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# LOCAL GOVERNANCE AND PRIVATE SECTOR OPPORTUNITIES FOR CLIMATE ADAPTATION, SUSTAINABLE LIVELIHOODS, AND BIODIVERSITY IN MADAGASCAR

## CLIMATE ECONOMIC ANALYSIS FOR DEVELOPMENT, INVESTMENT, AND RESILIENCE (CEADIR)

Contract No.: AID-OAA-I-12-00038, Task Order AID-OAA-TO-14-00007



July 8, 2019

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*With:*  
Abt Associates

# LOCAL GOVERNANCE AND PRIVATE SECTOR OPPORTUNITIES FOR CLIMATE ADAPTATION SUSTAINABLE LIVELIHOODS AND BIODIVERSITY IN MADAGASCAR

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**Task Order AID-OAA-TO-14-00007**

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### **DISCLAIMER**

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# ACRONYMS AND ABBREVIATIONS

<b>ADDEV</b>	Agir pour le Développement Durable et l'Economie Verte à Madagascar (Action for Sustainable Development and the Green Economy in Madagascar)
<b>AF</b>	Adaptation Fund
<b>AFD</b>	Agence Française de Développement (Development Agency of France)
<b>ASAP</b>	Adaptation for Smallholder Agriculture Program (International Fund for Agricultural Development)
<b>AUM</b>	Assets under management
<b>BNCCC</b>	Bureau National de la Coordination sur le Changement Climatique (National Coordination Office on Climate Change, Madagascar)
<b>CBD</b>	Convention on Biological Diversity
<b>CCP</b>	Conservation and Communities Project (USAID/Madagascar)
<b>CEADIR</b>	Climate Economic Analysis for Development, Investment, and Resilience (USAID)
<b>CSR</b>	Corporate social responsibility
<b>DEC</b>	Development Experience Clearinghouse (USAID)
<b>DFIs</b>	Development Finance Institutions
<b>DRM</b>	Disaster risk management
<b>ECCO</b>	Environment and Climate Change Office (USAID/Madagascar)
<b>FIARO</b>	Financière d'Investissement ARO
<b>GoM</b>	Government of Madagascar
<b>GEF</b>	Global Environment Facility
<b>GCF</b>	Green Climate Fund
<b>GIIN</b>	Global Impact Investing Network
<b>GIIRS</b>	Global Impact Investing Rating System
<b>HBV</b>	High biodiversity value
<b>IFAD</b>	International Fund for Agricultural Development
<b>LDCF</b>	Least Developed Countries Fund (Global Environment Facility)
<b>MNPs</b>	Madagascar National Parks
<b>MoEF</b>	Ministère de l'Environnement et des Forêts (Ministry of Environment and Forests, Madagascar)
<b>NAP</b>	National Adaptation Plan
<b>NDCs</b>	Nationally Determined Contributions
<b>NGOs</b>	Nongovernmental organizations
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>PPCR</b>	Pilot Programme for Climate Resilience (African Development Bank)
<b>PPP</b>	Public-private partnership
<b>REDD+</b>	Reducing Emissions from Deforestation and Forest Degradation plus conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks
<b>SAC</b>	Schéma d'Aménagement Communal (Communal Land Use Scheme, Madagascar)
<b>SCCF</b>	Special Climate Change Fund (Global Environment Facility)
<b>SIM</b>	Syndicat des Industries à Madagascar (Trade Union of Industries in Madagascar)
<b>SME</b>	Small and medium-sized enterprises
<b>SONAPAR</b>	Société Nationale de Participation
<b>SRAT</b>	Schéma Régional de l'Aménagement du Territoire (Regional Land Use Planning Framework, Madagascar)
<b>SYMABIO</b>	Syndicat Malgache de l'Agriculture Biologique (Malagasy Union of Organic Farming)

<b>TNC</b>	The Nature Conservancy
<b>TOT</b>	Training of trainers
<b>UNFCCC</b>	United National Framework Convention on Climate Change
<b>UNOPS</b>	United Nations Office for Project Services
<b>USAID</b>	United States Agency for International Development
<b>WWF</b>	World Wildlife Fund

# I. ACTIVITY OVERVIEW

## I.1 BACKGROUND

Madagascar is a biodiversity hotspot with over 175,000 endemic species (Thompson 2011). Madagascar also has a high level of poverty and underdevelopment, ranking 158 of 188 countries on the 2016 Human Development Index. Over 75 percent of the population lives below the World Bank's poverty line (World Bank 2018). More than 80 percent of Madagascar's population depends on natural resources for agriculture, fishing, and forestry livelihoods (Hay Tao Statement of Objectives). However, the natural resource base has declined sharply due to unsustainable use. Madagascar's forest cover and coastal and marine ecosystems continue to deteriorate with a 19 percent decrease in tree cover occurring between 2001 and 2017 (Global Forest Watch Madagascar n.d.).

Madagascar is susceptible to climate stressors that threaten its biodiversity and natural resource base, such as cyclones, sea level rise, droughts, and floods. Climate stressors have increased in frequency and intensity and are affecting water supply, public health, food security, natural resource management, and livelihoods. Madagascar's risk of cyclones is one of the highest in Africa, with an average of three to four events per year. Increases in temperatures and longer periods of drought could result in major reductions in biodiversity, food production, and food security (World Bank n.d.-a). Nonclimate stressors exacerbate the climate stressors and include food insecurity, pollution, population growth, stagnant economic growth, political instability, and governance weaknesses.

To help sustain the economy, livelihoods, and culture associated with biodiversity, the Government of Madagascar (GoM) has set development goals to support natural resource and biodiversity conservation and manage climate and nonclimate stressors. To help the GoM achieve these goals, USAID/Madagascar's Environment and Climate Change Office (ECCO) funded two activities under the Conservation and Communities Project (CCP): Hay Tao (Knowledge Management for Biodiversity Conservation) and Mikajy (Site-based Interventions for Biodiversity Conservation). Both activities are based on the Nature, Wealth, and Power conceptual framework and integrate biodiversity, natural resource management, livelihoods, and climate change.

The Hay Tao Activity "support(s) the enabling environment for improved community-based biodiversity conservation and sustainable development approaches for natural resource-dependent communities" (USAID n.d.-a). It focuses on approaches that can benefit a diversity of stakeholders both within and outside of Madagascar and supports other activities including the site-specific conservation work under Mikajy.

The Mikajy Activity "work(s) with local partners in targeted zones of high biodiversity value (HBV) to assist local communities in improving their natural resource management practices to reduce threats to biodiversity and establish the groundwork for more sustainable biodiversity-friendly and climate-resilient economic development" (USAID n.d. b). The Mikajy activity is implemented in the landscapes and seascapes of MaMaBay and Menabe.

USAID/Madagascar has also engaged in the country's National Adaptation Plan (NAP) process. The NAP process has a three-step planning phase: 1) preparatory work and gap management; 2) establishing elements of the preparatory phase; and 3) setting priorities for adaptation options. USAID/Madagascar will support elements of the plan through training, regional consultations, research, studies, meetings, and workshops.

## I.2 REQUEST FOR CEADIR SUPPORT

The USAID/Madagascar Mission requested technical assistance from USAID/Washington through the Climate Economic Analysis for Development, Investment, and Resilience (CEADIR) activity for training and technical assistance on climate adaptation, opportunities for improving local governance, and expanding private sector engagement and financing. This assistance was to support the sustainable livelihoods and biodiversity programming of USAID/Madagascar's Hay Tao and Mikajy activities and provide important input for the country's NAP process. The USAID/Economic Growth Education, and Environment Bureau's Global Climate Change and Economic Policy Offices provided funding and technical and managerial support.

CEADIR: 1) identified, assessed, and raised awareness on opportunities to mainstream climate adaptation into governance and development activities at the regional level; 2) collected and incorporated regional and private sector input into the national adaptation planning process; and 3) provided support on climate finance. CEADIR collaborated closely with Mikajy and Hay Tao and USAID/Madagascar. CEADIR assistance began in June 2018 and continued through March 2019. This report presents the results of the following tasks:

- Support for climate vulnerability and adaptation;
- Mainstreaming climate adaptation into governance frameworks in Madagascar;
- Private sector analysis for climate adaptation in Madagascar; and
- Support for climate finance.

## 2. CEADIR ASSISTANCE ON CLIMATE ADAPTATION PLANNING

### 2.1 TRAINING OF TRAINERS ON CLIMATE CHANGE ADAPTATION

In November 2018, CEADIR and USAID/Washington conducted a two-day training of trainers (ToT) workshop in Antananarivo for USAID/Madagascar’s Hay Tao and Mikajy activities and their partners. The team trained participants on use of climate information and vulnerability assessments, identification of climate adaptation options, participatory methods for stakeholder engagement, and private sector involvement in development and implementation of local adaptation plans, as well as an introduction to cost-benefit and cost-effectiveness analysis for sustainable livelihoods in key value chains.

The training helped Hay Tao and Mikajy project staff and partners integrate climate considerations in their biodiversity and livelihood programming and lead local stakeholders through vulnerability assessments, local adaptation planning, and strategies for encouraging/enabling implementation of local adaptation plans. The training included examples and exercises from some key value chains in Madagascar so participants could apply the methods in their work. Twenty-two participants (evenly split between men and women) from the Hay Tao and Mikajy activities and their partners participated in the ToT.

The field team consisted of Charlotte Mack-Heller (Abt Associates), Ginna Rakotoarimanana (Abt Associates), Andoniaina Ratsmamanga (Crown Agents USA), and Dr. Eric Hyman (USAID/Economic Growth, Education, and Environment Bureau’s Economic Policy (EP) Office). Annex A contains the agenda for the TOT. Annex D contains links to the training powerpoints in English and French. Annex E contains links to the video recordings of the sessions.

### 2.2 SAVA REGION WORKSHOP ON CLIMATE CHANGE ADAPTATION IN KEY VALUE CHAINS

The objectives of the regional workshop were to raise awareness about climate vulnerability and identify priority adaptation measures for the four value chains. During the workshop, participants identified ways in which climate change and other stressors could impact Antalaha’s value chains and generated a list of adaptation measures to reduce climate vulnerabilities. This process was implemented through a series of presentations, small group exercises, and plenary sessions throughout the workshop.

The workshop began with opening remarks from municipal and regional leaders. The workshop included technical presentations, small group exercises, plenary discussions, and focus groups organized around private and public sector needs and opportunities. The presentations included a summary of ongoing USAID-funded activities, climate trends and impacts in Sava Province, adaptation measures, and the GoM’s NAP development process.

The small group exercises were subdivided by the four, major local value chains. Each group considered the climate and non-climate stressors and potential climate impacts in their value chains. They then identified adaptation measures as well as existing capacities, institutions, and processes that could be developed to implement these measures.

Key findings from the Sava Region workshop follow:

The types of inputs and enabling conditions needed were similar across the four value chains. Key inputs included the natural environment, and infrastructure services (such as provision of water resources, transportation, and electricity).

Although certain stressors were more important than others in particular value chains, most climate stressors and their potential impacts had major consequences across value chains. Cyclones and flooding were particularly important risks in the Sava region. Other common risks were high rainfall events and temperatures as well as droughts.

Most participants considered non-climate stressors to be more urgent than most climate stressors. These non-climate stressors included environmental degradation, corruption, pollution, and inflation. Some participants found it difficult to separate climate and non-climate stressors because of their combined impacts.

Climate impacts varied, but were often related quality and quantity of agricultural and fisheries products, the degradation of biodiversity and the surrounding environment, and loss of income for communities.

Adaptation measures should address climate and non-climate stressors. There have been efforts to respond to cyclones, but more needs to be done to protect people and key value chains in the region. Many of these adaptation measures identified were related to avoiding the disruption of value chain services and economic delivery.

Madagascar is establishing Regional NAP Committees led by the Regional Directorate of Environment, Ecology, and Forests to support NAP implementation at the local level, and have the responsibility to report to the NAP Coordination Committee at the national level. Some workshop participants recommended that Local Committee in Disaster Risk Management lead planning and implementation of climate sensitization, vulnerability assessments, and adaptation measures.

Weak institutional and legal frameworks often constrain implementation of climate adaptation measures. Since no single organization is responsible for coordinating and implementing adaptation measures, future actions are uncertain.

Small farmers do not have access to technical advice and guidance, financing, and insurance that would allow them to respond to climate changes flexibly.

Climate data quality and accessibility are insufficient to enable farmers to improve resilience through adaptation (e.g., product diversification, protective measures, improved storage, and value-added processing).

The Sava region has benefited from some prior NGO support (e.g., CARE) in private sector engagement in climate adaptation planning. However, NGOs are often dependent on relatively short-term, donor project funding and lack the financial resources to continue work over the long term.

The development of strategic links between national and subnational adaptation planning is a key issue for the NAP process in Madagascar. To date, the formal NAP process has involved limited consultations at the local level. The Antalaha workshop provided the National Coordination Office on Climate Change (Bureau National de la Coordination sur le Changement Climatique-- BNCCC) with information on climate stressors, impacts, and adaptation priorities for important value chains in the Sava region. It also identified needs for additional support in collection of climate data, preparation of vulnerability assessments, and the mainstreaming of adaptation in subnational development plans and sector

strategies. The Hay Tao and Mikajy activities plan to replicate the Sava workshop in other regions without additional support from CEADIR. Annex D contains links to the training PowerPoints.

## 2.3 CLIMATE ADAPTATION IN LAWS, POLICIES, AND PLANS

### 2.3.1 NATIONAL LEVEL

In 2011, the GoM developed a National Climate Change Policy in support of the United National Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The objectives of the National Climate Change Policy included promoting appropriate national measures to reduce the country's vulnerability to climate change and greenhouse gas emissions and developing behaviors that contribute to the fight against climate change at all levels (Ministère de L'Environnement et des Forêts n.d.).

The GoM has been an active member of the UNFCCC since 1999. In 2006, it developed a National Adaptation Program of Action, identifying 15 priority adaptation actions. The GoM submitted three national communications, the most recent one in November 2017. Madagascar is a signatory of the Paris Agreement and submitted its Nationally Determined Contributions (NDCs). Madagascar's NDCs included adaptation actions such as development of a NAP, which was underway in 2019.

Climate adaptation discussions in Madagascar have mainly focused on disaster risk management (DRM). The GoM issued a National Strategy for Disaster Risk Management, 2016-2030) and a National Policy for Disaster Risk Management. Article 5 of the National Policy called for inclusion of DRM in "any development planning process and particularly in the areas of vulnerability reduction, mitigation and adaptation to climate change, as well as poverty reduction" (GoM 2017). In practice, the focus has been on disaster response and recovery with little attention to adaptation and prevention (Lee and Zermoglio 2018).

*Mainstreaming of climate adaptation* refers to inclusion of climate considerations in public and private sector plans, policies, strategies, and decision-making processes. Mainstreaming can promote resilience by increasing routine consideration of climate change issues. Madagascar has begun mainstreaming climate issues in national policies and strategies. The fifth strategic objective of the National Development Plan for 2015-2019 was "the increased status of natural capital and the reinforcement of resilience to the risk of catastrophes". It called for "the integration of climate change actions in the promotion of a resilient economy" (GoM n.d.). Madagascar submitted National Biodiversity Strategy and Action Plans for 2015-2025 to the Convention on Biological Diversity. These plans integrated climate adaptation considerations and highlighted adaptation and resilience in Objective 15 (Rababarisson et al 2018). There are many opportunities to mainstream climate adaptation in governance frameworks in Madagascar for agriculture, forestry, fisheries, tourism at the regional and local levels.

Conflicting national objectives also present challenges. There are opportunities to support the mainstreaming of climate adaptation in the following national legal frameworks:

- The System of Protected Areas of Madagascar (Système d'Aires Protégées de Madagascar -- SAPM) simplified the process of creating protected areas. It also allowed other organizations besides the Madagascar National Parks authority to manage protected areas, including NGOs, community organizations, and landowners.
- Community-based natural resource management laws and regulation. Law 96-025 Secure Local Management (Gestion Locale Sécurisée, or GELOSE) and Decree 2001-122 Contracted Forest Management (Gestion Contractualisée des Forêts) created mechanisms to transfer management of natural resources from the national government to local communities with the goal of

protecting them more effectively.

- The 2001 Forest Policy (Politique Forestiere Malagasy) included a vertical governance approach to sustainable forest management and natural resource conservation by different levels of government. It was revised in 2016 to promote the role of forestry in ecosystem services, climate change mitigation, and ecotourism.
- National Policy of Land Planning (Politique Nationale de l'Aménagement du Territoire, or PNAT) established requirements for land management and planning.
- National Plan for Territorial Planning (Schéma Nationale de l'Aménagement du Territoire, or SNAT) harmonized various sectoral programs and policies on spatial planning. It was developed in 2012 for a 10-year period and extended for an additional 30 years.
- Fisheries, Aquaculture, and Livestock Codes (Code de la Pêche et de l'Aquaculture and Textes Normatifs Regissant le Secteur Elevage) contained the legal and institutional regulations for these sectors.
- Sectoral Program for Agriculture, Livestock and Fisheries, 2016-2020 (Programme Sectoriel Agriculture, Elevage, et Pêche) focused on sustainable rural development and emphasizes climate adaptation and environmental strategic assessment in investments.
- The 2017 National Policy of Tourism Development (Lettre de Politique Nationale pour le Developpement du Tourisme a Madagascar), and the 2005 National Tourism Plan promoted tourism while controlling the impacts and facilitating more direct and sustainable benefits for local communities.
- Tourism Code (Portant sur le Code de Tourisme - Law 95-017) addressed integrated, sustainable development of tourism in national spatial planning and environmental protection.
- Policy Letter for Energy in Madagascar, 2015-2030 (Lettre de Politique de l'Energie de Madagascar 2015-2030) identified priority actions to be implemented in the mid-term in the energy sector.

Changes may also be needed in other laws or regulations to promote climate adaptation:

- Protected Area Code (Code des Aires Protégées, or COAP, Law 2015-005);
- Decree Setting the Terms of Delegation for the Management of State's Forests to Public or Private Persons (Decree 2013-785 Fixant les Modalités de Délégation de Gestion des Forêts de l'Etat à des Personnes Publiques ou Privées du Ministère de l'Environnement et des Forêts) ;
- Decree Making Investments Compatible with the Environment (Mise en compatibilité des investissements avec l'environnement, or MECIE, Decree 99-9542) ;
- Revised Forestry Law (Portant Révision de la Législation Forestière, Law 97-017) ;
- Support for Adoption of the Malagasy Forest Policy Decree (Portant Adoption de la Politique Forestière Malagasy 97-1200);
- Water Code (Law 98-029) and Decree 2003-940 on protection zones around water sources;
- Malagasy Environmental Charter (Charte de l'environnement Malagasy 90-033) ;
- Dina Regulations on Public Security (Portant Réglementation Générale des Dina en Matière de Sécurité Publique, Law 2001-004,) ; and
- Building codes and standards for hydrological and agricultural infrastructure and roads.

## 2.3.2 REGIONAL AND LOCAL LEVELS

Most regional and local policies and plans in Madagascar result from top-down, national policy directives, laws, and regulations, particularly for natural resource management. Key challenges to mainstreaming adaptation at the regional and local levels include the variability of development planning processes and capacity. Support may be needed to improve institutional arrangements and the capacity for obtaining and using climate information, conducting vulnerability assessments, and identifying and analyzing priorities for adaptation measures. There are many opportunities to support mainstreaming of climate adaptation in regional and local planning processes:

- Regional Development Plans (Plans Régional de Développement) can encourage mainstreaming climate adaptation in agriculture, fisheries, forestry, and other sectors. Government institutions should consider climate stressors in their assessment and prioritization process to avoid or modify investments vulnerable to climate impacts and promote more climate-resilient investments.

Menabe revised its Regional Development Plan in 2018. It included proposed oil exploitation in Tsimiroro, a mining map, and large-scale cotton and algae production. This plan mentioned climate change 11 times and recognized it as a critical issue that could hinder achievement of the Sustainable Development Goals (SDGs) in the region. However, it did not include any analysis of climate information or address the need for climate vulnerability assessments. It included some activities to increase resilience to climate change impacts, but did not mainstream climate adaptation in any of the Menabe Region's processes, protocols, or operations.

MaMaBay has three regions -- Sofia, Sava, and Analanjirofo. Only one of the regions, Sofia, had a regional development plan and it dated back to 2006, although it was being revised in 2018.

- Local Development Plans (Plans Communal de Développement). Local governments can use land use guidance systems, zoning, development permits, and other instruments to reduce risks of floods, landslides, and other natural hazards affected by climate. Local development plans can promote many policy objectives, including providing affordable housing, job growth, historic and cultural preservation, and biodiversity protection.
- Conservation and Management Plans for Protected Areas, Madagascar National Parks (MNPs), Areas Outside National Parks, and Locally Managed Marine Areas. Despite requirements for environmental and social impact assessments for these areas, local conservation and management plans often have no specific requirements for considering climate risks.
- Regional Land Use Planning Framework (Schéma Régional de l'Aménagement du Territoire -- SRAT) and Local Land Use Scheme (Schéma d'Aménagement Communal, or SAC) are related to the National Policy of Land Planning spearheaded by the Ministry of Planning since 2014. Eight regions have completed a SRAT and a few localities have prepared a SAC. The SRAT and SAC classify areas according to their geologic and geographic characteristics and natural resources. This information can be used to reduce negative impacts on communities and the environment, promote economic development and infrastructure, and help conserve local biodiversity.

## 2.3.3 RECOMMENDATIONS TO SUPPORT MAINSTREAMING OF CLIMATE ADAPTATION

Entry points to support the mainstreaming of climate adaptation into national, regional and local level governance frameworks range from supporting development planning and identification of conservation

areas to agriculture and fisheries policies and tourism codes. There are also opportunities to help develop capacity and a more favorable enabling environment for climate adaptation:

- Coordination with the BNCCC. The BNCCC is the main national government agency responsible for formulation and implementation of climate policies, including NAPs and NDCs. Implementation of policies and plans often has often been hindered by fragmentation of efforts, insufficient coordination, and resource constraints.
- Increasing awareness and knowledge. National decision makers and local stakeholders in Menabe and MaMaBay indicated a better understanding of climate risks, vulnerabilities, and potential impacts. Development assistance agencies can increase awareness and knowledge of climate adaptation by supporting additional regional workshops that follow the model of the Sava Region workshop. They can also identify and communicate the potential economic costs and benefits of climate adaptation measures.
- Increasing political will. The probability and magnitude of climate impacts are uncertain and it can be difficult to convince public and private sector decision makers to spend scarce resources on investments with uncertain or long-term benefits. Climate change risks and vulnerability have not yet been fully evaluated for the key productive sectors in various parts of Madagascar. Elected officials are often most concerned about more immediate issues during their terms of office. It will take greater political will to invest more resources and promote change. The BNCCC can increase public understanding of climate risks and successful adaptation efforts.
- Improving tools and information. BNCCC needs support to develop tools and systems for mainstreaming climate adaptation: 1) vulnerability screening methods; 2) mapping tools for understanding the vulnerability of protected areas and buffer zones; 3) information on current and future climate stressors and the magnitude and likelihood of risks under different scenarios; and 4) a compilation of potential adaptation measures. Ideally, the information and resources would be made available in a publicly accessible database.
- Strengthening capacity. Donors can help develop the capacity of key public and private stakeholders to analyze, promote, and implement climate adaptation measures.
- Improve coordination at the national and subnational levels. Development assistance organizations can help the BNCCC and climate change focal persons in various ministries to improve coordination and information flows among national, regional, and local government officials and NGOs.
- Improve monitoring and evaluation. Donors can help the BNCCC establish or improve monitoring and evaluation (M&E) systems for greater effectiveness and accountability.

## **2.4 POTENTIAL FOR INCREASING PRIVATE SECTOR ENGAGEMENT IN CLIMATE ADAPTATION**

CEADIR interviewed representatives of 26 private companies or trade associations involved in agriculture, fisheries, tourism, and mining. The interviews asked about plans for addressing climate adaptation in their businesses and challenges and opportunities for broader private sector engagement in planning, financing, and implementation of adaptation actions. This section summarizes the results of these interviews and offers ways that development assistance organizations can encourage private sector engagement in adaptation planning and implementation.

## Challenges

All of the private sector interviewees placed a lower priority on climate adaptation than on other governance and financial concerns such as corruption, theft, and access to affordable financing. Interviewees noted that it would be difficult to direct money and attention to climate adaptation from more urgent challenges.

The private sector interviewees were aware that climate change could create risks for their businesses, but did not understand the potential extent of these impacts or their specific vulnerabilities. They generally recognized that there is insufficient weather and climate data and information on how climate risks may affect their businesses over different time scales and scenarios.

The interviewees were not aware of specific climate adaptation measures or resources. Some companies have implemented measures to respond to current climate variability, but not future climate changes. The private sector in Madagascar would benefit from a platform that identifies adaptation measures for various sectors and includes detailed information on the costs, benefits, technologies, skill requirements, and conditions for successful implementation.

Some interviewees noted that government officials sometimes had an insufficient understanding of the roles and responsibilities of the private sector and the importance of the business enabling environment. They felt that the GoM had not created adequate incentives for private investments or collaborations with the government on climate adaptation, including participation in developing NAPs and NDCs. The GoM should include the private sector in the early stages of planning processes to benefit from their knowledge, perspectives, and interest.

Despite the various institutional and legal frameworks governing natural resource management and business operations in Madagascar, private sector compliance with the government's recommendations is often voluntary. The GoM requires companies to prepare an environmental and social impact assessment for access to some natural resources. However, corporate social responsibility (CSR) programs are voluntary and often operated for the benefit of the companies. By contrast, India's 2013 Companies Act mandated CSR contributions equal to two percent of average profits from large, formal sector companies and these contributions cannot be used to benefit their own businesses. There is potential for new CSR policies to help support environmental sustainability and climate adaptation.

Some domestic exporters had contracts with international companies that have included funding to improve the volume or quality of their raw material supplies or obtain certifications for organic or sustainable production. In most cases, the buyers have only worked with their own suppliers. This type of support does not meet the usual definition of a CSR contribution even though it has benefited some small-scale producers. Broader collaborations between private companies, government agencies, and NGOs could accelerate adoption of improved production practices.

Some interviewees identified insufficient access to financing on attractive terms as a barrier to adaptation investments despite the existence of Société Nationale de Participation (SONAPAR) and Financière d'Investissement Aro (FIARO)<sup>1</sup>. Faced with an investment gap, all adaptation actions (and beyond) are company-financed. This, combined with a lack of state policy incentives or collaboration,

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<sup>1</sup> SONAPAR is a private equity firm that specializes in investments in small- and medium-sized, later-stage and mature companies. It also specializes in start-up, growth capital, recapitalization, industry consolidation and turnaround transactions. It prefers to invest in the primary sector and industrial sector including transformation and consolidation, manufacturing, distribution, services and micro finance. It is also socially conscious, preferring to invest in businesses related to sustainable development. It invests in companies based in Madagascar with the legal status of SA or SARL that employ 5 to 100 people.

FIARO is a venture capital fund established in Madagascar with funding from the Agence Francaise de Developpement (AFD).

diminishes private sector willingness to implement climate adaptation measures that provide greater social benefits.

The interviewees understood that infrastructure in Madagascar may be adversely affected by climate impacts and make it difficult for the private sector to operate. Policies and incentives for private investment and public-private partnerships could be useful in developing more climate resilient infrastructure. Some interviewees expressed an interest in gaining a better understanding of the direct and indirect costs and benefits associated with climate risks and adaptation measures to inform their management and investment decisions. Interviewees also requested more information on government plans and policies to guide their investment decisions, facilitate awareness and guide them on effective measures for building resilience.

## Opportunities

Climate adaptation investments can be profitable because it is often cheaper to avoid negative impacts than to bear the costs of damages. However, the timing and magnitude of the returns are uncertain because they depend on the local impacts of global and regional climate changes. Public investments or public-private partnerships may be needed when vital infrastructure is at risk or there are extensive externalities -- costs or benefits to others that cannot be captured by the investors.

CEADIR identified three types of opportunities to help increase private sector participation in climate adaptation. Some of these recommendations will enhance participation within private sector operations while others will help the private sector adopt better adaptation measures. It is important to establish win-win situations between the public and private sector for implementation of climate adaptation measures.

### **Improve the quality of climate information and make it more accessible and user friendly.**

Reliable weather and climate projections under various timescales and scenarios are needed to support decisions on business operations and investments. Information will need to be available in various formats and media so that it can be absorbed by different stakeholders. For example, small-scale farmers have different information needs than ecotourism businesses. More readily available data on future climate trends and impacts can help the private sector identify vulnerable areas within their operations and assess potential benefits and costs under different scenarios to support in adaptation measures that target specific aspects of their value chains. Table I lists some specific actions to increase the quality and accessibility of climate information.

**TABLE I. Actions to Improve the Quality and Accessibility of Climate Information**

Actions
Develop a publicly accessible database with historical and projected climate information at different timescales into the future in different regions
Improve modeling of climate risk scenarios and their potential primary and secondary impacts on economic activities with and without adaptation measures
Increase the outreach, timeliness, and effectiveness of communication methods for weather and climate data. Examples include newspaper, national and local radio, Facebook (“Météo Madagascar”), email, and SMS text messages (Human Network International 3-2-1 service)
Strengthen the capacity of the Directorate General for Meteorology for weather and climate data collection and analysis (building on prior support from the AFD and World Meteorological Organization)

**TABLE I. Actions to Improve the Quality and Accessibility of Climate Information (Continued)**

Actions
Increase the capacity to use the USAID Famine Early Warning System Network (FEWS Net) information and analyses of weather risks for food insecurity ( <a href="http://fews.net/fr/southern-africa/madagascar">http://fews.net/fr/southern-africa/madagascar</a> )
Increase the private sector’s understanding of climate risks, vulnerabilities, and adaptation measures, including how climate change may affect value chains, economic operations, production and profits and how adaptation measures can improve resilience and sustainability of operations and provide other benefits, such as a product price premium
Help the private sector use climate information to mainstream climate risks in their decision-making processes. This support can be targeted to reach various types of stakeholders, ranging from the producers to traders, buyers, processors, and exporters
Make information, education and communication tools available to help the private sector integrate climate adaptation measures in their industrial and commercial activities. These tools can present different cost and benefit scenarios for each adaptation measure and address implementation issues
Create a roster of experts for climate vulnerability assessments and identification, analysis, and implementation of climate adaptation measures
Develop a public database or website on climate adaptation measures that have been tested or implemented in Madagascar

**Encourage public and private sector collaborations in adaptation planning and implementation.** National and subnational governments, NGOs, and the private sector have complementary capabilities and resources that can be brought together, including staff time, financial resources, outreach to communities, and technical services. Table 2 contains suggestions to increase public and private sector collaborations.

**TABLE 2. Actions to Encourage Public and Private Sector Collaborations in Adaptation Planning and Implementation**

Actions
Help the GoM develop vertical and horizontal linkages with other public sector institutions to strengthening coordination and administrative procedures
Increase private sector engagement in NAP and sectoral development planning processes
Expand the range of government agencies promoting private sector climate adaptation, including the ministries responsible for the environment, agriculture, tourism, and industry

Deepen relationships between the GoM and industry or trade associations through formal or informal partnerships, knowledge exchange, or participation in the NAP process<sup>2</sup>

**TABLE 2. Actions to Encourage Public and Private Sector Collaborations in Adaptation Planning and Implementation (Continued)**

Actions
Foster innovations in private sector climate adaptation through challenge grants, prizes, pilot testing, or support for business incubators
Share information on climate adaptation technologies through local events or study tours, while protecting intellectual property rights
Promote public-private partnerships and collaborations in preparation of funding proposals from public climate funds
Promote collaborations among the private sector, research centers, universities and others on climate change and disaster risk management

**Increase private sector incentives for climate adaptation investments.** The GoM can use tax policies, policy, regulations, procurement mechanisms, and public-private partnerships to encourage private sector climate adaptation. Table 3 lists some actions to increase incentives for private investments in climate adaptation.

**TABLE 3. Actions to Increase Incentives for Private Investments in Climate Adaptation**

Actions
Mainstream climate adaptation in relevant policies and regulations, such as those focused on agriculture, forestry, fisheries and tourism or environmental and social impact assessment requirements
Offer financial incentives for private sector investments in climate adaptation
Require publicly traded companies and applicants for financing to assess and disclose climate risks
Provide technical assistance to loan applicants and banks on assessing climate risks and incorporating adaptation measures in financing decisions
Develop the capacity of banks to assess climate risks and adaptation measures of loan applicants
Help banks provide green credit lines that finance climate adaptation measures
Improve the enabling environment for private-public partnerships on climate-resilient infrastructure, waste management, climate warning systems, and information management systems
Establish a requirement for large companies to provide corporate social responsibility contributions or assist small-scale producers in their supply chains

<sup>2</sup> Including the Chamber of Commerce and Industry, Chamber of Mines, Syndicat des Industries à Madagascar (Trade Union of Industries in Madagascar, SIM), Syndicat Malgache de l'Agriculture Biologique (Malagasy Syndicate of Organic Farming, SYMABIO), and Agir pour le Développement Durable et l'Economie Verte à Madagascar (Action for Sustainable Development and Green Economy in Madagascar, ADDEV).

Offer weather-indexed insurance to reduce climate risks to small-scale producers from climate stressors

## **2.5 CEADIR SUPPORT ON CLIMATE FINANCE**

### **2.5.1 CLIMATE FINANCE TRAINING**

On November 26, 2018, CEADIR conducted a training on climate finance in Antananarivo for the USAID-funded Hay Tao and Mikajy activities and their partners. CEADIR presented options for mobilizing international and domestic public and private sector climate finance for climate adaptation and sustainable landscapes.

The in-person trainers included Eric Hyman (USAID/E3/EP), Charlotte Mack (Abt Associates), Ginna Rakotoarimanana (Abt Associates), and Andoniaina Ratsimamanga (Crown Agents USA). Alan Miller (Crown Agents USA) prepared two video presentations that were used in the training. Annex C contains the agenda for this training.

The Climate Finance Workshop trained 24 participants from the Hay Tao and Mikajy activities, local NGOs, and government on options for accessing or mobilizing finance for climate adaptation and sustainable landscapes in Madagascar. The presentations included examples of how these options have been tested or scaled up throughout the world and how they may be relevant for Madagascar. Annex D contains links to the training PowerPoints in English and French. Annex E contains links to the video recordings of the sessions.

This workshop began a dialogue on how best to support the government in attracting climate finance and to leverage climate finance for sustaining low emission and climate resilient activities implemented by Hay Tao and Mikajy. Following the presentations, the participants discussed how Hay Tao and Mikajy could support various financing opportunities. They had a high demand for information on financing climate mitigation and adaptation and expressed interest in further CEADIR assistance on financing after the trainings. Trainees were particularly interested in sources of financing from conservation impact investors and private companies. They wanted more information on the funding criteria for major sources of financing, key messages for financing applications, ways to engage with private investors and funders, and likely barriers. They also wanted to know which international public sector funding sources might offer the best prospects for their work and how to approach them. After the training, CEADIR provided additional technical assistance on climate adaptation and sustainable landscapes financing, which is summarized in this report.

### **2.5.2 INTERNATIONAL MULTILATERAL PUBLIC FUNDS**

International, multilateral public funds for biodiversity, climate adaptation, and climate change mitigation typically provide relatively large amounts of money. They often have laborious application processes and a long funding cycle. Some only channel funding to governments or national development banks. The in-country implementers may then provide loans or grants to their applicants for smaller amounts. Some international funds, such as the Green Climate Fund, only support accredited implementers.

Projects supported by international public funds can finance private companies, NGOs and community-level activities. These projects may include components for developing local capacity and improving governance for natural resources, implementing business models for more sustainable production and natural resource management, and engaging local stakeholders in conservation efforts.

The proliferation of international bilateral public funds, bilateral donor support, and private funds can promote innovation and diverse approaches, but it has also increased complexity and may result in duplication and inefficiencies. *Amera et al. (2017)* noted that, “The funds currently use a multiplicity of rules and procedures to access finance. This results in considerable inefficiencies for implementing entities, particularly national entities with less capacity. Recipient countries must design systems that respond to different demands and different standards.” As a result, applicants should carefully consider the most appropriate potential sources of funds for their needs and capabilities.

Table 4 lists multilateral, international public funding for climate-related projects in Sub-Saharan Africa from 2003–2017. During this period, the Least Developed Countries Fund (LDCF) provided the largest amount of funding and number of projects in the region. Madagascar received \$5 million from the LDCF for the United Nations’ Development Program’s “Improving Adaptation and Resilience to Address Climate Change in Rural Communities” Project (Relief Web 2017).<sup>3</sup> The average funding per project ranged from \$2.9 million for the Global Environment Facility to \$72.5 million for the Clean Technology Fund. Figure 1 below shows the breakdown of this funding across the categories of climate adaptation, REDD+ (Reducing Emission from Deforestation and Forest Degradation plus conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks), other climate mitigation, and multiple purposes. Climate adaptation projects had the largest average amount approved and number of projects.

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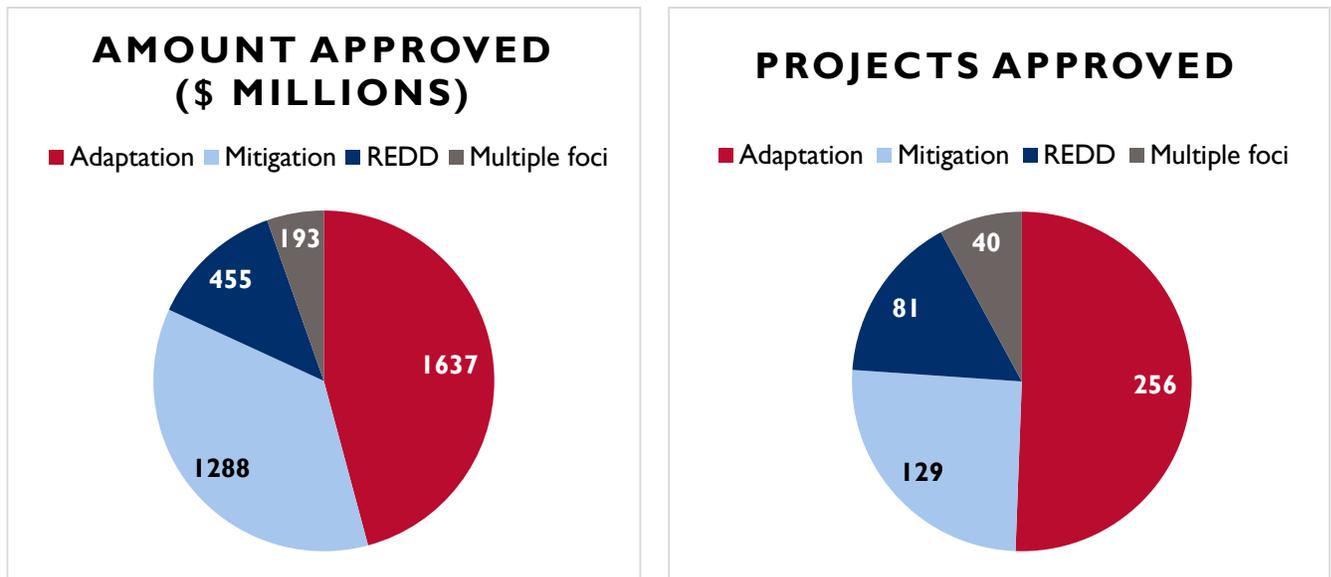
<sup>3</sup> All values denoted by \$ are in U.S. dollars.

**TABLE 4. Funding for Climate-Related Projects in Sub-Saharan Africa, 2003-2017**

<b>Fund</b>	<b>Amount Approved (\$ millions)</b>	<b>Projects Approved</b>	<b>Average Amount Per Project (\$ millions)</b>
Least Developed Countries Fund (LDCF)	595.1	141	4.2
Clean Technology Fund (CTF)	580.2	8	72.5
Green Climate Fund (GCF)	470.0	15	31.3
Global Environment Facility (GEF) 4, 5, and 6	384.3	131	2.9
Pilot Programme for Climate Resilience (PPCR)	280.6	17	16.5
Scaling-up Renewable Energy Program (SREP)	236.8	14	16.9
Global Climate Change Alliance (GCCA)	205.8	24	8.6
Forest Investment Programme (FIP)	195.6	16	12.2
Adaptation for Smallholder Agriculture Program (ASAP)	170.0	23	7.4
Adaptation Fund (AF)	126.2	34	3.7
Forest Carbon Partnership Facility (FCPF)	91.2	16	5.7
Congo Basin Forest Fund (CBFF)	83.1	37	2.2
Special Climate Change Fund (SCCF)	33.5	13	2.6
UN-REDD Program	29.2	7	4.2
Biocarbon Fund	26.0	2	13
Millennium Development Goals (MDG) Achievement Fund	20.0	4	5
Partnership for Market Readiness (PMR)	5.4	2	2.7
<b>Total</b>	<b>3,533</b>	<b>504</b>	<b>7</b>

Source: Bird et al. (2017a)

**FIGURE I. Climate Finance in Sub-Saharan Africa by Focus**



Source: Bird et al. 2017a

Table 5 lists the six funds that provided largest amounts of funding for climate adaptation in Sub-Saharan Africa between 2003 and 2017. However, the focus and ease of obtaining financing varied by source and the future funding allocations may differ. For example, the International Fund for Agricultural Development Adaptation for Smallholder Agriculture Program has a narrower scope than the other funds. There are often differences between the actual funding available and the amounts pledged by bilateral or multilateral development assistance organizations.

Table 6 provides some specific guidance on how to approach major multilateral funds for climate adaptation financing. These include the Adaptation Fund (AF), the International Fund for Agricultural Development (IFAD) Adaptation for Smallholder Agriculture Program (ASAP), Green Climate Fund (GCF), Least Developed Countries Fund (LCDF), the Pilot Programme for Climate Resilience (PPCR), and the Special Climate Change Fund (SCCF).

**TABLE 5. Multilateral Funds Supporting Climate Adaptation in Sub-Saharan Africa, 2003-2017**

<b>Fund</b>	<b>Pledged (\$ Millions)</b>	<b>Deposited (\$ Millions)</b>	<b>Approved (\$ Millions)</b>	<b>Projects Approved</b>
Adaptation Fund (AF)	649.27	649.27	460.9	95
Adaptation for Smallholder Agriculture Program (ASAP)	307.52	290.13	322.0	45
Green Climate Fund (GCF)	10,009.72	6,412.6	828.8	26
Least Developed Countries Fund (LCDF)	1,251.05	1,199.52	1,001.5	242
Pilot Programme for Climate Resilience (PPCR)	1,152.81	1,126.02	1,001.1	75
Special Climate Change Fund (SCCF)	367.79	362.79	292.8	70

Source: Bird et al. 2017b

**TABLE 6. How to Approach Four Key Sources of Climate-Related Finance**

Fund	Fund-Specific Guidance
<b>Adaptation Fund</b>	<ul style="list-style-type: none"> <li>• Funds pilot and demonstration projects Important to address issues that have limited the success of previous projects, including knowledge management and complementarity with other climate funds (<a href="https://www.adaptation-fund.org/phase-2-independent-evaluation-validates-adaptation-funds-relevance-efficiency-effectiveness/">https://www.adaptation-fund.org/phase-2-independent-evaluation-validates-adaptation-funds-relevance-efficiency-effectiveness/</a>)</li> </ul>
<b>Green Climate Fund</b>	<ul style="list-style-type: none"> <li>• Must work through national designated authority</li> <li>• Must apply to an accredited entity, such as the AFD, European Investment Bank, Conservation International Foundation, Netherlands Development Finance Company (FMO), or United Nations Office for Project Services (UNOPS), and the World Bank.</li> <li>• Emphasizes projects with potential for private co-financing and commercial sustainability</li> <li>• Short-term prospects for new proposals may be limited pending replenishment of funds. Draft proposals for Madagascar are pending from AFD, UNOPS, and the World Bank</li> <li>• Project descriptions available at <a href="https://www.greenclimate.fund/countries/Madagascar">https://www.greenclimate.fund/countries/Madagascar</a></li> </ul>
<b>Global Environment Facility<sup>4</sup></b>	<ul style="list-style-type: none"> <li>• Must work through the country operational focal point</li> <li>• Must establish priority within country allocation.</li> <li>• Potential to enhance competitiveness by focused on multifocal aspects or by submitting an application under an impact program</li> <li>• GEF Small Grants Programme can provide up to \$50,000 for community-led projects through the national coordinator.</li> </ul>
<b>Social impact funds</b>	<ul style="list-style-type: none"> <li>• Seek low- to medium-risk projects with potential for some financial returns and substantial social or environmental benefits;</li> <li>• Need to engage private sector partners and investors</li> <li>• Increase source of climate-related financing, but less so for high-risk conservation projects in developing countries</li> <li>• IFC Forest Carbon Bond was sold to large pension funds and commercial banks (<a href="https://www.cbd.int/financial/2017docs/ifc-forestbond2017.pdf">https://www.cbd.int/financial/2017docs/ifc-forestbond2017.pdf</a>)</li> </ul>

Table 7 lists 10 multilateral funds that may offer good prospects for climate financing for local organizations, directly or indirectly through the GoM. It summarizes the types of projects supported, instruments, range of support provided, and fund recipients, as well as examples of relevant projects in Sub-Saharan Africa.

The **Green Climate Fund** has a target of providing 50 percent of its funding for adaptation and half of that amount must support least developed countries, Sub-Saharan Africa, or small island developing states (SIDS). The GCF will support large projects (\$100 million or more) that include substantial

<sup>4</sup>Fighting for the last Eden: saving Madagascar’s endemic species (<https://www.thegef.org/news/fighting-last-eden-saving-madagascar-s-unique-species>) and food for the future: conserving crop wild relatives (<https://www.thegef.org/news/food-future-conserving-crop-wild-relatives>)

private finance. The GCF has a lengthy review, approval, and disbursement process and near-term resources may be limited pending replenishment of the fund. The GCF website has a list of accredited public and private sector entities that can receive its funding (<https://www.greenclimate.fund/how-we-work/tools/entity-directory>).

The **Global Environment Facility (GEF)** funds biodiversity, climate change, land degradation, and marine conservation. It has had specific allocations by country and was recently replenished. It has an expedited process for projects up to \$2 million. A limited number of accredited agencies manage GEF projects. While there are opportunities for multifocal projects, its approval and implementation processes for multifocal projects have often been complex and time-consuming.

The **Adaptation Fund (AF)** develops country capacity and funds relatively small adaptation projects, with a particular focus on engagement with vulnerable communities for empowerment. It had an average of \$60 million a year from 2010-2017. In 2018, it announced a medium-term strategy with an annual target of \$100 million for 2018-2020 (Adaptation Fund 2018a). Adaptation Fund support can be a stepping stone to accessing larger funding from the GCF later (TANGO International 2018).

Prospects for obtaining climate adaptation support from international multilateral public funds can be increased by adopting the following recommendations:

- The GCF, GEF, and AF require conformity with the processes of the UNFCCC, Convention on Biological Diversity (CBD), and other international agreements, as well as an endorsement from their country representative.
- Proposals that offer government funding policy and regulatory reforms need to demonstrate commitments from relevant agencies and officials at the highest possible levels.
- International public funds will accept higher risks in pilot or demonstration projects.
- Larger amounts of funding may be available for scaling up or replicating proven projects.
- Include a theory of change in the proposal.
- International public funds are often interested in projects that contribute to multiple development goals. For example, the GCF requires that proposals estimate the expected contributions to the SDGs.
- Projects that involve or affect specific populations should demonstrate prior consultation with these communities and confirm their interest in participation.
- Proposals for projects that require cofinancing from private investors should include agreements to provide the financing and the terms and conditions.
- The World Bank and African Development Bank are interested in projects that can help them meet their ambitious targets for increasing climate-related investments (AfDB *et al.* 2018).

**TABLE 7. International Multilateral Funds**

Funding Source	Types of Projects Supported	Types of Instruments	Range of Support Provided	Channel/Fund Recipient	Projects in Madagascar	Projects in Sub-Saharan Africa	Other Relevant Information
<b>Biodiversity</b>							
<b>Critical Ecosystem Partnership Fund</b>	Protected areas and species conservation	Grants to civil society organizations and community-based organizations,	Total grants of \$217 million since 2010 for over 2,000 grantees (CEPF 2018)	Civil society organizations	\$7.5 million Madagascar and Indian Ocean Islands (2015); Grants in Madagascar range from \$14,000 to \$231,000		Multiple donors including the GEF, World Bank, and Government of Japan
<b>Global Environment Facility</b>	Project preparation and projects for biodiversity conservation, mitigation, and adaptation, and prevention or restoration of land degradation	Primarily grants: Projects up to \$2 million implemented by nongovernmental organizations  Projects over \$2 million executed by various governmental or development organizations	Committed \$1.27 billion for 380 projects in Africa, with \$7 billion in co-financing (GEF 2018a)	World Bank, AfDB, WWF, Conservation International, and national governments	Madagascar Foundation for Protected Areas and Biodiversity	Alliance for Zero Extinction Project: Agulhas and Somali Marine Ecosystems Project	Replenished in 2018: \$4 billion for four years, biodiversity \$1.29 billion; Madagascar allocation of \$38.45 million, including \$33.8 million for biodiversity and \$3.16 million for rehabilitating degraded land (GEF 2019b)
<b>Climate adaptation</b>							

**TABLE 7. International Multilateral Funds (Continued)**

Funding Source	Types of Projects Supported	Types of Instruments	Range of Support Provided	Channel/Fund Recipient	Projects in Madagascar	Projects in Sub-Saharan Africa	Other Relevant Information
<b>Green Climate Fund (GCF)</b>	Climate change adaptation and mitigation plus cross-cutting activities	Grants (47%), loans (42%), loan guarantees and equity (11%)	1) Micro-projects up to \$10 million 2) Small projects of \$10-50 million 3) Medium-sized projects of \$50-250 million, and 4) Large projects over \$250 million 5) Readiness Programme: Up to \$3 million for NAPs or other adaptation planning (GCF 2018a)	Over 60 accredited entities including international financial institutions (IFIs), bilateral aid agencies, private banks, and CSOs (GCF n.d.)	Sustainable landscapes in eastern Madagascar, \$18.5 million grant and \$35 million in equity, climate bond with profits going to a trust	Transforming Financial Systems for Climate, \$280 million for 17 countries including 40% for adaptation (GCF 2018a)	Replenishment discussions in 2019  Conservation International received a \$15 million grant from the GCF for public sector activities related to national parks in Madagascar.
<b>Innovation</b>							
<b>Global Innovation Lab for Climate Finance</b>	Public and private funding for innovative climate investments with commercial potential	Seed funding and technical assistance for project development	25 ideas have mobilized nearly \$1 billion in investments for sustainable development, (including grants and equity or loan investments)	Open solicitation from public and private applicants with actionable, innovative, catalytic, and financially sustainable proposals		Komaza Company Smallholder Forestry Project offers wood production contracts training, inputs, and a guaranteed price formula to farmers in coastal Kenya. It sells the contracts to a special-purpose vehicle after one year and buys them back before harvest. <sup>5</sup>	Managed by the Climate Policy Initiative

<sup>5</sup> <https://www.climatefinancelab.org/project/harvest-contract-vehicle/>

**TABLE 7. International Multilateral Funds (Continued)**

Funding Source	Types of Projects Supported	Types of Instruments	Range of Support Provided	Channel/Fund Recipient	Projects in Madagascar	Projects in Sub-Saharan Africa	Other Relevant Information
<b>USAID Global Innovation Fund (GIF)</b>	Piloting, testing, and scaling of innovations in any sector that that can improve the lives of people living on less than \$5 a day	Small grants for project preparation and large grants for scaling up	\$50,000 to \$15 million	Open solicitation from public and private applicants including researchers. Innovation must improve the lives of people living on less than \$5 a day in developing countries		Burundi One Acre Fund: \$15 million for testing and scaling measures to increase productivity of small-scale farmers	
<b>Social Impact Funds</b>							
<b>African Development Fund (AfDB)<sup>6</sup></b>	Poverty reduction and economic and social development in the least developed countries in Africa	Concessional loans	Most funding based on Performance Based Allocations based on country performance assessment ratings and need (per capita income, population, and infrastructure quality); Fragile State Facility; Private Sector Credit Enhancement Facility	Governmental institution in member countries and regional or sub-regional institutions	Energy Sector Reform Support Programme: \$13.77 million for JIRAMA, national water and electricity company (2016)		Replenished on a three-year cycle: \$7 billion for 2017-2020

<sup>6</sup> <https://www.afdb.org/en/about-us/corporate-information/african-development-fund-afdb/>

**TABLE 7. International Multilateral Funds (Continued)**

Funding Source	Types of Projects Supported	Types of Instruments	Range of Support Provided	Channel/Fund Recipient	Projects in Madagascar	Projects in Sub-Saharan Africa	Other Relevant Information
<b>Athelia Funds<sup>7</sup></b>	Financial returns plus conservation of nature and sustainable social development	Blended finance, often linked to carbon credits. Althelia Climate Fund I (fully subscribed), Althelia Sustainable Ocean Fund; Althelia Climate Fund II (in development, with funding from AXA, a French insurance and reinsurance company).	Climate Fund I \$118 million; Sustainable Ocean Fund to raise \$100 million to invest in 15-20 projects for up to six years Climate Fund II and Madagascar Fund (TBD)		Madagascar Fund was to make 10-15 investments in agroforestry and renewable energy, but on hold due to funding issues		Althelia has been acquired by Mirova Natural Capital
<b>Nature Vest<sup>8</sup></b>	Conservation investments that generate financial returns for impact investors. Includes forests and carbon, ocean protection, sustainable agriculture and water, green infrastructure for cities.	Debt and equity for large conservation investments with dependable cashflows that are ready to deploy capital and replicate	Seeks to raise at least \$1 billion of investment capital for conservation over three years	Various types of organizations and projects in developing and developed countries		Kenya Northern Rangelands Trust – \$7 million to help herders improve grazing practices  Debt swap in the Seychelles to generate cash flows for marine conservation	Managed by the Nature Conservancy

<sup>7</sup> <https://althelia.com/althelia-climate-fund/>, <https://althelia.com/sustainable-ocean-fund/>, and <https://althelia.com/initiatives/madagascar-fund/>

<sup>8</sup> <http://www.naturevesttnc.org/>

## 2.5.3 IMPACT INVESTMENT FOR SUSTAINABLE LANDSCAPES AND CLIMATE-RESILIENT DEVELOPMENT

The Monitor Institute (2009) defined impact investing as “actively placing capital in businesses and funds that generate social and/or environmental good and at least nominal principal to the investor”. Impact investors are interested in obtaining positive financial returns on their investments along with substantial social or environmental benefits. In recent years, impact investing has attracted greater interest from commercial financing sources, including institutional investors, asset managers, and multinational companies (OECD 2019).

CEADIR conducted an assessment that looked at how and why impact investors may be interested in investing in sustainable landscapes and climate-resilient development in Madagascar. This assessment included a literature review and, survey of identified impact investors by written questionnaires and telephone interviews. The survey asked about factors important to impact investors and barriers to investing in climate change, conservation, sustainable land use, and resilient commodity production in Madagascar. This section summarizes the results of the literature review and survey. It begins with an overview of the types of activities funded by impact investors, geographic coverage, types of finance and financial instruments, and motivations. It then discusses some of the challenges and opportunities in accessing financing from impact investors and recommendations on how to engage with them.

### Types and Characteristics of Impact Investors

*Impact-first investors* want to maximize social and/or environmental impacts, with financial returns as a secondary goal. *Finance-first investors* want to maximize financial returns, with a secondary goal of social or environmental impact with a primary goal of financial returns (Monitor Institute 2009). In practice, most impact investors seek both social and financial returns and will not accept a below market rate of financial returns (Danilovich 2019). The Global Impact Investing Network (GIIN) is a not-for-profit organization that seeks to increase the scale and effectiveness of impact investing. It surveyed impact investors in January and February of 2018 and found that their motivations varied (Box 1).

#### BOX 1. MOTIVATIONS FOR IMPACT INVESTING

**Banks, pension funds, financial advisors, wealth managers** – Offer individual and institutional clients investment opportunities that align with specific social and/or environmental causes.

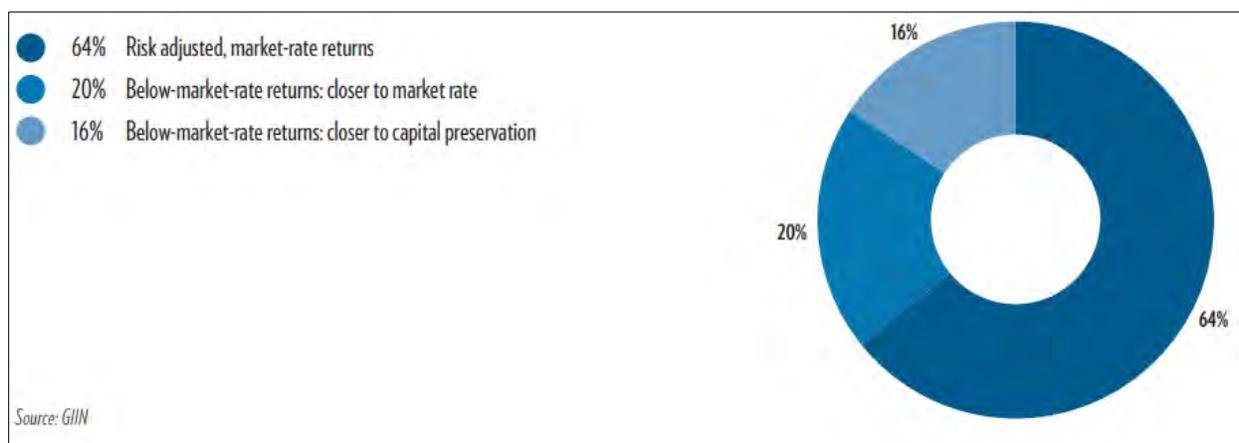
**Institutional and family foundations** – Leverage assets to simultaneously support social and environmental goals and enhance endowment.

**Government and development finance institutions** – Demonstrate financial viability for social and environmental investments to the private sector.

Source: GIIN (n.d.)

Impact investors have a range of financial return expectations. Figure 2 show the level of financial returns sought by the impact investors GIIN surveyed in 2018. About 64 percent of the respondents sought risk-adjusted market rates, 20 percent sought returns slightly below the market rate, and 16 percent were willing to accept lower returns that enabled them to preserve their investment capital.

**FIGURE 2. Level of Financial Returns of the Surveyed Impact Investors**



Source: GIIN (2018)

Some look for businesses ready for growth while others want to finance early-stage business models or innovations that can transform markets. The 2018 GIIN survey found that mature, private companies received 39 percent of the assets under management (AUM) by impact investors and growth-stage companies received 35 percent. Many impact investors financed seed and venture-stage companies, but these were generally smaller investments. Boxes 2 and 3 contain examples of impact investments.

### **BOX 2. ROOT CAPITAL ASSISTANCE TO THE COPIASURO HONEY COOPERATIVE**

Root Capital is a social investment fund that provides financing and training to agro-businesses working with smallholder farmers in Latin America, sub-Saharan Africa, and Southeast Asia

The Copiasuro Honey Cooperative has over 175 member beekeepers in southwestern Guatemala. In 2007, it participated in a pilot project supported by Root Capital. It received accounting software and training to track cash flows, input costs, producer payments, and its microcredit fund for members. This assistance helped Copiasuro increase the amount of credit it provided to its members and it doubled its sales to \$700,000 in 2009.

Root Capital then offered Copiasuro a trade credit loan, so that it could meet its financial obligations during a period of heavy rainfall that delayed honey production. The cooperative's sales increased to \$1 million in 2010. About 15 percent of the cooperative's honey production was sourced from certified organic beekeeping operations and it was encouraging additional members to transition to organic production. It also helped some members begin cacao farming to increase their incomes and support shade tree planting and soil conservation. The cooperative has also launched reforestation projects in southwestern Guatemala, using their own bees to pollinate the forests.

Source: <https://rootcapital.org/meet-our-clients/stories/copiasuro-maximizing-gains-for-farmers-and-the-environment/>

Impact investors typically want to fund experienced business managers with proven capacity to transition from grant funding to commercial capital or scale up businesses (Mendoza 2016). Some finance social enterprises, not-for-profit organizations, and profit-with-purpose organizations. Impact investors have provided capital in many areas, including renewable energy, conservation, sustainable agriculture, low-income housing, and microfinance. Impact investors often consider other factors besides environmental and social impacts and financial returns in deciding whether to fund an investment, including the fit between their interests and those of the entrepreneurs (GIIN n.d.).

## Types and SCALE OF IMPACT Investment

The most common instrument for impact investment was private debt at around 40 percent of the market (GIIN 2018). Approximately 18 percent of impact investors provided private equity (GIIN 2018). Private equity investors seek relatively high returns comparable to those of private equity funds (OECD 2019). About 14 percent of impact investors purchased publicly traded equity shares, although almost all of this investment was in developed markets. Other instruments for impact investments include real assets, public debt, deposits, and cash equivalents, and equity-like debt (GIIN 2018). Figure 3 indicates the typical rank order of financial returns from different asset classes.

### FIGURE 3. Typical Rank Order of Financial Returns by Asset Class

Source: GIIN (n.d.)

Increasingly, impact investors are using pay-for-success instruments, such as impact or development bonds tied to measurable results. These instruments draw on the different strengths of public and private actors to expand financing based on actual impacts achieved (OECD 2018). Although the majority of development impact bonds have been issued in developed markets, they have been tested in Africa. Other pay-for-success models include social impact incentives to reward high-impact enterprises with premium payments for achieving social results (OECD 2019).

*Blended finance* combines development or philanthropic funding with private sector funding to de-risk impact investments (Blended Finance Taskforce 2018). Development assistance or philanthropic funding can help reduce private sector risks, making the investments more attractive to entrepreneurs and sources of commercial financing. The donor funds can be used in various ways, such as grants, first-loss capital, concessional finance, loan guarantees, insurance for various risks, or results-based incentive payments. Recipients may require different types of finance at various stages. The Blended Finance Taskforce (2018) reported that 42 percent of the blended finance investments in clean energy and 15 percent in sustainable land use were in Africa.

The Green Climate Fund has been the largest source of donor finance for climate-related investments in developing countries. Acumen, a social impact funder, an accredited recipient for GCF funds, has a Resilient Agriculture Fund. This fund will provide \$3 million in grants and \$22 million in equity for a \$56 million project to support medium-, small-, and micro- enterprises in Ghana, Nigeria and Uganda that provide aggregator, digital platform, or innovative financial services for smallholder farmers (GCF 2018c). The GCF approved a \$5 million grant and \$20 million in equity to leverage a \$110 million investment for solar energy in East Africa through the KawiSafi Ventures Fund (GCF 2018b). The future scale of GCF operations will depend on replenishment of its capital resources.

The global impact investment market has grown rapidly. There were fewer than 50 major impact investors before 1997 and over 200 in 2017 (OECD 2019). The GIIN's 2018 Survey found that impact investment assets under management totaled \$228.1 billion in 2017, and approximately half was invested in emerging or developing markets (Figure 4). Only 12 percent of the impact investment assets under

management were in Sub-Saharan Africa. Since the number of survey respondents with investments in Sub-Saharan Africa was almost the same as the number in the United States and Canada, the average size of the reported impact investments was much smaller in Sub-Saharan Africa. Development finance institutions (DFIs) provided a large portion of the impact investment capital for Sub-Saharan Africa and relatively little was from domestic investors. U.S. impact investors have provided less capital in Sub-Saharan Africa than European impact investors (Danilovich 2019).

The 2018 GIIN survey respondents invested most in financial services, energy, microfinance, and housing (Figure 5). Overall, six percent of the total impact investment assets under management were in food and agriculture, but 57 percent of the respondents provided capital in this sector. Conservation received 3 percent of the total assets under management and 16 percent of the respondents reported making conservation investments. In 2017, GIIN also analyzed the sector allocations of survey respondents that invested in a particular region. Food and agriculture received 21 percent of the impact investment assets under management in Sub-Saharan Africa, the largest share of investments in the region (GIIN 2017). Only 0.4 percent of the impact investments in Sub-Saharan Africa were for forestry or timber.

GIIN also found that almost 75 percent of the surveyed impact investors in 2018 reported addressing climate change mitigation or adaptation. Approximately 70 percent reported investments to reduce or prevent greenhouse gas emissions. Surprisingly, the finance-first respondents were more likely to report climate-related investments than the impact-first respondents.

**FIGURE 4. Geographic Allocation of Assets Under Investment by Impact Investors and Percent of Respondents Investing in These Regions**

Source: GIIN 2018.

## FIGURE 5. Sector Allocations of Assets Under Investment by Impact Investors and Percent of Respondents Investing in These Sectors

Source: GIIN (2018)

### CHALLENGES AND OPPORTUNITIES FOR ACCESSING IMPACT INVESTMENT IN SUB-SAHARAN AFRICA AND MADAGASCAR

It has been difficult for entrepreneurs in Sub-Saharan Africa with demonstrated business models to link up with impact investors (Impact Amplifier 2015). Box 4 discusses some common challenges for impact investors in Southern Africa.

Madagascar has particular challenges in attracting impact investment, including the business environment, policy and regulatory frameworks, fragile capital markets and high risk perceptions (IDPS *et al.* 2017). Madagascar's **business enabling environment** has been difficult since the 2009 coup. Foreign private investment has been limited due to perceptions of high country risks. Transparency International ranked Madagascar 152 out of 180 countries on its Corruption Perceptions Index in 2018 (Transparency International 2018). Madagascar's score of 25 was below the average for Sub-Saharan Africa.

The **financial system** also affects the impact investment climate in Madagascar with its nascent financial markets and weak financial intermediaries, representing a barrier to building the impact investing market and harmonizing supply and demand. Madagascar's domestic capital markets and financial intermediaries were relatively weak (GIIN 2016). *Impact Amplifier* (2015) noted that, "Madagascar's investment environment is primarily composed of international development agencies and a small number of private investors" with limited financing available to entrepreneurs often directed through third-party investment arrangements. Madagascar also lacked strong financial intermediaries, such as accelerators, investment vehicles, and impact funds to facilitate transactions (GIIN 2016). The small number of private equity investors in Madagascar was initially financed by DFIs and the successful funding models still required DFI or donor support.

GIIN (2016) observed that, "Madagascar has seen few impact deals and little capital disbursed relative to its size". Through early 2016, Madagascar had received over \$500 million of investment debt and equity – \$465 million from DFIs and \$35 million from non-DFIs. There were 44 recorded impact investments in Madagascar and most investments were before 2012. These investments were made in agriculture, financial services, housing, and information and communications technologies. Few of the non-DFI investors were based in Madagascar. Figure 6 compares the number and value of impact investments made by non-DFI investors and DFIs.

#### **BOX 4. Common Challenges for Impact Investors in Southern Africa**

- Perceptions of high investment risks;
- Many domestic entrepreneurs are not ready for sizeable investments and do not have viable strategies for scaling up;
- Many business opportunities are early-stage with little access to commercial capital;
- Traditional fund management models are rarely feasible for impact investing;
- Impact investors do not have sufficient information on local markets; and
- Impact investors may prefer to make regional investments.

Source: Impact Amplifier (2015).

#### **FIGURE 6. Number and Value of Impact Investments by Non-DFIs and DFIs**

Source: GIIN (2016)

These challenges have limited the number of successful, scalable impact enterprises or in Madagascar compared to its market potential (*Impact Amplifier* 2015; GIIN 2016). Although some investors based in Southern Africa have included Madagascar in their mandate, few have invested in the country (GIIN 2016). *Impact Amplifier* (2015) stated that, “In the short-term, local organizations committed to supporting development and improvement of Madagascar’s entrepreneurial environment will have to rely primarily on financial support from development finance institutions and philanthropic organizations.”

Social enterprises in Madagascar have had difficulties obtaining financing on favorable terms. Most impact investors have preferred to finance later-stage companies to reduce portfolio risks and due diligence costs associated with early-stage companies (*Impact Amplifier* 2015).

Impact investors have perceived a shortage of finance-ready investments in Madagascar. The 2015 *Impact Amplifier* survey did not identify a single investment-ready entrepreneur seeking investment in Madagascar. The 2013 GIIN survey in Southern Africa found that few investable opportunities that could pass a screening for baseline data and financial screening (GIIN 2016). Many organizations seeking investment were able to address environmental needs but lacked business management skills or the ability to maximize impact.

It has been relatively difficult to start a company and conduct business in Madagascar. Madagascar was ranked 161 of 190 countries in the ease of doing business (EODB) and scored below the average for Sub-Saharan Africa (World Bank 2019b). Common barriers included difficulties in access to grid electricity, resolution of insolvencies, and obtaining construction permits. The U.S. Department of State (2018) and Santander Bank (2018) identified poor quality and high cost of infrastructure as major issues for businesses in Madagascar. There have been few effective business support structures, such as incubators, accelerators, and business networks (*Impact Amplifier* 2015).

Government leadership has been an important driver of impact investing markets in many countries (OECD 2018). The Economic Development Board of Madagascar launched an online guide to investing in the country in 2018 (United Nations Economic Commission for Africa 2018). Madagascar had no limits on foreign ownership or control of a company (U.S. Department of State 2018).

There is good potential for increasing private investment yet the public sector needs to address other factors through direct and indirect actions. The GoM can help attract more domestic and international impact investment through greater collaboration, changes to the business enabling environment, information exchanges, and connecting impact investors to financing opportunities.

Madagascar is a critically important location for impact investors interested in biodiversity conservation. The experiences and lessons learned from impact investments for biodiversity conservation in other countries should be considered. Box 5 describes a successful example from Peru.

#### **BOX 5. ALTHELIA CLIMATE FUND – CORDILLERA AZUL NATIONAL PARK REDD+ PROJECT**

The Althelia Climate Fund agreed to provide €8.55 million in loan financing of over six years for protection of Cordillera Azul National Park in the Peruvian Amazon. This commitment was part of a public-private partnership that also included the Peruvian National Service of Protected Areas (SERNANP), and the Centro de Investigación y Manejo Áreas Naturales (CIMA Cordillera Azul).

In 2008, CIMA received a 20-year contract to manage the park, implement conservation activities in the park and surrounding buffer zone and help the park reach long-term financial sustainability. Althelia's loan has enabled CIMA to improve surveillance, biological monitoring, and research, strengthen institutional capacity and governance and development of sustainable productive activities in the buffer zone.

The project promoted agroforestry to improve livelihoods, restore degraded lands, and protect biodiversity. Small-scale farmers can plant cacao and coffee as well as food crops in the buffer zone. Althelia helped market the export crops and received a portion of the revenue from cacao bean sales and an arrangement fee from exporters. It also helped to arrange carbon credit sales as an additional revenue source.

This project was expected to preserve 1.3 million ha of montane rainforest within the park and support sustainable land use for 2.5 million ha in the buffer zone. It was also expected to reduce emissions of 15 million tCO<sub>2</sub>e over six years from reduced deforestation. The carbon credits will be validated under the Verra Standard.

Source: <https://althelia.com/investment/cordillera-azul-national-park-redd-project/>

### **2.5.4 RECOMMENDATIONS ON FINANCING CLIMATE ADAPTATION AND SUSTAINABLE LANDSCAPES**

Development assistance agencies can help the GoM improve the business investment climate for domestic and foreign impact investors. This support could include technical assistance to improve the business enabling environment, increase access to capital, and insure against political risks. They can help enterprises improve their business model readiness for finance, develop successful applications for financing, and improve their environmental and natural resource sustainability. Development assistance agencies can strengthen the ability of banks to assess new markets, new technology and client risks, and facilitate transactions with other financial intermediaries to. Examples of intermediaries include impact investors (Investisseurs & Partenaires), venture capital or private equity companies (Madagascar Development Partners and Adenia Partners), environmental and social impact funds (PROPARCO) and accelerators (the Land Accelerator).<sup>9</sup>

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<sup>9</sup> PROPARCO is a development financial institution partly owned by AFD and private shareholders from the developed countries and developing nations. The Land Acceleration is a program that trains and mentors African entrepreneurs involved in land restoration in obtaining financing (<http://thelandaccelerator.com/>)

Key lessons learned for engagement with impact investors include:

- Investments in Sub-Saharan Africa with multiple objectives for agricultural value chains, sustainable land management, and biodiversity conservation can be challenging and some have relatively low financial returns or high risks. As a result, the number of interested impact investors may be limited.
- Businesses interested in receiving impact investment need to generate relatively stable financial returns close to market rates. Most impact investors seek businesses that should have a track record of at least three years of successful operations and growth.
- Impact investors often have limited staff and a backlog of proposals to evaluate and their priority is making good deals. Be strategic and prepared in engagements with impact investors.
- Many impact investors do not accept unsolicited proposals and will not provide individual responses to inquiries due to a high volume of correspondence.
- Donors, government agencies, and NGOs need to make the case for why a meeting or application would be worth an impact investors' time.
- Impact investment funds associated with conservation NGOs, such as The Nature Conservancy's Nature Vest Fund, may be interested in partnerships with major development assistance organizations and international NGOs (such as the International Union for Conservation of Nature, IUCN).
- Demonstrate broad, meaningful support from major stakeholders, including national officials and local communities.
- Obtain financial support or endorsements from development assistance agencies.
- Reach out to international environmental NGOs for partnerships (including their board members and major contributors).
- Develop a social media strategy to promote the potential benefits of the activity to a wider audience.
- Ensure that there are strong business and financial plans and a viable approach for achieving the environmental objectives. Consider partnerships with a business school or an international corporation for business planning and the design of conservation activities.
- Avoid donor fatigue by ensuring that requests for support and proposals meet their specific criteria and interests.
- Quantify projected climate change mitigation benefits and document approaches to avoid leakage or displacement effects.
- Consider the benefits and costs of participating in the national REDD+ program for high-carbon rainforests.
- Consider the benefits and costs of selling carbon credits on the voluntary market if the project can achieve sufficient scale.
- Focus on biodiversity funders for low-carbon, dry forests.

# ANNEX A: AGENDA FOR THE TRAINING-OF-TRAINERS WORKSHOP

Time	Session
<b>November 14, 2018</b>	
9:00 – 9:15	Welcome and Introductions
9:15 – 9:30	Presentation #1: Overview of Climate Change Adaptation Training of Trainers
9:45 – 10:15	Small Group Exercise #1-1: Linking Development Goals and the Inputs they Depend on
10:15 – 10:30	Coffee Break
10:30 – 11:30	Presentation #2: Climate Variability and Change (including plenary discussion of climate and non-climate stressors)
11:30 – 12:30	Presentation #3: Climate Impacts and Development
12:30 – 13:30	Small Group Exercise #3-1: Climate Impacts
13:30 - 14:30	Lunch
14:30 – 15:30	Presentation #5: Identifying Adaptation Measures
15:30 – 16:00	Small Group Exercise #5-1: Adaptation Measure Identification
16:00 – 16:45	Presentation #6a: Stakeholder Engagement in Adaptation Planning
16:45 – 17:45	Presentation #6a: Stakeholder Engagement in Adaptation Planning

Time	Session
<b>November 15, 2018</b>	
9:00 - 9:30	Day 1 Review and Day 2 Introduction
9:30 - 10:00	Presentation #7: Appraisal and Priority Setting for Adaptation Measures
10:00 - 10:30	Presentation #8: Developing an Adaptation Portfolio
10:30 - 11:00	Small Group Exercise #8-1: Adaptation Measure Identification
11:00 – 11:30	Presentation #9: How to Prepare an Adaptation Plan
11:30 – 12:00	Small Group Exercise #9-1 Develop an Adaptation Plan for your Value Chain
12:00 – 13:30	Presentation #10: Cost-Benefit Analysis and Cost-Effectiveness Analysis
13:30 – 14:30	Presentation #11: Costs of Climate Impacts and Adaptation
14:30 – 15:30	Lunch
15:30 – 16:30	Presentation #12: Conservation Enterprises
16:50 – 17:00	Small Group Exercise #12-1: Theory of Change for Conservation Enterprises
17:00 - 18:00	Day 2 Review Working Group Session

# ANNEX B: AGENDA FOR THE SAVA REGION WORKSHOP ON CLIMATE ADAPTATION IN KEY VALUE CHAINS

Time	Session
<b>November 20, 2018</b>	
8:30 – 8:45	Opening
8:45 – 9:00	Participant introductions
9:00 – 9:45	Plenary Presentation: Description of workshop objectives and introduction of climate change adaptation terms
9:45 – 10:45	Plenary Presentation: Climate variability and change and impacts, including introduction to the NAP and findings from the BNCCC workshop
10:45 – 11:00	Coffee Break
11:00 – 12:30	Small Group Exercise #1a and #1b: Linking value chains and the inputs they depend on; assessing climate and non-climate stressors
12:30 – 1:30	Lunch
1:30 – 2:00	Plenary Discussion: Findings from small group exercise #1a and #1b
2:00 – 3:30	Small Group Exercise #2: Determining the relationship between climate stressors, impacts, and value chains
3:30 – 3:45	Coffee Break
3:45 – 5:00	Plenary Discussion: Findings from small group exercise #2

Time	Session
<b>November 21, 2018</b>	
8:30 – 9:00	Day 2 introduction of and Day 1 review of
9:00 – 10:00	Plenary Presentation: Adaptation and adaptation measures
10:00 – 11:30	Plenary Presentation: CARE's experience with adaptation in Antalaha and Plenary Discussion
11:30 – 12:00	Small Group Exercise #3: Identifying adaptation measures
12:00 – 1:00	Lunch
1:00 – 2:00	Plenary Discussion: Findings from small group exercise #3
2:00 – 2:30	Plenary Presentation and Discussion: Linking workshop findings to NAP and local development/ sector planning and identifying points of policy mainstreaming
2:30 – 3:00	Plenary Discussion: Information gaps in climate stressors, climate impacts, and adaptation measures
3:00 – 3:30	Plenary Discussion: Evaluation criteria for adaptation measures
3:30 – 4:30	Focus Group Discussions: Private and public sector roles
4:30 – 5:30	Next steps and closing

# ANNEX C: AGENDA FOR THE CLIMATE FINANCE WORKSHOP

Time	Session	Objectives
9:00 – 9:30	Workshop Introduction	<b>Objectives:</b> Discuss the objectives and agenda and participant introductions
9:30 – 10:30	Financing Terminology and Financial Instruments	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Present basic financing terminology, including an overview of public and private sector finance and their strategic uses and complementarity</li> <li>• Gain greater awareness of what companies and investors want from financing and learn the importance of leveraging private sector finance for sale and sustainability</li> <li>• Learn the advantages and disadvantages of different financial instruments, including differences between adaptation and sustainable landscapes financing</li> </ul>
10:30 - 11:30	Public Sector Financing Sources and Instruments	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Introduce key sources of public sector financing, including the Green Climate Fund, Adaptation Fund, and others</li> <li>• Discuss their advantages and disadvantages</li> <li>• Provide examples of how they have been used and how participants may consider them in their programming</li> </ul>
11:30 – 11:45	Coffee Break	
11:45 - 12:15	Private Sector Financing Options for Sustainable Landscapes	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Introduce the USAID-funded CEADIR activity’s Climate Finance Assessment</li> <li>• Describe gaps and challenges influencing sustainable landscapes investments</li> <li>• Highlight options for enhancing and mobilizing financing for sustainable landscapes investments, including improving policies and incentives, developing capacity, insurance, loan aggregation, and payment for ecosystem services</li> </ul>
12:15 – 1:00	Private Sector Financing Options for Adaptation	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Describe gaps and challenges influencing adaptation investments</li> <li>• Highlight options for enhancing and mobilizing financing for adaptation investments, including insurance, working with financial institutions, and public-private partnerships</li> </ul>
1:00 – 2:00	Lunch	
2:00 – 3:00	REDD+ and the Development Credit Authority in SL financing	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Describe REDD+ and carbon markets and land-based mitigation measures</li> <li>• Discuss the involvement of USAID’s Development Credit Authority in SL financing deal, e.g., Althelia</li> </ul>

Time	Session	Objectives
3:00 - 4:00	Examples Across the World and Lessons Learned	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Discuss how to use financing strategically, balancing domestic, public, private sources to achieve different objectives</li> <li>• Present effective examples of private sector financial mobilization s</li> <li>• Discuss the most significant clean energy financing opportunities, and their challenges and opportunities</li> <li>• Summarize lessons learned about mobilizing private sector finance and future opportunities in Madagascar</li> </ul>
4:00 – 4:45	Discussion of Linkages and Opportunities for Hay Tao and Mikajy	<p><b>Objectives:</b></p> <p>Collaborative discussion between CEADIR, Hay Tao, and Mikajy about opportunities to mobilize public and private sector finance in Madagascar</p>
4:45 – 5:00	Closing and Next Steps	<p><b>Objectives:</b></p> <p>Close the meeting and discuss next steps</p>

# ANNEX D: MATRIX OF IMPACT INVESTORS

Organization	Location	Assets Managed	Location of Investment	Sectors of Investment	Mission/ Requirements	Examples	Notes
<a href="#">Gates Foundation Strategic Investment Fund</a>	U.S.A	\$2 billion	International	Global development, global growth and opportunity (including agriculture development), global health, U.S. education	Projects that benefit the world's poorest and are often overlooked by traditional investors; projects that will have an impact and will scale, 1:1 match with other investors	M-KOPA: off grid solar energy company which makes residential power system affordable and accessible to low-income, off grid customers through a mobile payment based lease to own model. African Agricultural Capital Fund: provides growth capital to companies that boost the productivity and profitability of smallholder farmers in East Africa	Does not accept unsolicited submissions
<a href="#">Vulcan</a>	U.S.A	\$20.3 billion	International, mostly in Africa	Ocean health, conservation, climate change, smart cities, global health, Ebola			Does not accept unsolicited submissions
<a href="#">Skoll Foundation</a>	Palo Alto, U.S.A		International	Economic opportunity, education, environmental sustainability, health, peace and human rights, sustainable markets	Evaluated against following criteria: social entrepreneur, impact potential, collaboration, innovation, issue area, and Skoll leverage	Blue Ventures, Fair Trade USA, Forest Trends, Kiva, etc.	Skoll award – \$1.25 million over three years; does not accept unsolicited submissions
<a href="#">Obvious Ventures</a>	San Francisco, U.S.A	\$1.8 billion		Sustainable systems, education, employment, finance, healthcare	Certified B corp.	XperSea - aquaculture solutions, Mosaic - residential solar lending,	

						Enbala - renewable friendly grid	
<a href="#">Case Foundation</a>	Washington DC, U.S.A			No set sector or issue	Look for opportunities where innovation is needed to address an urgent challenge		Does not accept unsolicited submissions
<a href="#">Althelia</a>	London, U.K.	EUR 60 million	International	Two funds: climate and sustainable oceans. Seven impacts monitored - climate, species, ecosystems, livelihoods, inclusivity, sustainable enterprise, fair economic returns	Align investments with United Nations Sustainable Development Goals	Sustainable coffee and cocoa production in the Peruvian Amazon, REDD+ and agroforestry projects, sustainable vegetable oil, efficient heating in Rwanda	Developing a Madagascar climate and conservation fund
<a href="#">Encourage Capital</a>	New York, U.S.A		International	Climate change, financial inclusion, sustainable infrastructure, sustainable seafood, water		Improved forest management in Arizona, fisheries restoration in Chile	
<a href="#">Vital Capital Fund</a>	Switzerland	\$350 million	Developing nations, primarily Sub-Saharan Africa	Urban community housing solutions, agriculture, healthcare, renewable energy, water and education		Tomosi's Dairy Farms: construction of a modern dairy processing plant and engaging with small-holder farmers in the Kiruhura region of Uganda.	Global Impact Investing Rating System (GIIRS) Impact Rated
<a href="#">Triodos Investment Management</a>	The Netherlands	EUR 4.2 billion	International	Energy and climate, inclusive finance, sustainable food and agriculture	Sustainable Trade Fund (food and agriculture): financially and commercially stable, minimum	M-KOPA: off grid solar energy company which makes residential power system affordable and accessible to low-income, off grid customers through a mobile payment based	Can contact to ask about funding; specific requirements depend on the fund

					annual turnover of \$1 million, 3-year track record in export, sustainability certification	lease to own model. Sistema.bio: International supplier of biogas technology to smallholder farmers	
<a href="#">Blue Orchard Finance</a>	Switzerland and Nairobi	Over USA \$5 billion	International	Financial inclusion, climate change, education, job creation and women's empowerment, infrastructure	Minimum of one to two years of operation, externally audited accounts, primary business, operational self-sufficiency, sound corporate governance, in target region	Bee keeping, raising cattle in Mongolia, local drum making	Use different types of investment strategies including credit, private equity, sustainable infrastructure and blended finance
<a href="#">Root Capital</a>	Cambridge, U.S.A		Latin America, sub-Saharan Africa, Southeast Asia	Agriculture (coffee, cocoa, tree nuts, other export crops, regional staple crops)	Minimum three years of operation, minimum annual revenue of \$250,000, in target countries and sectors, have strong commercial relationships, audited financial statements	Cocoa production in Peru. Projects dealing with female farmers. Other agriculture projects in Guatemala, Indonesia, Costa Rica. Also some environmental degradation projects. Catholic Relief Services and the MGR foundation just made loans totaling \$750,000 to Lafaza, an agribusiness in Mada that buys vanilla from smallholder farming communities at fair trade prices and sells it. Both are	96% of clients operate in an environmentally vulnerable hotspot.

						being managed by Root Capital. <sup>10</sup>	
<a href="#">Palladium Group</a>	International		International	Typically invest in areas where they already do work; Includes climate change, forestry, irrigated agriculture	For-profit companies with an operating history of at least two years and currently generating revenues	Naasakle: majority female-owned company that manufactures shea butter for the cosmetics industry in Northern Ghana	Primarily a consulting/capital advisory firm
<a href="#">8 Miles</a>	London, UK		Africa	Agribusiness, consumer goods, education, energy and utilities, financial services, healthcare, industrials, real estate, telecommunications, transport and logistics	African SMEs (\$10-50 million) located within target countries, meet DFI exclusion criteria and 8 Mile code criteria, align with active management approach	Beef processing company in Ethiopia, Blue Skies - fresh cut tropical fruit for European supermarkets, Nigerian biscuit manufacturer	Typical investment size: \$15 million- \$45 million. Primarily provide debt and equity
<a href="#">Acumen Fund</a>	New York, U.S.A.	\$110 million	International	Agriculture, energy, health, education, water & sanitation, housing, other	Investments must be linked to development and economic growth outcomes	Azahar Coffee: purchases coffee beans directly from small-holder farmers in Colombia's post conflict areas	

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<sup>10</sup> <https://www.crs.org/media-center/news-release/catholic-relief-services-announces-first-ever-impact-investment-loan>

<a href="#">The Nature Conservancy- NatureVest</a>	U.S.A	Likely \$1 billion	International	Forests and carbon, ocean protection, sustainable agriculture and water, green infrastructure for cities	Focused on conservation; measurable impact aligned with TNC's mission, dependable cash flows that create a critical role for impact capital, governance to steward conservation, on the ground execution capacity, replicability and scalability	Administering windfarm project in Kenya, part of return is given to investors and part is earmarked for conservation	
<a href="#">Nordic Environment Finance Corporation (NEFCO)</a>	Finland	EUR 471 million in 2016	International, with a focus on Baltic States	Energy, industry, water, agriculture, waste	Relevant environmental effect; long-term cooperation in enterprises, primarily through joint venture companies or acquisitions; has a Nordic company or institution as business partner; economically, financially, institutionally and technically viable	Doña Juana landfill: gas to energy project in largest landfill in Colombia; Nam Khanh hydro power project in Vietnam; Commercial production of biomass briquettes from sugar cane bagasse in Kenya.	

<a href="#">Pegasus Capital Advisors</a>	Connecticut and New York, U.S.A	\$1.9 billion	International	Health and wellness, built environment, energy, waste, food and agriculture	Staged investment to manage risk; controlling ownership value-add in addition to capital; proven team of operating executives	GMX Technologies, an agricultural supplement company that produces and distributes organic crop treatment products. Accordant Energy, a company formed to develop Reengineered Feedstock ("ReEF"), a unique product produced from municipal solid waste materials	Typical investments are \$5 million – \$150 million
<a href="#">Alphamundi Group</a>	Switzerland		Latin America and East Africa	Consumer goods, renewable energy, microfinance institutions, agriculture, education, affordable housing	Include gender analysis in assessments and try to advance gender equality	Company producing vegetable chips in Ecuador. Cocoa cooperative in Peru. Microfinance loan provider in Ecuador	Typical investments are between \$250,000 to 2 million
<a href="#">Co-Impact</a>	London, UK and New York, U.S.A		Low and middle income countries	Health, education, economic opportunity	Strong evidence of impact; credible strategy to address broken systems and achieve results at scale; strong potential for long term sustainability of impact and financing after support; committed partners in place with shared vision and aligned incentives	Liberia's National Community Health Assistant Program, Graduation Approach to Economic Opportunity, Project ECHO (telemedicine project), Teaching at Right Level - Africa, citiesRISE (mental health project)	Typical investments are \$10 million-\$50 million over five years; currently working with their first round of grants and are not taking applications

<a href="#">Miarakap</a>	Madagascar	Madagascar Ariary 11.5 billion	Madagascar	All sectors and regions of the country	Must be a small/medium sized enterprise.		Fund just launched; aim to provide investments between 100 million – 1 billion Ariary
<a href="#">FAPBM</a>	Madagascar	EUR 12 million	Madagascar	Biodiversity conservation and local economic support			
<a href="#">Village Capital</a>	Washington DC, U.S.A	\$142 million	International	Agriculture, education, energy, financial services, health, other		Under the Mango Tree - trains Indian farmers to keep bees in order to diversify their incomes and creates a market for the honey. Ojay Greene - sources fruits and vegetables from smallholder farmers and sells them to high end markets in Kenya	
<a href="#">Pearl Capital Partners</a>	Kenya and Uganda	African Agricultural Capital Fund – \$25 million African Seed Investment Fund – \$12 million African Agricultural Capital Ltd – \$9 million	Uganda, Tanzania, Rwanda, Ethiopia, Kenya	Agriculture	Small/medium sized businesses	Meru Green Horticulture - provides fruits and vegetables to distributors and retailers in Kenya. Eldoville Dairies Limited - dairy and food processing enterprise. Freshco Kenya Ltd - private seed company. Africado - produces Hass avocados in west Kilimajaro for export for the European Union (provided start up funding)	Typical investments are between \$250,000 and \$2.5 million

<a href="#">Developing World Markets</a>	Connecticut, U.S.A	\$1.6 billion	International	Financial inclusion, renewable energy, water and sanitation, agriculture			GIIRS Impact Rated
<a href="#">Bamboo Capital Partners</a>	Luxemburg, Geneva, Singapore, Nairobi, Bogota	\$300 million	International	Finance, energy, healthcare		Kuba financiero - microfinance in Mexico. BBOX - off grid clean energy provider	Joint manager of new 200 million EUR Agri-Business Capital Fund which targets rural SMEs in developing countries
<a href="#">Annona</a>	The Netherlands		Africa, Latin and Central America	Food value chains and sustainable tourism		Expohort - agroprocessor and exporter. Agricafe - specialty coffee production, sourcing, and export. Gold Coast Fruits - produces and commercializes fresh pineapple for export from Ghana	Types of investment include debt, mezzanine, and equity. Average investment is approx. \$1.5 million
<a href="#">Global Environment Fund</a>	Maryland, U.S.A			Environment, energy, and resource solutions		Ramanas Farms: Forest Stewardship Council certified plantation forest company in South Africa.	

# ANNEX E. LINKS TO TRAINING WORKSHOP POWERPOINTS

**Madagascar Climate Adaptation Training of Trainers, November 2018 (English presentations)**

[https://dec.usaid.gov/dec/content/Detail\\_Presto.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTIyMjg0](https://dec.usaid.gov/dec/content/Detail_Presto.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTIyMjg0)

**Madagascar Climate Adaptation Training of Trainers, November 2018 (French presentations)**

[https://dec.usaid.gov/dec/content/Detail\\_Presto.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTIyMjg0](https://dec.usaid.gov/dec/content/Detail_Presto.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTIyMjg0)

**Madagascar Climate Adaptation and Sustainable Landscapes Finance Training, November 2018 (English presentations)**

[https://dec.usaid.gov/dec/content/Detail\\_Presto.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTIyMjg0](https://dec.usaid.gov/dec/content/Detail_Presto.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTIyMjg0)

**CEADIR Madagascar Climate Adaptation and Sustainable Landscapes Finance Training, November 2018 (French presentations)**

[https://dec.usaid.gov/dec/content/Detail\\_Presto.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTIyMjg0](https://dec.usaid.gov/dec/content/Detail_Presto.aspx?vID=47&ctID=ODVhZjk4NWQtM2YyMi00YjRmLTkxNjktZTcxMjM2NDBmY2Uy&rID=NTIyMjg0)

# ANNEX F. LINKS TO WORKSHOP PRESENTATION VIDEOS

Climate Adaptation Training of Trainers (ToT) Workshop: Overview of Climate Change

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzYx>

Climate Adaptation Training of Trainers (ToT) Workshop: Climate Variability and Change

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzYy>

Climate Adaptation Training of Trainers (ToT) Workshop: Climate Impacts and Development

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzYz>

Climate Adaptation Training of Trainers (ToT) Workshop: Design Adaptation Measures

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzY0>

Climate Adaptation Training of Trainers (ToT) Workshop: Stakeholder Engagement

[https://dec.usaid.gov/dec/content/Detail\\_Presto.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzY1](https://dec.usaid.gov/dec/content/Detail_Presto.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzY1)

Climate Adaptation Training of Trainers (ToT) Workshop: Appraisal and Priority Setting for Adaptation Measures

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzY2>

Climate Adaptation Training of Trainers (ToT) Workshop: How to Prepare an Adaptation Plan

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzY4>

Climate Adaptation Training of Trainers (ToT) Workshop: Cost Benefit Analysis (CBA) and Cost-Effectiveness Analysis (CEA)

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzY5>

Climate Adaptation Training of Trainers (ToT) Workshop: Assessing Costs of Climate Impacts and Adaptation Measures

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=Mzcxw>

Climate Adaptation Training of Trainers (ToT) Workshop: Conservation Enterprises Report Summary

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=Mzcx>

Climate Finance Workshop: Financing Terminology and Financial Instruments

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=Mzcy>

Climate Finance Workshop: Public Sector Financing Sources and Instruments

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=Mzcz>

Climate Finance Workshop: Private Sector Financing Options for Sustainable Landscapes

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=Mzc0>

Climate Finance Workshop: Possibilities to Increase Adaptation Financing

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=Mzc1>

Climate Finance Workshop: REDD+ Financing for Sustainable Landscapes

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=Mzc2>

Climate Finance Workshop: Climate Project Examples From Across the World and Lessons Learned:

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzQ2>

Climate Finance Workshop: Public Sector Climate Financing: Sources and Instruments

<https://dec.usaid.gov/dec/content/Detail.aspx?ctID=NDNiNDMyMGMtMmFmMi00YzgzLWEzOTAtOTIINTc0NGMxNTdk&rID=MzUz>

# REFERENCES

- Adaptation Fund. 2018a. “Adaptation Fund Five-Year Strategy Fosters Activities Based on Pillars of Action, Innovation, and Learning and Sharing.” <https://www.adaptation-fund.org/adaptation-fund-five-year-strategy-fosters-activities-based-pillars-action-innovation-learning-sharing/>
- . 2018b. Adaptation Fund Breaks Single-Year Resource Mobilization Record with Nearly US\$ 129M in New Pledges Received. <https://www.adaptation-fund.org/wp-content/uploads/2018/12/Press-release-121218-Adaptation-Fund-Breaks-Single-Year-Resource-Mobilization-Record-with-Nearly-US-129M-in-New-Pledges-Received.pdf>
- Africa Climate Change Fund. 2019. *Supporting African Countries to Access International Climate Finance: Enabling a Transition Towards Climate Resilient, Low-Carbon Development*. Abidjan: African Development Bank. [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/ACCF-Supporting\\_Africa\\_countries\\_to\\_access\\_international\\_climate\\_finance.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/ACCF-Supporting_Africa_countries_to_access_international_climate_finance.pdf)
- African Development Bank; Asian Development Bank; European Bank for Reconstruction and Development; European Investment Bank; Inter-American Development Bank Group; Islamic Development Bank; and World Bank Group. 2018. *Joint Report on Multilateral Development Banks’ Climate Finance 2017*. London: European Bank for Reconstruction and Development. <https://www.worldbank.org/en/news/press-release/2018/06/13/mdb-climate-finance-hit-record-high-of-us352-billion-in-2017>
- Amera, Niranjali; Athena Ballesteros; Gaia Larsen; and Joe Thwaites. 2017. *Future of the Funds: Exploring the Architecture of Multicultural Climate Finance*. Washington, DC: World Resources Institute.
- Blended Finance Taskforce. 2018. *Better Finance, Better World*. London: Business & Sustainable Development Commission. [http://s3.amazonaws.com/aws-bsdc/BFT\\_BetterFinance\\_final\\_01192018.pdf#asset:614:url](http://s3.amazonaws.com/aws-bsdc/BFT_BetterFinance_final_01192018.pdf#asset:614:url)
- Bird, Neil; Katharina Keil; Liane Schalatek; and Charlene Watson. 2017a. *Climate Finance Regional Briefing: Sub-Saharan Africa*. Washington, DC: Heinrich Böll Stiftung North America. <https://climatefundsupdate.files.wordpress.com/2018/02/cff7-2017-eng-digital.pdf>
- . 2017b. *Climate Finance Thematic Briefing: Adaptation Finance*. Washington, DC: Heinrich Böll Stiftung North America. <https://www.odi.org/sites/odi.org.uk/files/resource-documents/12073.pdf>
- CEPF. 2018. *2017 Annual Report*. Arlington: Critical Ecosystem Partnership Fund. [https://www.cepf.net/sites/default/files/cepf\\_2017\\_annualreport\\_lr.pdf](https://www.cepf.net/sites/default/files/cepf_2017_annualreport_lr.pdf)
- Danilovich, John. 2019. NatureVest. Personal communication by Alan Miller and Kait Siegel. March 8, 2019.
- GCF. n.d. “Accredited Entity Directory.” Tools. Green Climate Fund. <https://www.greenclimate.fund/how-we-work/tools/entity-directory>
- . 2018a. *GCF in Brief: Adaptation Planning*. Incheon, South Korea: Green Climate Fund. [https://www.greenclimate.fund/documents/20182/194568/GCF\\_in\\_Brief\\_Adaptation\\_Planning.pdf/c0fc85d5-a0d8-4fbc-b962-e077d5a2e067](https://www.greenclimate.fund/documents/20182/194568/GCF_in_Brief_Adaptation_Planning.pdf/c0fc85d5-a0d8-4fbc-b962-e077d5a2e067)
- . 2018b. “KawiSafi Ventures Fund in East Africa.” Project and Programmes. Green Climate Fund. Project FP005. <https://www.greenclimate.fund/projects/fp005>
- . 2018c. “Acumen Resilient Agriculture Fund.” Project and Programmes. Green Climate Fund. Project FP078. <https://www.greenclimate.fund/projects/fp078>

- GEF. 2018a. *27 Years of Biodiversity in Africa*. Washington, DC: Global Environment Facility. [https://www.thegef.org/sites/default/files/publications/GEF\\_27YearsBioAfrica\\_CRAweb.pdf](https://www.thegef.org/sites/default/files/publications/GEF_27YearsBioAfrica_CRAweb.pdf)
- . 2018b. *Initial GEF-7 STAR Country Allocations*. GEF Council Meeting. Washington, DC: Global Environment Facility. <https://www.thegef.org/sites/default/files/publications/GEF-C.55-Inf.03-GEF-7-STAR.pdf>
- GIIN. n.d. “What You Need to Know About Impact Investing.” Global Impact Investing Network. <https://thegiin.org/impact-investing/need-to-know/#who-is-making-impact-investments>
- . 2016. *The Landscape for Impact Investing in Southern Africa: Madagascar*. New York: Global Impact Investing Network. [https://thegiin.org/assets/documents/pub/Southern%20Africa/Madagascar\\_GIIN\\_southernafrica.pdf](https://thegiin.org/assets/documents/pub/Southern%20Africa/Madagascar_GIIN_southernafrica.pdf)
- . 2017. *Annual Impact Investor Survey*. New York: Global Impact Investing Network. [https://thegiin.org/assets/GIIN\\_AnnualImpactInvestorSurvey\\_2017\\_Web\\_Final.pdf](https://thegiin.org/assets/GIIN_AnnualImpactInvestorSurvey_2017_Web_Final.pdf)
- . 2018. *Annual Impact Investor Survey*. New York: Global Impact Investing Network. [https://thegiin.org/assets/2018\\_GIIN\\_Annual\\_Impact\\_Investor\\_Survey\\_webfile.pdf](https://thegiin.org/assets/2018_GIIN_Annual_Impact_Investor_Survey_webfile.pdf)
- Global Forest Watch. n.d. “Madagascar Dashboard.” <https://www.globalforestwatch.org/dashboards/country/MDG>
- GoM. n.d. *Plan National De Developpment (2015-2019)*. Antananarivo: Government of Madagascar. <http://extwprlegs1.fao.org/docs/pdf/mad151060.pdf>
- . 2017. *Politique Nationale de Gestion des Risques et des Catastrophes*. Antananarivo, Madagascar: Government of Madagascar. <http://www.bngrc-mid.gov.mg/bngrc/web/uploads/posts/PNGRC.pdf>
- MoEF. 2018. *National Biodiversity Strategy and Action Plans (2015-2025)*. Antananarivo, Madagascar: Antananarivo, Madagascar: Ministere de L’Environnement et des Forets. <https://www.cbd.int/doc/world/mg/mg-nbsap-v2-en.pdf>
- Impact Amplifier. 2015. *Madagascar’s Impact Enterprise Ecosystem: Study*. Cape Town: Impact Amplifier. [https://www.impactamplifier.co.za/wp-content/uploads/2017/02/GIZ\\_Full\\_Report\\_Final.pdf](https://www.impactamplifier.co.za/wp-content/uploads/2017/02/GIZ_Full_Report_Final.pdf)
- IMF. 2015. Republic of Madagascar Selected Issues. Washington, DC: International Monetary Fund. Country Report No. 15/25 <https://www.imf.org/external/pubs/ft/scr/2015/cr1525.pdf>
- Leaper, Glenn. 2017. “Norway, Unilever Launch Climate Resilience Fund.” Nordsip, November 14, 2017. <https://nordsip.com/2017/11/14/norway-unilever-launch-400m-climate-resilience-fund/>
- Lee, Veronique and Fernanda Zermoglio. 2018. *Building Urban Resilience to Climate Change: A Review of Madagascar*. Washington, DC: Chemonics International Inc. [https://pdf.usaid.gov/pdf\\_docs/PA00SWXG.pdf](https://pdf.usaid.gov/pdf_docs/PA00SWXG.pdf)
- Mendoza, Naki B. 2016. “The Deliberation: How Impact Investors Evaluate What Venture to Fund.” *Devex Impact*, June 8, 2016. <https://www.devex.com/news/the-deliberation-how-impact-investors-evaluate-what-venture-to-fund-88273>
- . n.d. *Politique Nationale de Lutte Contre le Changement Climatique*. Antananarivo, Madagascar: Ministere de L’Environnement et des Forets. <http://extwprlegs1.fao.org/docs/pdf/mad146465.pdf>
- Monitor Institute. 2009. *Investing for Social and Environmental Impact: A Design for Catalyzing and Emerging Industry*. New York: Deloitte. <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Financial-Services/gx-fsi-monitor-Investing-for-Social-and-Environmental-Impact-2009.pdf>
- OECD. 2015. *Social Impact Investment: Building the Evidence Base*. Paris: Organisation for Economic Co-Operation and Development.

- . 2018. *Global Outlook on Financing for Sustainable Development 2019: Time to Face the Challenge*. Paris: Organisation for Economic Co-Operation and Development.
- . 2019. *Social Impact Investment: The Impact Imperative for Sustainable Development*. Paris: Organisation for Economic Co-Operation and Development. <http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/Social-Impact-Investment-2019.pdf>
- Rababarison, Harison; Randriamahaleo, Sahoby; Andriambelo, Fara; and Randrianasolo, Hanitra. 2018. *National Biodiversity Strategy and Action Plans (2015-2025)*. Antananarivo: Ministère de L'Environnement et des Forêts. <https://www.cbd.int/doc/world/mg/mg-nbsap-v2-en.pdf>
- Relief Web. 2017. “Strengthening the Adaptation and Resilience of Rural Communities Facing Climate Change in Madagascar.” Relief Web, January 27, 2017. <https://reliefweb.int/report/madagascar/strengthening-adaptation-and-resilience-rural-communities-facing-climate-change>
- Santander Trade Portal. 2018. “Madagascar: Foreign Investment.” TradePortal. <https://en.portal.santandertrade.com/establish-overseas/madagascar/investing-3>
- Sustainable Brands. 2017. “Launch of a New Livelihoods Carbon Fund.” Press Release, Sustainable Brands. December 4, 2017. [http://www.sustainablebrands.com/press/launch\\_new\\_livelihoods\\_carbon\\_fund](http://www.sustainablebrands.com/press/launch_new_livelihoods_carbon_fund)
- TANGO International. 2018. *Overall Evaluation of the Adaptation Fund: July 2018 – June 2018*. Tuscon, Arizona: TANGO International [https://www.adaptation-fund.org/wp-content/uploads/2018/06/AF\\_Phase2\\_Eval\\_4June.pdf](https://www.adaptation-fund.org/wp-content/uploads/2018/06/AF_Phase2_Eval_4June.pdf)
- Thompson, Christian. 2011. *Treasure Island: New Biodiversity of Madagascar (1999 – 2010)*. Gland, Switzerland: World Wildlife Fund. [http://d2ouvy59p0dg6k.cloudfront.net/downloads/madagascarspeciesreport\\_en.pdf](http://d2ouvy59p0dg6k.cloudfront.net/downloads/madagascarspeciesreport_en.pdf)
- Transparency International. 2018. “Corruption Perceptions Index 2018.” Transparency International. <https://www.transparency.org/cpi2018>
- UNECA. 2018. “Investing in Madagascar Gets Easier Following Launch of New Investment Guide.” United Nations Economic Commission for Africa Media Centre, August 16, 2018. <https://www.uneca.org/stories/investing-madagascar-gets-easier-following-launch-new-investment-guide>
- United States Department of State, Bureau of Economic and Business Affairs. 2018. “Investment Climate Statements for 2018: Madagascar.” Washington, DC: United States Department of State. <https://www.state.gov/reports/2018-investment-climate-statements/madagascar/>
- USAID. n.d. a. *Hay Tao Statement of Objectives*. Washington, DC: United States Agency for International Development.
- . n.d. b. *Mikajy Activity Statement of Objectives*. Washington, DC: United States Agency for International Development.
- Walker, Owen. 2018. “Impact Investors Shoot for Clearer Goals.” *Financial Times*, September 19, 2018. <https://www.ft.com/content/fc7964f2-7474-11e8-bab2-43bd4ae655dd>
- World Bank. n.d. a. “Climate Change Knowledge Portal. Madagascar Dashboard.” [http://sdwebx.worldbank.org/climateportal/countryprofile/home.cfm?page=country\\_profile&CCode=MDG](http://sdwebx.worldbank.org/climateportal/countryprofile/home.cfm?page=country_profile&CCode=MDG)
- . n.d. b. The World Bank Data “Madagascar” in “Lending Interest Rate” <https://data.worldbank.org/indicator/%20FR.INR.LEND>

- . 2018. *Poverty and Equity Brief: Madagascar*. Washington, DC: World Bank.  
[http://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global\\_POVEQ\\_MDG.pdf](http://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_MDG.pdf)
- . 2019a. “Madagascar Overview.” World Bank.  
<http://www.worldbank.org/en/country/madagascar/overview>
- . 2019b. *Doing Business 2019*. Washington, DC: World Bank.  
[http://www.worldbank.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report\\_web-version.pdf](http://www.worldbank.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf)