



The World Bank

Second Additional Financing to the Integrated Urban Development and Resilience Project for Greater Antananarivo (P181650)

Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 30-Apr-2024 | Report No: PIDISDSA37417

BASIC INFORMATION

A. Basic Project Data

Country Madagascar	Project ID P181650	Project Name Second Additional Financing to the Integrated Urban Development and Resilience Project for Greater Antananarivo	Parent Project ID (if any) P159756
Parent Project Name Integrated Urban Development and Resilience Project for Greater Antananarivo	Region EASTERN AND SOUTHERN AFRICA	Estimated Appraisal Date 26-Apr-2024	Estimated Board Date 07-Jun-2024
Practice Area (Lead) Water	Financing Instrument Investment Project Financing	Borrower(s) Ministry of Economy and Finance	Implementing Agency Ministry of Decentralization and Planning

Proposed Development Objective(s) Parent

The Project Development Objective is to enhance urban living conditions and flood resilience in selected low-income neighborhoods of Greater Antananarivo; and to improve the Recipient’s capacity to respond promptly and effectively to an Eligible Crisis or Emergency.

Components

Improving urban drainage, services and resilience in targeted areas
 Strengthening institutional capacity for resilient urban governance
 Project Management, Coordination, Monitoring and Evaluation
 Contingent Emergency Response Component (CERC)
 Unallocated

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	15.00
Total Financing	15.00
of which IBRD/IDA	15.00



Financing Gap	0.00
----------------------	------

DETAILS

World Bank Group Financing

International Development Association (IDA)	15.00
IDA Credit	15.00

Environmental Assessment Category

A-Full Assessment

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. Madagascar is one of the world's most exposed and vulnerable countries to climate change and extreme weather events, with the most likely risks involving cyclones, flooding, and drought. The country faces an estimated Average Annual Losses (AAL) of US\$100 million for all combined hazards (e.g., cyclones, floods, and earthquakes). Every year, there is a 10 percent probability that damages will exceed US\$240 million and a 5 percent probability that they will exceed US\$600 million.

2.

Sectoral and Institutional Context

3. Antananarivo’s high exposure to flooding presents a significant threat due to the high concentration of people and assets in the capital city producing 75 percent of Madagascar’s Gross Domestic Product. Competition for space makes households locate in areas that are at risk of floods but close to urban labor markets. Up to 50 percent of the built environment is directly located in flood-prone areas (20-year return flooding). For households affected by floods, 30 percent are within the lowest per capita consumption quintile. Recurring flood events have significant negative impacts on capital accumulation in these lower quintiles and may contribute to lasting poverty traps. Climate shocks and vulnerability primarily affect the city’s core, in the plain of Antananarivo.

C. Proposed Development Objective(s)

Original PDO

The Project Development Objective is to enhance urban living conditions and flood resilience in selected low-income neighborhoods of Greater Antananarivo; and to improve the Recipient's capacity to respond promptly and effectively to an Eligible Crisis or Emergency.

Current PDO

The Project Development Objective is to enhance urban living conditions and flood resilience in selected low-income neighborhoods of Greater Antananarivo; and to improve the Recipient's capacity to respond promptly and effectively to an Eligible Crisis or Emergency.

Key Results

Project key results is captured by the number of people with urban living conditions, people protected by restored or improved flood protection infrastructure and share of direct project beneficiaries that are satisfied with the project interventions.

The project has reached 80 percent of its PDO indicators' targets, including: (i) 500,000 people benefiting from improved, resilient living conditions; (ii) 265,000 people being protected by restored or improved flood protection infrastructure; and (iii) 80 percent of direct project beneficiaries expressing satisfaction with the project interventions according to a beneficiary survey. Seven (7) intermediate objectives have been met, with six (6) exceeding their target values, which include: (i) 246,000 people provided with access to improved sanitation services; (ii) 126,000 women provided with access to improved sanitation services; (iii) 7.2 km of roads constructed or rehabilitated; (iv) 23.4 km of pedestrian paths constructed or rehabilitated; (v) 60 percent increase of properties for which owners have been identified for tax purposes over the previous year; (vi) 125,000 person-days of temporary employment created through labor-intensive works; and (vii) the revenue enhancement strategy and action plan for CUA finalized.

Approximately 650,000 people are expected to be direct beneficiaries of the project. Beneficiaries live mostly in low-income neighborhoods in the first and fourth arrondissements of the Municipality of Antananarivo (Commune Urbaine d'Antananarivo, CUA) and the peri-urban communes of Anosizato Andrefana and Bemasoandro Itaosy. They are expected to benefit from improved drainage, sanitation, and road infrastructure.

D. Project Description

4. PRODUIR is focusing on flood risk management, urban upgrading and improving social resilience, through improving access to basic services and building institutions. The project includes the following four components, which remain unchanged through this restructuring:

5. Component 1: Improving urban drainage, services, and resilience in targeted areas (US\$61.32 million equivalent). This component finances: (i) flood and drainage risk reduction, (ii) urban upgrading and integration of vulnerable neighborhoods into the urban fabric while ensuring active citizen engagement in diverse processes of design and implementation. Subcomponent 1.1 - Improvements of Canal, Drainage and Sanitation Infrastructure (US\$39.93 million) finances the reconstruction of a 12km canal that provides stormwater drainage for the western portion of the urbanized floodplain (C3 canal); the rehabilitation of dikes along the Ikopa and Sisaony Rivers; the construction of a

sludge disposal site for sediments dredged from the canal and the development of resettlement sites. Subcomponent 1.2 - Neighborhood upgrading (US\$20.1 million) finances critical urban infrastructure to improve (i) mobility and accessibility; (ii) access to essential sanitation services; and (iii) public and recreational spaces. Subcomponent 1.3 (US\$1.3 million) finances citizen engagement to contribute to the sustainability of the investments in the Project's pilot intervention area.

6. Component 2: Strengthening institutional capacity for resilient urban governance (US\$7.18 million equivalent). This component builds central and local authorities' ability to improve governance, municipal finance, and resilient urban planning and management. Sub-component 2.1 (US\$2 million) finances training and capacity building program for managing urban growth and an integrated slum upgrading strategy and affordable housing strategy for GA. Sub-component 2.2 (US\$3 million) finances technical assistance (TA) to CUA to enhance revenue mobilization and human resources management. Sub-component 2.3 (US\$2.18 million) finances TA to the Antananarivo Flood Protection Agency (*Autorité pour la Protection contre les Inondations de la Plaine d'Antananarivo*, APIPA) to enhance storm water drainage and flood protection service delivery, and to Municipal Sanitation Company (*Société Municipale d'Assainissement, SMA*)¹ to provide a reliable solid waste management.

7. Component 3: Project Management, Coordination, Monitoring and Evaluation (US\$6.5 million equivalent). This component finances the following activities: (i) incremental operating costs (including delegated contract management costs); (ii) fiduciary activities; (iii) audit, studies and assessments required under various project components; (iv) communication; and (v) monitoring (including of safeguards processes) and evaluation.

8. Component 4: Contingent Emergency Response (CERC). This is a zero-dollar component to provide immediate response to an Eligible Crisis or Emergency, as needed. This could include repairing damage to infrastructure, ensuring business continuity, and enabling early rehabilitation.

9. This second AF will address a cost overrun and a financing gap that has occurred during implementation due to circumstances beyond the control of the project or the government. The gap amounts to a total of US\$25 million, resulting from various factors such as losses of US\$9 million due to fluctuations in the USD-XDR exchange rate, delays in the implementation of the RAP and commencement of works, exacerbated by the COVID-19 pandemic and Russia's invasion of Ukraine. These factors have led to contract amendments for works at the Iarinarivo and Andavamamba sites, as well as at the C3 canal, resulting in price escalations of roughly US\$6 million. Additionally, the 2022 cyclone season caused significant damage to the dikes that protect Antananarivo from flooding, requiring the project to proceed with rehabilitation works urgently. This additional dike rehabilitation was carried out to prevent the collapse of damaged dikes and flooding during the rainy season of 2022 and 2023. Urban upgrading work that was not originally budgeted under the project was also implemented to respond to multiple municipality and community demands, considering the impact of the first phase. Furthermore, technical design changes were made at the Iarinarivo sludge disposal site to use additional processes such as dewatering and accommodate the land available agreed upon with PAPs during RAPs implementation. These additional activities add about US\$10 million to the cost of the works under subcomponent 1.1.

10. As part of the proposed restructuring, some interventions that were initially proposed under the project but do not directly impact the achievement of the project objective will be reduced to mitigate the financing gap. Some of the interventions that were preliminarily identified during the design of the project had not advanced due to various reasons such as financing gap, important environmental and resettlement impacts, technical complexity, and

¹ The Antananarivo autonomous maintenance service (*Service Autonome de Maintenance de la Ville d'Antananarivo*, SAMVA) have been replaced by SMA in 2021.

sustainability issues. After a thorough review and consultation with the Government during the project implementation, it was mutually agreed that some of these interventions would not be completed and will help mitigate the financing gap and avoid financial risk for the C3 canal works. These activities include two types of interventions: (i) structural urban infrastructure works identified in the detailed urban plan such as pathways, public or community space, retention pond, health, and education centers; and (ii) targeted drainage interventions such as the capacity strengthening of the pumping station. Some of these activities would require significant resettlement activities and could not be completed within the project timeframe due to their complexity. However, this change will not compromise the achievement of the project objective as the PRODUIR is primarily focusing on interventions in the C3 canal and implementing interventions that provide short-term and direct impacts to the most vulnerable people. Moreover, the AF will propose to continue some of the activities to the maximum positive impact extent possible with reduced costs and scope. The AF will also limit its intervention in terms of adverse environmental and social impacts to complement and sustain project impacts. Drainage interventions will consist of rehabilitating the existing pumping station and providing contingency pumps to support the operation and maintenance of the C3 canal. Urban intervention will consist of the construction and rehabilitation of urban infrastructure such as community pathways, urban roads, and simple drains in the project intervention area. Improving the proposed infrastructure identified as part of the detailed urban plan will be transformational for the neighborhood and will strengthen community resilience.

11. This second AF will help ensure that PDO can be fully achieved, that all project activities can be completed by the extension of closing date, and that systems are put in place to ensure long-term sustainability of the interventions. The AF will ensure that the infrastructure and systems financed are not only built to last, but also maintained effectively over time. This includes supporting ongoing training for local maintenance teams and establishing long-term infrastructure management plans as part of the infrastructure construction financed under the parent project. Moreover, the project will continue to deepen its engagement with local communities, especially with project beneficiaries and affected communities as part of RAPs implementation. This will involve existing participatory monitoring and feedback mechanisms that empower community members to take an active role in the project's implementation and success.

12. This second AF of US\$15 million for PRODUIR will ensure the completion of activities under the parent project. Resources will be used to finance activities that were originally included under PRODUIR, which contribute to the PDO as enhancing urban living conditions and flood resilience, and which were sufficiently advanced (in terms of design and/or construction works) that they can be easily implemented. This includes:

- 1) *Activities that contribute to enhancing flood resilience (US\$ 10million) under Subcomponent 1.1 Improvement of Canal, Drainage and Sanitation Infrastructure* will include the following:
 - Construction of sludge pre-treatment site (US\$2 million) - the 2023 redesign of the sludge disposal site requires dewatering at a pre-treatment site at the edge of the C3 canal before transport to Iarinarivo. The dewatering site has been designed and is included in the revised safeguards instruments;
 - Completion of complementary community investments included under the Iarinarivo RAP (US\$2 million) of the sludge disposal site. This includes extending access to electricity to neighboring municipality and rehabilitation of additional road segment. The two investments were agreed with Iarinarivo community during RAP consultations. Road designs have been finalized and works will be covered under existing contracts;
 - Completion of RAP implementation at Andavamamba resettlement site (US\$1 million) including the construction of access paths such as pathways and footbridges (designed to be adapted to climate change as urban infrastructure) to the new site as envisaged in the original site design. Construction will be done by contractors currently working at the site;
 - Completion of drainage activities already designed and identified to improve inflows of tributaries draining into

the C3 canal (US\$3 million); and

- Rehabilitation of critical pumping stations (US\$2 million) – including equipment and minor rehabilitation works to unsure operation and maintenance of the drainage pumping system considering an effective C3 canal. Equipment specifications have been finalized and designs for minor works have been completed.

2) *Activities that contribute to enhancing urban living conditions (US\$5 million) under Subcomponent 1.2 Neighborhood upgrading* will include the construction and rehabilitation of urban infrastructure such as pedestrian pathways and footbridges, urban roads, and simple drains in the project intervention area. The design phase for these works has been completed, and the planned works will be executed by the contractors already engaged in the project. Additionally, to improve urban conditions, these activities will also strengthen resilience since these infrastructures such as urban road and pedestrian pathways and footbridges will be build back better to be climate resilient as designed to withstand and adapt to flood events and could be used by communities as evacuation route in case of flooding.

13. The proposed changes under this AF include: (i) updating the RF to consider the progress made by the project to date, including the revisions of targets of selected activities; (ii) reallocating financing across components and disbursement categories to reflect the AF, (iii) updating disbursement categories and conditions to adapt to the C3 canal works sequencing, and (iv) an extension of the project closing date by 5 months from January 31, 2025, to June 30, 2025.

14. Results Framework. The RF will be revised (1) to reflect indicators in line with the New World Bank Scorecard such as integrating the number people with enhanced resilience to climate risks benefitting directly and indirectly from improved climate risk management and increased climate resilience, (2) to capture actual result achievement related to the PDO indicator tracking the number of people protected by restored or improved flood protection infrastructure; as well as targets of intermediate indicators tracking the number of people provided with access to improved sanitation services; the volume of sludge dredged from the C3 canal and safely disposed; the kilometers of canals, dikes, roads and pedestrian pathways constructed or rehabilitated; and the number of person-days of temporary jobs created. The increased numbers are mainly due to the expansion of the boundary for the beneficiary catchment area accounting for both direct and indirect beneficiaries. Considering updated indicator definition and measurement methods, the value of reduced activities is less than the actual and updated indicator and could not be visible in the RF. However, since the project revised the design of the sludge disposal site and will use dewatering technics (reducing the sludge volume by 40 percent), the amount of sludge dredged from the C3 and safely disposed will be reduced. Table 1 summarizes the revisions to the RF.

Table 1: Revised Result Framework

	Original end target	Actual target	Revised target	Rationale
PDO indicators				
People with enhanced resilience to climate risks (millions)	-	500,000 (Baseline)	1,000,000	Added a new indicator to consider direct and indirect people benefiting from project activities such as structural investments, non-structural or capacity development elements, and improvements to the enabling environments and institutional



				framework and supported to enhance climate risks. Actual target considers basis of actual project achievement.
People protected by restored or improved flood protection infrastructure (number)	43,500	265,000	300,000	Revised to integrate neighborhood population impacted by activities rather than only houses located along of the drains and dikes
Intermediate indicators				
People provided with access to improved sanitation services (number)	112,000	246,253	300,000	Revised to integrate neighborhood population which could benefit – directly or indirectly –and use the improved sanitation facility.
People provided with access to improved sanitation services – Female (number)	56,000	125,589	153,000	Revised to integrate neighborhood population impacted by activities rather than considering only houses located closed to the services
Length of canals and embankments Rehabilitated (kilometers)	17	4.7	31	Revised to integrate ongoing works on the canal C3 (13km) and to integrate AF activities (13km)
Amount of sludge dredged from the C3 and safely disposed (cubic meter, m3)	100,000	0	60,000	Revised considering new design of the sludge disposal site and dewatering techniques to reduce the volume of sludge
Roads constructed or rehabilitated (kilometers)	6	7.2	20	Revised to integrate ongoing works on the canal C3 (5km) and to integrate AF activities (8km)
Pedestrian paths constructed or rehabilitated (kilometers)	18	23.4	50	Revised to integrate ongoing works on the canal C3 (14km) and to integrate AF activities (13km)
Person-days of temporary jobs created	60,000	125,795	200,000	Revised to integrate ongoing works on the canal C3 and AF activities

15. Reallocating financing across components. The restructuring proposes a reallocation of financing between project components integrating the second AF in the component 1. Improving urban drainage, services, and resilience in targeted areas and reallocating additional funds within the parent project to Component 3 to manage project implementation during project extension. Financing reallocations are indicated in Table 2:

Table 2: Reallocation of financing across components after AF and project restructuring

Project Components	Current project cost (US\$, millions equivalent)	Proposed AF (US\$, millions equivalent)	Parent project and 1 st and 2 nd AF (US\$, millions equivalent)
C1. Improving urban drainage, services, and resilience in targeted areas	61.32	15.00	75.32
C2. Strengthening institutional capacity for resilient urban governance	7.18	0.00	7.18
C3. Project Management, Coordination, Monitoring and Evaluation	6.50	0.00	7.50
Unallocated	0.00	0.00	0.00
C4. CERC	50.00	0.00	50.00
Total	125.00	15.00	140.00

16. Project closing date extension. This AF include a project closing date extension by 5 months from January 31, 2025, to June 30, 2025, based on the detailed project work schedule considering C3 canal RAP implementation and will risk mitigation measure to the future rainy season of end 2024 as the project have previously experimented performance slow down during rainy season. This extension will mainly allow the PRODUIR to finalize the implementation of the C3 canal rehabilitation works. Consequently, it will extend the project loan closing date and implementation schedule. This will be the second extension of the project’s closing date, which would extend the original closing by 28 months.

E. Implementation

Institutional and Implementation Arrangements

17. The project’s institutional and implementation arrangements remain unchanged. The project will continue to be implemented in the Ministry in charge of Decentralization and Planning (*Ministère en charge de la Décentralisation et de l’Aménagement du Territoire*, MDAT). The Project Steering Committee (PSC) established on August 18, 2017, will continue to provide strategic oversight of the project. The PSC will meet at least twice a year and will be responsible for approving the annual work plans and budgets, project progress reports and providing policy direction to the PMU. The PMU will be based within the MDAT and will be responsible for the day-to-day management of the project. The Executing Agency for Public Interest Works (*Agence d’Exécution des Travaux d’Intérêt Public et d’Aménagement*, AGETIPA) will remain the delegated contract manager for the execution of components 1.1 and 1.2 of the Project. AGETIPA will continue to be responsible for: (i) selecting and recruiting consultants in charge of technical studies, detailed design, and preparation of bidding documents; (ii) supervising the quality of studies and bidding documents; (iii) managing the bidding process and awarding contracts for consultants, works and goods; (iv) managing contracts and approving invoices; (v) receiving works; and (vi) ensuring the proper implementation of safeguards requirements.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The project will intervene in Greater Antananarivo metropolitan area of the Analamaga Region (Madagascar). Works will be mainly concentrated in the 1st and 4th arrondissement of the Commune Urbaine d'Antananarivo (CUA) and three neighboring communes (Bemasoandro, Andranonahoarta, Anosizato Andrefana) – all located in urban areas.

G. Environmental and Social Safeguards Specialists on the Team

Paul-Jean Feno, Environmental Specialist
 Andrianjaka Rado Razafimandimby, Social Specialist
 Hasina Manarantsoa Andrianaribako, Environmental Specialist
 Vaniah Emode Andrianjaka, Environmental Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	
Performance Standards for Private Sector Activities OP/BP 4.03	No	
Natural Habitats OP/BP 4.04	Yes	
Forests OP/BP 4.36	No	
Pest Management OP 4.09	No	
Physical Cultural Resources OP/BP 4.11	Yes	
Indigenous Peoples OP/BP 4.10	No	
Involuntary Resettlement OP/BP 4.12	Yes	
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	No	
Projects in Disputed Areas OP/BP 7.60	No	

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The Parent Project is classified as Category “A” because although the environmental and social impacts are predictable, impacts could be significant, permanent, large scale and irreversible. Four environmental and social Safeguard Policies are triggered by this operation: OP 4.01 (Environmental Assessment), OP 4.12 (Involuntary Resettlement); OP 4.11(Physical Cultural Resources); and OP 4.04 (Natural Habitats). The second AF will address a cost overrun and a financing gap and not affect the efficiency of the infrastructure investments financed under this project. No additional or incremental E&S risks and impacts will generate by this AF.

Sub-component 1.1, Improvements of Canal, Drainage and Sanitation Infrastructure, will include works related to the removal and disposal of an estimated 100,000 cubic meters of sludge from the C3 Canal and associated drainage and sanitation infrastructure works. The main environmental impacts associated with these works based on the ESIA are generation of noise, dusts and vibration; erosion on the quarry sites of rocks and earth, unpleasant smells, disposal of contaminated dredged and excavated materials, social conflict due mainly to land acquisition and resettlement process and health and safety issues for workers and the local population due to labor influx issues of temporary workers, during the civil works, around work sites, the traffic disturbance and accident traffic risks with the sludge transportation, and groundwater pollution risks with the contaminated sludge. The main mitigation measures to address these risks are described in the ESIA/ESMP. Seven (07) ESMPs have been prepared and approved by the Bank' for this projects and in implementations in manner satisfactory.

The main social impacts are related to the works undertaken under sub-component 1.1 “Improvement of canal, drainage and sanitation infrastructure” (including all activities on the C3 canal, the pumping station, the site of elimination of sludge) and 1.2 “Upgrading of neighborhoods”. These social impacts are mainly linked to land acquisition and permanent and temporary involuntary resettlement. In total, 3,211 PAPs will be affected by the project, 613 have been identified as being physically displaced and 2,598 as losing their income due to temporary displacement (temporary losses: owners of rental structures, owners or tenants of ancillary buildings, farmers in the downstream floodplain, sediment extractors and brick makers, etc). There are also several small-scale, informal economic activities along the canal that may be affected from loss of access to the water, including laundry services, brick makers from the river’s sediment and vendors of wood and agriculture products.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

Long term impacts resulting from the project are mainly positive (i) reduction in flooding; (ii) urban upgrading and greater inclusion of vulnerable neighborhoods into the urban fabric; and (iii) effective and inclusive citizen engagement in diverse processes of design and implementation. Overall, the project will contribute to the improvement of the quality of life in the project and surrounding areas.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Alternatives considered to avoid or minimize adverse impacts included focusing on upgrading subprojects that outside of the targeted area (first and fourth arrondissements of the CUA and three neighboring communes), selecting alternative waterways other than the C3 Canal to rehabilitate, and focusing works only on portions of the C3 Canal that did not require any involuntary resettlement. These alternatives were not selected because they don’t maximize

the intended transformational nature and objective of the project.

Regarding the Canal C3 and dikes rehabilitation works, several alternatives were identified: the design of the rehabilitation works of Canal C3 has considered several alternatives with different associated resettlement impacts. Due to the highly urbanized target area, the least impacting scenario was selected. In terms of the disposal of canal sludge, six different sludge management and disposal options have been considered, including disposal at the existing landfill, waste recovery and recycling, incineration. Due to existing landfill being near full capacity and anticipated higher costs of treatment (due to the mixing of sludge with other solid waste), this alternative was not pursued. Likewise, waste recycling and incineration options were discarded due to the composition of the sludge.

Several resettlement alternatives were considered, including sites that are located a longer distance from the project area. These alternatives were not pursued because of the importance of maintaining livability options for project affected people. Dredging technologies are still being considered and will be part of the final procurement packages of the civil works.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The client has been actively responsive in addressing safeguards issues. To address the safeguard policies issues, the Borrower has prepared: (i) an Environmental and Social Management Framework (ESMF) and Resettlement Policy Frameworks (RPF) for the activities related to infrastructure that improve mobility and access ways, social services, public health and hygiene investments, since the exact locations of these infrastructure investments and activities cannot be determined prior to project appraisal; and (ii) a full Environmental and Social Impact Assessment (ESIA) with a specific ESMP and a detailed Resettlement Action Plan (RAP) for the civil works related to the rehabilitation of the C3 Canal. The ESMF, RPF, ESIA with its ESMP and RAP for the drainage and rehabilitation of C3 Canal have been cleared by the Bank and publicly disclosed in-country and on the World Bank's external website.

Environmental and Social Management Framework (ESMF): In compliance with OP 4.01 (Environmental Assessment) since the precise locations and potential impacts of future investments in infrastructure to improve mobility and accessibility, social services and public health and hygiene, cannot be identified prior to appraisal, an Environmental and Social Management Framework (ESMF) has been prepared to be used to screen sub-project proposals for environmental, social, gender, and health and safety impacts by using the Environmental and Social Screening Form (ESSF) checklist. The ESMF, which includes a generic Environmental and Social Management Plan (ESMP), has taken into account the urban environmental and social review and described the environmental and social profiles in the project target area, which covers parts of the first and fourth "arrondissements" of the CUA, as well as the extension to three neighboring communes (Bemasoandro, Andranonahoatra, Anosizato Andrefana), on the potential activities to be supported by the project. The ESMF outlines an environmental and social screening process for future infrastructure investments to improve mobility and accessibility, social services and public health and hygiene investments, to ensure that they are environmentally and socially sound as well as sustainable. This approach conforms with GoM and World Bank policies and guidelines on environmental and social impact management (see the HSE guideline). The ESMF also outlines the importance of developing an operational grievance redress mechanism which will capture and address environmental, social, governance, and other grievances and negative impacts of the project. Prior to its commencement, and as soon as the implementation sites are identified, each subproject/activity will be screened per the ESSF procedures detailed in the ESMF. The screening outcomes will determine the need to prepare an Environmental and Social Impact Assessment (ESIA), and a freestanding Environmental and Social

Management Plan (ESMP); whereas the Resettlement Policy Framework (RPF) will determine the need for preparation of additional Resettlement Action Plans (RAPs).

Since the project is rated a Category A project, all specific environmental and social ToRs for identified subprojects under Sub-component 1.2 during implementation has been/will be submitted for the Bank's approval before launching environmental and social studies. The works of these selected subprojects will be executed with the environmental and social clauses in the respective enterprise contracts and with the required Contractor Environmental and Social Management Plans (CESMP) included after the specific ESIA's are approved by the Bank. The screening of the sub-projects will be done by the two safeguard environmental and social focal points (one environmental specialist and one social development specialist), who will be part of the Project Management Unit. The environmental and social safeguard specialists will be responsible for the procurement of consultants to prepare the safeguards instruments, supervision of the consultants and monitoring of the implementation of the ESMPs, and RAPs in the project areas. The safeguard specialists also will ensure that all contractor contracts include environmental and social clauses (including a worker code of conduct, specific grievance redress mechanism, specific measure regarding gender-based violence) , which are attached as an annex to the ESMF and will also be developed in the specific ESIA for the selected subproject sites during implementation in order to ensure adequate environmental and social management practices during construction and operation.

For OP 4.11 Physical Cultural Resources: The ESIA identified three sites of cultural or religious significance (2 churches and one cock-fighting arena) that will be affected by the C3 works. Appropriate mitigation measures are included in the ESIA's. In addition, the ESMF has included "chance find" procedures in case of chance finds during construction.

For OP 4.04, the project aims, as one of its main objectives, to preserve natural habitat and reduce risks and impacts to preserve the natural site in the project zones. OP 4.04 has been triggered due to the potential encroachment on natural habitats by the location of the sludge disposal site which has yet to be determined (as of April 2018) but also due to potential impacts from dredging and river works on rivers during construction and the long term positive impacts of dredging in improving the water quality of the rivers.

Environmental and Social Impact Assessment (ESIA): A stand-alone Environmental and Social Impact Assessment (ESIA) has been prepared for the civil works for the drainage and rehabilitation of the C3 Canal, and address, among others, the construction stage impacts mainly related to noise, vibration, erosion on the quarry sites of rocks and earths, dust, unpleasant smells, increased STD/AIDS transmission risks with the influx of temporary workers and safety issues with the important number of workers required during the civil works; health and safety issues for workers, the traffic disturbance and accident risks with the sludge transportation, groundwater pollution risks with the polluted sludge. The canal sludge lab results have noted the presence of heavy metals. In addition, the current solid waste landfill of Andralanitra will reach full capacity in less than four years and an alternative long term treatment and disposal landfill site has not yet been identified. Therefore, the project should identify a specific disposal site for the disposal of dredged and excavated material estimated to reach a volume of 100,000 m³. A site-specific, full stand-alone ESIA for the sludge disposal site is required. This site-specific ESIA will include the appropriate sludge treatment technology adopted to reduce the contamination of groundwater and the impact on the environment and human contamination risks. The current ESIA has proposed coherent criteria to select the final sludge disposal site and provides overall recommendations on the Sludge Management Plan. A strong and coherent ToR for the ESIA and RAP covering the transportation, treatment and management of the final disposal site of sludge are available at this appraisal stage. The related ESIA with its ESMPs will be submitted to Bank's approval. The disposal site is required to be operational before the start of sludge removal works on the C3 Canal can commence under Sub-component 1.1.

A cumulative impact assessment was conducted on both canal rehabilitation projects financed under IDA (C3 Canal) and AFD (Andriantany Canal) funds. The analysis of the cumulative effects of the project with the other selected projects has concluded that there is an absence of significant negative cumulative effects during the civil works. A summary of the cumulative impact is included in the ESIA. In addition, the completion of the two projects will bring positive cumulative effects for the entire urbanized floodplain of Antananarivo: improvement of the evacuation of water from the urbanized districts within the plain, suppression of unhealthy zones, etc.

The Environmental and Social Management Plan (ESMP) summarizes all the environmental mitigation and monitoring measures, administrative procedures, as well as the institutional responsibilities that are required during both construction and operational phases in order to eliminate, mitigate, compensate or offset negative environmental and social impacts. The Contractor will be required to prepare a Contractor Environmental and Social Management Plan (CESMP) based on this ESIA/ESMP and taking into account all plans required in the ESMP: Stakeholder Engagement Plan, Hygiene Health and Security Plan, Local Labor Recruitment Plan, Traffic Management Plan, Post-construction Site Rehabilitation Plan, Plan for Management of Cultural Sites, Management Plan for Extraction of Building Materials, Solid and Liquid Waste generated by works Management Plan, Grievance Redress Mechanism, and Sludge Treatment Management Plan. The ESIA provides detail on each of these plans required CESMP and these specifications will be included in the bidding documents once the final procurement package is finalized. The ESMP includes a clear and coherent implementation plan with a total budget of around USD 200,000 financed by the Project. Sept (07) ESMPs have been prepared and approved by the Bank' for this projects and in implementations in manner satisfactory. To better managed resettlement issues a Resettlement Policy Framework (RPF): In compliance with OP 4.12 (Involuntary Resettlement), since the precise locations and potential impacts of future subprojects, mainly the subcomponent 1.2 of the project, in terms of infrastructure investments to improve mobility and accessibility, social services and public health and hygiene, investments cannot be identified prior to appraisal, an RPF has been developed that takes into account the urban and socio-economic context of the resettlement. Indeed, under Component 1.2, interventions related to the rehabilitation and development of precarious and vulnerable areas (urban upgrading), will affect various elements of the urban environment and are likely to generate land acquisitions that would result in loss of land, property, assets and/or socio-economic activities among the affected communities, including their possible involuntary resettlement. Therefore the RPF has identified a global number of affected households and PAPs for all the project, (i) described the way for the development of potential RAP to be developed after identification of specific activities of the project, (ii) outlined eligibility criteria for PAPs, (iii) defined specific compensation matrix for the project, (iv) outlined consultation process for the future PAR, (v) defined the grievance redress mechanism (GRM) which will be developed into the project and which will capture all complaints related to the project but not only those from resettlement issues, (vi) has proposed the institutional arrangement for resettlement implementation and also defines M&E approach for resettlement.

In addition in compliance with OP 4.12 (Involuntary Resettlement) resettlement action plans [PAR des travaux de remise en état des infrastructures de drainage et de protection contre les inondations (RAP for the C3 canal and dikes, disclosed on march 27, 2019), PAR du site de confinement des boues de curage (RAP for the sewage sludge elimination site, disclosed on august 7, 2019) and Plan succinct de reinstallation du site de reinstallation d'Andavamamba (RAP for the Andavamamba relocation site, disclosed on july 23, 2021)] were developed and disclosed to the both in-country and on the external World Bank website. The implementation of the PARs for the dike and the relocation site has been finalized. The implementation of the C3 channel PAR is underway. Under the supervision of the PIU, a consulting office for the implementation of PARs supports the capacity of PAPs to move to access training for income improvement, to access compensation and its use. An escrow account was opened so that the compensation amount could be disbursed and transferred individually to the bank account of the PAPs as the

necessary related documents were completed. The PIU conducts internal and external audits via an independent verifier to ensure the proper flow, use and management of project compensation funds. Compensation fund is being to be paid by the project with a total budget of around \$7,350,000.

The GRM of the project is operational. Since the launch of the project, 1,600 complaints have been received through the GRM, 1,585 of which have been processed, representing a processing rate of 99.06%. Overall, the complaints received concern (i) the commodo incommodo investigation (ii) the expropriation (iii) the late payment of employees (iv) the unpaid debts by workers to small traders. To date no sexual exploitation and Abuse/Sexual harassment (SEAH) occurred in the project.

Environmental and Social Capacity Building: The capacity assessment conducted as part of the ESMF and the RPF concluded that capacities need to be strengthened at all levels. The ESMF and RPF include institutional arrangements outlining the roles and responsibilities for the various stakeholder groups involved, for screening and approval of activities, as well as implementation and monitoring of their mitigation measures and capacity building activities needed. Therefore PRODUIR PMU is composed by a full time of one (1) environmental specialist and one (1) social development specialist, and one (1) SEAH and GRM specialist to ensure day-to-day safeguard works and to assess project activities in compliance with the prepared safeguard documents approved by the Bank. They have been hired in compliance with the comprehensive ToR developed in the ESMF.

ESIAs also include a requirement for the contractor to also include in their key personnel health and safety specialists. The Bank's safeguards team continues to ensure additional capacity building support to strengthen the technical capacity on both social and environmental safeguards management. The environmental and social safeguard specialists of PRODUIR is working collaboratively with the National Office of Environment (ONE), the national authority responsible for environmental and social management and also ensure compliance with national regulation and safeguards document reviews. The ESMF has proposed thematic training sessions to main actors implicated to the PRODUIR. And in addition the project has developed a stakeholder engagement Plan to support the involvement of stakeholders. Several safeguards training workshops have been conducted, and continue to be planned. This training will be iterative and open to other key stakeholders including beneficiary communities, private sector (consultant firms, CSOs, etc.) with the aim of reinforcing the grounding of public consultation and participation to foster more engagement, and the ownership and social accountability for the sustainability of project implemented activities. The PMU is also supported by one (1) Environmental and one (1) Social independent Panel to support and advise the project to implement safeguard measures and requirement following a ToR approved by the Bank.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

During the preparation of this proposed project, and continued during the implementation, intensive public consultations have been held in selected project zones. The Ministry of Decentralisation and Regional Planning has initiated public consultations and provided, in a timely manner prior to consultation, all the relevant materials in both French and Malagasy in order to be understandable and accessible to the groups being consulted. These consultations allowed to further communicate the project details as well as the conclusions from the ESIA, such as the mitigation measures which enhance the positive effects and attenuate the negative ones. More than 1,000 people took part in public consultations, on 11 sites. Approximately half of these people were women. The ESMF included a public consultation approach under the Stakeholder Engagement plan and comprehensive and clear grievance mechanism to be adopted during the project implementation with the Management of gender-based violence complaint which will be treated in collaboration with specialized institutions on gender-based violence (Ministry in charge of social protection, NGOs, and advocacy associations). All the Borrowers' safeguards instruments (ESMF, RPF, ESIA, RAP) have been reviewed and approved by the Bank. ESMF and RPF have been disclosed in-country on April 05, 2018 and in



World Bank’s external website on April 06, 2018. ESIA and RAP for the C3 canal and dikes, disclosed on march 27, 2019; ESIA for the sewage sludge elimination site on August 09, 2019, RAP for the sewage sludge elimination site, disclosed on august 7, 2019; RAP for the Andavamamba relocation site, disclosed on july 23, 2021, and updated on January 2022.

B. Disclosure Requirements (N.B. The sections below appear only if corresponding safeguard policy is triggered)

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
-----------------------------	-----------------------------------	--

"In country" Disclosure

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank	Date of submission for disclosure
-----------------------------	-----------------------------------

"In country" Disclosure

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)



The World Bank

Second Additional Financing to the Integrated Urban Development and Resilience Project for Greater Antananarivo (P181650)

CONTACT POINT

World Bank

Gael Fetranaiaina Raserijaona
Urban Specialist

Pierre Francois-Xavier Boulenger
Senior Water Supply and Sanitation Specialist

Borrower/Client/Recipient

Ministry of Economy and Finance
Ioby Rasamiravaka
Directeur de la Dette Publique
ssp.ddp.mg@gmail.com

Implementing Agencies

Ministry of Decentralization and Planning
Sandrina Randriamananjara
Secrétaire Général
sandrina.mdat@gmail.com



The World Bank

Second Additional Financing to the Integrated Urban Development and Resilience Project for Greater Antananarivo (P181650)

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

APPROVAL

Task Team Leader(s):	Gael Fetraniaina Raserijaona Pierre Francois-Xavier Boulenger
----------------------	--

Approved By

Safeguards Advisor:	Ernani Jose Sfoggia Pilla	30-Apr-2024
Practice Manager/Manager:	Catalina Marulanda	01-May-2024
Country Director:	Atou Seck	02-May-2024