number of technical activities were then implemented on the best processes and practices.

UNIDO provided significant technical assistance in the preparation of the conventions and training modules. However, it should be mentioned that COVID 19 delayed the implementation of the activities.

The latest extension granted will allow the project team to finalize the remaining activities, including the final evaluation of the project.

2. Please briefly elaborate on any **minor amendments**⁶ 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	
<input type="checkbox"/>	Components and Cost	
<input type="checkbox"/>	Institutional and Implementation Arrangements	
<input type="checkbox"/>	Financial Management	
<input type="checkbox"/>	Implementation Schedule	<i>Project has benefited from 3 extensions</i>
<input type="checkbox"/>	Executing Entity	
<input type="checkbox"/>	Executing Entity Category	
<input type="checkbox"/>	Minor Project Objective Change	
<input type="checkbox"/>	Safeguards	
<input type="checkbox"/>	Risk Analysis	
<input type="checkbox"/>	Increase of GEF Project Financing Up to 5%	
<input type="checkbox"/>	Co-Financing	

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%.

<input type="checkbox"/>	Location of Project Activities	
<input type="checkbox"/>	Others	

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

- The government of Senegal pledged \$ 1,493,000 for the duration of the project. Today, a few months before the end of the project, we note a disbursement rate of 71% in 2021. The project has not received a budget allocation for 2022 from the government of Senegal.
- US\$ 887.61 was spent on equipment for the assessment of existing laws and regulations on sound management of hazardous and other wastes, and identification of gaps and needs under component 1 of the project.
- Under component 2 of the project US\$ 3,028.83 was used in equipment for training of municipal officials in sound waste management. For the improvement of business operations in the private sectors working on sound waste management a total of US\$ 54,068.66 was spent on contractual services and US\$ 11,131.13 on equipment.
- Under component 3 US\$ 10,118.98 was spent on equipment for waste interim storage and sorting facilities. For the recycling facilities established and used in the municipalities, US\$ 20,506.43 was spent on contractual services and US\$ 7,649.02 on equipment. For the management of enhanced final disposal facilities for hazardous and other wastes in the municipalities, US\$ 19,692.11 was spent on contracted services and US\$ 6,270.83 on equipment. For the improvement of waste management operations by companies, US\$ 2,467.00 was spent on equipment.

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.

Outputs by Project Component	Y 2021				2022				GEF Grant Budget Available (US\$)
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	
Component 1 – Legal framework and institutional capacities									
Outcome 1: Legal framework and institutional capacities for sound management of hazardous and other wastes strengthened, put in place, and sustained									
Output 1.1: Existing laws and regulations on the sound management of hazardous and other wastes assessed and the gaps and needs identified									85.60
Output 1.2: Legal frameworks and institutional capacities to support the environmentally sound management of hazardous and other wastes strengthened									371.63
Output 1.3: Technical guideline/toolkit on BAT/BEP (in a gender sensitive way) on how to conduct sound waste management in the country developed									470.72
Output 1.4: National government and municipality officers trained with gender considerations to develop sound waste management complying with the regulation and enforcement requirement									230.40
Component 2 – Stakeholder engagement in waste management									
Outcome 2: Stakeholders ready to be engaged in properly disposing, sorting and recycling hazardous and other wastes									
Output 2.1: National government officers trained on how to establish sound waste management									243.78

Output 2.2: Municipal government officers trained on how to conduct sound waste management										221.76
Output 2.3: Gender-sensitive awareness raising events held and relevant materials on sound waste management activities distributed for the general public										336.13
Output 2.4: General public trained on reduce, reuse and recycle (3R) and good waste separation practice										350.47
Output 2.5: Business operations in private sectors working on sound waste management improved										27,635.37
Component 3 – Improvement of sound waste management operations										
Outcome 3: Sound management operations of hazardous and other wastes improved										
Output 3.1: Hazardous waste Management Action Plans reviewed and formulated at municipality levels										977.99
Output 3.2: Facilities established and used to properly collect hazardous and other wastes within the municipalities										831.99
Output 3.3: Waste interim storage and sorting facilities established and used by the stakeholders of the selected municipalities										438.05
Output 3.4: Recycling facilities established and used within the municipalities										751.03
Output 3.5: The management of final disposal facilities reinforced for hazardous and other wastes in the municipalities										1,026.78
Output 3.6: Waste management operations by the companies at the municipal levels improved										404.51
Output 3.7: Open burning controlled to reduce uPOP emissions										117.92
Component 4 –Monitoring and Evaluation										
Outcome 4: Project progress properly monitored and evaluated										
Output 4.1: Project results monitored and reported including gender dimension										19,870.37
Output 4.2: Project evaluated meeting the GEF's evaluation criteria										
Component 5 – Project Management										
Outcome 5: operating										
Output 5.1: operating										789.36
Total										

X. Synergies

1. Synergies achieved:

- Strong collaboration with the national waste program (PNGD), in waste management, good communication in terms of exchange on waste collection statistics.
- Establishment of a select committee for the orientation, monitoring and evaluation of the operation of the treatment units set up in the 2 communes.
- Sharing of knowledge and expertise with the PNGD in terms of geolocation of illegal dumps.
- Strong collaboration with the Global Green Growth Institute (GGGI) in its strategy for the development of green secondary cities.

- Support of the DEEC in taking into account the environmental and social dimension for the construction of the waste treatment center in Ziguinchor.
- Strong collaboration/synergies with PROMOGED in the implementation of certain infrastructures in Ziguinchor
- Strong collaboration with SONAGED (*Société d'atonal des déchets*), formerly the waste coordination and management unit (UCG), in the setting up of the e-waste platform (WEEE) in Tivaouane.

3. Stories to be shared (Optional)

The GEF PRODEMUD project has been assisting the government of Senegal in implementing an environmentally sound management (ESM) system for biomedical waste in the municipalities of Ziguinchor and Tivaouane since 2014.

As health services continue to face increased pressure worldwide in the context of the COVID-19 pandemic, it is more important than ever that biomedical waste be managed properly as its quantity increases. According to the World Health Organization, 15% of the waste generated by healthcare activities is considered hazardous materials that may be infectious, toxic, or radioactive.

In order to achieve this reduction in POPs resulting from inadequate biomedical waste management, several activities were carried out as part of the implementation of the green waste management system in the target municipalities:

- Development of national technical guidelines.
- Delivery of equipment for the sorting and collection of biomedical waste
- Supply of transport equipment to ensure safe transport of biomedical waste to treatment facilities
- Installation of two biomedical waste treatment units at the Ziguinchor regional hospital and the Tivaouane health district
- Development of five-year action plans for the two beneficiary municipalities to implement effective biomedical waste management.
- Training of waste collectors, municipal officers and health sector representatives on best practices for sorting, storing, transporting and treating this type of hazardous waste.
- Delivery of equipment for the consolidation and sorting center in Ziguinchor. The construction of this center is being finalized.
- The delivery of equipment for an electronic waste management platform in Tivaouane.

"The Sterilwave 100 equipment delivered to Senegal for on-site waste treatment is based on microwave treatment technology," explains UNIDO project manager Ms. Fatin Ali Mohamed, "it is important that effective technology is available and that appropriate guidelines are in place to help those on the front lines to effectively manage waste in these difficult times."

"I am delighted with this unit which is equipped with modern technology that does not pollute the environment," said the mayor of the commune of Ziguinchor, during the inauguration of the biomedical waste treatment unit.

"Waste management is part of my program" said the new mayor of Ziguinchor. And to add "I will accompany the process of setting up the center for the collection and sorting of waste to improve the living environment of the people of Ziguinchor.

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 yields 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.