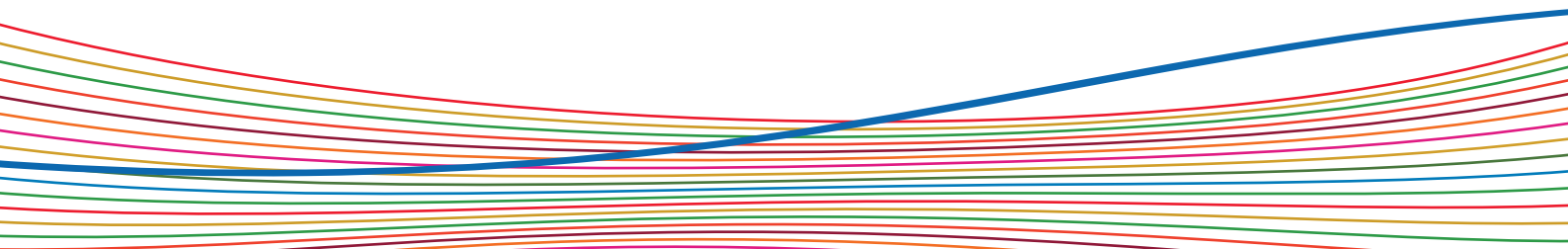




Inclusive insurance and risk financing in Madagascar

Snapshot and way forward 2024



Why this report?

This report summarizes the key findings of an inclusive insurance and disaster risk finance country diagnostic carried out by the UNDP's Insurance and Risk Finance Facility (IRFF) and UNDP Madagascar. The objective of this summary report is to present a high-level overview of the following information for Madagascar:

1

Key risks,
especially
climate risks

2

The current
state of
**inclusive
insurance**

3

The current
state of
**disaster risk
finance**

4

**Recommendations
to advance** inclusive
insurance, disaster risk
finance and overall
development.

This summary is a starting point for discussion and collaborative action planning on inclusive insurance and disaster risk finance between UNDP and critical stakeholders, including government agencies, the insurance sector and other development partners.

IRFF goals

Impacts: Reduced vulnerability, enhanced resilience of countries and communities and strengthened prospects for sustainable development.

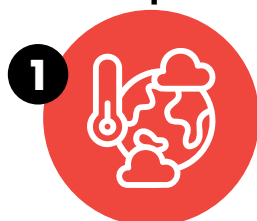
Outcomes: Country and community long-term resilience improved by development and delivery of integrated insurance, risk finance and investment solutions, from products, tools and services all the way leading to market transformation.

Contact IRFF for questions:

If you wish to discuss the findings and recommendations of this report, reach out to:

irff@undp.org

Key messages



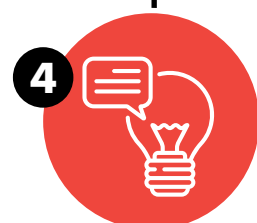
Risks: Cyclones, floods and drought. Madagascar is one of the countries most at risk from natural disasters. Modelling by the World Bank in 2016 estimated average annual direct losses due to cyclones and floods at nearly US\$100 million.



Inclusive insurance: The insurance market is in its very early stages, with only four licensed insurers anticipated as of 2024. Inclusive insurance, particularly microinsurance, has seen limited growth, and most people have little to no experience with insurance and other financial services. Health mutuals and microfinance institutions (MFIs) primarily serve low-income households with informal health and credit-life coverage, and only two formal insurers have prior experience with this demographic. Donor-driven, index-based insurance schemes remain at a pilot stage. The 2020 insurance law defines and sets out provisions on microinsurance, but no instructions, circulars or decrees have yet been created to operationalize these provisions, leading to interpretation and application challenges within the industry.



Disaster risk finance: The National Office for Risk and Disaster Management (Bureau National de Gestion des Risques et des Catastrophes, BNGRC) and the Disaster Prevention and Emergency Management Unit (Cellule de Prévention et Gestion des Urgences, CPGU) both have key roles in disaster risk finance (DRF), including in mobilizing, managing and utilizing funds. A national disaster risk financing strategy is under development, and a variety of DRF instruments have been developed since 2017 to support financing disaster relief and disaster risk management in Madagascar. These instruments include sovereign and other macro level insurance, as well as financing mechanisms such as contingent credit and a government reserve fund (not yet fully active). Coverage includes most risks and severity levels. However, the amounts available are relatively low in comparison to relief needs, and the extent to which existing instruments are sufficient to cover sovereign disaster risks is not yet clear.



Key recommendations: To support the development of inclusive insurance, enabling regulations should be created, capacity-building should be provided for public agencies, and existing schemes and providers should be formalized and expanded (e.g., health mutuals and MFIs). Interventions to improve DRF should include conducting a more robust fiscal gap assessment, developing a detailed road map for the implementation of the DRF strategy, reinforcing coordination and building capacity among key stakeholders and supporting the development of more efficient and transparent disbursement processes.

Madagascar's development and risk profile

Key macroeconomic and development indicators

29.6 million people lived in Madagascar as of 2022,¹ and the country had an annual population growth rate of **3.01%**² between 1993 and 2018.



>60% of people live in rural areas, but urbanization is increasing significantly, with city populations nearly tripling from 1993 to 2018.³ However, around **70%** of new housing in Madagascar's capital is in flood-prone areas.⁴

7.1%⁵ economic contraction took place in Madagascar due to the COVID-19 pandemic, three times worse than the sub-Saharan African average, increasing poverty and deepening economic challenges.⁶ Public debt was projected to reach **52.3%** of gross domestic product (GDP) as of end 2021 and is mostly owed to external multilateral sources.⁷

\$15.3 billion⁸ was the size of GDP in 2022, equating to GDP per capita of around **\$517**, less than one-third of the average of sub-Saharan African countries (excluding high-income countries).⁹ Year-on-year inflation was 12.1% as of April 2023, driven by a surge in food and fuel prices.¹⁰

47.1% of GDP in 2022 came from the services sector,¹¹ the main driver of economic growth before the pandemic, and the economy grew by **3.8%**¹² in 2022.



Around 30%¹³ of GDP comes from agriculture, which employs **83%**¹⁴ of the workforce. Employment is predominantly informal (at **95%**), and the informal sector is characterized by high participation from women (**52%**) and young people.¹⁵ However, there is a significant gender pay gap: women earn **\$0.83** for every dollar earned by men.¹⁶

Around 80% of the population lives in extreme poverty, especially in the southern regions,¹⁷ and Madagascar ranks low on both the Human Development Index (173rd of 191 countries) and the Gender Inequality Index (143rd of 191 countries).¹⁸

39% of adults (aged 15+) owned a mobile phone in 2021, **14%** had financial institution accounts and **19%** had mobile money accounts.¹⁹ Internet penetration was **19.7%** in January 2023.²⁰



Geographic context:

Located in the south-western Indian Ocean off the African continent's mainland, Madagascar is characterized by its unique geography and ecosystems. The main island stretches approximately 1,600km from north to south and 500km from east to west. Its terrain includes coastal plains as well as, in the central region, highlands with altitudes ranging from 800m to 1,500m. The eastern plains are steep and covered by rainforests, while the western plains are more gradual, featuring some savannah landscapes.²¹

Hazard context:

Madagascar is classified as one of the world's most at-risk countries for disasters, ranking 17 out of 193 countries in the 2022 World Risk Report (1 being the highest risk). With a risk index of 23, the country is categorized as "high" or "very high" risk in each of the index's metrics: exposure, vulnerability, susceptibility, lack of coping capacities and lack of adaptive capacities.²² A significant percentage of the population are exposed to climate-related risks, without sufficient resources to efficiently mitigate these challenges.



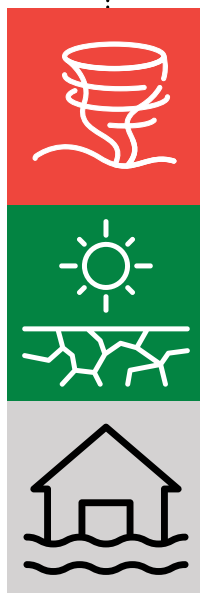
Key risks and hazards

Cyclones

Madagascar experiences some of the world's most intense cyclone activity in terms of frequency and severity. The cyclone season officially runs from 15 November to 30 April, with **80%** of storms forming between December and March, peaking in January and February when the Indian Ocean is warmest and the atmosphere most humid. Madagascar typically endures between one and three significant cyclones and tropical storms annually, and there have been six intense and two very intense tropical cyclones since 1998.²⁵

Cyclone exposure varies across the country. The north and east coasts are most affected, experiencing average annual losses ranging from **0.3% to 1.2%** of regional asset value (residential, commercial/industrial, public and infrastructure). The drier southern part of Madagascar is less exposed. Models developed in 2016 estimate average annual direct losses of **\$87 million**, with more severe events causing significantly higher losses.²⁶

In 2022, the high intensity Cyclone Batsirai impacted **6.2 million** people and caused estimated losses of **\$2.2 billion**.²⁷



Drought

Reliable drought exposure mapping is currently unavailable, but the southern regions of Androy, Anosy and Atsimo-Andrefana consistently face lower rainfall levels and greater precipitation variability compared to the rest of Madagascar.²³

Ten major drought events were recorded between 1981 and 2022, affecting over **7.6 million** people. Loss models for drought are unavailable.²⁴

Flood

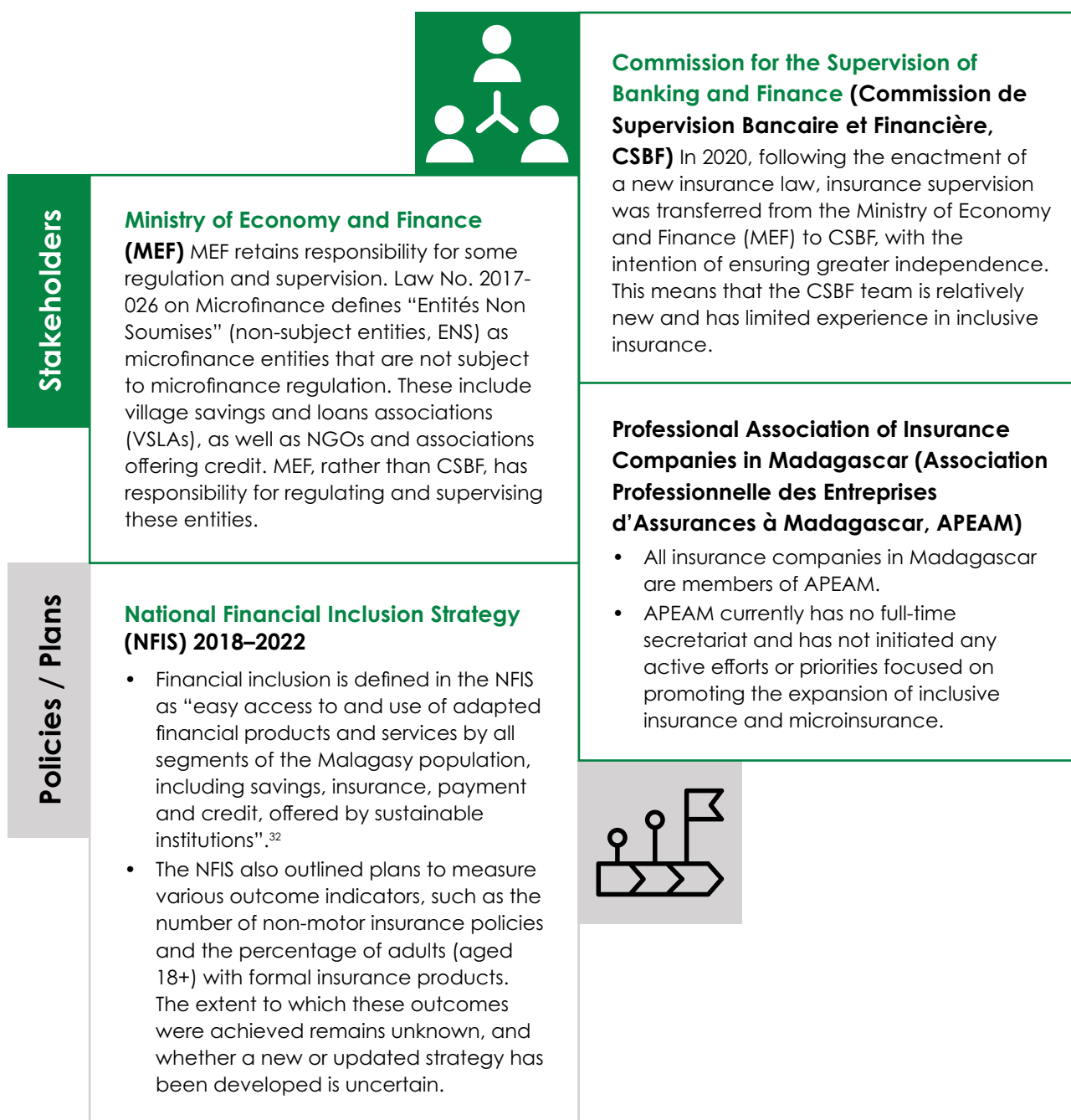
Floods in Madagascar are typically associated with excess rainfall during cyclones and are generally concentrated in urban centres and on the east coast, where flash floods result from heavy rains and steep terrain. Factors such as urbanization, soil erosion and deforestation exacerbate flood risks.

An estimated **1.6 million** people were displaced by major flood events between 1985 and 2018.²⁸ Due to differences in population density and infrastructure, the financial impact of floods and the funding needed for response and recovery vary by region. Average annual direct losses are estimated at **\$13 million**, with one event per 10 years reaching **\$31 million**.²⁹

Inclusive insurance:³⁰ Status

Enabling environment³¹

Highlights from the enabling environment for inclusive insurance in Madagascar





Insurance Acts

In 2020, the Malagasy parliament passed a new insurance law, [Law No. 2020-005](#), which introduced several amendments in order to better align with the Insurance Core Principles, as well as to meet prerequisites set by the World Bank for accessing specific financing arrangements. Instructions, circulars and decrees operationalizing the rules and procedures laid out in this law are still in progress, including for inclusive insurance and microinsurance.

Inclusive insurance related regulations

The 2020 insurance law incorporates various provisions related to inclusive insurance:

- Article 10 includes a broad definition of microinsurance as representing coverage for individuals with limited or no prior access to insurance services, characterized by low premiums, low sum insured and simplified coverage. Article 10 also outlines formalities for enrolments, contract management and claims notification and compensation.
- Article 11 provides a definition of digital insurance, emphasizing electronic contracts and technology-supported processes. Article 14 also acknowledges the acceptance of e-documents and e-signatures.
- Article 12 sets out a definition of index insurance as coverage where compensation is based on an index value, rather than the indemnity principle and loss assessment process.
- Article 72 includes a section dedicated to agriculture insurance (also listed under the non-life section), although limited details are provided.
- Article 228 gives authorization for insurers to use various distribution channels, including non-banking financial institutions, NGOs, associations, telcos and retail channels.
- Article 280 sets out authorization for international reinsurance companies.
- Chapter 2 includes a definition of mutual insurance in two formats: fixed and variable contribution.

Despite these provisions, inclusive insurance still faces challenges under the new law, including, among other things, lengthy and costly documentation processes, as well as specific taxes and fees applicable to microinsurance contracts.

Supply-side snapshot³³

Overall insurance coverage (traditional and inclusive): Fast facts

5 licensed insurers,

including 2 private companies (Allianz and Sanlam), 2 semi-public companies (ARO and Ny Havana) and 1 mutual insurer (MAMA) were active in 2023 in Madagascar's insurance sector, which liberalized and reopened to international companies in 1999. By 2024, only 4 licensed insurers are expected to be operating in the country, following the merger of Allianz and Sanlam.³⁴



MGA 300 billion

(Malagasy ariary, c. \$75 million³⁵) was the total of gross written premiums (GWP) in 2021, contributing around 0.5% to GDP, with an insurance density of \$2.7 premium per inhabitant.³⁶

Around 80% of total insurance business is non-life insurance, with property (fire and miscellaneous risks) representing the largest category at 33%, followed by compulsory automobile insurance (solely underwritten by mutual insurer MAMA) at 16%.

Inclusive insurance: Fast facts



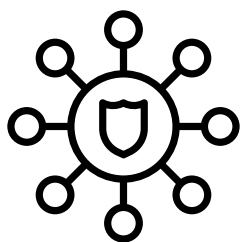
Little progress has been made on inclusive insurance and microinsurance in Madagascar.

- Several (informal) **health mutuals** provide coverage to an estimated **700,000** people.
- Some **MFIs** provide (self-insured) credit-life insurance, as well as personal accident covers.
- **ARO** collaborated on an index-based insurance product for groundnut farmers in Androy and Anosy, in partnership with GIZ. ARO also partnered with the World Food Programme (WFP) on the R4 Rural Resilience Initiative in Amboasary, underwriting a portion of the area-yield index insurance for several food crops.
- **Allianz** entered agreements with telcos to offer health insurance (not specifically inclusive insurance) through two mass insurance products using a freemium model, with telcos covering premiums for their clients and staff.

Agriculture and disaster insurance products in Madagascar are not widely available, due to insufficient infrastructure, lack of coordination and financing challenges, as well as the scarcity of climate and agriculture data and lack of trust in existing satellite data.

Distribution

Common channels

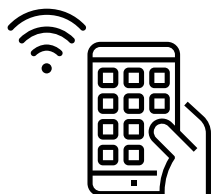


Insurance companies are only accessible through their branches, a handful of intermediaries and partnerships with major banks.

- **Branches** are mainly concentrated in major towns and cities, with ARO and Ny Havana having a broader presence across the country.
- **Other than banks**, insurance companies have limited experience in partnering with distribution channels.
- **Bancassurance is available**, targeting middle- and upper-income segments in urban and peri-urban areas through partnerships with banks such as Bank of Africa, Baobab, BNI and Société Générale.

Other potential channels

MFIs have significant potential for expanding the reach of microinsurance through their extensive urban and rural networks, especially among low-income and vulnerable households. As of the end of 2020, the MFI association in Madagascar reported **2.14 million clients**, including group members, with outstanding loans of **MGA 439 billion** (\$110 million) and savings/deposits of **MGA 738 billion** (\$184 million).³⁷



Telcos and mobile money providers have the potential to enhance digital insurance offerings and information dissemination, but to ensure successful implementation, challenges such as illegal fees at cash-in/cash-out service points must be addressed.

Demand

Comprehensive demand-side assessments in Madagascar are mostly unavailable, and those that exist are outdated or have limited focus or accessibility. However, findings from the **2017 Madagascar Finscope Consumer Survey**³⁸ provide some context on the financial burden of Malagasy people:

- **78%** of respondents mentioned difficulties in meeting financial commitments
- **26%** of urban and **7%** of rural respondents are banked, showing that banking penetration is low
- **Approximately 92%** of respondents had no insurance coverage, with only **3%** having formal insurance (**27%** of which was motor insurance), **4%** informal insurance and **1%** covered indirectly by insurance policies.



Interviews conducted with representatives from MFIs and other experts for the purposes of this diagnostic identified key risks faced by low-income and rural households, including:

1. Health-related risks
2. Price and market risks
3. Crop risks related to climate exposure, with implications for food security
4. Livestock risks, including theft, disease and fodder availability, particularly in the south.

Disaster risk financing³⁹: Status



Disaster risk assessments and data systems⁴⁰

Different risk assessments and data systems are available for different hazard types, with varying data availability, hazard models, and reliability and use of models:



Cyclone: Data on cyclone activity and wind speed is accessible from [Météo France La Réunion](#)'s Cyclone Centre and the [National Oceanic and Atmospheric Administration's International Best Track Archive for Climate Stewardship \(IBTrACS\)](#). The General Directorate of Meteorology (DGM) provides historical and forecasting bulletins related to cyclones.



Floods: The National Geographical and Hydrographic Institute of Madagascar provides topographic maps, while the Antananarivo Flood Protection Agency (APIPA) offers data and forecasts specific to Antananarivo from 18 weather stations.



Drought: DGM provides data and forecasts from 24 weather stations across the country. Other weather stations (some of which are automated) are operated by the [Locust Eradication Centre Madagascar](#), WFP and other donors, but they are not well consolidated and, in some cases, have patchy coverage.



Earthquake: The [Institute and Observatory of Geophysics of Antananarivo](#) provides earthquake data.

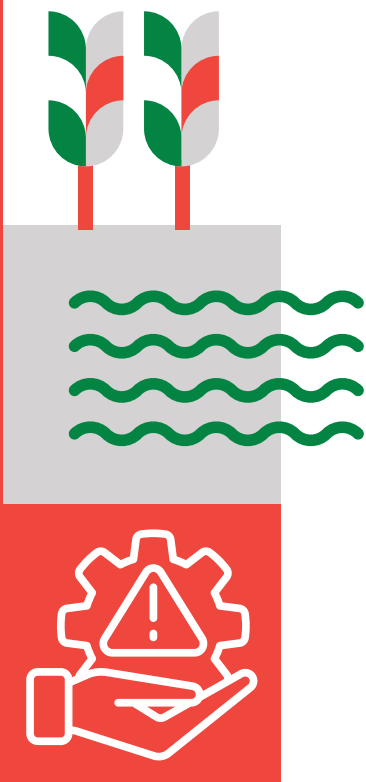
Vulnerability and past loss and damage datasets are also available from various sources:

- The **Disaster Prevention and Emergency Management Unit (CPGU)** implements various prevention and reconstruction projects for disaster risk reduction (DRR), including in strengthening risk assessments and risk mitigation and developing a rapid information system.
- The **National Office for Risk and Disaster Management (BNGRC)** provides Geographic Information System (GIS) data and maintains a database on past losses and damages.
- **UN Office for the Coordination of Humanitarian Affairs (OCHA)** bulletins provide information on humanitarian responses to and damages caused by disasters.

Two proprietary hazard models have been developed through previous or ongoing initiatives:

- **African Risk Capacity (ARC)** has developed its own models for cyclones and drought, with a model for river floods in the development stage. CPGU has access to these models and related analysis.
- **The World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR)** worked with AirWorldwide (now **Verisk**) in 2015 to develop models and publish reports on the country's exposure to various hazards.

Although data are available and some models have been constructed, more granularity, specificity and coordination are needed in data, and more robust risk models and risk modelling capacity should be created.



Existing legal, institutional and policy frameworks:

Legal

- **Law 2015-031** establishes the National Disaster Risk Management Policy (Politique Nationale de Gestion des Risques de Catastrophes, PNGRC). Its implementing **Decree No. 2019-1954** outlines risk analysis procedures and defines the National Contingency Fund (Fonds National de Contingence, FNC) and its operating modalities and management under BNGRC.
- **Chapter 4 of the PNGRC** contains articles relating to DRM and DRF:⁴¹
 - Articles 24 and 25 provide that the annual Budget Finance Law set in July every year should allocate budgets for DRM, as well as annual budgets and special subsidies for decentralized territorial units at lower-level administrative units.
 - Article 26 sets out sources for DRM financial resources: the State's own resources, donor resources and contributions from bilateral, multilateral and regional cooperation.
 - Article 27 says that the State must ensure the establishment of a legal and financial environment conducive to the development of compensation and insurance systems to protect means of subsistence and production.

Institutional

The **Prime Minister's Office** is responsible for the overall management and coordination of DRM in Madagascar, including DRM strategies. Key government stakeholders include:

- **CPGU**, which plays a strategic and technical role in supporting the Prime Minister's Office, the **National DRM Council (Conseil National de la Gestion des Risques de Catastrophe, CNGRC)**, and line ministries involved in DRM. CPGU, among its other disaster risk financing roles, is supposed to develop insurance and financial protection mechanisms and manage insurance funds. As such, it hosts activities linked to the African Risk Capacity.
- **BNGRC**, an agency under the **Ministry of the Interior and Decentralization (MID)** tasked with managing, coordinating and monitoring DRM and DRR activities. BNGRC mobilizes funds from national and international sources for DRM through the **FNC**.
- **PNRRC (Plateforme Nationale de Réduction des Risques de Catastrophes, National Disaster Risk Reduction Platform)**, a collaborative platform consisting of around 100 stakeholders from various ministries, NGOs, development partners, civil society and the private sector, which aims to enable exchanges on DRR and ensure DRR is integrated into policies and projects.

Policies



The **National DRM Strategy (2016–2030)** outlines various avenues for resource mobilization, including:

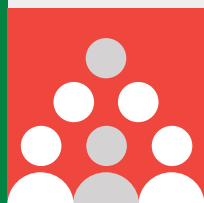
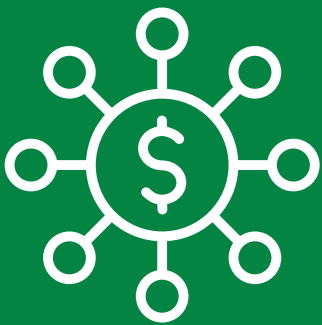
- Budgetary resources from the State, ministerial departments and decentralized territorial units
- Partnership contracts with the private sector
- Contributions from local authorities, associations, civil society, NGOs and other national stakeholders
- Innovative financing mechanisms
- Matching funds, donations and bequests
- Strengthened bilateral, regional and multilateral cooperation, particularly with development partners, for financial support and the introduction of risk financing mechanisms.

CPGU has drafted a **DRF strategy**, with technical assistance from the African Development Bank (AfDB) through the Africa Disaster Risk Financing Initiative (ADRFi). However, consultations are ongoing and the strategy has not yet been finalized or adopted.

Disaster risk finance mechanisms and instruments

A variety of sovereign DRF instruments have been developed since 2017, including:

- **National Contingency Fund:** Hosted at BNGRC, the FNC holds pre-allocated funds to support disaster preparedness and emergency response activities. Its establishment, with assistance from the World Bank, was in progress as of early 2023. Currently, the FNC is expected to amount to less than \$0.5 million.⁴²
- **Contingent credit lines:** The **Catastrophe deferred drawdown option (Cat DDO)** was made available to Madagascar, financed by the World Bank and the European Union until April 2023, providing up to \$61.7 million in ex ante financing.
- **World Bank crisis financing:** The **Immediate Response Mechanism** emergency financing tool through the International Development Association (IDA) offers immediate access to undisbursed IDA investment project balances of up to \$5 million to support recovery efforts, such as scaling up safety nets. The **Crisis Response Window** provides funds of up to \$500 million for climate and health emergencies, economic crises, food insecurity and disease outbreaks.
- **Grants and donations/aid:** Various agencies and development partners may launch appeals to mobilize funds for recovery and reconstruction needs. World Bank-financed projects may include **Contingent Emergency Response Components (CERC)**.
- **Sovereign insurance:** The Government of Madagascar signed a memorandum of understanding with African Risk Capacity in March 2017 to underwrite two sovereign insurance policies for droughts and cyclones and is currently developing a third policy for riverine floods. Since 2020, payouts of up to \$13.6 million have been received for recovery from droughts and Cyclone Batsirai.⁴³



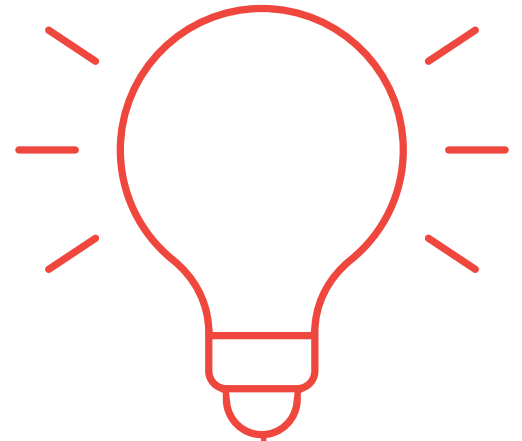
Non-sovereign DRF initiatives and models include:

- **UN Agencies:** In 2022, WFP purchased **ARC Replica** policies for drought (\$2.4 million maximum coverage) and cyclone (\$2.7 million), mirroring the terms and conditions of the Government's sovereign policy. The UN's **Central Emergency Response Funds (CERF)** also provide grants and loans to UN Agencies for life-saving assistance for crisis-affected people.
- **Start Network:** This London-based NGO network has established three different mechanisms in Madagascar, including Start Funds, Start Ready and Forecast-based Action (FbA), to respond to crises with varying timelines and financing structures.

Other DRF instruments such as CAT bonds, swaps and insurance of public assets are not currently in place in Madagascar.

The extent to which these instruments are sufficient to cover sovereign disaster risks is not yet clear, but it seems that the coverage includes most risks and severity levels. However, the amounts available are relatively low in comparison to relief needs. Given estimated average annual direct losses of \$100 million (primarily due to cyclones), available financing only covers a small proportion of projected needs for relief and reconstruction.

Potential options for inclusive insurance and disaster risk financing



The following recommendations support the development of inclusive insurance and disaster risk financing in Madagascar.

1

Recommendations for the development of inclusive insurance

1.1

Supervisory capacity. CSBF began its insurance supervision role in 2020 and has limited exposure to and capacity in inclusive insurance, which has impeded its ability to support inclusive and climate insurance development.

Strengthen the supervisory capacity of CSBF.

- Capacity-building in inclusive insurance and other insurance technical skills should be provided to support CSBF in successfully implementing and monitoring new schemes.
- Training programmes, such as those offered by the Access to Insurance Initiative (A2ii) and the International Association of Insurance Supervisors (IAIS), should be explored and provided.

1.2

Regulatory environment. Current insurance laws lack incentives to encourage the insurance sector to focus on inclusive insurance. No decrees or circulars exist to guide or incentivize insurers on microinsurance implementation as defined in the 2020 insurance law.

Develop regulations for microinsurance.

- Proportionate regulation should be promoted in cooperation with CSBF.
- CSBF should be assisted in drafting regulatory guidelines for microinsurance, including instructions, circulars and decrees, to foster an enabling environment for advancing microinsurance and inclusive insurance across the country.

1.3

MFIs and insurance. MFIs are interested in expanding their insurance offer and have direct access to inclusive insurance target markets. However, they currently lack the technical capacity to design more advanced insurance solutions that integrate with their existing business models and operations.

Build and enhance MFIs' technical capacity for insurance services.

- MFIs' capacity should be built to enable them to extend insurance services to low-income households and peri-urban and rural areas.
- Potential partnership models with traditional insurers should be explored, in which MFIs could play a leading role.
- Formalizing insurance provision through MFIs without a traditional insurer should be explored as an option, for example by developing regulations that define dedicated microinsurance entities.

1.4

Mutuals. MFIs and unregistered mutuals offer products to the target segment, but they are not supervised by CSBF, which means their quality and sustainability are not assured and they could potentially pose client protection concerns.

Formalize mutual insurance and informal practices.

- CSBF could be assisted in drafting regulations aimed at formalizing mutual insurance and other informal practices. This would require coordination with MEF.
- CSBF should be supported in taking a proactive supervisory role to establish robust microinsurance business practices from the outset.

1.5

Contextual barriers. Inclusive insurance development is held back by several contextual barriers, such as the cost burden of informal mobile money transactions, limited mobile coverage quality in rural areas, high taxes (including 20% VAT) on microinsurance products, insufficient climate and agriculture data, and the need for enhanced insurance technical capacity and training at the country level.

Conduct advocacy with relevant government agencies.

- A feasibility study could be conducted on access to insurance in order to identify potential barriers and challenges that could be addressed by government agencies beyond the insurance sector, such as the communications ministry, tax authorities, and the Ministry of Agriculture, Livestock and Fisheries (MAEP). The results could be presented to relevant agencies.
- A rapid assessment of current practices could be conducted, covering areas such as mobile money transactions costs, and the findings could be shared with relevant agencies.
- The potential benefits should be evaluated of collaborating with telecoms and mobile money companies to enhance digital insurance product offerings, improve information dissemination and address issues such as illegal fees and cash-out agents.

2

Recommendations for the development of disaster risk financing

2.1

Coordination of DRF. Development partners contribute to a range of complementary instruments, but coordination of efforts is currently limited.

Enhance coordination among development partners.

- Development partners' efforts should be coordinated to ensure that critical data and information are obtained and made available to all relevant stakeholders.
- Knowledge-sharing should take place to learn from innovations implemented, build on experience from programmes, and ensure that DRF tools complement each other and that financial resources are mobilized and coordinated in an optimal way.

2.2

Institutional capacity. Significant turnover of technical personnel often takes place within key government agencies, and ongoing technical capacity-building would be useful. Coordination on DRF issues could be enhanced through strengthened institutional capacity.

Support the establishment of a core DRF technical team.

- A core technical team on DRF could be made up of representatives from various government agencies, including MEF, BNGRC, CPGU, MAEP and the National Institute of Statistics (Institut National de la Statistique, INSTAT), and could potentially serve as a dependable group of experts for the Government to rely on for technical advice and future DRF planning.
- Technical and training support could be coordinated with development partners, especially with AfDB, to align with the specific needs of the agencies involved.

2.3

Implementation of DRF. There is room for improvement in the implementation of disbursement processes for sovereign DRF instruments, especially with regard to turnaround times and funds availability at MEF.

Collaborate with local government entities to ensure innovative and effective DRF processes.

- With MEF and relevant development partners, steps needed to improve disbursement processes of all DRF instruments should be considered.
- Technical assistance or a pilot programme could be implemented to test innovative and efficient DRF disbursement mechanisms and targeting, in collaboration with local government entities at regional, district or commune level.

2.4

Quantitative analysis. The current version (June 2023) of the draft DRF strategy lacks a quantitative analysis of risks and needs for disaster relief. Incorporating such an analysis would significantly enhance decision-making in the context of DRF.

Develop quantitative systems or tools to match risk analysis with financing needs specific to Madagascar.

- Risk analysis should be aligned with financing requirements by considering a model for assessing the macroeconomic impacts of climate shocks, as proposed to CPGU by the Global Risk Modelling Alliance (GRMA) in April 2023.
- The development of quantified financial disaster risk scenarios specific to Madagascar should be supported by leveraging historical relief data from entities like OCHA, financial risk assessments from GRMA and other relevant data sources.
- Partnerships with relevant entities could also be considered in terms of creating the model and risk profile, analysing data and developing a valuable decision-making tool for both the Government and development partners.

2.5

Fiscal gap assessment. The June 2023 draft DRF strategy lacks critical information on the fiscal gap due to the absence of financial data flow and country-level assessment capacity. No donor or agency has been designated with responsibility for conducting this assessment.

Conduct a more comprehensive fiscal gap assessment and identify accurate risk financing needs.

- Existing DRF tools should be considered and the gap in risk financing should be identified by comparing results with a quantified needs assessment of different hazards and levels of severity. This should include quantifying the Government's contingent liability of disasters.
- Results should be shared with the Government and with development partners to help prioritize funding instruments and direct their use.
- The Government's technical capacity should be built to ensure it can update assessments going forward.

2.6

Translating strategy to action. The June 2023 draft DRF strategy contains high-level actions but lacks a detailed implementation plan.

Support the development of a comprehensive DRF roadmap.

- A detailed action plan should be drafted for implementing the national DRF strategy.
- Financing objectives, DRF development and coordination mechanisms should be integrated and DRF should be coordinated with disaster risk reduction efforts.

Endnotes

- 1 World Bank, "Population, total – Madagascar", DataBank. Available at <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=MG>.
- 2 Madagascar, INSTAT, *Madagascar Population and Housing Census 2018 (RGPH-3)* (Antananarivo, 2018).
- 3 Ibid.; World Bank, "Rural population (% of total population) – Madagascar", DataBank. Available at <https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=MG>.
- 4 AFD, "AFD in Madagascar: Reversing unsustainable urban development", 22 October 2020. Available at <https://www.afd.fr/en/actualites/afd-madagascar-reversing-unsustainable-urban-development>.
- 5 World Bank, "Madagascar Economic Update: Navigating Through the Storm, A New Drive for Reforms in Madagascar is Crucial", 1 June 2022. Available at <https://www.worldbank.org/en/country/madagascar/publication/madagascar-economic-update-navigating-through-the-storm-a-new-drive-for-reforms-in-madagascar-is-crucial>.
- 6 World Bank, "Madagascar Economic Update: Navigating Through the Storm" (Washington, D.C., 2022). Available at <https://documents1.worldbank.org/curated/en/099452505272217360/pdf/IDU063da38be0ec1a043a60b77f0e8c615d431fb.pdf>.
- 7 IMF, "Republic of Madagascar: Staff Report for the 2022 Article IV Consultation, Third Review Under the Extended Credit Facility Arrangement, and Requests for a Waiver of Nonobservance of Performance Criteria and Modification of Performance Criteria—Debt Sustainability Analysis" (Washington, D.C., 2023). Available at <https://www.elibrary.imf.org/view/journals/002/2023/117/article-A003-en.xml>.
- 8 World Bank, "GDP (current US\$) – Madagascar", DataBank. Available at <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=MG>.
- 9 World Bank, "GDP per capita (current US\$) – Madagascar, Sub-Saharan Africa (excluding high income)", DataBank. Available at <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=MG-ZF>.
- 10 IMF, "Republic of Madagascar: Fourth Review Under the Extended Credit Facility Arrangement and Requests for a Waiver of Nonobservance of Performance Criteria and Modification of Performance Criteria—Press Release; Staff Report; and Statement by the Executive Director for Republic of Madagascar", Republic of Madagascar Country Report No. 2023/239 (Washington, D.C., 2023). Available at <https://www.imf.org/en/Publications/CR/Issues/2023/06/29/Republic-of-Madagascar-Republic-of-Madagascar-Fourth-Review-Under-the-Extended-Credit-535439>.
- 11 World Bank, "Services, value added (% of GDP) – Madagascar", DataBank. Available at <https://data.worldbank.org/indicator/NV.SRV.TOTL.ZS?locations=MG>.
- 12 World Bank, "The World Bank in Madagascar: Overview", 25 September 2023. Available at <https://www.worldbank.org/en/country/madagascar/overview>.
- 13 Madagascar, INSTAT, *Madagascar Population and Housing Census 2018*.
- 14 Ibid.
- 15 IMF, *Republic of Madagascar: Selected Issues*, IMF Staff Country Reports 23/118 (Washington, D.C., 2023). Available at <https://www.elibrary.imf.org/view/journals/002/2023/118/002.2023.issue-118-en.xml>.
- 16 UN Women, "The state of women's economic empowerment in the Indian Ocean Rim". Available at <https://interactive.unwomen.org/multimedia/infographic/economicempowermentindianocean/en/index.html>.
- 17 World Bank, "Madagascar Economic Update: Navigating Through the Storm".
- 18 The Human Development Index is a composite measure reflecting achievement of human development in three dimensions: health, education and income. See UNDP, Human Development Index. Available at <https://hdr.undp.org/data-center/human-development-index>. The Gender Inequality Index measures disparities in health, empowerment and the labour market. See UNDP, Gender Inequality Index. Available at <https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index>.
- 19 World Bank, *The Global Findex Database: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19* (Washington, D.C., 2021). Available at <https://www.worldbank.org/en/publication/globalfindex>.
- 20 Simon Kemp, "Digital 2023: Madagascar", DataReportal, 14 February 2023. Available at <https://datareportal.com/reports/digital-2023-madagascar>.
- 21 Raymond Kent, Jean Dresch and Hubert Jules Deschamps, "Madagascar", Britannica. Available at <https://www.britannica.com/place/Madagascar>.

- 22 Bündnis Entwicklung Hilft and IFHV, WorldRiskReport 2022 (Berlin, 2022). Available at <https://weltrisikobericht.de/weltrisikobericht-2022-e/>.
- 23 Madagascar, CPGU, Risk Atlas (Antananarivo, 2020); author's analysis of Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS). See Climate Hazards Center, CHIRPS: Rainfall Estimates from Rain Gauge and Satellite Observations (Santa Barbara, University of California, 2023). Available at <https://www.chc.ucsb.edu/data/chirps>.
- 24 CRED, EM-DAT: The International Disaster Database. Available at <https://www.emdat.be/>.
- 25 Based on data tracked by Météo France La Réunion's Tropical Cyclone Centre. Available at <https://meteofrance.re/fr/cyclone>.
- 26 World Bank GFDRR, "Disaster Risk Profile: Madagascar" (Washington, D.C., 2016). Available at <https://www.gfdr.org/en/publication/disaster-risk-profile-madagascar>.
- 27 African Risk Capacity, "Post-Event Briefing – Tropical Cyclone BATSIRAI", 11 February 2022. Available at https://www.arc.int/sites/default/files/2023-03/Post-Event%20Briefing_Madagascar_BATSIRAI_EN_11022022.pdf.
- 28 G. R. Brakenridge, *Global Active Archive of Large Flood Events* (Boulder, Dartmouth Flood Observatory, University of Colorado, 2018).
- 29 World Bank GFDRR, "Disaster Risk Profile: Madagascar".
- 30 Inclusive insurance is a broader term denoting all insurance products aimed at the excluded or underserved market, rather than solely microinsurance, or those products specifically aimed at the poor or low-income market. For this definition, see International Association of Insurance Supervisors, "Issues Paper on Conduct of Business in Inclusive Insurance", IAI Issues Papers (Basel, 2015).
- 31 The enabling environment refers to the regulations, public policies, stakeholders and other infrastructure that support inclusive insurance growth.
- 32 Madagascar, Ministry of Finance and Budget, *National Financial Inclusion Strategy of Madagascar 2018–2022*. Available at https://finmark.org.za/system/documents/files/000/000/191/original/Madagascar_FI_Strategy_English_Nov2018_web.pdf?1601970124.
- 33 Unless otherwise indicated, data regarding overall insurance coverage were provided by the Commission for the Supervision of Banking and Finance (CSBF).
- 34 Allianz, "Allianz et Sanlam unissent leurs forces pour créer un géant de l'assurance en Afrique" [Allianz and Sanlam join forces to create an insurance giant in Africa], 4 May 2022. Available at https://www.allianz-africa.com/fr_FR/presse-et-medias/allianz-et-sanlam-.html.
- 35 Conversion rate \$1 = MGA 4,000 (May 2023).
- 36 Around \$75 million / 28.9 million inhabitants as per World Bank data 2021 estimate.
- 37 Professional Association of Microfinance Institutions (APIMF), "Statistiques sur les activités des IMF année 2020" [Statistics on the activities of MFIs for the year 2020]. Available at <http://www.apimfmada.mg/index.php/documentations/15-stat>.
- 38 FinMark Trust, "Finscope Consumer Survey Highlights, Madagascar 2016" (Johannesburg, 2016). Available at https://finmark.org.za/system/documents/files/000/000/262/original/finscope-madagascar-pocket-guide_en.pdf?1602600987.
- 39 Risk finance for this diagnostic primarily refers to sovereign disaster risk. As such, it can be defined as financing mechanisms governments have put in place or use before or after an event to respond to disaster-related financial contingencies.
- 40 The disaster risk assessment process includes identifying hazards and reviewing the technical features of threats regarding location, intensity, frequency and probability. The assessment also factors in the analysis of exposure and vulnerability, including the physical, social, health, environmental and economic dimensions, and evaluation of coping capability of the country against possible risk scenarios. See UNDRR, "Understanding Disaster Risk", Preventionweb. Available at <https://www.preventionweb.net/understanding-disaster-risk/component-risk/disaster-risk>.
- 41 Madagascar, CPGU, paper presented at Global Risk Modeling Alliance Workshop, Antananarivo, March 2023.
- 42 World Bank, paper presented at Global Risk Modeling Alliance Workshop, Antananarivo, March 2023.
- 43 African Risk Capacity, "Risk Pools". Available at <https://www.arc.int/risk-pools>.

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