



## MISSION REPORT

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### **Antananrivo and Anstirabe, Madagascar**

12 September – 25 September 2021

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## Contents

1	Mission Background and Objectives .....	3
2	Mission Programme and Outcomes .....	8
2.1	Key Stakeholders Engaged .....	9
2.2	ICT Needs Assessment Findings .....	12
2.3	ICT Working Group TOR and Workplan .....	16
2.4	Emergency Telecoms Simulation Exercise .....	19
2.5	Site Visit .....	20
2.6	Workshop Feedback .....	21
3	Ways Forward .....	22
3.1	Outcomes .....	22
4	Annexes .....	24
4.1	Annex 1: List of Participants .....	24
4.2	Annex 2: ICT Working Group TOR and Workplan in French .....	25
4.3	Annex 3: Completed ITU-ETC Preparedness Checklist .....	30
4.4	Annex 4: Multi-sectoral ICT Working Group Meeting Agenda .....	36



## 1 Mission Background and Objectives

The Emergency Telecommunications Cluster (ETC), led by the World Food Programme (WFP), is a mandated cluster under the Interagency Standing Committee (IASC) for the provision of communication and information services, and coordination of partners in emergencies. While IASC clusters are formally activated in the context of emergencies, beyond formal cluster activation, many of the same cluster principles are applied in support of government-led emergency or crisis sectoral coordination mechanisms<sup>1</sup>.

As lead of the ETC (Emergency Telecommunication cluster), WFP Madagascar is partnering with the BNGRC, with which it has a strong relationship and the Ministry of Telecommunications to improve the preparedness capacity of the government for emergencies. During the cyclone season drone deployments will support early warning assessments of inaccessible areas with on-going maintenance, connected mobile Offices will be pre-positioned in Cyclone prone areas to support data collection and Information feedback to help with decision making and the coordination of response capacities at the central level. Other shared platforms are going to be put in place. A key overview of country activities conducted so far are as follows:

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<sup>1</sup> Inter-Agency Standing Committee (IASC) Cluster Coordination Reference Module, 2015, page 7, paragraph 2.

Activity Type	Funded By
<p data-bbox="199 347 1002 448"><b>Telecommunications emergency preparedness and response plan</b></p> <p data-bbox="199 492 1002 981">The goal is to bring key partners together to put in place a National emergency preparedness and response plan. This will need a long-term work with the ministry of telecommunications and other partners in the humanitarian sector. The plan will be developed, and it is expected to be fully implemented in 4 years. At the end the government will have the capacities to offer shared platforms to the humanitarian sector to respond to emergencies</p> <p data-bbox="199 1025 459 1064">ICT for Gov Training:</p> <ul data-bbox="252 1108 1002 1339" style="list-style-type: none"> <li data-bbox="252 1108 1002 1339">▪ Government and Partners training related to the use, coordination and deployment of IT and Telecommunication equipment for emergency response (refreshment needed).</li> </ul> 	<p data-bbox="1038 347 1375 577"><b>A training on emergency telecommunications preparedness was funded by DFIDII</b></p>

<p><b>UAS project: Provide the humanitarian sector with a UAV platform for damage evaluation and risk mapping</b></p> <p>Capacity building for our government partners and the humanitarian sector. Shared capacity and equipment put in place.</p> <p>Drone Training for government and partners:</p> <ul style="list-style-type: none"> <li>• Capacity building workshop and initial for humanitarian stakeholders (e.g., BNGRC, civil aviation) on humanitarian UAV coordination (flight space, regulation, and data sharing)</li> </ul> 	<p><b>ECHO and Government of Belgium</b></p>
<p><b>Operational Centre for Emergency Response:</b></p> <p>A government building has been renovated and is planned to become the place where emergencies will be coordinated from. A call centre will be installed.</p>	<p><b>ECHO and Government of Belgium</b></p>

<ul style="list-style-type: none"> <li>▪ Telecommunication Operation Centre: Renovation of a Government building as part of the strengthening of humanitarian coordination and improvement of telecommunications infrastructure for use in emergency situations.</li> </ul>  <ul style="list-style-type: none"> <li>▪ Establishment of Call Centre used for Emergency response at BNGRC Office</li> <li>▪ Establishment of a knowledge centre for the humanitarian actors</li> </ul>	
<p><b>MOVE PROJECT (Mobile Operation Vehicle for Emergency)</b></p> <p>Due to the lack of network infrastructure in the areas that are mostly susceptible of being affected by natural disaster, and the difficulties accessing those areas once the disasters occur (Cyclones, floods...), Information feedback on damage an affected population come often very late. To tackle this problem, we are planning to position mobile offices in the 10 most affected spots. The vehicles come with VSAT and all necessary networking connectivity, also with office amenities. These will be</p>	<p><b>GERMANY</b></p>

used by all the humanitarian actors responding to emergency.

We have piloted this project with one truck, being delivered.



In general terms, the mission sought to strengthen relationships with in-country ICT stakeholders (government, humanitarian, private sector, and communities) involved in emergency telecommunications preparedness, and also deepen collaboration under specific activities with the key national entity, the National Office for Risk and Disaster Management (BNGRC).

To achieve this, the specific deliverables for the scoping preparedness ICT assessment mission were identified as:

- Populate the ETC ICT Preparedness Checklist for, gathering information with relevant focal points towards a cohesive preparedness needs assessment.
- Supplement the ICT Checklist with in-person/virtual gap analysis interviews, conducted with key national stakeholders and other relevant entities in emergency telecoms preparedness. The result will be a high-level needs/gaps analysis brief, enhancing the Checklist.
- Reinvigorating the national ICT working group by a) assisting the group to revisit the standard term of reference; b) identify missing stakeholders; and c) gather feedback/gaps on ways to improve ICT preparedness amongst working group members.
- Participate and lead design of the second national ICT Working Group Meeting to be held in person in Madagascar, after the first one concluded successfully remotely online on 27 August 2021. This meeting was closely organized by ETC Preparedness, the CO, and BNGRC. The

Preparedness Officer conducted one session, sharing successful country examples via PPT and South-South learning experiences.

- Leveraging ETC’s global relationship with GSMA, meet with Mobile Network Operators (MNO) aimed at increasing their participation and consultation in the ICT working group.
- Conduct mission to field areas to analyze the communication channels for vulnerable communities, identify relevant community groups, such as community broadcasters – aimed at assessing gaps and information needs. This will depend on access and COVID status in-country.
- Conduct a site visit to the National Emergency Operations Centre in the capital city, for a scoping/overview assessment of status and needs.

This mission was designed and conducted in close collaboration with the WFP Country Office in Madagascar, specifically the Head of IT, Mahmoud Cherif. The mission commenced on 12 September 2021 and ended on 25 September 2021, including observing the mandatory quarantine period in Madagascar. The entire mission took place in Antananarivo the capital city of Madagascar, with one two-day workshop run in the city of Antsirabe.

Technical, administrative, and logistical support provided by the ETC/TECF and the WFP CO. The cost of the entire mission was incurred by Global ETC, financed by the CCI Project that is closing end of 2020.

## 2 Mission Programme and Outcomes

Dates	Activity Schedule
20-21 September 2021	Consultations with National ICT Working Group members to understand emergency telecommunications gaps, opportunities, and challenges. The consultations will serve to: <ol style="list-style-type: none"> <li>1 Ratify National ICT Working Group TOR.</li> <li>2 Ratify and adopt Workplan of the said Working Group.</li> <li>3 Provide technical input to ICT needs assessment, through the standardized tool developed by the ITU-ETC.</li> <li>4 Hear from national stakeholders on the current emergency telecoms status in country, and the steps their respective organizations are taking to meet the needs and challenges.</li> <li>5 Meet with private sector entities, specifically MNOs, to hear of the infrastructural and overall connectivity challenges.</li> <li>6 Understand regulatory needs, including broadly on spectrum management in emergency situations.</li> <li>7 Meet with Logistics and Food Security Cluster to identify collaboration opportunities.</li> <li>8 Run emergency telecoms preparedness simulation exercise.</li> <li>9 ICT preparedness assessment completed in a consultative mode</li> </ol>

22 September	<p><i>First half of day:</i> Meeting WFP CO Management for exit meeting.</p> <p><i>Second half of day:</i> Field visit to national Emergency Operations Centre to document current infrastructure and make concrete recommendations for utilizing the financial support ETC/CCI will provide.</p>
23 September	<p><i>First half of day:</i> Visit to BNGRC's office premises, for future coordination centre.</p> <p><i>Second half of day:</i> Meeting Director-General of BNGRC for work-planning and next steps.</p>
24 September	<p><i>First half of day:</i> De-brief from mission and exit meeting with WFP CO Management.</p> <p><i>Second half of day:</i> De-brief from mission and planning next steps with national partner, BNGRC, in collaboration with WFP CO Project team.</p>

## 2.1 Key Stakeholders Engaged

The ICT Working Group had presence of the following line ministries/government entities, private sector and international organizations, all of whom contributed to the ICT Preparedness Needs Assessment actively and consultatively. The organization abbreviations are enlisted in French, in line with the official names of each organization. A brief description of the core function is enlisted in English:

<b>Name of Organization and Chief Function</b>
OMS: World Health Organization Country Office
ACF: Action Contre la Faim Country Office, international NGO working on food insecurity issues
VIAMO Madagascar: Private sector technology company, supporting the disaster hotline facility of BNGRC
BNGRC: Le Bureau National de Gestion des Risques et des Catastrophes [equivalent to national disaster management agency]
MNDPT: Ministère des Postes, des Télécommunications et du Développement Numérique [principal ICT authority]
JIRAMA: National company for water and electricity supply
MINSAN: Ministère de la santé publique [national health authority]
ARTEC: Autorité de Régulation des Technologies de Communication [regulator]
MEDAIR: Humanitarian NGO involved in emergency responses
UNICEF: United Nations Children Emergency Fund
Global Logistics Cluster Country Office, hosted at WFP Madagascar

Community governance officials of Antsirabe participated in some sessions

A list of ICT Working Group participants is provided in 'Annex 1'. The full agenda of the meeting is contained in 'Annex 4'.



Hotline 930 presented by Viamo



DG of the ICT Ministry in a group activity



Breaking the ice activities



ETC Global presentation



Head of IT, WFP Madagascar, presenting



Brainstorming group work

As precursors to the Working Group meeting, three side meetings were conducted as follows:

- A session on the Tampere Convention was run in collaboration with ITU, virtually, in advance of the ICT Working Group meeting. The meeting was attended by BNGRC, on their request, where a brief introductory training and technical overview was provided by ITU on Tampere. The connection between ITU and BNGRC was forged, with a commitment to provide any technical insights to the Tampere process, including indoctrination, as the needs arise.
- Unable to join the meeting in-person, GSMA engaged in a virtual conference call with MNO AirTel Madagascar and the ETC, to help in making the connection, and the call closed with interest from AirTel in being a part of this consultative ICT Working Group process going forward. An induction call with the MNO Orange was conducted by WFP Madagascar, where areas of work and some opportunities were identified.
- A telecon with Orange Madagascar was conducted, with representatives from WFP Madagascar and ETC Global in attendance. The purpose was to share the ongoing works of Orange and WFP, to identify possible future opportunities for engagement and share more about the ICT Working Group.
- A meeting was conducted with the community government representatives of Antsirabe, with the purpose to provide an opportunity to share their experiences in community resilience in telecoms. The community governor of Antsirabe also presented the efforts of the city to build resilience to disasters in the telecoms sector to the meeting participants at the closing session of the Working Group meeting.

At the Working Group meeting:

- The Director-General for ICT Ministry, Ministère des Postes, des Télécommunications et du Développement Numérique, presented the critical innovations being undertaken for supporting disaster risk reduction and digitization of critical emergency services. The Ministry is championing a strong national 'Digital Development' agenda by enhancing convergence services, networks, and terminals, as well as establishment of national backbone network infrastructure – all preparing and building Madagascar into a global connectivity hub.
- The Coordinateur Général des Projets of the national disaster management authority, BNGRC, outlined the timeliness and critical of the multi-sectoral group, and cited the objectives of its formulation to steer the deliberations. The prior innovations and milestones were shared with the Working Group, as a guidance on how best to utilize this multisectoral platform.
- The armed forces presented the innovations and technological applications facilitating their emergency preparedness and response actions nationally. The army collaborates closely with national government line ministries to better prepare for, and respond to, emergencies. The army is also currently overseeing the national emergency operations centre premises in Antananarivo.
- The regulator, ARTEC, presented the key progresses and status in national emergency telecoms regulation. ARTEC grants licenses and ensures compliance with regulations in the communications and radio sectors. It also promotes the development of new technologies to enhance telecommunications, as well as manages the frequency spectrum for the radio industry.

- The Humanitarian Private Sector Platform, a consortium network of private entities in Madagascar, presented the operations relevant to emergency telecoms development, together with their business and partnership model. Since 2019, this network has donated 30 smartphones, SIM cards, and mobile data to WFP and BNGRC, to help them implement the Integrated Food Security Phase Classification (IPC) – in support of the preparedness toward drought.
- Viamo, a private sector technology entity, shared the development and roll-out journey of the national disaster response hotline '930'. BNGRC and Medair, in close collaboration with Viamo, the General Directorate of Meteorology (DGM) and Earth Networks, in close collaboration with Viamo, are developing an innovative early warning system to strengthen the resilience of people most vulnerable to natural disasters. The objective of the 2-year project, funded by the European Union, is to save lives and alleviate suffering caused by extreme weather conditions.
- The Logistics Cluster presented collaboration opportunities, highlighting the Knowledge Management Centre innovation, to be run and managed jointly with BNGRC. This Centre relies upon technology as a cornerstone for its operations. A learning strategy is developed jointly by WFP, BNGRC and the University of Antananarivo. The Learning Centre will be a dedicated space for training and personal development, with the possibility of replicating the "WeLearn" platform. The Knowledge Centre will be a dedicated space for all "archiving", acting as a virtual library, capitalizing on optimal use of the Teams platform and Office 365 features.

## 2.2 ICT Needs Assessment Findings

An ICT Needs Assessment was undertaken, using the ETC-ITU Preparedness Checklist tool. The inputs were gathered from cross-sectoral groups during the workshop, in a consultative manner. The full survey is contained in 'Annex 3' to this report. Overall analysis and high-level findings are described as follows:

### Under national policy, planning, and coordination:

Disaster management	Law 2003-010 National Strategy for Disaster Risk Management, 2003 [French edition: <a href="https://bit.ly/3CehrDE">https://bit.ly/3CehrDE</a> ]	According to the law, risk management and disaster fits into the overall framework of activities relating to civil protection and security. The guiding principles are to guarantee the protection of the population and of the environment; improve the resilience of the population in cases of risks and catastrophes; and develop conditions to reduce the vulnerability of the population - although there is no explicit mention of climate change adaptation.
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Telecommunications	Law on Telecommunications [French edition: <a href="http://www.artec.mg/pdf/loi_2005-023.pdf">http://www.artec.mg/pdf/loi_2005-023.pdf</a> ]	The enforcement will introduce three major changes. There will be complete liberalisation of the Madagascar telecoms market; new entrants to the market will be expected to pay a minimum of EUR40 million in licence acquisition costs; and sharing of infrastructure – namely base transceiver stations (BTS) – in order to reduce costs and impact on the environment.
Tampere Convention	Madagascar signed the Convention on 12 Sept 2002 [ <a href="https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&amp;mtdsg_no=XXV-4&amp;chapter=25&amp;clang=_en">https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&amp;mtdsg_no=XXV-4&amp;chapter=25&amp;clang=_en</a> ]	Madagascar is a signatory to the Tampere Convention.
UAV		There are active drone regulation laws in Madagascar.

However, the policy guidance and provisions on emergency telecoms requires further support and strengthening.

- This includes a need for more methods/tools that can be used to track progress in strengthening interoperable communications across the country.
- An up-to-date national ICT capacity assessment was identified as missing and is now completed via the ETC mission.
- There is an updated available list of telecommunications, information technology (IT), payment technology, and payment switch providers. However, participants identified that this is not accessible for everyone, as the Ministry of IT and ARTEC are custodians of this.
- Relevant tools are available for rapid beneficiary registration and assistance delivery at the level of the Ministry of Population, but not available for everyone.
- A roster of national IT service providers available via the Ministry of IT and ARTEC, though it is not accessible for everyone.
- In a good practice, network operators have identified their internal “surge capacity”, to be able to recover post-disaster.

**Under external coordination:**

Whilst multiple stakeholders coordinate with each other for preparedness and response readiness activities and actions, it is recommended that this be further improved going forward, with some ways identified as follows.

- A stakeholder engagement plan is currently not in place for disaster preparedness and response, so it recommended this be developed.
- There is a list of key points of contact for primary organizations working in disaster risk management (including government private sector, civil society, UN, and all key others, however it is recommended that this be updated regularly online and shared between key agencies involved in disaster preparedness at frequent intervals.
- Key stakeholders often have the ICT tools needed to communicate during non-disaster periods and emergency operations, however it is recommended that a list of required hardware be defined.
- Processes have been established in advance for both the entry of experts and communications equipment in times of disaster, such as the initial signing of the Tampere Convention. However, Tampere is still not operationally activated nationally. Additionally, the fast-track process for importation of telecoms equipment in times of emergency needs to be updated.

#### **Under capacity development and trainings:**

Of all the surveyed themes, this area had the lowest response rate, indicating a significant need for enhancing training and capacity development in emergency telecoms applications in disaster risk management.

- ICT-specific training or certification is not mandatory for officials who are involved in disaster risk management. Survey respondents identified that ICT and DRR training has not yet taken place, and this is an activity under planning.
- Whilst a personal communications plan for family check-ins and evacuations has been prepared, telecommunication drills are not conducted oriented to the public. It is recommended that public-facing drills/simulations are conducted at frequent intervals, so the public is aware of disaster response plans, including the most efficient means of communications to help reduce network congestion, together with recognition and reaction to a warning signal (e.g., response to an early warning mechanism like a siren). Frequently running simulation exercises is helpful for this purpose.
- It is recommended the communications/ICT simulation exercises for emergency telecoms actors are tailored to the types of frequently occurring disasters in the country, including multi-hazard scenarios, to the greatest extent possible. The roles and responsibilities for preparedness and response actions require better definition.
- Carriers do not follow a uniform outage reporting process and know which contacts to report the outages (induced by disaster) to, and how. To this effect, mechanisms for reporting outages should be instated.
- After drills and simulations, it is recommended that feedback be collected, to help improve procedures or performance for the future.

#### **Under infrastructure and connectivity provisions:**

The surveyed Checklist identified various challenges and issues, with some recommendations for improvement in the infrastructure and connectivity dimensions:

- A regular technology inventory or assessment is not undertaken, and it is recommended that such an inventory or assessment be done, including a mapping of infrastructure and networks available.
- Redundancy and resiliency planning is undertaken for telecom providers, and there are opportunities to support or encourage telecommunication operators in doing the redundancy and resiliency planning through simulations and trainings.
- Processes are currently not in place for the government to help expedite, facilitate, prioritize, or enable fuel delivery for communications network generators. However, there are available and pre-positioned power sources for telecommunication networks. There are also guidelines in place for critical facilities to have back-up power supplies.
- Regular technical training conducted for those personnel who will need to use and maintain/test emergency communications equipment, particularly that which is pre-positioned, are delivered only at the beginning of the acquisition. It is recommended that the training be conducted even after acquisition, with respect to maintenance and troubleshooting.
- First responders know where the pre-positioned equipment is located or where imported ICT equipment can be collected for use, and there exists a national coordination approach via meeting and instating the national, regional and district contingency plan.
- It is suggested that local communities and staff are considered for training opportunities in the use and maintenance of emergency telecommunications equipment.
- It is urgent that critical/priority telecommunication sites continue to be identified for restoration, and mechanisms be established to prioritize critical telecommunication sites for restoration efforts. A good practice is the rapid reaction matrix, already used amongst stakeholders.
- A full assessment of ICT regulatory and/or policy barriers to entry or operation of needed equipment for disaster relief or restoration of networks does not yet exist, though there has been development of customs clearance procedures in alignment with the World Customs Organization.
- Special measures have been determined in case of an emergency, including identification of equipment for replacement, sources for rapidly sourcing equipment in times of need, determining redundant backup systems, and logistics capacity. However, this guideline requires updating.
- Connectivity information, including data sets, is available for government or public use to aid in disaster response and risk reduction planning. However, information about business continuity plans is not exchanged between government and industry officials.
- Emergency and network resilience/redundancy needs, and requirements have not been considered in the national telecommunications development plan. Furthermore, policies are not in place to ensure that data can be shared by operators with responders in a way that protects individual privacy, while enabling response.
- Multiple channels (such as television, Radio, Short Message Service, messaging, etc.) are employed to ensure information gets to those affected quickly and effectively. Social media is also employed to share information regarding disaster risk reduction. However, regular/ongoing national and regional alerting exercises and system-testing taking place are

not taking place often. Public education is undertaken to sensitize communities on early warning for early action, and members of vulnerable populations are consulted regarding their specific needs in disaster scenarios.

- An early warning alerting system in place, and the Common Alerting Protocol (CAP) is employed for early warning purposes. Information materials including websites or applications (“apps”) accessible for disaster preparedness, though the “apps” are not promoted widely to the public.
- Information materials need to be shared in advance, on ways that users of communications can lessen network congestion in a disaster.
- Following a disaster, disaster response efforts are reviewed to assess challenges for vulnerable groups and determine follow up actions. However, ICT capacities of vulnerable populations need to be further developed in disaster risk management. The accessibility and usability of ICTs should be considered in forthcoming disaster preparedness projects. Disaster readiness information materials should be provided, targeting vulnerable populations. Public awareness campaigns should be conducted on disaster risk reduction themes in multiple accessible formats in different prevalent languages.

### **2.3 ICT Working Group TOR and Workplan**

The meeting saw the adoption of the national ICT Working Group terms of reference [original French edition is in ‘Annex 2’ of this report]:

Under the lead of the Ministry of Digital Development, Digital Transformation, Posts and Telecommunications and the World Food Programme,

Under the coordination of the National Disaster Risk Management Office (BNGRC),

The key responsibilities of the ICT Cluster are as follows:

General functions:

- Serve as a forum for coordination and discussion of all ICT issues of common interest at the national level.
- Promote, coordinate, and develop shared and interoperable ICT solutions and services between humanitarian and DRM actors (Governments, NGOs, UN, private sector) and their partners.
- Ensure the inclusion of key humanitarian partners in the working group, respecting their respective mandates and programme priorities.
- Serve as a forum for all humanitarian and development partners to share information, resources and ideas related to ICTs in any mission.
- Serve as a single point of contact with the government on ICT regulatory issues.
- Ensure appropriate links with national and local authorities, state institutions (e.g., National Regulatory Authority, Ministry of Defence, National Disaster Management Agency), local civil society and other relevant actors (as appropriate) and ensure appropriate coordination and information exchange with them.

- Ensure that ICSTM participants are aware of relevant policy guidelines, technical standards, and commitments made by the government.
- Ensure that responses are consistent with relevant policy guidelines, technical standards, and government obligations.
- Advocate at the government level on any opportunities or projects that are beneficial to the beneficiaries.

Specific functions:

- Identify, assess, plan, and implement activities in accordance with the approved annual work plan and periodically update the work plan as appropriate.
- Submit proposals and budgets to a Sector Group meeting for validation, decision making and approvals before the start of the new financial year.
- Carry out all activities approved in the work plan within the agreed timeframe and in accordance with the budgetary resources.
- Ensure that pre-established rules are followed for all contracts awarded and that all decisions are made openly and transparently.
- Carry out periodic evaluations/analyses of the functioning of the common services and reports/results in a recognised forum.
- Also conduct an ICT needs assessment and analysis, ensuring that the assessment and analysis of ICT needs is effective and consistent, involving all key partners.
- Carry out a rapid assessment in case of an emergency in the country.
- Share and disseminate information to other existing sectoral groups in the country for rapid and harmonised information sharing.
- Implement and ensure preparedness activities for possible emergencies, identifying ICT gaps and preparing contingency plans to address them.
- Carry out any other tasks and activities that need to be implemented in the country and that are aligned with the national strategic emergency plan or other operational emergency plan.
- Develop standard operating procedures covering operational processes
- Plan training or capacity building for members
- Carry out an analysis and mapping of the ICT skills of different partners (public, private and NGO sectors)
- Set up an ICT standby capacity group at national level and encourage the creation of others at territorial level.
- Establish and maintain appropriate humanitarian coordination mechanisms. To this end, ensure complementarity and appropriate coordination with all humanitarian partners, through the establishment/maintenance of appropriate coordination mechanisms.

- Promote emergency response measures, while considering the need for early recovery planning, as well as prevention and risk reduction concerns.

The ICT Working Group meeting also saw the adoption of the multi-year workplan, with the proposed activities as follows:

### **Activity Workplan of the ICT Sectoral Group**

#### **1. Revitalization of an ICT sector group for coordination between the government, UN agencies, NGOs, and the private sector.**

Update the terms of reference of the National ICT Working Group

Organize a welcoming meeting of the ICT Working Group with the Ministry of Telecommunications, the private sector and NGOs

Validation of terms of reference by all members of the group

Request the validation of the group by the authorities

Communicate the formalization of the WG to the other clusters

Conduct monthly meetings Monthly

#### **2. Harmonization of response in terms of supply and use of telecommunications equipment for emergency; clarification of roles and responsibilities between government and private sector ICT providers**

Evaluation of all emergency telecommunications means available in the country (personnel, equipment and infrastructure, furniture, etc.)

Identify equipment gaps for emergency response

Put in place a plan, with a budget, to fill these gaps

Set up a centralized stock

Put in place an operational plan, clarifying roles and responsibilities within the GSICT (who does what)

#### **3. Conduct of the capacity mapping workshop to identify gaps of key actors (UN agencies, governments and NGOs) responsible for IT and telecommunications emergency preparedness and response (perhaps in collaboration with other clusters, e.g., logistics)**

Engage with stakeholders to raise awareness (UN agencies, BNGRC, MPTDN)

Engage partners to raise awareness (private sector, NGOs, others)

Mapping stakeholders and key actors

Preliminary completion based on available information and knowledge

Discussion and validation of results with partners and stakeholders

Articulation of the multi-year work plan for validation and approval by stakeholders

#### 4. Establishment of a properly regulated ICT infrastructure and clear agreements between key actors on the use of dedicated services in emergency situations.

Revision of the humanitarian and national infrastructure and upgrade accordingly (Armed Forces, United Nations...)

Identify key partners for emergencies and set up Framework Contracts/Conventions.

Put in place an operational plan, clarifying roles and responsibilities (who does what)

#### 5. Group organization and monitoring and evaluation

Establishment of an exchange platform for the group

Establishment of a monitoring committee and evaluation of the group's activities by linking them to the National GRC strategy

The working group activity plan originally is in French language and is enclosed in 'Annex 2' to this document.

### 2.4 Emergency Telecoms Simulation Exercise

An emergency telecoms tabletop simulation exercise was conducted, as part of the ICT Working Group, on the request of BNGRC. The scenario simulated was a tropical cyclone, especially because Madagascar is now entering the cyclone season and is preparing for the upcoming potential events. Injests presented tested the different stakeholders' readiness and capacity, in preparedness, response and recovery phases.



## 2.5 Site Visit

A site visit was organized to the National Emergency Operations Centre [abbreviated OCER in French] in Antananarivo to document the current infrastructure status. The OCER has partially been financed by the ETC. It consisted of a large single-room structure with a sloping roof. There was a working VHF repeater and a communications tower on the premises. The premises had desks and chairs.

The OCER has most recently been an active COVID response coordination hub where multistakeholder actors were present, and the communications equipment was utilized to support mapping movements in overcrowded city zones. The office premises is on army property, so to access it, army authorization is required in advance. However, the OCER is only used on a needs-basis and is not consistently staffed or operated.

In discussion with the DG of BNGRC, BNGRC requests support in financing their own on-premises crisis coordination hub. Any communications infrastructure will be compatible with the OCER and operate on the same frequency to main system compatibility.





## 2.6 Workshop Feedback

A feedback survey was circulated amongst all participants in French. The survey reflected:

- 50% of survey respondents indicated they found the workshop of good quality and were satisfied with the content.
- The qualitative comments indicated that the organization was very good, the content was relevant and useful, and the group work was beneficial.
- 100% of survey respondents indicated the relevance and application for their respective works.
- 100% indicated high satisfaction with the content of the meeting, in terms of presentations, group work, and the quality of the discussions.
- In areas of improvement, the survey respondents indicated the need for more time allocated for group discussion activities.
- For key takeaways from this workshop, survey respondents indicated a greater awareness of multisectoral roles and actors in emergency telecoms, how disaster risk management links to emergency telecoms, the value of multisectoral collaboration in group work, and effective networking for enhancing collaboration and coordination in emergency response.
- In terms of the next steps for the following ICT Working Group meetings, the survey respondents identified the following: from convening to implementation, putting in place a platform/communications modality for more frequent interactions amongst group members, validating the Workplan, and discussing how to securely share information in emergency telecoms.
- When asked whether they would like to be a part of the Working Group in the future, survey respondents confirmed unanimously they are available and interested in taking this agenda forward.
- In terms of replicable practices/lessons from this Working Group meeting, survey respondents said they appreciated the brainstorming techniques applied for finding solutions to problems, the SIMEX content and delivery was appreciated, the structure of the agenda and meeting

proceedings were found to be engaging, the constitution of meeting participants was found to be diverse, and the way different actors engaged with one another to work together.

- In terms of how the workshop will further/improve interactions with multistakeholder actors, the respondents suggested: improvement of the regulatory framework to support emergency telecoms; networking, standardization, data layout and tools for supporting emergency preparedness and response; mobilization of partners for implementation of projects related to the Working Group activities; strengthened bonds between participants and Working Group members; and the army commented on the value of the new knowledge for improvement of their emergency communication systems and transmission.
- For any closing comments, suggestions included: having an annual gathering of the ICT Working Group, recommendations for including more ICT technicians and lawyers in the validation process and holding the workshop over 2-3 full days.
- Responding to this feedback:
  - The participants were satisfied with the workshop. It is also clear that the participants found an interest in participating and being part of this sectoral group.
  - Furthermore, it appears that participants are looking forward with great patience to the next steps that the sector group leaders might take. They also hope that the next meeting will be scheduled soon.
  - In any case, the participants found all the sessions and the presentations that were made and shared relevant, even very relevant.
  - An agenda of the next steps is:
    - Online meeting: Thursday, 21 October 2021 (presentation of the main outputs of the workshop, preparation, and appointment of representatives for the update of the national contingency plan, etc.).
    - Participation in the update of the national contingency plan (28-29 October 2021) and other contingency plans being updated for agencies, organizations, departments with representatives.
    - Preparation of DG/BNGRC and MNDPT meeting and DG/BNGRC, WFP and MNDPT.

## **3 Ways Forward**

### **3.1 Outcomes**

All stakeholders, including national government, took their commitments to preparedness planning very seriously. They encouraged partners to work with the Global ETC and WFP Madagascar in their roles to support the country. The mission also helped to showcase and advocate to the humanitarian community on the commitment the Global ETC is providing towards building national emergency telecoms resilience.

BNGRC and the ICT Ministry's active ownership of the issue were demonstrated with clear asks. Further, the ICT Needs Assessment Checklist was completed, which helped to set the stage for discussion and self-reflection within the organizations. The findings of the ICT Checklist have informed the workplan of implementation activities over the next six-twelve months.

Concluding exit meetings were conducted with the head of the WFP Country Office and DG of BNGRC, where continued support, collaboration, and human/financial resources were discussed to good end between ETC Global, the Country Office and the national government.

Below are the proposed ways ahead:

- Preparedness ICT needs assessment and checklist consolidated, by October 2021.
- Country project implementation to be continued, in line with agreed workplan and budget.
- Next National WG meeting to be scheduled, expected Q3 2021.
- Financially supporting BNGRC with their national emergency preparedness hub facility in Tana.
- Leveraging dedicated project finance through submissions for upcoming proposal calls by the WFP Madagascar IT team. Technical assistance will be provided by the ETC in proposal reviews/inputs.
- Hiring a dedicated IT Preparedness Associate, to be based in the WFP Madagascar Office, for supporting multi-stakeholder engagements/liaison and any CCI implementation – the selection decision was made on 8 October 2021 after interviews were concluded. This officer is expected to hold the post for 12 months, to support in-depth country implementation.
- Follow-up engagement with MNOs Orange and AirTel, for enhanced MNO engagement.
- Investigating if a Disaster Connectivity Maps Pilot for high-risk zones can be conducted, with involvement/confirmed interest of BNGRC.
- Collaboration with the Global Logistics Centre for the Knowledge and Learning Centre project, being run with the BNGRC, is under further exploration.
- Opportunities to be identified for testing simulation-based learning and benefitting from the new ETC modular course on government-centred emergency readiness in 2022.
- South-South learning opportunities between Madagascar and Mozambique to be explored for 2022, including lessons learned and government-to-government collaboration models.

## 4 Annexes

### 4.1 Annex 1: List of Participants

No.	Name	Organisation	Email
1	MANDROSOVOLOLONA Vatsiharizandry	OMS	<a href="mailto:vmandrosovololona@who.int">vmandrosovololona@who.int</a>
2	RANAIVOSON Liva Heritiana	ACF	<a href="mailto:respect@mg-actioncontrelafaim.org">respect@mg-actioncontrelafaim.org</a>
3	Guillaume SAUVAL	VIAMO	<a href="mailto:guillaum.sauval@viamo.io">guillaum.sauval@viamo.io</a>
4	CDT RAKOTO Hantaniaina Jacque Eddi	EMA/BTSIA	<a href="mailto:razaka.jacque@gmail.com">razaka.jacque@gmail.com</a>
5	RALAIVAO Etienne	BNGRC	<a href="mailto:etiennejmr@gmail.com">etiennejmr@gmail.com</a>
6	Livaniaina RAZANADRAKOTOARISOA	MNDPT	<a href="mailto:Livaniaina21@gmail.com">Livaniaina21@gmail.com</a>
7	RABELOHATAONA Hantamalala	JIRAMA	<a href="mailto:Hanta.rabelohataona@jirama.mg">Hanta.rabelohataona@jirama.mg</a>
8	RAMANDRAIBE Jean Justin	MINSAN	<a href="mailto:justramanandraibe@gmail.com">justramanandraibe@gmail.com</a>
9	RANDRIANARIJAONA Eloi	ARTEC	<a href="mailto:eloi@artec.mg">eloi@artec.mg</a>
10	RAMILIJANA Mpoina	MEDAIR	<a href="mailto:Mpoina.ramilijaona@medair.org">Mpoina.ramilijaona@medair.org</a>
11	RAKOTOMANDRINDRA Pascal Fetra Nirina	BNGRC	<a href="mailto:prakotomandrindra@gmail.com">prakotomandrindra@gmail.com</a>
12	LCL ARITIANA Faly Fabien	BNGRC	<a href="mailto:Aritiana23@gmail.com">Aritiana23@gmail.com</a>
13	Rabenja RAKOTOMAHARO	MNDPT	<a href="mailto:hajaina@gmail.com">hajaina@gmail.com</a>
14	RAKOTOMAHEFA Mirindra	UNICEF	<a href="mailto:mrakotomahefa@unicef.org">mrakotomahefa@unicef.org</a>

WFP Madagascar/ETC Global team:

Organizers: Mahmoud Cherif (WFP Madagascar) and Ria Sen (ETC Global).

WFP	Fiatoa	IT Operation Officer
WFP	Tokiniaina RASOLOFOMANANA	Emergency Preparedness Associate
WFP	Alice OCCHILUPO	Supply Chain Country Capacity Strengthening Officer

## 4.2 Annex 2: ICT Working Group TOR and Workplan in French

### Objectifs

L'objectif attendu des activités du Groupe Sectoriel Technologies de l'Information et de Communications est de réduire la fracture numérique et d'utiliser au mieux les TIC pour permettre aux membres des groupes sectoriels d'effectuer leurs mandats plus efficacement. Ensuite, il est également attendu à ce que le GSTIC puisse être particulièrement actif dans le domaine de la prévention des catastrophes et des réductions des risques et notamment dans l'opérationnalisation d'un système d'alerte précoce.

Par leurs actions, les membres de ce GS visent à partager les bénéfices des NTIC et des communications mobiles et internet au profit de la GRC.

### Missions et attributions

Sous lead du Ministère du développement Numérique, de la transformation Digitale, des Postes et des Télécommunications et celui du Programme Alimentaire Mondiale,

Sous la coordination du Bureau Nationale de Gestion des Risques et Catastrophes (BNGRC),

Les responsabilités clés du groupe sectoriel sur les TIC sont les suivantes :

Fonctions générales :

- Servir de forum de coordination et de discussion pour toutes les questions d'intérêt commun en matière de TIC au niveau national.
- Promouvoir, coordonner et développer des solutions et services TIC partagés et interopérables entre les acteurs humanitaires et de GRC (Gouvernements, ONG, ONU, secteur privée) et leurs partenaires.
- Assurer l'inclusion des principaux partenaires humanitaires dans le groupe de travail, en respectant leurs mandats et priorités de programme respectifs.
- Servir de forum pour tous les partenaires humanitaires et de développement afin de partager des informations, des ressources et des idées relatives aux TIC dans toute mission.
- Servir de point de contact unique auprès du gouvernement pour les questions de réglementation des TIC.
- Assurer des liens appropriés avec les autorités nationales et locales, les institutions de l'État (par exemple, l'Autorité nationale de régulation, le ministère de la Défense, l'Agence nationale de gestion des catastrophes), la société civile locale et d'autres acteurs pertinents (le cas échéant) et assurer une coordination et un échange d'informations appropriés avec eux.
- S'assurer que les participants du GSTIC sont au courant des directives politiques, des normes techniques et des engagements pertinents pris par le gouvernement.

- S'assurer que les réponses sont conformes aux orientations politiques, aux normes techniques et aux obligations pertinentes du gouvernement.

Fonctions spécifiques :

- Identifier, évaluer, planifier et mettre en œuvre les activités conformément au plan de travail annuel approuvé et actualiser périodiquement le plan de travail, selon le cas.
- Soumettre des propositions et des budgets lors d'une réunion du groupe sectoriel pour validation, prise de décisions et approbations avant le début du nouvel exercice.
- Effectuer toutes les activités approuvées dans le plan de travail dans les délais convenus et en accord avec les ressources budgétaires.
- Veiller à ce que les règles préétablies soient respectées pour tous les marchés passés et s'assurer que toutes les décisions soient prises ouvertement et avec transparence.
- Effectuer des évaluations/analyses périodiques du fonctionnement des services communs et des rapports/résultats dans un forum reconnu.
- Réaliser également une évaluation et une analyse des besoins en matière de TIC, en veillant à ce que l'évaluation et l'analyse des besoins correspondants soient efficace et cohérente, en impliquant tous les partenaires clés.
- Effectuer une évaluation rapide au cas où une situation d'urgence se produirait dans le pays.
- Partager et diffuser des informations aux autres groupes sectoriels existants dans le Pays pour un partage rapide et harmonisé des informations.
- Activités de préparation aux situations d'urgence ; Pour s'assurer du niveau de préparation aux urgences éventuelles, en identifiant les lacunes en matière de TIC et en préparant des plans d'urgence pour y remédier.
- Toutes autres tâches et activités qui doivent être mises en œuvre dans le pays et qui sont alignées sur le plan stratégique d'urgence national ou un autre plan opérationnel d'urgence.
- Élaboration de procédures opérationnelles standards couvrant les processus opérationnels
- Planification de formations ou renforcement de capacités des membres
- Effectuer une analyse et cartographie des compétences relatives aux TIC des différents partenaires (secteurs public, privé et ONG)
- Mise en place d'un groupe d'intervention TIC (**standby capacity**) au niveau national et impulser la création d'autres au niveau territorial.

- Mise en place et maintien de mécanismes de coordination humanitaire appropriés. À cette fin, assurer la complémentarité et la coordination appropriée avec tous les partenaires humanitaires, par la mise en place / le maintien de mécanismes de coordination appropriés.
- Promouvoir les mesures d'intervention d'urgence, tout en tenant compte de la nécessité de planifier une reprise rapide, ainsi que des préoccupations en matière de prévention et de réduction des risques.

## **Procédures, Composition / Membre**

### **Réunions :**

- Dans les situations normales, le groupe se réunira tous les mois, et le compte-rendu sera diffusé dans la semaine suivant la réunion, pour être ensuite partagé avec la coordination humanitaire et les autres départements gouvernementaux.
- Dans les situations extraordinaires (Période cyclonique, épidémies, sécheresse...) le groupe se réunira de manière bimensuelle, et le compte-rendu sera diffusé le lendemain de la réunion, pour être ensuite partagé avec la coordination humanitaire et les autres départements gouvernementaux.
- Le BNGRC peut demander des réunions ad hoc supplémentaires à leur propre initiative ou sur requête d'un des membres du groupe.

### **Révision et modifications**

- Les termes de référence seront révisés selon les besoins ou à la demande de tout membre du groupe lors d'une réunion.
- Ces termes de référence sont un document de travail et peuvent être modifiés pour répondre aux nouveaux besoins de tous les membres avec l'accord de la majorité d'entre eux.

### **Quorum minimum**

- Une des organisations lead ou chargées de la coordination du groupe, et au moins 1 membre de chaque type d'institutions qui composent le groupe, soit
  - o 1 membre des Institutions Nationales/Gouvernementales
  - o 1 membre des Organisations des Nations Unies
  - o 1 membre des ONGs
  - o 1 membre du Secteur Privé

## **Plan d'activités du Groupe Sectoriel TIC**

<b>Actions</b>	<b>Date de début</b>	<b>Date de fin</b>	<b>Responsabilités</b>
<b>1. Redynamisation d'un groupe sectoriel TIC pour la coordination entre le gouvernement, les agences des Nations Unies, les ONG et le secteur privée.</b>			

Mettre à jour les termes de référence du groupe de travail national sur les TICs	4ème semaine d'août		
Organiser une réunion d'accueil du groupe de travail sur les TIC avec le ministère des Télécommunications, le secteur privé et les ONG			
Validation des termes de référence par tous les membres du groupe			
Demander la validation du groupe par les autorités			
Communiquer l'officialisation du GT aux autres clusters			
Conduire des réunions mensuelles	Mensuellement		
<b>2. Harmonisation de la réponse en termes de fourniture et d'utilisation des équipements de Télécommunications pour l'urgence ; clarification des rôles et responsabilités entre les fournisseurs TCU du gouvernement et du secteur privé</b>			
Evaluation de tous les moyens de télécommunication d'urgence disponibles dans le pays (personnel, équipement et infrastructures, mobilier...)			
Identifier les lacunes en termes d'équipements pour les interventions d'urgence			
Mettre en place un plan, avec un budget, pour combler ces lacunes			
Mettre en place un stock centralisé			

Mettre en place un plan opérationnel, clarifiant les rôles et responsabilités au sein du GSTIC (qui fait quoi)			
<b>3. Conduite de l'atelier de cartographie des capacités pour identifier les lacunes des principaux acteurs (agences des Nations Unies, gouvernements et ONG) responsables de la préparation et de la réponse aux urgences en matière d'informatique et de télécommunications (peut-être en collaboration avec d'autres clusters, par exemple la logistique)</b>			
S'engager avec les parties prenantes pour sensibiliser sur le CDC (agences de l'ONU, BNGRC, MPTDN)			
Engager des partenaires pour sensibiliser sur la CDC (secteurs privés, ONGs, autres ?)			
Cartographier les parties prenantes et les acteurs clés pour la discussion sur la CDC			
Achèvement préliminaire du CDC sur la base des informations et connaissances disponibles			
Discussion et validation des résultats CDC avec les partenaires et les parties prenantes (identifier un document de validation avec le protocole d'accord de la partie prenante ?)			
Articulation du plan de travail pluriannuel pour validation et approbation par les parties prenantes			
<b>4. Mise en place d'une infrastructure TCU correctement réglementée et de conventions claires entre les acteurs clés sur l'utilisation des services dédiés dans les situations d'urgence.</b>			
Révision de l'infrastructure de CDS humanitaires et nationales et mise à niveau en conséquence (Armées, Nations Unies...)			

Identifier les partenaires clés pour les urgences et mettre en place des Contrat cadre/Conventions.			
Mettre en place un plan opérationnel, clarifiant les rôles et les responsabilités au sein du GSTIC (qui fait quoi)			
<b>5. Organisation du groupe et Suivi et évaluation</b>			
Mise en place d'une plateforme d'échange pour le groupe			Riantsoa (WHH)
Mise en place d'un comité de suivi et évaluation des activités du groupe ceci en les mettant en relation avec la stratégie Nationale de GRC			

### 4.3 Annex 3: Completed ITU-ETC Preparedness Checklist

#### I. NATIONAL GOVERNMENT: ROLES, RESPONSIBILITIES & COORDINATION PROVISIONS

01	Is there a designated government ministry/agency responsible for disaster management in the country?	1	
02	Does the lead disaster management ministry/agency coordinate with other relevant ministries across government for disaster management?	1	
03	Are there any ICT-specific legislations or mandates which enable the ICT ministry/agency and the national ICT regulator, to respond to certain aspects of preparedness and response?	0	
04	Is there a standard operating procedure in place, outlining the role and mandate of the ICT ministry/ agency and regulator, with regards to preparedness and response?	0	
05	Are there clearly defined points of contact established for disaster management in the respective agencies/ministries involved?	1	
06	Can key contacts (identified in question 5) be reached at any time of the day or night?	0	
07	Is there a national emergency telecoms cluster group established, representing key ICT contact persons?	1	
08	Does the core ICT contact group meet yearly to	1	

	coordinate and/or conduct drills/exercises?		
09	Are roles, goals, and responsibilities coordinated across national to sub-national and community levels?	1	Theoretically
10	Are there mechanisms that help emergency response agencies and policymakers to plan and implement interoperability solutions for data and voice communications including governance, standard operating procedures (SOPs), technology, training and exercises, and usage of interoperable communications?	1	National ICT Working Group (revitalization in progress)
11	Are there methods/tools that jurisdictions that can be used to track progress in strengthening interoperable communications across the country?	1	Non-harmonized
12	Is telecommunications/ICT prioritized, or addressed, as a critical function or priority within the country's disaster management framework?	1	Other sector groups depend on ICTs because information is the key over time
13	Does the communications ministry/agency or regulator coordinate with, and participate in, the activities of the national disaster management agency?	1	
14	Has a national-level ICT Working Group been established?	1	
15	Does the national ICT Working Group meet regularly?	0	To be programmed after this workshop
16	Has an up-to-date national ICT capacity assessment been done, which covers macro and micro assessments of country-level ICT infrastructure?	0	To be programmed; some regions perform this assessment but inaccessible to everyone
17	Is there an updated available list of telecommunications, information technology (IT), payment technology, and payment switch providers?	1	Inaccessible for everyone (Ministry of IT and ARTEC)
18	Are relevant tools available for rapid beneficiary registration and assistance delivery?	1	At the level of the Ministry of Population
19	Is a roster of national IT service providers available and accessible?	1	Ministry of IT and ARTEC, but inaccessible
20	Have network operators identified their internal "surge capacity", to be able to recover post-disaster?	1	Available for each of the operators
	<b>PERCENTAGE = (Sum of Yes responses)/20 X 100</b>		<b>15/20 x 100 = 75</b>
	<b>II. EXTERNAL COORDINATION</b>		
21	Is there a stakeholder engagement plan in place for disaster preparedness and response?	0	Engagement plan to be developed
22	Is there a regularly updated list of key points of contact for primary organizations working in disaster risk management (including government	1	To be updated regularly online

	private sector, civil society, United Nations, and all key others)?		
23	Is the list of key point of contact shared with these entities (mentioned in question 22)?	0	See 22
24	Are these multiple stakeholders (mentioned in question 22) coordinated with frequently for preparedness and response readiness activities and actions?	1	To be improved
25	Do key stakeholders have the ICT tools needed to communicate during non-disaster periods and emergency operations?	1	List of required hardware to be defined
26	Are citizens involved in disaster risk reduction and response initiatives?	1	Through SIMEX and development of various plans
27	Are citizens informed about disaster response preparedness and plans?	1	Through SIMEX and development of various plans
28	Are there any requirements or legislations governing stakeholder engagement, public outreach, or advisory committees?	0	
29	Have processes been established in advance for both the entry of experts and communications equipment in times of disaster, such as the ratification of the Tampere Convention?	1	To be updated
30	Is there a fast-track process for importation of telecoms equipment in times of emergency?	1	To be updated
31	Are persons with disabilities, specific needs, and other vulnerable groups, included in disaster preparedness activities?	1	
PERCENTAGE = (Sum of Yes responses)/11 X 100			8/11 x 100 = 72.7

### III. CAPACITY DEVELOPMENT: TRAININGS AND SIMULATION EXERCISES

32	Is ICT-specific training or certification mandatory for officials who are involved in disaster risk management?	0	
33	Do such trainings (mentioned in question 32) take place regularly?	0	ICT/CRM training has not yet taken place, an activity under planning
34	Do ICT-specific trainings and exercises include different concerned key stakeholders, in addition to government participants?	0	Not applicable
35	Are telecommunication drills conducted to ensure that the public is aware of disaster response plans, including the most efficient means of communications to help reduce network congestion, together with recognition and reaction to a warning signal (e.g., response to an early warning mechanism like a siren)?	0	ICT/CRM simulation exercises have not yet been organized, an activity under planning

36	Has a personal communications plan for family check-ins and evacuations been prepared?	1	
37	Are communications/ICT exercises conducted, as part of more comprehensive national disaster exercises?	0	ICT/CRM simulation exercises have not yet been organized, an activity under planning
38	Are communications/ICT exercises tailored to the types of frequently occurring disasters in the country?	0	ICT/CRM simulation exercises have not yet been organized, an activity under planning
39	In communications/ICT exercises, are complex emergencies considered that could address multiple hazards in a “worst case scenario”?	0	ICT/CRM simulation exercises have not yet been organized, an activity under planning
40	Do other government agencies or ministries oversee and/or participate in communications-related exercises or drills?	0	ICT/CRM simulation exercises have not yet been organized, an activity under planning
41	Are different non-government stakeholder participants in disaster response or disaster communications exercises?	0	ICT/CRM simulation exercises have not yet been organized, an activity under planning
42	Do all the ICT sector stakeholders participating in disaster exercises or drills have clearly defined roles and responsibilities?	0	ICT/CRM simulation exercises have not yet been organized, an activity under planning
43	Are outage reporting requirements of carriers exercised?	0	Air transport yes, land transport no
44	Do carriers follow a uniform reporting process, and know which contacts to report the outages (induced by disaster) to, and how?	0	
45	Is online ICT training, or are “read-aheads”, available for ICT stakeholders prior to exercises?	0	ICT/CRM training has not yet taken place, an activity under planning
46	Is feedback collected after exercises or drills to help improve procedures or performance for the future?	0	ICT/CRM simulation exercises have not yet been organized, an activity under planning
47	Is an “after action” performed after an exercise or drill?	0	ICT/CRM simulation exercises have not yet been organized, an activity under planning
<b>PERCENTAGE = (Sum of Yes responses)/16 X 100</b>			<b>1/16 x 100 = 6.25</b>

#### IV. INFRASTRUCTURE AND TECHNOLOGY: REQUIREMENTS, PLANNING AND MAINTENANCE

48	Is a regular technology inventory or assessment undertaken?	0	
49	Does such an inventory or assessment (as mentioned in question 48) have a mapping of infrastructure and networks available (publicly)?	0	
50	Is redundancy and resiliency planning undertaken for telecom providers?	1	

51	Are there opportunities to support or encourage telecommunication operators in doing the redundancy and resiliency planning? This could include advisory efforts, opportunities to engage in drills and exercises, and after actions, information-sharing efforts.	1	SIMEX
52	Are processes in place for the government to help expedite, facilitate, prioritize, or enable fuel delivery for communications network generators?	0	
53	Are there available and pre-positioned power sources for telecommunication networks?	1	
54	Are there guidelines in place for critical facilities to have back-up power supplies?	1	Good practice
55	Are regular technical trainings conducted for those personnel who will need to use and maintain/test emergency communications equipment, particularly that which is pre-positioned?	0	At the beginning of the acquisition only
56	Do first responders know where the pre-positioned equipment is located or where imported ICT equipment can be collected for use?	1	CRIC meeting and national, regional and district contingency plan
57	Are local communities and local staff also considered for training in the use and maintenance of emergency telecommunications equipment?	0	
58	Have critical /priority telecommunication sites being identified for restoration?	0	Non-existent
59	Are there mechanisms in place to prioritize critical telecommunication sites for restoration efforts?	1	Rapid reaction matrix and reflex sheet of the authorities
60	Are related reporting mechanisms in place?	0	
61	Has there been an assessment of ICT regulatory and/or policy barriers to entry or operation of needed equipment for disaster relief or restoration of networks?	1	Development of customs clearance procedures with WCO Customs
62	In the above-mentioned ICT assessment (question 61), have special measures been determined in case of an emergency, including identification of equipment for replacement, sources for rapidly sourcing equipment in times of need, determining redundant backup systems, and logistics capacity?	1	Requires updating
63	Is connectivity information, including data sets, available for government or public use to aid in disaster response and risk reduction planning?	1	
64	Is information about business continuity plans	0	

	exchanged between government and industry officials?		
65	Have emergency and network resilience/redundancy needs and requirements been considered in the national telecommunications development plan?	0	
66	Are policies in place to ensure that data can be shared by operators with responders in a way that protects individual privacy, while enabling response?	0	
67	Are multiple channels (such as television, Radio, Short Message Service, messaging, etc.) employed to ensure information gets to those affected quickly and effectively?	1	
68	Is social media employed to share information regarding disaster risk reduction?	1	
69	Are regular/ongoing national and regional alerting exercises and system-testing taking place?	0	Not very often
70	Is public education undertaken to sensitize communities on early warning for early action?	1	
71	Are members of vulnerable populations consulted regarding their specific needs in disaster scenarios?	1	
72	Is there an early warning alerting system in place?	1	
73	Is the Common Alerting Protocol (CAP) employed for early warning purposes?	1	
74	Are information materials including websites or applications (“apps”) accessible for disaster preparedness?	1	
75	Are the above-mentioned “apps” (in question 74) promoted widely to the public?	0	
76	Are information materials being shared in advance on ways that users of communications can lessen network congestion in a disaster?	0	
77	Are ICT capacities of vulnerable populations being developed in disaster risk management?	0	
78	Are accessibility and usability of ICTs considered in forthcoming disaster preparedness projects?	1	
79	Are disaster readiness information materials provided targeting vulnerable populations?	1	
80	Are public awareness campaigns conducted on disaster risk reduction themes in multiple accessible formats in different prevalent languages?	1	

81	Following a disaster, are disaster response efforts reviewed to assess challenges for vulnerable groups, and determine follow up actions?	1	
	PERCENTAGE = (Sum of Yes responses)/34 X 100		20/34 x 100 = 58.8

## 4.4 Annex 4: Multi-sectoral ICT Working Group Meeting Agenda

Agenda de Atelier du groupe sectoriel TIC			
Jour 1			
Sujet	Date de début	Durée	Facilitateur
Introduction, Mot de Bienvenue, Agenda	08:30	15 mn	Colonel Faly-BNGRC et Hery RAKOTOARIVONY-MPDNT
Présentation: Ministère du développement Numérique de la transformation Digitale des Poste	08:45	20 mn	Hery RAKOTOARIVONY-MPDNT
Présentation de l'Approche par responsabilité sectoriel - Qu'est ce que le Groupe sectoriel TIC	09:05	20 mn	Colonel Faly-BNGRC
Modèle de réussite de GSTIC	09:25	15 mn	Ria SEN et Mahmoud Cherif - PAM (ETC)
Présentation: ARTEC	09:40	15 mn	
Présentation: Groupe sectoriel Logistique - Knowledge Management	09:55	15 mn	
Pause	10:10	20 mn	
Présentation : Plateforme humanitaire du secteur Privée	10:30	15 mn	Vio - PSHP
Présentation : Il n'y a pas d'action sans transmission	10:45	15 mn	Tafika Malagasy
Présentation : Régulation sur l'utilisation des drones	11:00	15 mn	ANAC
Groupes pour discussion 1: Par secteurs - Opérateurs Télécoms dans l'urgence - L'utilisation des drone en urgence - Préparation aux urgences en télécommunications pour le gouvernement - Coordination des urgences pour les organisation internationales - L'apport du secteur privée dans les urgences télécoms	11:15	45 mn	
Pause Déjeuner	12:00	2 H	
Restitution Travaux de groupe 1	14:00	25 mn	
Questions/Réponses	14:25	10 mn	
Présentation : Système de drones opérationnels aériens	14:35	15 mn	BNGRC
Discussions de groupes intersectoriels 2: Solutions aux problèmes soulevés	14:50	45 mn	
Restitution Travaux de groupe 2	15:35	20 mn	
Questions/Réponses	15:55	10 mn	
Pause	16:05	20 mn	
Evaluation de la préparation aux urgences en matière de Télécommunication	16:25	30 mn	Ria SEN - PAM ETC
Mot de fermeture	16:55	5 mn	
Jour 2			
Sujet	Date de début	Durée	Facilitateur
Recap Jour 1 / Agenda jour 2	08:30	15mn	
Présentation du projet 930	08:45	15 mn	Viamo
Travaux de groupe: - Revue des TDRs du Groupe sectoriel - Revue et organisation du plan de travail du groupe	09:00	30 mn	
Présentation et validation des TDRs	09:30	10 mn	
Présentation et validation du Plan de travail	09:40	10 mn	
Camions connectés. La soution pour une meilleure réponse au urgences?	09:50	15 mn	Cherif - PAM
Pause café	10:05	10 mn	
Session ouverte sur la collecte de données de bénéficiaires: KYC (Know Your Customer)	10:15	30 mn	Tout le monde
Mini-simulation: Réponse intersectorielle aux urgences	10:45	1heure 15	
Mot d'aurevoir et fermeture	12:00	30 mn	
Fin de l'atelier - Déjeuner 12:30			

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