



The World Bank

Madagascar Emission Reductions Program in Atiala-Atsinanana (P167725)

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

Appraisal Stage | Date Prepared/Updated: 06-Nov-2020 | Report No: PIDISDSA28156



BASIC INFORMATION

A. Basic Project Data

| | | | |
|--|---|---|---|
| Country Madagascar | Project ID P167725 | Project Name Madagascar Emission Reductions Program in Atiala-Atsinanana | Parent Project ID (if any) |
| Region AFRICA EAST | Estimated Appraisal Date 28-Oct-2020 | Estimated Board Date 15-Dec-2020 | Practice Area (Lead) Environment, Natural Resources & the Blue Economy |
| Financing Instrument Investment Project Financing | Borrower(s) Ministry of Economy and Finance, Ministry of Environment and Sustainable Development | Implementing Agency National Office of Climate Change, Carbon and REDD+ | |

Proposed Development Objective(s)

The objective of the Program is to make payments to the Program Entity for measured, reported and verified Emission Reductions (ER payments) related to reduced deforestation, forest degradation and the enhancement of forest carbon stocks (REDD+) at the national level in Madagascar, and distribution of ER payments in accordance with agreed Benefit Sharing Plan.

Components

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

| | |
|--------------------|-------|
| Total Project Cost | 50.00 |
| Total Financing | 50.00 |
| of which IBRD/IDA | 0.00 |
| Financing Gap | 0.00 |

DETAILS

**Non-World Bank Group Financing**

| | |
|--|-------|
| Trust Funds | 50.00 |
| The Forest Carbon Partnership Facility – Carbon Fund | 50.00 |

Environmental Assessment Category

B-Partial Assessment

Decision

Other Decision (as needed)

B. Introduction and Context

Country Context

Madagascar remains among the poorest countries in the world and has shown little improvement in indicators of the well-being of its population in recent years. The development agenda of the country faces an array of challenges in reducing poverty, including (for the eastern region, where the program is located) severe climatic events such as cyclones, agriculture, infrastructure and education deficits, tenuous access to markets and vulnerability to a global rise in food prices. Environmental and social challenges exacerbated by the process of forest and biodiversity loss (less effectiveness of environmental services for agriculture activities) weigh further on challenges to alleviate poverty. As a result, 75.5 percent of the people of Madagascar were living in poverty in 2018 and had not seen any significant improvement in their welfare in recent decades.

Poverty is significantly higher in the rural areas, where agriculture is the main source of income. Close to 80 percent of Madagascar's population lives in rural areas, and rural poverty rates are nearly twice as high as in urban areas. Agriculture is the main sector of employment for the head of household for the 80 percent of the population at the bottom of the economic pyramids, with only the fourth and fifth consumption quantiles engaged in large numbers in services, manufacturing, and public administration. The incidence of extreme poverty is higher among female-headed households, which make up one-fifth of all households. In the five regions partially covered by the Atiala-Atsinanana Emission Reduction Program (AA-ERP) Alaotra Mangoro, Analanjirofo, Atsinanana, Sava, Sofia poverty rates range between 67 and 82 percent of the respective population

Sectoral and Institutional Context

Madagascar is one of eight "hottest" biodiversity hotspots in the world, despite this, deforestation and biodiversity loss is increasing at a fast pace. According to the International Union for Conservation of Nature (IUCN) Global Red List data, Madagascar is considered a priority conservation area, with a disconcerting number of species threatened with extinction (e.g. 88.5 percent of lemur species are under threat of extinction). Despite major biodiversity conservation efforts, some ecosystems of the eastern forest are fragmented and degraded to the point that many native large animal species have been lost or face extinction.



The main direct drivers of deforestation and forest degradation are land use change for small-scale agriculture, energy production, mining (artisanal and illegal mining) and timber harvesting . The underlying drivers of deforestation are population growth and demographic pressure, poverty, weak governance and institutions, land tenure and a reliance on economic activities that foster deforestation and forest degradation such as traditional agriculture systems and low-input agriculture with weak natural resource management. Small-scale agriculture is driven by slash-and-burn practices for production of low-yield annual crops mainly used for subsistence purposes. The effect of slash and burn, especially for rice, is well-known in Madagascar but means for stemming the incursion into forests remain a significant challenge. The inadequate duration of fallow cycles is produced by an increase in household needs and the lack of basic technology and capacity to enable higher yields through intensification. Additionally, and less well documented is the impact of cash crops such as vanilla, cloves and coffee which incur less disturbance than slash and burn deforestation but instead cause significant forest degradation. As an example, over the last five years, in the North East of Madagascar vanilla prices have soared and cash crops have created significant damage to forest cover. Even though some private sector actors have promoted sustainable production of vanilla, most of the vanilla exported has been grown without considering the environmental impact. Additionally, production of essential oil, which relies heavily on biomass for the distilleries, is another cause of forest degradation rather than deforestation and where more sustainable approaches include engagement of the private sector and communities.

Forests sustain environmental services, function as carbon sinks, strengthen resilience and support livelihoods. Forests ensure environmental services also critical for agricultural productivity and livelihoods: hydrological services, regulation of the flow of water and reduction of floods and water shortages, essential services for downstream urban water users and hydroelectricity generation, reduction of soil erosion and sedimentation (which can adversely affect agricultural activities and irrigated perimeters downstream). Forests provide important sources of livelihood through supply of timber, fuelwood, non-timber forest products and other raw materials; furthermore, they provide other ecological services (e.g. drinking water, protection against extreme events). Additionally, forests act as natural safety net when there are ecological disasters. The degradation and loss of forests puts at risk these many benefits, for the global community, but also very directly for many households, especially the rural poor who are often isolated.

The Government of Madagascar prepared an Emission Reductions Program Document (ERPD) which entered into the Carbon Fund (CF) portfolio after the 18th Carbon Fund Meeting in June 2018 as part of their national effort to strengthen forest conservation and management. The World Bank serves as the trustee to the FCPF Carbon Fund with the role to pay for Emission Reductions (ER) generated from the implementation of the AA-ERP through an Emission Reductions Payment Agreement (ERPA) to be signed between the Bank, the Ministry of Economy and Finance and the Ministry of Environment and Sustainable Development. The ERPA General Conditions are non-negotiable and available on the FCPF website. The ERPA Commercial Terms of the carbon finance transaction are negotiable and remain subject to negotiations of the ERPA. For this Project Appraisal Document (PAD), assumptions have been made about the commercial terms based on the current status of exchanges about expectations of the Carbon Fund Participants (CFP) and Madagascar, which are summarized in Annex 4. Also, the proposed project period for the ERPA is five years (March 22, 2020 - December 31, 2024).

The AA-ERP embodies a commitment to conservation as well as development and involves local and regional authorities as well as local community and protected area managers. The scale of the AA-ERP is to consolidate



the successes of conservation through single protected areas but also incentivize local authorities/institutions and governance structures to become more involved in decision making around the forests. Past approaches to managing forests have been focused largely on the communities around the forests and the protected area manager (either Madagascar National Parks or Non-Governmental Organizations (NGOs) as delegated managers). The AA-ERP provides benefits for these participants but also sets in place institutional structures for local authorities to be more involved in, and receive benefit from, activities that reduce pressures on forests. Additionally, the focus on supporting activities with a view of the forest landscape (which also includes productive agricultural zones) embodies the more holistic view that conservation will be limited in its success if development needs are not addressed.

The AA-ERP covers an ensemble of landscapes within the Eastern Humid Forest Ecoregion of Madagascar, totaling 6.9 million hectares that are key for biodiversity conservation. The AA-ERP area, representing over 50 percent of the remaining rainforest in Madagascar (see map in Annex 2), is crucial for Madagascar's biological diversity, as it includes a bastion of endemic plant and animal species of global importance which are threatened with extinction. The AA-ERP area covers a total of 6,904,417 ha (more than 10 percent of the Malagasy territory) including 0.9 million ha of primary forest (14 percent of the total AA-ERP area), 1.1 million ha of disturbed forests (16 percent of the total AA-ERP area) and approximately 40,000 ha of young secondary forest. The total deforestation rate in the period 2006-2015 was -0.76 percent per year for all forests, -0.38 percent for primary forests and 1.1 percent for disturbed forests. The selection of the area was based on: (i) its high potential for achieving emission reductions and enhanced removals of carbon dioxide (high forest cover and capacity for carbon stock enhancement as well as deforestation hotspot); (ii) coherent geographical dimension for reducing poverty and forest conservation (consideration of watersheds and other landscape units, potential for cost effective interventions linking forest conservation and development activities and respecting administrative boundaries of communes); (iii) presence of important criteria for the efficiency of the ERPA (presence of land-tenure management offices within communes, and (iv) existing protected areas and/or interventions to address deforestation).

The AA-ERP is a large program and builds on ongoing World Bank (Bank) financed investments and partners in the area. The Sustainable Landscape Management Project (PADAP, P154698/P157909) includes four out of five landscapes in the AA-ERP area and has been carried out in close collaboration with the ER-P. Paramount to the approach of the AA-ERP is the collaboration between sectoral ministries at the central level, as well as at the decentralized/local level to develop a robust approach that emphasizes local development and conservation. In addition, the Agriculture Rural Growth and Land Management Project (CASEF, P151469) will also invest in over 886 hectares of the AA-ERP in agricultural activities to reduce deforestation and promote afforestation activities in the region of Atsinanana and Analanjirofo. During the Third Environment Program Support Project (P074235, P074236, P107484, P113976)) the World Bank invested in the management system for national parks, through the support to Madagascar National Parks (the National Park Management agency) which is also active in the AA-ERP.

The AA-ERP also builds on important engagements from the Government of Madagascar and partners in the Program Area. It is designed to be collaborative with the delegated entities in charge of Protected Area management (Madagascar National Parks, Wildlife Conservation Society,



Conservation International, World Wide Fund for Nature and to a lesser extent Missouri Botanical Garden) on behalf of the government and people of Madagascar that have the responsibilities to ensure financial perpetuation of protected areas (PAs) and their community management system in the program area. Notably the protected areas of Makira, Ankeniheny-Zahamena Corridor (CAZ),

Masoala, part of the Complexe d'Aires Protges Ambohimirahavavy Marivorahona (CAPAM) are expected to deliver most of the emission reductions for the program, especially for the first years (further details of the areas can be found in Annex 1).

Emission reductions payments will further support the implementation of AA-ERP. The performance-based payments for emission reductions (ERs) will only be available upon the verification of ERs; and will be used according to an agreed-upon Benefit Sharing Plan. The AA-ERP will support the continuity of existing activities and reinvest many of the funds to foster new activities that will improve livelihoods and reduce pressure on forest resources. Firstly, carbon finance will serve to ensure the consolidation of existing initiatives giving a continuity to the finance source beyond upfront finance. Secondly, carbon finance will also be used to expand activities in high priority areas as defined by the Regional REDD+ Strategies where the potential for Emission Reductions is higher and where no initial activities and up-front finance is available. In all cases, carbon finance will be linked to the generation of results which is expected to enable a changing of behavior and provide incentives for stakeholders to act in an efficient manner.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

The objective of the Program is to make payments to the Program Entity for measured, reported and verified Emission Reductions (ER) from reduced deforestation in the area of the Atiala-Atsinana ER program, and distribute ER payments in accordance with the agreed Benefit Sharing Plan.

Key Results

The achievement of the PDO will be measured through the following indicators:

- (a) Volume of Emission Reductions (tons of ERs) that have been measured and reported by the Program Entity, verified by a Third Party, and transferred to the FCPF Carbon Fund (tCO₂e);
- (b) Amount of payments by the FCPF Carbon Fund [for CO₂ Emissions Reductions generated by the Program (USD)];
- (c) Emission Reductions payments distributed in accordance with agreed-upon Benefit Sharing Plan (Yes/No).

The Reference Period for the AA-ERP is 2006-2015, against which the baseline or Reference Level of emissions were established. The Reference Level (RL) for the AA-ERP is 11,415,238 tons of CO₂e ERs on average for the 4.8 year duration of the ERPA. This includes emissions from deforestation, degradation and removals from the enhancement of carbon stocks from afforestation/reforestation activities.

D. Project Description

a. The AA-ERP

The added value of the AA-ERP is the consolidation of different protected areas into one single program to be led by the Government of Madagascar. As mentioned above, the project covers the ER payments and



sharing of benefits within the area of the AA-ERP, a large-scale program, whose activities are implemented with the support of ongoing Bank-financed projects (each of which has been appraised and approved separately) and other REDD+ activities lead by the GOM and partners in the Program Area, named REDD+ Initiatives. The main WB investment project (IPF) (PADAP) and GOM/partner REDD+ initiatives (GCF project in CAZ PA landscape¹, Makira PA landscape, Madagascar National Parks PA landscapes, COMATSA landscape) complement each other and cover much of the upfront investment needed to generate ER results for the project, as described in the approved Emission Reductions Program Document (ERPD), see annex 1 for more information.

The AA-ERP aims to reduce deforestation and forest degradation in its area by 16 percent on average against the reference level in the first 2.5 years of implementation and by 39 percent in the subsequent 2.5 years. Additionally, around 53,000 ha of afforestation/reforestation activities are expected to be implemented over the 5 years of implementation. This is due to the continued effects of the implemented activities over the years and the new activities being implemented with carbon finance through the benefit sharing arrangements. This represents a total of 13.99 million ERs to be achieved during the ERPA term, 85 percent of which is expected to be paid by the FCPF Carbon Fund as contract ERs – that is, 10 million ERs.

The Project implementation period², or ERPA term, will start on the date of ERPA signature (expected by the end of October 2020) and will continue for five years until 31 December 2024, before the end of the lifetime of the Carbon Fund (December 2025). The implementation of the AA-ERP started in 2018 with the launch of the WB/AfD/GEF funded PADAP project and the GCF funded project in the CAZ landscape and aims to continue through 2024 and beyond. These ongoing REDD+ Initiatives and the continuation of existing REDD+ Initiatives are expected to generate ERs in the first reporting period which goes from March 22, 2020 through December 31, 2024. These activities also build on over 20 years of engagement by partners and GOM with various target communities in forests in the AA-ERP area.

During the 4.8 years of the ERPA, the program will mainly focus on activities that would lead to the generation of emission reductions. This will ensure carbon performance and reinforce the REDD+ auto-financing process that will fund activities that further contribute to carbon performance in the AA-ERP area. The table below lists the types of activities focusing on improving different sectors which have an impact on reducing deforestation. These include scaling up activities that have proven success as well as the categories of activities prioritized by regional REDD+ platforms. Other activities to be financed may include socially beneficial investments that do not directly lead to deforestation but serve as incentives for actions that reduce pressure on forests.

Table 2. Description of existing and potential REDD+ activities within the AA-ERP area

| Category of activity by sector | With direct impacts | With indirect impacts |
|--------------------------------|---------------------|-----------------------|
|--------------------------------|---------------------|-----------------------|

¹ An approved Green Climate Fund project includes grant funding for the management of the CAZ Protected Area as well as investment finance for the development of private-sector focused activities in sustainable agriculture and energy production.

² The implementation period for this Project refers to the period during which the Bank would make payments for verified Emissions Reductions (ERs) achieved by the AA-ERP



| | | |
|---------------------------------------|---|--|
| <i>Agriculture sector</i> | <ul style="list-style-type: none">• Optimize production systems and agricultural and livestock-dedicated infrastructure• Improve the management of cash crop production under agroforestry systems and improve food security of local communities' riparian to forests | Support the development and setting up of small and medium-sized enterprises and/or rural cooperatives and promote the creation of REDD+ mechanism-related subsectors at the local level |
| <i>Forest sector</i> | <ul style="list-style-type: none">• Improve the management of forest areas through a landscape approach• Promote private and community reforestation, rehabilitate degraded forest areas, and reforest in consideration of local needs, without converting natural forests• Promote sound forestland management and conservation as a condition that can facilitate access to land tenure | <ul style="list-style-type: none">• Reinforce forest surveillance and monitoring system and regulatory enforcement, including fire management• Improve the contribution of the forest sector to economic development by promoting the use of non-timber forest products and other subsectors that do not affect the carbon stock |
| <i>Energy sector</i> | <ul style="list-style-type: none">• Promote improved fuel wood use and transformation techniques, as well as the dissemination of improved stoves in urban centers• Develop the use of renewable energy (solar, biogas, etc.) for domestic use | Support the harmonization and development of the legal framework relating to the development of alternatives to fuel wood and sustainable fuel wood supply |
| <i>Crosscutting and other sectors</i> | Enhance non-carbon benefits delivered by the improvement of rural livelihoods and the conservation of biodiversity and ecosystem services | <ul style="list-style-type: none">• Improve livelihoods for rural and forest dependent communities, including women, youth and children• Reduce material efforts and household expenses by improving access to wood fuels, charcoal and firewood and efficient cookstoves• Put in place strategies to increase women's employment at the project and community levels• Reinforce land security while addressing gender imbalance in access land and |



| | |
|--|---|
| | <p>resource rights, including with reforestation</p> <ul style="list-style-type: none">• Provide appropriate management of ecosystems, forestry, agroforestry and agricultural management and technical support to customary and formal landowners• Improve the coordination and monitoring of mining and agricultural developments and set up of compensatory reforestation• Reinforce decentralized management and coordination of REDD+ mechanism-related interventions at local level• Align the legal framework with the institutional one conducive to the good governance of the REDD+ mechanism. |
|--|---|

b. The carbon transaction

Out of a total of 13.99 million ERs potentially available to the CF, the GOM proposes to sell 10 million ERs at a unit price of US\$5 per ER, resulting in a total transaction value of US\$50 million³. The GOM prepared an Emission Reductions Program Document (ERPD)⁴ which was presented at the 18th Carbon Fund Meeting in June 2018 and was approved by Carbon Funds Participants with no conditions.

It is estimated that the implementation of activities will lead to a generation of 13.99 million ERs during the ERPA term. This estimate is based on the target in reduction of deforestation/degradation and increase in reforestation defined in the landscapes of the REDD+ initiatives. A specific reference level, consistent with the AA-ERP one, was defined for each landscape and emission reductions were estimated for each individual REDD+ initiative using the defined targets. Since monetary benefits will be invested in new activities in existing REDD+ activities or new REDD+ initiatives, emission reductions resulting from this re-investment were estimated based on the mitigation cost of the initial activities. Areas that are not covered by REDD+ initiatives are assumed to maintain the same level of GHG emissions as historical GHG emissions. The resulting efficiency in the reduction of GHG emissions ranged between 15 percent the first year and 30 percent the last year. This resulted in 19.4 million ERs over the ERPA period (March 2020 -December 2024). Uncertainties associated with the estimation of ERs were at the threshold of 30 percent at 90 percent of confidence level. In order to consider the risk of uncertainties as required by the FCPF, 8 percent of the total ERs are to be set aside in an uncertainty buffer reserve. In order to address the risks of reversals as required by the FCPF, a fraction (28 percent of contract ERs)⁵ of ERs are to be set aside to a buffer reserve. A total of

³ Please note that these figures are indicative and subject to ERPA negotiations.

⁴ Final ERPD:

https://www.forestcarbonpartnership.org/sites/fcp/files/2018/June/Final%20ER%20PD%20MDG6_20180606_Posted.pdf

⁵ A fraction of the ERs generated and verified under the ER Program will be deposited in the ER Program CF Buffer to account for the risk of reversals and to account for the risk of uncertainty. The former will be used to manage the risk of future reversals (i.e. A situation where the cumulative monitored and verified ERs are less than the currently transferred ERs), while the latter is a mechanism to manage the risks of over-issuance due to the uncertainty of the ERs and to provide incentives to improve uncertainty of ERs with time. The requirements for the operation



5.4 million ERs are set aside in the uncertainty and non-permanence buffers and a total of 13.99 million ERs could be potentially be available to the CF. See details in Table 3.

Table 3: Ex-ante estimations of the ERs expected from AA-ERP⁶

| Year | Reference level | Emissions and removals ER program | Emission reductions or enhanced removals | Uncert. | NPR | ER potentially available to CF |
|-----------------------|-------------------|-----------------------------------|--|------------------|------------------|--------------------------------|
| | | | | 8% | 28% | |
| March 2020 - Dec 2020 | 8,590,464 | 7,169,544 | 1,420,920 | 113,674 | 285,960 | 1,021,286 |
| Jan 2021 - Dec 2021 | 11,434,595 | 8,706,969 | 2,727,626 | 218,210 | 548,935 | 1,960,481 |
| Jan 2022 - Dec 2022 | 11,415,238 | 7,276,548 | 4,138,689 | 331,095 | 832,911 | 2,974,683 |
| Jan 2023 - Dec 2023 | 11,395,881 | 5,967,611 | 5,428,270 | 434,262 | 1,092,439 | 3,901,569 |
| Jan 2024 - Dec 2024 | 11,376,524 | 5,630,436 | 5,746,088 | 459,687 | 1,156,400 | 4,130,000 |
| TOTAL | 54,212,701 | 34,751,109 | 19,461,593 | 1,556,927 | 3,916,645 | 13,988,020 |

Measurement and reporting of ERs will be done on an annual basis while external verification of these ERs will occur every other year. Payments will be annual, based on third-party verification reports or on interim progress reports (in case verification does not take place every year). ER payments will be distributed by GOM in accordance with the final BSP. The ERs sold to the Carbon Fund and those set aside in the buffer will be registered in Madagascar's transaction registry⁷ and transferred to a centralized transaction registry managed by the FCPF. GOM is currently exploring the possibility of entering into a separate transaction and sell part of the remaining volume with IFC and other potential partners.

Implementation of the AA-ERP is expected to generate environmental benefits in addition to the reduction of GHG emissions and enhanced GHG removals, such as increased resilience to the impacts of climate change, soil conservation, water retention, and biodiversity protection. The cost-benefit analysis of the AA-ERP presented later in this document shows that the AA-ERP will also generate significant positive net social impacts.

c. Lessons Learned and Reflected in the Project Design

REDD+ has a relatively long history in Madagascar with REDD+ financing being used as a source of financing for three protected areas over the past 10 years, Ambositra-Vondrozo Forest Corridor Natural Reserve (COFAV), Ankaniheny-Zahamena Corridor (CAZ) and Makira Protected Area, the latter two within the AA-ERP area. The former (COFAV) PA is not located within the AA-ERP while the latter two protected areas will

of these two buffers are established by the CF Methodological Framework and the CF Buffer Guidelines.

⁶ These are indicative and subject to ERPA negotiations

⁷ The ER transaction registry is a system that creates (i.e., issues) emission reduction titles with unique serial numbers; supports the transfer of these units between account holders within the registry and to other linked trading registries; allows account holders to manage positions and transaction; generates reports on ownership of emission reduction units and transactions; and supports accounting for non-permanence risk management (buffer reserves). At the time of this PAD, Madagascar's transaction registry is in early stages of feasibility analysis and it is not expected it will be in operation before the first issuance of Emission Reductions.



now be integrated within the AA-ERP and merge with the national approach to REDD+. With the launch of the AA-ERP the effort to consolidate financing is anticipated to bring a multi-sector approach to conservation and development through at least 2025. The AA-ERP is built on an approach that carbon finance can be used as a source of funding for protected areas, for conservation and development of surrounding communities, that covers over 10 percent of the national territory and 20 percent of the AA-ERP. The AA-ERP also brings a coherent approach and methodology to forest carbon transactions in the country rather than individually promoted projects with different methodologies.

Lessons learned from the implementation of the three protected areas receiving REDD+ finance have been integrated into the design of the AA-ERP. The two main issues identified⁸ to ensure a successful transaction were the coordination and communication among government agencies, and the elaboration of a benefit sharing plan in a consultative manner early on in the process. Regarding the former, the government of Madagascar has established in its REDD+ Strategy (which was adopted 30 May 2018 through *decreet N° 2018-500*) the necessary institutional arrangements and coordination structures to enable efficient coordination amongst government ministries. A more comprehensive REDD+ decree has also been submitted for Inter-Ministerial approval and codifies more detailed technical aspects of REDD+ implementation. The REDD+ decree is expected to be adopted before effectiveness of the ERPA. Madagascar has already established an inter-ministerial coordination committee that will oversee and provide political orientation to the AA-ERP. Regarding the latter, the government of Madagascar has advanced in defining a benefit sharing plan, which is considered as an “advanced” version as required by FCPF Methodological Framework.

The World Bank has considerable experience working with the Government of Madagascar on issues of forest management and conservation. The First and Second Environmental Program Support Projects were implemented between 1990-2004 (P001556, P001537) and supported the creation of institutions to manage natural resources. The project supported an agency to manage the national protected area system and also supported the creation of the first protected areas,⁹ and the integration of environment into development and economic policies.¹⁰

The risk of resorting to old practices are high if investments in behavior change are not associated with income generation opportunities. The AA-ERP is built on the lessons learned from the Third Environmental Program Support Project (EP3) (P074235, P074236, P107484, P113976). In line with sector-specific goals, the project sought to reduce poverty by contributing to broad-based economic growth, sustainable natural resources management and improving governance. The project identified the importance of ownership among line ministries and implementing agencies to balance short term interests of the project with long term interest of sector development, capture potential synergies by coordinating with other development projects for improved natural resource management where different sector operations target the same area, such as buffer zones surrounding the PAs and the importance of addressing general governance to improve natural resource management. For complex projects, with a large number of multiple implementing agencies (key implementing agencies, local governments, NGOs, independent service providers), the project learned to use results-based or performance-based contracts as a main vehicle of project implementation instead of the traditional disbursement arrangements.

⁸ Implementation completion and results report (p108943 / tf091055) on the purchase of verified carbon units by the biocarbon fund from the republic of Madagascar for the Ankeniheny-Mantadia-Zahamena biodiversity conservation and restoration corridor carbon project, conservation component

⁹ Project objectives were the: (a) conservation and management of Madagascar's biodiversity, (b) promotion of the sustainable development and management of the country's natural resources, (c) improvement of the population's living conditions, and (d) development of the country's human resources and institutional capacity.

¹⁰ The original development objectives of EP2 were to (a) reverse current environmental degradation trends and to promote sustainable use of natural resources, including soil, water, forest cover, and biodiversity; and (b) to create conditions for environmental considerations to become an integral part of macroeconomic and sectoral management.



Results-based contracts simplify the management of multiple implementers and enhance their independent functioning as service providers. In addition, fiscal sustainability of environmental agencies established under the project was learned to be crucial in ensuring overall sustainability of project achievements

E. Implementation

Institutional and Implementation Arrangements

The AA-ERP will be implemented by multiple stakeholders aligning with the national REDD+ strategy. At the national level the National Climate Change, Carbon and REDD+ Coordination Office (BNCCCR) will be responsible for technical coordination, monitoring, measurement and reporting ERs in collaboration with the National REDD+ Platform. At the regional level, regional REDD+ coordination units will work with regional REDD+ platforms, communes, technical government services and other partners in support of REDD+ initiatives to be funded with carbon finance. National delegated entities partnering with the government on the management of protected areas and the surrounding communities, private sector, communes, local NGOs and other operators are key actors for implementing activities on the ground.

REDD+ governance and planning is carried out mainly by three (3) multi-stakeholder entities at the national and regional levels (National REDD+ Platform, Regional REDD+ Platform and the Local Consultation Structures (SLC) at the commune level). The national and the regional platforms will ensure that the REDD+ activities proposed in the Utilization Plans of the REDD+ Initiatives are in line with the REDD+ Strategy and will take a decision on the approval of extension of REDD+ activities through existing or new Initiatives. The Local Consultation Structures are a fundamental part of current governance structure at a local level and provide a key role for local authorities which have been excluded from formal management in many conservation projects.

The operation and management of the program is ensured by four (4) national and regional entities (Interministerial Committee for the Environment (CIME), BNCCCR, REDD+ regional coordination offices that are embedded in Regional Environment and Sustainable Development offices (DREDD) and REDD+ activity promoters). It is important to note that REDD+ Initiative promoters work closely with communities and local authorities. CIME is in charge of providing political and strategic guidance. BNCCCR is in charge of ER program management, while the REDD+ regional coordination offices are in charge of the supervision of REDD+ Initiatives at regional level and supporting SLC to prepare the Utilization Plans of REDD+ Initiatives. The REDD+ activity promoters are in charge of implementing and managing REDD+ Initiatives, these may be, among others: forest managers (i.e. community forest manager or protected area manager), rural households, farmers' associations or groups of small producers and processors (i.e. charcoal producers, hunters, animal and agriculture farmers, private sector actors, NGOs, civil society organizations, etc.). The private sector actors include those within sustainable agriculture value chains such as vanilla, cocoa, cloves, coffee, and others for further development as potential sustainable supply chain priorities, as well as energy and forestry sectors.

ER payments will be received by the Central Bank of Madagascar which will, after approval of the Annual Budget that includes the sharing of carbon benefits, will transfer the funds to the Ministry of Economy and Finance who will transfer it to a third-party financial agency, the Madagascar Biodiversity Foundation (FAPBM) for fiduciary management¹¹. The institution has a proven track record of independence and

¹¹ It is envisioned to create a separate para-statal fiduciary agency EPA (Etablissement Publique à titre Administratif) through a ministerial Decree to receive the funds. This agency plays a role in the AA-ERP implementation primarily in receiving funds and



effective financial management, including having managed funds by the World Bank, and has previously received transfers from the Ministry of Economy and Finance and so this transaction decreases the residual risk. Once the funds arrive in the FAPBM they will be transferred to BNCCCR who will distribute the funds to the different beneficiaries according to the agreed upon benefit sharing plan

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

The project will be implemented in the eastern part of Madagascar, covering more than half of the remaining rainforest ecosystem of Madagascar. The area is crucial for the country's biological diversity as it includes a multitude of habitat for high endemism, global importance and threatened species of animals and plants. The project area includes primary forests, disturbed forests and young secondary forests for a total of 30 percent of the whole project area of 6.9 million ha; the rest is a mosaic of agricultural land, rangeland, and settlements. The main environmental issue in the area is the conversion of forest land to agricultural land, which is at the very core of the project. In a prevailing low human development context, access to forest resources and clarity of land and resources rights are two of the main social safeguards issues to be addressed. Such risks will be addressed through mitigation measures aiming to strengthen and support increased clarity of land and resource tenure regimes at the rural level. Outcomes of participatory mapping and zoning processes will be included in regional and municipal development plans and will be part of the mechanism, to be designed and agreed upon by REDD+ stakeholders, aiming to increase clarity of land tenure rights of both individuals and communities. The exclusion of vulnerable groups by local elites or traditional authorities, particularly women who are more socially and economically disadvantaged within communities, will be addressed by systematizing gender mainstreaming in all REDD+ activities. This will include the establishment of a gender quota in all decision-making and management structures and promoting and strengthening women's associations and income-generating activities targeting women. The establishment of an effective, fair and accessible feedback and grievance resolution mechanism is also foreseen to address possible mapping and zoning related complaints and other grievances stemming from the implementation of REDD+ activities, including elite capture. Moreover, all ERPA underlying activities will be required to comply with WB Safeguards policies and the respective instruments, regardless of the nature of the implementing parties.

G. Environmental and Social Safeguards Specialists on the Team

Paul-Jean Feno, Environmental Specialist

Andrianjaka Rado Razafimandimby, Social Specialist

Maminiaina Solonirina Rasamoelina, Environmental Specialist

disbursing funds to the BNCCCR. It is not foreseen for the EPA to be fully operational before the first payments are received, as a temporary and interim measure, the AA-ERP will rely on an existing financial institution,



FNU Alphonse, Social Specialist

Hasina Tantelinirina Ramarson Ep Rafalimanana, Social Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

| Safeguard Policies | Triggered? | Explanation (Optional) |
|-------------------------------------|------------|--|
| Environmental Assessment OP/BP 4.01 | Yes | <p>The AA-ER Program aims primarily at reducing deforestation and enhancing carbon stocks in the intervention zones (i.e. enhancing the quality of the ecosystem); however, there are activities that might potentially cause site-specific and reversible adverse environmental and/or social impacts, which makes the project fall into category B. Such activities include forest plantation, more intensive agricultural practices, potential use of pest management or fertilizers, restriction of access to resources, terracing that might temporarily expose the soil to erosion before stabilizing it for the long term, etc. Vulnerable groups social and economic impacts and mitigation measures will be assessed and dealt with under OP 4.01. A SESA prepared as part of the REDD+ readiness process provided guidance and key analysis and elements for the preparation of an Environmental and Social Management Framework (ESMF) for the AA-ER Program.</p> <p>Any future investments and carbon finance transactions will require specific environmental and social assessments (ESAs) and the implementation of environmental and social co-benefits incentives and mitigation measures. An ESMF which includes standard methods and procedures, along with appropriate institutional arrangements for screening, reviewing, implementing, and monitoring specific ESAs to prevent or mitigate adverse impacts, as well as cumulative impacts have been prepared and disclosed both in country and on the World bank website.</p> <p>All ERPA underlying activities will be required to comply with WB Safeguard policies and the</p> |



| | | |
|--|-----|---|
| | | respective instruments, regardless of the nature of the implementing parties. |
| Performance Standards for Private Sector Activities OP/BP 4.03 | No | While performance standards have not been triggered, private sector actors will potentially be targeted and will be expected to comply with the national safeguards framework adopted by the government, which are consistent with WB standards. |
| Natural Habitats OP/BP 4.04 | Yes | Overall, REDD+ activities are expected to have significant positive impacts on forests, in that the main goal of the program is to reduce deforestation and forest degradation, as well as enhancing forest regrowth, while contributing to the well-being of forest-dependent communities. Potential impacts of the National REDD+ Strategy on natural forests were assessed through a SESA and included in the ESMF for the national REDD+ Program (P124655). The ESMF developed for the AA-ERP reflects the requirements of the Bank's Operational Policy regarding natural habitat and forest management. |
| Forests OP/BP 4.36 | Yes | Overall, project activities are expected to have positive impacts on forests. Potential impacts of project activities on natural forests and their mitigation measures are detailed in the ESMF. |
| Pest Management OP 4.09 | Yes | Agriculture activities are going to be undertaken within the AA-ERP, more specifically in the PADAP landscapes. As the REDD+ strategy is implemented, including in the AA-ERP, it is possible that pest management activities may occur. A Pest Management Plan, related to investments involving agricultural intensification was developed by and being implemented under the PADAP project since 2017 and is part of the ESMF of the AA-ERP. |
| Physical Cultural Resources OP/BP 4.11 | Yes | This policy has been triggered since REDD+ activities could promote actions in areas containing sites deemed physical cultural resources by local populations (e.g. holy/secret sites such as sacred groves, sacred forests, etc.). Though it is not anticipated that the program will have negative impacts on any such sites given the participatory management approaches employed, the ESMF nevertheless includes a chapter to provide guidance in case physical cultural resources were to be discovered. |



| | | |
|--|-----|--|
| Indigenous Peoples OP/BP 4.10 | No | <p>There are no Indigenous Populations that fulfill the WB criteria in OP 4.10 in the AA-ER Program area and therefore the policy is not triggered.</p> <p>REDD+ international standards and activities should not aim to resettle forest dependent communities.</p> |
| Involuntary Resettlement OP/BP 4.12 | Yes | <p>Nevertheless, OP 4.12 on Involuntary Resettlement is triggered to address situations that may eventually involve involuntary land acquisition and/or involuntary restriction of access to legally designated parks, protected areas, or forest management / reforestation areas. The policy aims to avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts in cases where resettlement or other involuntary restrictions cannot be avoided.</p> <p>Through the SESA process, issues related to land acquisition or restriction of access to resources were identified in a participatory way. A Resettlement Policy Framework (RPF) has been prepared as the exact activities or their locations have not yet been identified.</p> |
| Safety of Dams OP/BP 4.37 | Yes | <p>Additionally, to help address and mitigate restriction of access to natural resources in protected areas located within the AA-ERP area, a Process Framework (PF) has also been prepared using the national instruments as references and was disclosed both in country and on the World bank website.</p> <p>While the project will not necessarily finance the construction of large dams and reservoirs, and rather rely on existing dams, the policy is triggered as the project might build: (i) smaller check dams; and (ii) irrigation schemes that are identified for rehabilitation. It is important to note here that activities related to the dams are exclusively under the PADAP initiative, for which the Client already conducted a dam safety analysis and updated the Small Dams Security Manual. The small dams security manual is also part of the AA-ERP ESMF.</p> |
| Projects on International Waterways OP/BP 7.50 | No | REDD+ activities do not involve international waterways. |
| Projects in Disputed Areas OP/BP 7.60 | No | REDD+ activities under this project do not involve disputed areas. |



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 implementation of the AA-ER Program, due to the emphasis on prohibiting forest conversion to agricultural land, is expected to have positive environmental impacts, including habitat and biodiversity conservation, as well as enhanced provision of ecosystem services, which, in turn, should foster a more productive environment (reduces erosion risk, maintain soil fertility, etc.).

The AA-ER Program has been developed in line with the National REDD+ Strategy and the Safeguards approach that is being promulgated as part of the national legislation in Madagascar through a decree. However, there are activities that might potentially cause site-specific and reversible adverse environmental and/or social impacts. Such activities include reforestation activities, more efficient, higher input agricultural practices, potential use of fertilizers, restriction of access to land resources to prevent forest conversion to agricultural land, terracing that might temporarily expose the soil to erosion before stabilizing it for the longer term, etc. In addition, this program has inherent social risks, particularly with regards to land tenure and forest resource rights, and also, issues related to land acquisition and/or restrictions in access to natural resources in legally designated parks and protected areas.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:
The project is not expected to cause any potential indirect and/or long-term adverse impacts, especially if the mitigation measures that are in the safeguards instruments are properly implemented.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.
No alternatives will be considered

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.

Enhancing the positive impacts and reducing any risk of negative impacts of the activities would be the key to generating ERs. For that, the Government of Madagascar adopted REDD+ related Principles, Criteria and Indicators (PCI) in synergy with three aspects: (i) the national environmental regulation: Decree No. 2004-167 (MECIE) requiring environmental assessment for both private and public development to ensure compatibility of investments with the Environment, (ii) the Cancun safeguards adopted at the UNFCCC Conference of Parties in 2010, and (iii) the Wold Bank safeguards policies. The PCI sustain the country's Safeguards Information System (SIS) and involve -among others- the increase and sharing of social and economic benefits, gender mainstreaming, respect for and promotion of rights and remedies. Madagascar will continue working to (i) strengthen the capacities of the AA-ERP stakeholders, including civil society to monitor safeguards, and (ii) test safeguards indicators in the field.

Several aspects have to be taken into account for monitoring the implementation of the E&S safeguards provisions for the AA ERP: (i) As part of the SIIP , a Safeguards Information System (SIS) has been designed to minimize negative, unintended social, economic or environmental impacts of the implementation of REDD+ initiatives, and to monitor the



non-carbon benefits that result from the program implementation. The SIS will be informing the report about compliance with the Cancun Safeguards and will be managed both at the local level by the regional REDD+ safeguards unit and at the national level by the national REDD+ safeguards unit of the National Coordination Office for Climate Change, Carbon and REDD+ (BNCCCR). (ii) The measurement of deforestation and associated emission reductions in the AA-ERP area will be prepared by the MRV unit at BNCCCR annually. Reporting from the GOM to the FCPF will take place on three occasions: in 2021, 2023 and 2025. And finally (iii) verification will be conducted by a third party following the submission of the Monitoring Report. Reporting occurs upon completion of each monitoring period. Upon verification of the emission reductions, payments will be made by the FCPF Carbon Fund to the Government of Madagascar.

During implementation, the World Bank's role is to take steps to demonstrate that the implementation of Safeguards measures continue to function effectively at the system level. This includes confirming that: budgets and staffing are adequate to support the implementation of the Safeguards measures; the Program Entity can demonstrate credibly that environmental and social assessments and management plans are prepared in accordance with the safeguards frameworks; mechanisms for self-reporting and Third Party monitoring are in place and functional; grievance redress and dispute resolution mechanisms are established and functional; and the implementing entities have demonstrated the ability to solve issues of non-compliance.

Consistent with the supplemental briefing note to the OESRC (dated 22 April 2019), the AA-ERP will be required to undertake independent third-party monitoring to be financed by the World Bank (FCPF Facility Management Team (FMT)). The third-party monitoring would be separate from verification of ERs generated from the ER Program, and the World Bank, acting as Trustee, will review the information from third-party monitoring, along with the self-reporting and verification report (verifying the volume of ERs generated) to determine whether or not to make payments under the ERPA in whole or in part to the Program Entity

The AA-ERP is also in line with the Strategic Environmental and Social Assessment (SESA) and the Environmental and Social Management Framework (ESMF) already developed at the National level, putting strong emphasis on inclusive public consultation, inclusive of all possibly affected stakeholders and beyond. Moreover, various safeguards instruments were prepared by the government for the investment projects that will contribute to generate ER in the AA-ERP, including an ESMF, a Process Framework (PF) and a Resettlement Policy Framework (RPF) all of which have been publicly disclosed on the Government and on the WB external websites. Provided the nature of the agricultural activities to be undertaken, an integrated pest management plan, as well as a small dams safety manual were prepared for activities within the ER Program area, under the PADAP intervention as an initiative to contribute to the Emissions reduction.

The Benefit Sharing Plan (BSP,) for which the current version is considered an advanced Draft was developed in a consultative, transparent and participatory manner reflecting inputs of relevant stakeholders, including broad community support. The selection of the relevant stakeholders built on the stakeholder analysis findings of SESA. A total of 10 stakeholder consultations were held across the ER Program area with the purpose to gather stakeholder views, concerns and alternatives on the benefit-sharing mechanism envisaged to be applied at the REDD program level and adjust the plan accordingly to meet stakeholders needs and address concerns raised. The BSP has been shared following modifications and in order to be considered final for purposes of making payments will be shared with stakeholders that contributed to the development to ensure that the final version reflects the consultative processes.

The program will be implemented by National REDD+ and Climate Change Coordination Office (BNCCCR), a structure attached to the Ministry of environment, acting as the Coordinating entity, in partnership with different implementation institutions, including other ministries intervening in the area (e.g. Ministry in charge of Agriculture,



Ministry in charge of Water), other national agencies (e.g. Madagascar National Parks (MNP), National Office of Environment (ONE)), conservation NGOs, decentralized local authorities (CTD) and deconcentrated technical services (STD), but also the private sector. BNCCR has been working under the World Bank safeguards policies since its creation in 2014. Moreover, it has reinforced its Safeguards team by hiring a full-time E&S safeguards specialist to provide support to the unit that already counted 3 people working part-time on safeguards. The protected areas management agency, MNP, is also familiar with the WB safeguards policies because they have been supported for the past two decades by the World Bank through the Environmental Program phases 2 and 3, which ended in 2015.

Although the MECIE regulatory framework is fairly comprehensive, institutional capacity needs to be developed to ensure more widespread application and improved monitoring. The national environmental law will be reinforced by the World Bank safeguards policies for this proposed program.

Furthermore, Social safeguards capacities are weaker (compared to environmental capacities) at the institutional level and will need robust capacity building, particularly regarding OP 4.12. Increased clarity in land tenure will necessitate the involvement of national, regional and local level institutions with responsibilities on land use planning and land tenure certification processes. Further involvement of national agencies responsible for gender and forest dependent communities' issues will also be required.

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

The key stakeholders that were systematically consulted throughout the consultation process include the following: (i) the local administrative authorities (deconcentrated technical services (STD) and decentralized local authorities(CTD)); Protected areas management entities (MNP, NGOs), civil society (local communities organized in groups, private sector, traditional authorities), local population (not affiliated in any specific group and potentially affected by the AA-ERP implementation), local media.

Consultation sessions were conducted in all 4 regions covered by the AA-ERP, they were inclusive of all stakeholders who were classified in 4 groups according to their level of influence but also their level of contribution and the extent to which they would be affected by the project implementation. The consultation sessions were documented and annexed to the safeguards instruments that were prepared and disclosed by the Client.

B. Disclosure Requirements

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 |
|-----------------------------|-----------------------------------|--|
| 13-Dec-2019 | 15-Jan-2020 | |

"In country" Disclosure

Madagascar
15-Jan-2020

Comments

**Resettlement Action Plan/Framework/Policy Process**

Date of receipt by the Bank
11-Mar-2020

Date of submission for disclosure
20-Mar-2020

"In country" Disclosure

Madagascar
15-Sep-2020

Comments

Pest Management Plan

Was the document disclosed prior to appraisal?

Yes

Date of receipt by the Bank

Date of submission for disclosure

09-Jan-2017

"In country" Disclosure

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

All instruments related to the AA-ERP (ESMF, RPF, PF) were disclosed in country as of March 22, 2020.

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)**OP/BP/GP 4.01 - Environment Assessment**

Does the project require a stand-alone EA (including EMP) report?

No

**OP/BP 4.04 - Natural Habitats**

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

NA

OP 4.09 - Pest Management

Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

No

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

No

OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

OP/BP 4.36 - Forests

Has the sector-wide analysis of policy and institutional issues and constraints been carried out?

Yes

Does the project design include satisfactory measures to overcome these constraints?

Yes

Does the project finance commercial harvesting, and if so, does it include provisions for certification system?

No

OP/BP 4.37 - Safety of Dams



Have dam safety plans been prepared?

Yes

Have the TORs as well as composition for the independent Panel of Experts (POE) been reviewed and approved by the Bank?

NA

Has an Emergency Preparedness Plan (EPP) been prepared and arrangements been made for public awareness and training?

Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

CONTACT POINT

World Bank

Erik Reed

Natural Resources Management Specialist

Borrower/Client/Recipient



Ministry of Economy and Finance

Ministry of Environment and Sustainable Development

Implementing Agencies

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APPROVAL

| | |
|----------------------|-----------|
| Task Team Leader(s): | Erik Reed |
|----------------------|-----------|

Approved By

| | | |
|---------------------------|-----------------------------|-------------|
| Safeguards Advisor: | Peter Leonard | 13-Nov-2020 |
| Practice Manager/Manager: | Africa Eshogba Olojoba | 13-Nov-2020 |
| Country Director: | Idah Z. Pswarayi-Riddihough | 16-Nov-2020 |



The World Bank

Madagascar Emission Reductions Program in Atiala-Atsinanana (P167725)
