



Context

Madagascar is a tropical, low-income country with poverty levels among the highest in the world. Approximately 80 percent of the population live on less than US\$1.25 per day and 25 percent of the population is food insecure (Anticipation Hub¹). Over the past 35 years more than 50 natural disasters have struck the country and affected over half the population (USAID, n.d)². The island, the fourth largest in the world, is exposed to cyclones, earthquakes, droughts, floods, locust infestations and epidemics (such as the plague³). Approximately 70 percent of the Malagasy population is engaged in mainly rainfed, smallholder agriculture. Poor harvests, as a result of climate extremes, have created a vicious cycle of poverty and food shortages (SADRI, 2021).

Given its location in the Southwestern Indian Ocean, it is the African country with the greatest exposure to cyclones, with an average of 1.5 cyclones affecting the country yearly, with each strong cyclone affecting 700,000 people on average (UN OCHA, n.d)⁴. **Cyclones** account for US\$87 million or 85 percent of the country's average annual disaster losses⁵, followed by **floods** (US\$13 million or 13 percent) (GFDRR, 2016). In 2017 Tropical Cyclone Enawo affected the Eastern and North Eastern parts of the country, with economic losses estimated to be US\$415 million or 4 percent of GDP. In addition to this 437,405 people were affected with 81 dead (World Bank, 2017). The government declared a National Emergency on 14 March 2017 and made an international appeal for US\$20 million⁶ (GAR, 2019). In 2018 Cyclone Ava and Tropical Eliakim, in quick succession, caused devastation in the Northern part of the Island.

¹ Accessed 5 August 2021

² <https://www.usaid.gov/madagascar/working-in-crisis-and-conflict>

³ A major outbreak in 2017 caused 209 deaths and led to 2,417 cases (GAR, 2019). This is being considered for the OCHA CERF AA pilot.

⁴ <https://www.unocha.org/southern-and-eastern-africa-rosea/madagascar>

⁵ The region of Toamasina on the East Coast is the most exposed

⁶ Flash appeal for Madagascar: Intense tropical cyclone Enawo

The southern part of the country is significantly poorer compared to some central and northern regions and has the lowest water supply coverage. The South (*'Grand Sud'*) which is composed of three regions⁷ with a population of 2.74 million or 11 percent of the population of Madagascar, is characterised by its isolation due to poor infrastructure, a drought every three to five years, extremely high poverty rate (97.5 percent), and high exposure to climate change. The President of the Republic considers the development of the South among the main priorities of his mandate⁸. A drought that brings food insecurity and famine, is referred to as *'keré'* in Malagasy (IOM, 2017). Drought is felt most severely in the Androy region. Over the last six years (2015/16-2020/21), the region has experienced five below average rainy seasons caused by El Niño. The 2014-2016 drought concluded that over a million people experienced *keré* (GAR, 2019). In 2017, the El Niño phenomenon peaked during a critical time in the agricultural calendar of the South, causing drought and failed harvests. The current drought is the worst the country has experienced since 1981 and is being touted as the world's first "climate change famine" (BBC News, 2021⁹). Between November 2020-January 2021, the Grand Sud recorded less than 50 percent of normal rainfall. As a result, by January 2021 almost 69 per cent of the region has been impacted (OCHA, 2021)¹⁰. In addition to this, violent sandstorms (known as *tiomena*) in December 2020 exacerbated the situation by covering farming land and food such as the cactus fruit, which is often relied on during the lean season (Guardian, 2021)¹¹. The Government of Madagascar (GoM) and the United Nations is asking US\$74 million from donor countries for the next six months (WFP, 2021)¹²¹³. The southwest Atsimo Andrefana region is also often affected by locusts which occur during the wet season when crops are susceptible to attacks. In addition to this, the region of Anosy is one of the most dangerous on the Island. The *dahalo* (bandit) phenomenon, a feature of Madagascar society since pre-colonial times, are known to steal *zebu*¹⁴ and engage in social violence.

The democratic transition of the early 1990s provided the context for decentralising some powers to lower levels of the government. Communes became the focal point of the decentralization strategy¹⁵ and central ministries increased their local presence through administrative deconcentration (World Bank, 2003) For example, the national disaster office (BNGRC) has a decentralized office in Ambovombe. There is a renewed effort by the GoM to restart and complete the decentralization policy (World Bank, 2020) Administratively, Madagascar is divided into 22 regions¹⁶, 119 districts, 1,558 municipalities ('communes') and 17,433 village communities (IFRC, 2014).

Legislation and Policy environment

⁷ Atsimo Andrefana, Androy and Anosy, is an arid zone that receives only an average annual 500 mm of rainfall.

⁸ https://procurement-notices.undp.org/view_notice.cfm?notice_id=75566

⁹ <https://www.bbc.co.uk/news/world-africa-58303792>

¹⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/ROSEA_20210506_KeyMessages_MadagascarGrandSud.pdf

¹¹ <https://www.theguardian.com/global-development/2021/may/10/at-least-1m-people-facing-starvation-madagascar-drought-worsens>

¹² <https://www.wfp.org/news/southern-madagascar-brink-famine-warns-wfp>

¹³ According to the latest IPC analysis of the ten districts analysed over the period May to August 2021, two districts are classified in the emergency phase (IPC Phase 4), five are classified as crisis phase (IPC Phase 3) and three are classified as stressed phase (IPC Phase 2) #. Ambovombe and Bekily are two of the hardest hit districts, both in the region of Androy (IPC, 2021). As of 1 August 2021. <http://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1154855/?iso3=MDG>

¹⁴ Madagascar's distinctive and prized hump-backed cattle

¹⁵ Under the mandate of the Ministère de l'Intérieur et de la Décentralisation

¹⁶ The previous six provinces (Antananarivo, Antsiranana, Fianarantsoa, Mahajanga, Toamasina, Toliara) were abolished following the results of the Malagasy constitutional referendum, 2007 to facilitate regional development.

The legal entry point for anticipatory action (AA) is the **National Disaster Risk Management Act**¹⁷. In 2015, the government amended the act to reflect new international guidelines on Disaster Risk Reduction (DRR), namely the Sendai Framework. The purpose of the Act is to define the main mission of Disaster Risk Management (DRM), its basic structures, and the principles governing the relations between various stakeholders (IFRC, 2021). In 2019, two decrees were adopted to clarify the roles and responsibilities of the CPGU and the BNGRC. In terms of legislated funding in the event of a disaster, the Act doesn't provide for a dedicated fund (Ffooks, J. 2021).

In Madagascar, the policy and operational aspects of disaster preparedness and response are managed by different institutions (IFRC, 2020). At the strategic level there is National Council for Disaster Risk Management (CNGRC) led by the Prime Minister's Office (PMO)¹⁸; an Emergency Management and Prevention Unit (CPGU), the technical arm of the PMO¹⁹, and a National Platform for Disaster Risk Reduction (PNRRRC). At the operational level, there is the National Office for Disaster Risk Management (BNGRC)²⁰ under the Ministry of Interior and is decentralised, with regional offices in most regions; the National Emergency Coordinating Committee (CRIC)²¹ and Ministers responsible for specific risks. In addition to all these national institutions, there are also regional response units, such as the Regional Committee for Disaster Risk Management (CRGRC), and committees at district (CDGRC) and municipal levels (CCGRC) as well as local relief teams at *fokontany* (village) level (CLGRC)²². The BNGRC²³ coordinates all disaster response operations with the assistance of CRIC. The disaster act doesn't define the role of stakeholders involved in DRM. The CRIC appears to be a space where AA can be potentially discussed since it is composed of all actors in relation to disasters inc. UN agencies and I/NGOs. Although it is not a decision-making body, it does issue recommendations and advice in relation to DRM. Stakeholders cannot act independently and prior to enforcement they need to be communicated to the BNGRC (Ffooks, J. 2021).

In the event of a serious threat of crisis triggered by disasters, the BNGRC is entitled to hold a meeting in order to activate the national contingency plan of (*Plan National de Contingence*) and to immediately implement the key actions (*Matrice de reaction rapide*) before, during and after the emergency phase. Any response plan must be in line with the National Strategy for Disaster Risk Management (see below)

¹⁷ Change from Act No. 2003 - 010 on the national policy of disaster risk management of (5th September 2003) to Act No. 2015-031 (12th February 2016)

¹⁸ The CNGRC officially declares a national disaster and informs the government of the need to launch an international appeal. Then, pursuant to Law No. 2015-031 relating to the National Disaster Risk Management Policy and its implementing decree No. 2019-1954, a decree issued by the Government Council proclaims a national disaster. This allows the government to launch an appeal for international aid by way of an official statement issued through its spokesperson (IFRC, 2020).

¹⁹ The role of the CPGU is to assist the Prime Minister in his role as Chair of the CNGRC and liaise with all ministerial departments. The CPGU also chairs the national platform for disaster risk reduction which is established under the new framework to improve synergies and ensure coordination between all stakeholders, to promote the integration of disaster risk reduction into sectoral development policies and programs (World Bank, 2019)

²⁰ Established in 2016, It is the national authority for management, coordination and monitoring of all activities relating to the RCMP and DRR in Madagascar, according to decree n ° 2006 - 904.

²¹ *Comité de Réflexion des Intervenants en Catastrophes (CRIC)* - comprises all actors in relation to disaster such as ministries, funders, association or international or national non-governmental organisations, UN organisations and academic and research institutions.

²² The revised act strengthens the decentralization process of disaster risk governance because this act involves all the decentralized collectivities to ensure the effectiveness of the disaster risk reduction in the country. The act provides further details on the structural, organizational and functional aspects as well as clearer definitions of the missions and interactions of the constituent entities of the national mechanism of the DRM in Madagascar. Its principles are to integrate disaster risk reduction in all development planning processes and build community resilience.

²³ CERVO - Cellule de Prévention et Gestion des Urgences - is attached to the BNGRC. and is the focal point of all information relating to alert and disasters. Authorities can declare "states of alert" upon recommendation of the CERVO/BNGRC

implementation plan (Ffooks, J. 2021). In the South, the BNGRC office in the Androy region is in charge of all interventions related to drought (UNICEF, 2019).

DRM and DRR are integrated into the areas of focus and strategic goals of the National Development Plan (PND) and the General State Policy (PGE) (GAR, 2019; Red Cross, 2021). The PND's strategic axis no. 5 affirms "*the valorization of natural capital and the reinforcement of the resilience to the risks of catastrophe*" and insists on the establishment of the appropriate strategies to reinforce the resilience of the negative impacts of climate change and the adverse effects of hazards. In 2016, the National Policy for Disaster Risk Management (PNGRC) and the National Strategy for Disaster Risk Management (*Stratégie Nationale de la Gestion des Risques et des Catastrophes* - SNGRC) (2016-2030)²⁴ were reported to have been updated in an inclusive and participatory manner. The new strategy aligns with Sendai and the African DRR strategy and reflects new risks including the impacts of climate change (SADRI, 2021). In addition to this, there is a specific development plan for the Great South which is in the process of being adopted. After the humanitarian crisis caused by El Niño that affected Southern Africa in 2017, the GoM (through the Ministry of Planning) with the assistance of donors, UN agencies, I/NGOs, particularly UNDP, started preparing the Integrated Strategy for the Development of the Great South (*La Stratégie Intégrée de Développement du Grand Sud* - SIDGS), also part of the PND, which followed on from the Recovery and Resilience Plan for the Great South (2016). It reflects the determination of the State and decentralised local authorities to regroup and centralize all initiatives for the development of the Great South in a synergistic manner - combining development, resilience and humanitarian approaches - under one framework, to improve the living conditions of the population. Axis 5 of the SIDGS is relevant to AA/DRR - "Preservation of the environment, reduction of the impact of climate change and Strengthening of resilience to disaster risks". However, by the time it was finished there was a change in government. The new and current President validated the strategy, and his first official visit was to the Grand Sud to show donors his personal commitment. The strategy was to be launched in 2019 with a donor roundtable on financing, but because of political issues the government wasn't able to develop the PND which caused delays. The SIDGS was further delayed because of COVID-19 and needs to be revised. A mapping of interventions by OCHA estimated that over US\$1.3 billion has been invested in development and resilience, yet there are recurrent humanitarian crises. It is the lack of an integrated approach and coordination that has contributed to this (OCHA, KII). In addition to this, DRR and climate change is integrated in the President's new national "Madagascar Emergence Initiative" which is aligned with the SDGs (Initiative Emergence Madagascar-IEM). The aim is to promote mining and infrastructure, but it is reported to be still a draft (The Economist, 2021).

The **National Climate Change** Policy (PNLCC) was formulated in 2010, with an aim to reinforce national resilience to climate, reduce national vulnerability and develop approaches for low carbon emissions (USAID, 2021). In addition to this, there is a national strategic framework for climate change adaptation, contained in the National Climate Change Policy, and the National Adaptation Program of Action (NAPA) (2006) (SADRI, 2021). A National Adaptation Plan (NAP) is currently being prepared (UNDP, n.d)²⁵. The Directorate General of Meteorology (Direction Générale de la Météorologie - **DGM**) produces weather forecasts and long-term climate research, and the National Bureau for Coordination of Climate Change (Bureau National de Coordination des Changements Climatiques - **BNCCC**) is in charge of climate change adaptation and mitigation (CPGU and BNCCC, 2017).

²⁴ Carried out by the CPGU jointly with the BNGRC with the support of UNDP. This SNGRC is appended to the implementing decree of the new law n ° 2015-031 of 12 February 2016 relating to the national policy for risk and disaster management, which has just replaced law n ° 2003-010 to which was annexed the old SNGRC.

²⁵ Supporting Madagascar to advance their NAP Process <https://www.adaptation-undp.org/projects/madagascar-nap-process>

Although Anticipatory Action/Forecast Based Financing (FbF) is not yet part of the national policies and legislation, there have been a few developments which point towards good AA practice. In Madagascar, the IFRC Checklist on Law and Disaster Preparedness and Response²⁶ was also used to analyse and improve their respective draft national disaster risk management laws. The BNGRC is leading a process to elaborate a framework document, currently under development, that aims to coordinate all AA initiatives in the country (Start Network Communication). In 2020, an *Atlas des risques naturels et climatiques de Madagascar* (Atlas of natural and climatic risks in Madagascar), was developed as part of the Pilot Program for Climate Resilience (PPCR) and implemented by the CPGU²⁷ (Start Network KII). According to the CPGU, the objective is to strengthen knowledge on climate risks and the provision of an easy-to-use decision support tool for actors working in DRM²⁸. The country also does not have a strong Early Warning System (EWS) and several international partners have also begun to provide support in this regard. However, government authorities do have systems set up under their mandates. The BNGRC and DGM have implemented a colour-coded warning system that provides recipients with clear directions about the measures they should take to prepare for the anticipated disaster (IFRC, 2020). Early warning systems for cyclones, floods and storms have used mass media and mobile phone networks effectively in a number of regions (UNDP, 2014). The development of a cyclone diffusion manual²⁹ has been prioritised in order to improve the implementation of a cyclone EWS. It will define the roles and responsibilities of the different entities at all levels and at different stages of the cyclone warning system mechanism and will, *inter alia*, delineate the measures of preparation measures to be taken before the cyclone threat (GAR, 2019).

Financing

Madagascar faces average annual disaster losses of US\$100 million just from cyclone and flood risks. A severe tropical cyclone can produce much larger losses - a 100-year return period tropical cyclone event would cause US\$810 million of losses and require approximately US\$190 million in emergency costs (World Bank Group, 2016). According to the African Development Bank, in 2017 natural disasters caused an estimated US\$420 million in damages (ARC, 2020). In 2015, in the first three months after tropical storm Chedza and Fundi, the Government could only cover 6 percent of immediate needs (SADRI, 2021). Therefore, the GoM is focusing on DRM and more proactive disaster financing mechanisms.

The DRR strategy mentions the establishment of a **Disaster Fund** (*Fonds de Réserve*) - a permanent national, regional and local mechanism for the financing of preventive and emergency response actions (*Guichet Réduction, Guichet Urgence, Guichet Relèvement/Reconstruction*) (GoM, 2016). This is managed by the BNGRC but cannot be used for AA (SADRI, 2021; OCHA KII). Therefore, in the past the GoM has depended on budget reallocations and donor funds to cover costs, both of which are ex-post financing mechanisms. In 2019 Madagascar received a prearranged source of funding through a US\$ 50 million Disaster Risk Management Policy Grant from the International Development Association (IDA) with a **Deferred Drawdown Option for Catastrophic Risks (CAT DDO)**, which would be triggered by a declaration of a national state of emergency, following the country's laws. This was accompanied by key reforms to strengthen the country's system for disaster risk management (World Bank 2019a)³⁰. The CAT

²⁶ The Checklist on Law and Disaster Preparedness and Response (2019)
<https://media.ifrc.org/ifrc/document/checklist-law-disaster-preparedness-response/>

²⁷ It was financed by the Climate Investment Fund, implemented by the CPGU with the support of the World Bank.

²⁸ <https://www.newsmada.com/2020/02/26/risques-climatiques-validation-de-latlas-de-madagascar/>

²⁹ Developed by the CPGU, BNCCC and DGM and World Bank

³⁰ <https://www.worldbank.org/en/country/madagascar/overview#3>

DDO has supported better coordination between the humanitarian response and the social protection systems³¹.

Law 2018-012 authorised the ratification of the agreement to establish the Panafrican Mutual Risk Management Institution - the **Africa Risk Capacity (ARC)** (BNGRC, 2018). Madagascar became the first country in the region to take out the ARC tropical cyclone parametric insurance coverage, with premium support from KfW for the 2020-2021 season³². In 2019, the GoM³³ took out drought insurance for the Great South area given its high vulnerability to drought, which would indirectly benefit small scale farmers and other vulnerable segments in the area. This was done support from the flagship Africa Disaster Risk Financing (ADRFi) programme which financed the 2019/20 premium (ARC, 2020)³⁴. On July 2nd, 2020, the government received US\$2.3million to cover anticipated losses from crop failure which aimed to prevent 600,000 affected people in the South from engaging in negative coping mechanisms. Early actions include, *inter alia*, unconditional cash transfers, nutritional support and cash for work programmes as per the supporting operations plan required by ARC (BNGRC, 2018).

In addition to this, Madagascar is one of four countries testing out the **ARC Replica**. The WFP has partnered with ARC to provide additional financial and operational capacity to implement and scale up responses following successful ARC insurance pay-outs. ARC Replica is an insurance product offered by ARC Ltd to WFP as an innovative approach to expand climate risk insurance coverage to more people and improve the effectiveness of emergency humanitarian response in vulnerable African countries prone to climate risks³⁵. The replica approach to climate risk insurance coverage is considered to be an efficient way, while building additional capacity, to implement national response plans. Madagascar is also part of WFP's R4 initiative, with Oxfam America.

The **Risk Assessment and Financing Program in the South West Indian Ocean (SWIO RAFI)**³⁶ initiative was launched by the World Bank in 2014 and is the first phase of a longer term commitment to development financial protection mechanism for the Indian Ocean³⁷. As part of this, Madagascar's disaster risk profile was also developed. The profile is based on risk modeling for cyclones, floods and earthquakes (World Bank Group, 2016). This profile is complementary to the historical risk profile of Madagascar through Desinventar platform³⁸, developed by the ISLANDS program since August 2013. This is being led by the Prime Minister's Office and the Minister of Finance and will help to develop risk transfer and financing mechanisms.

Social Protection

³¹ <https://www.financialprotectionforum.org/blog/three-ways-that-contingent-policy-financing-contributes-to-resilience-building-before-during>

³² Launch of the first parametric tropical cyclone risk insurance product in Africa (2020)
<https://www.africanriskcapacity.org/2020/12/21/launch-of-the-first-parametric-tropical-cyclone-risk-insurance-product-in-africa/>

³³ The prevention and emergency management unit by the Prime Minister's office is designated as the host agency of the program

³⁴ <https://www.africanriskcapacity.org/2020/07/03/madagascar-receives-usd-2-13-million-from-african-risk-capacity-insurance-company-limited-policy-for-drought-response/>

³⁵ Under ARC's Replica Coverage, WFP and other partners (Replica Partners) can match the insurance coverage of ARC Member States (Replicated Countries) by purchasing a 'Replica Policy'. The Replica policy is a parametric (index) insurance contract which proportionally mirrors the terms and conditions of the policy of the Replicated country up to the amount of coverage taken out by the country itself.

³⁶ The prevention and emergency management unit by the Prime Minister's office and the Ministry of Finance and Budget are the two "host agencies" of this project in Madagascar.

³⁷ Indian Ocean Islands - Comoros, Madagascar, Mauritius, Seychelles and Zanzibar

³⁸ <https://www.desinventar.net/DesInventar/profiletab.jsp?countrycode=mdg&lang=FR>

The national social protection program, Social Safety Nets (SSN) was introduced in Madagascar in 2016 with the financial support of donors, namely the World Bank and UNICEF. The program is implemented by the FID³⁹ (Intervention Fund for Development) which is the national agency responsible for the implementation of three cash programs: (i) the Human Development Cash Transfer (HDCT) program (2014) or *Vatsin'Ankohonana* ("Family Support")⁴⁰ targets families in the most vulnerable rural regions. An allowance is received every two months, conditional upon parents sending their children to school (World Bank, 2019)⁴¹ (ii) the Productive Safety Net Program (PSNP) (2016) provides cash-for-work activities in targeted poor communities located in areas of the country where there is a potential need to address environmental and soil degradation and increase local agricultural production (iii) FIAVOTA (meaning "assistance" in southern Malagasy local dialect) (2016) the emergency drought response program in the South that provides cash transfers, nutrition services and livelihood recovery grants to drought affected households (World Bank, 2019b). The Government also recently adopted a decree to establish a National Beneficiaries Registry⁴². So far social protection programmes in Madagascar have been isolated and fragmented, separately addressing various types of risks and vulnerabilities without geographic convergence nor a common administrative framework (UNICEF, 2020). Therefore, for purposes of this case study it has been hard to understand what the state of play is or how partners are coordinating.

Over the last two years there have been collective efforts to strengthen the shock-responsiveness of the social protection system. In 2018 the Prime Minister, with technical support from WFP⁴³, convened partners to explore the relevance of the national social protection system to shock response and develop a roadmap for harmonising the work of various stakeholders. In 2020, the Ministry of Population, Social Protection and Promotion of Women (MPPSPF) and BNGRC co-produced a Manual of Operations Social Protection Reactive to Shocks (Drought Response) (*Manuel Des Operations Protection Sociale Réactive Aux Chocs - Response a la secheresse*). The aim of the manual is to harmonise the implementation of cash transfers and the expansion of national social protection programs in the South (GoM, 2020).

World Bank IDA funding has helped to respond to droughts. In October 2016, US\$35 million was used to respond to the El Niño driven severe drought in the South⁴⁴. A second additional grant of US\$90 million in March 2019 to expand social protection through three cash transfer programs including the FIAVOTA⁴⁵, the emergency response for drought affected households in the South (World Bank, 2019)⁴⁶. In 2018-2019, a shock-responsive social protection pilot was implemented in the district of Beloha (classified in IPC 4 in 2018) with technical and financial support from WFP. The FIAVOTA program was temporarily expanded in two of the municipalities until the end of the lean season. Given the positive experience, this approach was meant to be gradually scaled up from the 2019-2020 lean period and beyond with the support of development partners (World Bank, WFP, UNICEF, and others) and with state contingency capital (FNC).

³⁹ *Le Fonds d'Intervention pour le Développement* (FID)

⁴⁰ Financed by the World Bank (US\$11.5 million) and UNICEF (\$1.2 million). For families with children aged 6-10, cash transfers are linked to maintaining regular school attendance. For families with children aged 0-5, support is unconditional. However, improvements in family health and nutrition practices, early childhood development and parenting feature prominently in accompanying trainings and informational aids.

⁴¹ <https://www.worldbank.org/en/news/feature/2019/05/21/cash-transfers-provide-more-than-money>

⁴² Decree 2017-327, as of May 9, 2017

⁴³ WFP is supporting the government to institutionalize shock-responsive components into the national social protection system

⁴⁴ <https://www.worldbank.org/en/news/press-release/2016/11/10/madagascar-world-bank-35-million-supports-drought-affected-households-in-the-south>

⁴⁵ <https://www.unicef.org/madagascar/en/stories/thanks-accompanying-measures-fiaavota-programme-emancipation-families-ensured>

This was implemented by the MPPSPF, in collaboration with WFP, UNICEF, the World Bank, and the FID.

⁴⁶ <https://www.worldbank.org/en/news/press-release/2019/03/01/madagascar-world-bank-90-million-to-strengthen-the-national-social-protection-programs>

It is envisaged that from 2020, after the evaluation of the pilot projects, these approaches will gradually be scaled (GoM, 2020). The CWG led by UNICEF continues to coordinate the cash response to the drought in the South (UNICEF, 2019).

An additional US\$150 million grant was approved by the World Bank which will build on the *Tosika Fameno* (“Filling the gap”) scheme which was developed in response to Covid-19 coordinated through the cash working group (CWG) (ODI, 2021)⁴⁷. This additional grant will further strengthen the social protection system through digitizing registration, developing an electronic payment system, strengthening complaint system and community engagement and systematizing community monitoring-evaluation. It will also support the Government in developing options for the social registry⁴⁸.

The proposed additional World Bank Financing (AF2) further aimed to strengthen Madagascar’s nascent social safety net by consolidating the three cash transfer programs and strengthen the ability of the safety net system to respond quickly and efficiently to large shocks through a rapid and flexible emergency response subcomponent that can be rapidly deployed anywhere in the country. The emergency response subcomponent will be made available based on declarations of need from BNGRC and will allow for rapid, flexible responses providing: (a) infrastructure rehabilitation/reconstruction and cash-for-work in areas affected by natural disasters ; (b) cash transfers for vulnerable populations, horizontal expansion to new beneficiaries or vertical expansion for existing beneficiaries through top-ups on cash transfer amounts in areas where the cash transfer programs are operational; and/or (c) nutritional supplements for children in SSN areas of intervention in the South (World Bank, 2019b).

Anticipatory Action Pilots

Welthungerhilfe (WHH) with the support of the Start Network built a scientific model to identify when agricultural and meteorological drought has occurred and predict the human impacts of the drought using Household Economy Analysis. The model is a geospatial model (GeoWRSI) based on WRSI (Water Requirement Satisfaction Index, an index for crop monitoring and drought related water stress) and local rainfall data and addresses drought events with an average return-period of 10 years on the basis of historical analyses. The model was operational by the end of 2019 in three regions - Boeny in the Northwest (Mahajanga II, Marovoay), Atsimo-Atsinanana in the Southeast (Farafangana, Vangaindrano) and Alaotra-Mangoro in the Eastern part (Amparafaravola, Ambatondrazaka) - all of which have Early Action Protocols in place. In June 2021, a localised drought was predicted in the Ambatondrazaka district in Alaotra-Mangoro. WHH’s drought monitoring model detected significant water requirement deficits which would impact the harvest and cause food insecurity issues until the lean season in November. The possible impacts of rainfall deficits will be accentuated with the impacts of covid 19 among the most vulnerable households in the communes (Start Network KII). As a result, in January funding (196,000 EUR) was released from the Start Finance Facility and Early Action Plans were triggered. As a result, unconditional cash transfers of US\$10 a month were distributed to 1,500 households for six months to prevent negative coping strategies⁴⁹. Operations will last from May to November 2021. This is the first forecast-based drought

⁴⁷ This is led by the Ministry of Population, Social Protection and Promotion of Women and includes UNICEF, the World Bank, WoWFP, Red Cross and other agencies.

⁴⁸ <https://www.worldbank.org/en/news/press-release/2021/03/10/madagascar-150-million-additional-financing-to-strengthen-the-national-social-protection-programs-and-accelerate-the-cov>

⁴⁹ <https://www.anticipation-hub.org/news/forecast-based-action-intervention-early-cash-distribution-to-address-food-insecurity-in-the-north-east-of-madagascar>

intervention of its kind in Madagascar. At the government level, WHH engagement has been with the BNGRC and the DGM.

The **World Food Programme (WFP) Madagascar's** engagement in FbF started towards the end of 2019. WFP's direct implementation of activities focusses on the regions of the Grand Sud, which have the highest levels of food insecurity and highest recurrence of drought. WFP is supporting DGM to i) improve historical weather data; ii) develop seasonal forecasts building on existing IRI support from the Enhancing National Climate Services initiative (ENACTS)⁵⁰ iii) define AA thresholds and triggers; iv) formulate a roadmap for handing-over the forecast trigger mechanism to the DGM/BNGRC. WFP also trained master's students from the "risk and disaster management" course at the University of Antananarivo who are conducting internships within the BNGRC to identify AA at the district level- jointly with community members, government officials and partner representatives. The idea is that actions will be triggered as early as September in order to mitigate impacts linked to forecasted poor rains during the following December-January-February (DFJ) period. AAs include input distribution, dissemination of early warning information, rehabilitation of irrigation and/or water harvesting structures along with a cash component. A Monitoring and Evaluation framework was developed that will help capture the impact of the prioritised AA on household's vis a vis a traditional or early response scenario, in case of a trigger activation. WFP is also engaged in the development of a national drought framework for FbF. (See Collaboration section).

FAO's Early Warning Early Action (EWEA) In 2017, FAO put in place an early warning system in southern Madagascar and an early action plan to monitor the risk of drought and to mitigate it. The focus was on the most vulnerable districts of Ambovombe, Bekily, Beloha, Tsihombe and Amboasary-Atsimo, who were closely monitored by SISAV, a FAO run food security and vulnerability information system which includes information from the Malagasy government and other partners. Information from SISAV was then combined with climate forecasts and agricultural indicators. Between July and October 2017, different analyses – including the EWEA/SISAV, Crop and Food Security Assessment Mission (CFSAM) and the Integrated Phase Classification (IPC) – pointed to the lean period starting early, beginning in October rather than January, with the November 2017 to May 2018 agricultural season likely to be dry. FAO Madagascar intervened in November with targeted early actions in areas that were based on the IPC projections released in October 2017⁵¹, identifying 8,400 vulnerable households using social and economic indicators⁵². Early actions included the distribution of micro-irrigation systems, water pumps and water storage tanks together with vegetable seeds with a short growing cycle, to ensure multiple production cycles to generate income and improve diets. Training on better agricultural techniques was also provided. The early warnings proved to be correct when a severe drought was confirmed in southern Madagascar for the agricultural season of November 2017 to April 2018. As a result of early intervention, a return of investment analysis showed that production losses were avoided and the increased production corresponded to a monetary value of US\$ 78 per household, almost half of the annual household income. This produced a

⁵⁰ The Enhancing National Climate Services (ENACTS) methodology focuses on the creation of reliable climate information that is suitable for national and sub-national decision-making. ENACTS has been implemented in Madagascar equipping Meteo Madagascar with spatially (~4km resolution) and temporally (10-daily – and daily) complete gridded climate data series going back to 1981 by combining Meteo Madagascar's station observations with satellite rainfall estimates (for rainfall) and climate model reanalysis products (for temperature). ENACTS also comprises online Data Library and Maprooms that provide user-friendly tools for the analysis, visualization, and downloading of climate information products developed with these new data.

⁵¹ Focusing was on the districts where food insecurity was expected to deteriorate from Crisis (IPC Phase 3) to Emergency (IPC Phase 4) levels between October 2017 and March 2018

⁵² These included those run by single parents who had young and malnourished children, female-headed households with at least two young children, larger households of seven people with disabled, elderly or pregnant members and households with no productive assets.

benefit-cost ratio of 2.5, meaning that for every US\$ 1 invested by FAO, households gained US\$ 2.5 (FAO, 2019).

In addition to this, the Start Network (FOREWARN) has started a cyclone anticipation tool with engagement with the BNGRC and the DGM. In January 2021, in anticipation of a cyclone, funds were allocated after an alert (498)⁵³. FAO is also working on a cyclone AA pilot (FAO KII). The CERF AA pilot on the other hand will be focusing on the plague.

On the development front, two World Bank financed projects appear to be relevant to AA (1) The Pilot Program for Climate Resilience (PPCR) (2017) aimed at building spatial, sectoral, community and infrastructure resilience to climate change impacts; (2) The PUPIRV⁵⁴ project, executed by the CPG, has strengthened the hydro meteorological monitoring network and improved early warning systems in municipalities most vulnerable to cyclones and floods (GAR, 2020). The national cyclone EWS (Systèmes d'Alerte Précoce- SAP) has been implemented in accordance with the project

Coordination

In order to ensure the coordination of interventions at every administrative level in Madagascar, the GoM with the support of the UN agencies and the NGOs working in the field of DRM has developed five multi-risk and multi-hazard regional contingency plans for the five regions⁵⁵ that are the most vulnerable to major hazards⁵⁶ in the country. These planning instruments have been established using a community and consensus approach (GAR, 2019). Under the leadership of the BNGRC, there is a platform to improve the coordination process of all the various initiatives. It is quite new and not fully operational but provides a space to coordinate AA initiatives (OCHA KII). The BNGRC is leading a process to elaborate a framework document, currently under development, that aims to coordinate all AA initiatives in the country (Start Network Communication)

A national drought framework for AA/FbF is currently being developed led by WFP and WHH, under the coordination of BNGRC and with the participation of national stakeholders such as the members of NVAC (National Vulnerability Assessment and Capacity), the DGM and German Development Agency (GIZ). The aim is to formalise the coordination between the different actors working in the field of AA. The document is currently being validated and with the hope to complete by the end of the year. This framework will have a national focus and it will guide the implementation and institutionalisation of the FbF mechanism in existing EWS and shock-responsive social protection systems, in a consensus-based manner. The aim is to ensure scalability and sustainability of the system⁵⁷. A partnership agreement was also signed between WHH-BNGRC and DGM to ensure ownership of this mechanism at the national level. This framework document will also look at AA for multiple risks that could lead to food insecurity in the South. A Technical Group on AA is planned to ensure the effective coordination between the anticipation promoters and other broader interventions currently being implemented (WHH Personal Communication).

Analysis

⁵³ <https://startnetwork.org/start-fund/alerts/498-madagascar-anticipation-cyclone>

⁵⁴ Projet d'Urgence pour la Préservation des Infrastructures et la Réduction de la Vulnérabilité

⁵⁵ Regions of Antsimo Andrefana, Atsimo Atsinanana, Melaky, Menabe and SAVA

⁵⁶ Cyclones, floods, epidemics, drought, locust invasion, chemical accidents

⁵⁷ <https://www.anticipation-hub.org/experience/anticipatory-action-in-the-world/madagascar/risk-layering-using-forecast-based-financing-in-madagascar>

The GoM has made good progress in moving from a reactive, post-disaster relief approach to a proactive disaster risk management. There have also been measures to increase climate resilience. The GoM was one of the first in sub-Saharan countries to establish a comprehensive framework for disaster preparedness, response, recovery and prevention⁵⁸. However, although political will is apparent, Madagascar still lacks an effective disaster risk management mechanism and its capacity to mitigate the risk of drought at the sub-national level remains weak (AfDB, 2019)⁵⁹. While the institutional framework reflects a complex and well-established structure, in reality coordination is a challenge. Although drought management is one of the many priorities and oftentimes, it gets overshadowed by sudden-onset events requiring more immediate humanitarian assistance such as cyclones, floods or bushfires (SADRI, 2021). The proposed drought framework could potentially ameliorate the situation, but it is unclear how it is, if at all this is linked to the stalled SIDGS process.

The issue of lack of sustainability of donor-led pilots was mentioned, given limited government financing for DRM. During the last 30 years, humanitarian aid and ancillary development projects have focused on short-term emergency response to crises as they arose. This approach may be impeding longer-term development goals by diverting resources and attention from priority investments needed for sustainable development. In the South, although the SIDGS appeared to be a promising initiative it is unclear what the strategy to move forward is. Without a coherent approach, the humanitarian crisis in the South will not abate. In addition to this, the situation in the Great South needs to be dealt with a triple-nexus lens and bring the security aspect into discussions.

In terms of governance, the updated SNGRC guarantees better coordination of sectoral policies and a synergy of the actions of the various GRC / DRR stakeholders by overcoming the compartmentalised and fragmented sectoral management of risks⁶⁰. There has been some overlap between the mandates and practical involvement of two key national DRM bodies, namely the strategic body CPGU and the operational body BNGRC. Interviewees reported that this had caused some confusion as to which agency should be approached concerning particular aspects of DRM. There is also lack of strategic-level coordination through the National Platform for Disaster Risk Reduction (PNRRC).

There is a lack of evidence base for AA. Interviewees reported a lack of understanding of AA by most government officials apart from the BNGRC, and confusion around how AA is different from disaster preparedness and what a trigger entail. The term 'Financing' in FbF also creates confusion because people assume that it is all about 'money' vs more general 'action'. The need for a single Community of Practice was suggested where stakeholders would harmonise and align concepts among themselves first and approach the government with one voice. In terms of data analysis, there is also some variation in the availability of data. Data is available at different levels, depending on the areas of intervention of the projects. For example, some data is available at the district level and some at the commune level. This does not always facilitate comparative analysis of data (Start Network KII).

Interviewees also raised concerns about governance. The country has a history of political instability. On 16 August 2021, the cabinet was sacked for poor performance and then days later reinstated 10 Ministers (Reuters, 2021)⁶¹.

⁵⁸ The first National DRM Strategy (*Stratégie Nationale de Gestion des Risques et des Catastrophes* - SNGRC) was adopted in 2003 (SADRI, 2021).

⁵⁹ <https://www.afdb.org/en/documents/document/madagascar-africa-disaster-risks-financing-programme-adrifi-appraisal-report-109710>

⁶⁰ https://www.mg.undp.org/content/madagascar/fr/home/library/crisis_prevention_and_recovery/publication_2.html

⁶¹ <https://www.reuters.com/world/africa/madagascar-president-picks-new-finance-minister-enlarges-cabinet-2021-08-16/>

	Partners	
Welthungerhilfe (Start Network)	GFFO (Donor), Start Network, BNGRC, DGM	Boeny (Mahajanga II, Marovoay), (Northwest), Atsimo-Atsinanana (Farafangana, Vangaindrano) (Southeast), Alaotra-Mangoro (Eastern part) Amparafaravola, Ambatondrazaka. Trigger in Ambatondrazaka district.
WFP	https://www.anticipation-hub.org/experience/anticipatory-action-in-the-world/madagascar/risk-layering-using-forecast-based-financing-in-madagascar/	Atsimo Andrefana , Atsimo-Atsinanana , Androy and Anosy
FAO (Drought)		Androy (Ambovombe, Bekily, Beloha, Tsihombe) and one Anosy (Amboasary-Atsimo).
OCHA		? Betioky, Ampanihy, Beloha, Ambovombe, Tsihombe, Bekily, Betroka, Amboasary, Taolagnaro

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