Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 28-Sep-2023 | Report No: PID196

BASIC INFORMATION

A. Basic Project Data

Project Beneficiary(ies)	Operation ID	Operation Name	
Seychelles	P181243	Seychelles Solid Waste Management Project	
Region	Estimated Appraisal Date	Estimated Approval Date	Practice Area (Lead)
EASTERN AND SOUTHERN AFRICA	04-Mar-2024	28-Mar-2024	Urban, Resilience and Land
Financing Instrument	Borrower(s)	Implementing Agency	
Investment Project Financing (IPF)	Ministry of Finance, National Planning, and Trade	Ministry of Agriculture, Climate Change, and Environment (MACCE)	

Proposed Development Objective(s)

To promote sustainable solid waste management and circularity in Seychelles.

PROJECT FINANCING DATA (US$, Millions)

Maximizing Finance for Development

Is this an MFD-Enabling Project (MFD-EP)?

Is this project Private Capital Enabling (PCE)?

SUMMARY

Total Operation Cost	**5.00**
Total Financing	**5.00**
of which IBRD/IDA	**5.00**
Financing Gap	**0.00**

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	5.00

Environmental and Social Risk Classification	Concept Review Decision
Moderate	The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

1. The Republic of Seychelles is a Small Island Developing State (SIDS) in the Indian Ocean, an archipelago of 115 islands with almost 100,000 citizens[1], three-quarters of whom live on the main island of Mahé, with the remainder on Praslin and La Digue islands. Seychelles is considered a high-income economy country with the highest gross domestic product (GDP) per capita in Africa. Seychelles economic recovery continues, with GDP growth reaching 9 percent in 2022, driven by an 82 percent increase in tourist arrivals, and this strong tourism recovery continued into the early part of 2023, with tourist arrivals at 122,963 in Q1 2023. Construction activities also picked up, as a few large hotel resort projects started, together with some renovation of existing hotels. Fisheries continues to be major contributor to the economy, although, a slowdown in canned tuna production lowered the outlook for manufacturing activities.

2. **Seychelles is highly vulnerable to climate change due to increased frequency and intensity of climate-induced disasters, in combination with sea level rise and other oceanic impacts.** As a SIDS, Seychelles is exposed to a disproportionately high economic, social, and environmental impacts arising from climatic shocks and natural disasters. The country's location, topography and landscape make it vulnerable to tropical cyclones, tsunamis, storm surge, extreme rainfall, flooding, landslides, rockslides, and forest fires. Risks of landslides and coastal erosion make the infrastructure more vulnerable to damage while increased salinity of aquifers and soil are likely to impact food security and water supply. Over 90 percent of the population, and most economic activities are located on the narrow coastal plateau of Mahé Island. The concentration of population and development in narrow coastal areas, and on a limited number of islands, has put increased pressure on the environment and ecosystem. Slow onset sea level rise and ocean acidification are key risks for fisheries and tourism. The average annual loss from floods is estimated at US$2.5 million, (roughly 0.24 percent of Seychelles' GDP). Natural hazard impacts are further exacerbated by the long-term effects of climate change from sea level rise, and sea temperature warming, which present significant risks to the country's economy and sustainable development agenda.

3. **The Government of Seychelles' (GoS) Nationally Determined Contributions (NDC) Report (2022) acknowledges that climate change poses long-term sustainability risks** in terms of vulnerability to the direct and indirect impacts of climate change on local ecosystems, infrastructure, communities, and biodiversity[2]. Most development is situated in the coastal zone and is at risk from sea level rise and coastal erosion. Changing precipitation patterns are putting Seychelles at risk for drought and water security, as well as flooding in the coastal plateaus and landslides. Seychelles' NDC provides a framework for the country to address these challenges through climate change adaptation and mitigation. Improving the Solid Waste Management sector with improved infrastructure and better GHG capture is highlighted as critical activities in the NDC[3].

[1] https://www.worldbank.org/en/country/seychelles/overview#1
[2] Seychelles Climate Change Policy (2020)
[3] https://unfccc.int/sites/default/files/NDC/2022-06/Seychelles%20-%20NDC_Jul30th%202021%20_Final.pdf

Sectoral and Institutional Context

4. **Seychelles produces on average 90,000 tons of municipal waste annually, of which only about 1 percent is currently diverted from the landfill through recycling programs**[5]. Annual waste generation is expected to increase between 5 and 15 percent annually over the next 12 years, considering population growth and increases in tourism. Waste is about 50 percent organic, composed mainly of green waste, kitchen/food waste, paper, and plastics. Communal bins for household waste are set up throughout the island and waste collectors are contracted by the Landscape and Waste Management Agency (LWMA) to pick up the waste and take it to the landfill at no cost to households. Businesses pay fees to contractors for the collection of waste. A tipping fee of SCR 75 (US$5.40) per ton for mixed commercial waste is charged at the landfill. Several redemption centers were established for the collection of recyclable glass, aluminum cans, and PET bottles.

5. **The main landfill at Providence on Mahe Island is near capacity.** The Providence site, opened in 1996, is currently being managed by LWMA with a one-year contract to a private firm for additional support. For over 20 years, ending in 2018, the landfill was managed by a private firm with little oversight from the Government, which resulted in poor management, including limited diversion of recyclables or organic waste, insufficient compaction, leachate outbreaks, multiple fires, and lack of training and capacity building for landfill managers and workers. There is currently no landfill gas collection system in place to capture methane for use in electricity production or for flaring. The Providence I landfill was closed in 2016 and a new sanitary landfill (Providence 2) was opened on adjacent land, with an expected lifetime of 15 years. However, the new landfill's lifetime was only half of what was expected because of poor management, and lack of oversight (e.g., low compaction rate). Providence 2 has been closed since October 2022 due to fire outbreaks. Incoming waste is currently being disposed of at the original Providence I landfill.

6. **The landfills at Praslin and La Digue also experience challenges with waste management**. The disposal site in Praslin is not a sanitary landfill and has limited environmental controls. However, it has remaining disposal capacity. La Digue has a sanitary landfill with a semi-functional leachate collection system and is nearing capacity. At both sites, waste is poorly compacted and not covered. Waste diversion and better landfill management practices are needed to improve the conditions and the lifetime of the sites, as well as capacity building and training opportunities for staff.

7. **Solid Waste Management Policy (SWMP) and regulations fall under the responsibility of the Environment Division (Waste & Permits Division) in the Ministry of Agriculture, Climate Change, and Environment (MACCE).** The day-to-day SWM and coordination of contractors, the operation of waste management facilities and oversight of recycling programs (i.e., glass, PET bottles and aluminum cans) is done by LWMA. The LWMA oversees the main landfill on Mahe Island at Providence, a smaller landfill for glass waste at Anse Royale on Mahe Island, and the Praslin and La Digue landfills. A Solid Waste Master Plan (2020-2035) was developed with technical assistance from the European Union (EU) that aims to divert waste from landfills[4]. The plan is intended to guide the country toward a more sustainable waste management system with buy-in from all key stakeholders including government, businesses, tourism, and the local community.

8. **Seychelles tourism industry and fisheries sector contribute to a growing waste problem.** With over 330,000 tourists in 2022[5], tourists almost triple the population of Seychelles, and contribute nearly 30 percent of the waste going to the landfill. The Fisheries sector generates a significant amount of non-quantified waste including derelict fishing gear (e.g., industrial tuna fish nets and plastic buoys) and sludge from the tuna processing plant on Mahe. While a social enterprise initiative is trying to export and encourage local reuse of fish nets, buoys are stockpiled at the fishing port, and fish sludge is disposed of at the landfill.

[4] Seychelles Solid Waste Master Plan (2020-2035)
[5] Seychelles, National Bureau of Statistics, https://www.nbs.gov.sc/downloads/economic-statistics/monthly-visitors-arrivals/2022.

9. **The recycling sector in Seychelles is nascent but promising and led by the private sector.** There is no coordinated system in place for segregation, storage, or collection of recyclables, and therefore recyclables often end up in the landfill. Ongoing initiatives are managed by micro, small, and medium-sized enterprises (MSMEs) with some intervention by LWMA and MACCE. Officially, waste-pickers are not allowed in the landfills. However, anecdotal information indicates that persons may collect recyclables from the public dumpsites and the roadways take them to the recycling stations for compensation.

10. **There is limited available waste data that can guide planning and decision-making.** A sector diagnostic exists, but data on the sources of waste by sector, different types of waste going to landfill, amounts of waste being diverted from landfill, and the amount of money being earned through recyclables export and other waste-related businesses is sparse. This lack of data limits the capacity to set up a system that will address the situation in a financially sustainable manner, in the long term.

11. **The budget for SWM is limited**. The current annual budget of LWMA for provision of SWM services is about US$21 million, financed by the Ministry of Finance. This represents collection from the communal bin sites and disposal at the landfill along with any other costs associated with providing oversight for the solid waste infrastructure. No fees are currently being collected by households. Given the expected increases in the total amount of waste generated in the country, the long-term financial sustainability of adequate waste service provision, including the necessary infrastructure and equipment investments is in question.

Relationship to CPF

12. The overarching objective of the World Bank Group's (WBG) Country Partnership Framework (CPF) with Seychelles (CPF FY18-FY23), is consolidating the country's path to inclusive and sustainable prosperity, with a focus on shared prosperity and inclusion, and public-sector performance in fisheries, tourism, the Blue Economy program, and management of natural resources. The CPF supports efforts to build the human capital of the bottom 40 percent of the population to enable them to participate in new expanding opportunities. Finally, it seeks to consolidate resilience in public finances by increasing their efficiency, foster space for the private sector by improving the regulatory capacity of the state, and setting the foundations for transparency and accountability.

13. This project is well aligned with the CPF in that it seeks to help Seychelles improve SWM in a financially and environmentally sustainable manner, reducing risk of pollution and contamination of the environment and surrounding ocean ecosystems. It proposes to help improve the efficiency of SWM and build institutional capacity to manage the system in an environmentally, socially, and financially sustainable manner. Moreover, it seeks to accelerate government's efforts to create space for more private sector and MSME involvement in the upcycling and recycling of waste materials to support a circular economy.

C. Proposed Development Objective(s)

To promote sustainable solid waste management and circularity in Seychelles.

Key Results (From PCN)

14. Preliminary PDO indicators include the following:
    - Municipal and commercial solid waste that is diverted from landfilling via recycling and composting (metric tons/year)
    - Improved infrastructure and management practices for landfill, composting, and recycling (Yes/No)
    - GHG emissions reduction from improved waste management practices (CO2e metric tons/year)
    - MSME capacity building on recycling and circular economy (#organizations/year)

- Regulatory framework, and legislation related to SWM reviewed and updated (Yes/No)
- Increase in fees collected annually for SWM services provided by LWMA (%)

Gender, climate change considerations, citizen engagement and resident satisfaction rate indicators will also be included in the project's results framework.

D. Concept Description

15. **The project will support Seychelles in addressing its urgent challenges in SWM, in line with its SWMP.** Improving SWM in Seychelles will set the country on a long-term path towards a circular economy, in which resources are re-used, waste is minimized and there is a reduced need for landfilling. Moving towards a greener future will require Seychelles to adopt good practice principles in waste management and move up the waste hierarchy, by increasing recycling and re-use of materials, and eventually achieving more ambitious goals on waste reduction, minimization, and prevention. Doing so would yield multiple environmental and social benefits that support greater engagement of the private sector, and better protection of the natural resources that supports the tourism sector.

16. **The project will adopt an integrated approach to SWM looking at the whole waste value chain.** It will aim to address issues related to regulatory and institutional frameworks, capacity infrastructure needs, operational and maintenance practices and financial sustainability of services that are being provided, in order to improve them.

17. The PDO will be achieved through three main components:

18. **Component 1: Improving the SWM system.** This component aims to improve the SWM system overall, by reviewing the institutions and financial inputs needed for managing solid waste sustainably and improving waste infrastructure investments. Activities expected under this component include improving the design, financial sustainability, and management of SWM facilities to reduce waste disposed of at the landfills, as well as building capacity of key agencies to manage and operate the system more sustainably and effectively utilizing best management practices. It will also include piloting waste separation at source in selected areas based on a data-informed strategy that will be developed. Activities to improve waste infrastructure will include conducting feasibility studies, developing operational plans for the landfills to optimize their usage, installing an environmental monitoring network (i.e., groundwater wells, landfill gas collection system, etc.); determining the most climate-smart option to address the methane release along with constructing a central collection facility for recyclables. The component will also strengthen MACCE and LWMA to better manage the landfills through training, better regulations, and better data collection and analysis.

19. **Component 2: Improving Circularity.** This component aims to reduce the waste going to the landfill through engagement with the government, private sector, and community to improve the circular economy and improve the legislation to promote waste reduction. Under this component, studies will be conducted on composting options. Activities will focus on the Tourism sector to improve waste management in hotels. In addition, a "Whole-Of-Fish" approach will be promoted to reduce the waste from the fisheries sector. A business plan on the financial sustainability of the sector will be developed to make recommendations on strategic actions that could bring in revenue to support SWM. Relevant legislation will be developed or reviewed and updated on SWM topics, such as Extended Producer Responsibility (EPR), waste minimization, fees, and taxes. The component will also support outreach to the community on waste management and strengthening micro, small, and MSMEs engaged in the waste sector.

20. **Component 3: Project Management.** This component aims to support the incremental operating costs for the Project Implementation Unit (PIU) and project management consultants, , including measures to strengthen the capacity of the PIU to manage the E&S risks of the project activities in accordance with the ESF.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

21. The environmental risk rating is considered Moderate at concept stage as activities supported are considered medium to small in scale, located at existing landfill site and not anticipated to lead to significant long-term, adverse or irreversible environmental risks or impacts. Component 1 support installation of environmental monitoring systems, minor physical activities (compaction) to improve waste management practices at the existing landfill sites and construction of a central collection and recycling facility, piloting of waste segregation at source in selected areas and capacity building, while Component 2 will support studies to reduce waste sent to landfill, pilot compositing at landfill sites, SME waste initiatives and strengthening of legislative framework. Impacts associated with activities supported under Component 1 and 2 include (i) air emissions associated with release of gasses and waste burning, (ii) poor leachate control leading to ground and surface water pollution, (iii) spread of pests and disease-carrying vectors, (iv) wind-blow litter waste, (v) generation of construction waste (vi) noise pollution from heavy equipment, (vii) occupational and community health and safety due to historical poor waste management practices including to exposure to potential harmful substances and diseases and (vii) traffic safety risks due to increase traffic and movement of heavy equipment. Infrastructure and activities supported under the project will be constructed and undertaken, taking into consideration climate risks and resilience.

22. The Social Risk of the Project is assessed as Moderate. While no long term, widespread or irreversible social impacts have been identified as a result of the project, Components 1 and 2 entail activities involving (i) community health and safety risks, particularly as a result of the construction of a central collection facility, installation of increased traffic, movement of machinery and materials, monitoring equipment, and operation of heavy equipment, which could pose a threat to the surrounding communities; (ii) potential adverse impacts on the livelihoods of informal recyclers, also known as waste pickers, in addition to the increased risks for their health and safety after the project changes are introduced; and. (iii) other social risks, which will be further explored during the project preparation process, including the risk of child labor SEA/SH risks associated with project activities. At this stage it is not expected that the Project will need to acquire land to build waste recovery facility as there is available space at the Landfill and this space is owned by the Land authority. Nevertheless, the Land will be screened to confirm it's status, including the potential presence of informal occupants. Effective Stakeholder consultations are required to ensure that waste management solutions are developed and implemented with the support and knowledge of local communities.

23. To manage the Project's environmental and social risks, the implementing agent (MACCE) under the LWMA will prepare a series of environmental and social risk management instruments, which include an Environmental and Social Management Framework to screen project activities, a Stakeholder Engagement Plan with a grievance mechanism, an a Livelihoods Restoration Plan, Labor Management Procedures, Sexual Exploitation and Abuse/Sexual Harassments Action Plan. Site specific ESMPs which include occupational and community health and safety plans, waste management plans, and an environmental, health and safety risk assessment, among other, will be prepared during project implementation. The MACCE will carry out stakeholder engagement activities as well, in accordance with the provisions of the SEP. These commitments will be reflected in the Project's Environmental and Social Commitment Plan (ESCP).

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