



NATIONAL DISASTER PREPAREDNESS PLAN

FOR FOOD SECURITY AND NUTRITION SECTOR IN RWANDA

May 2022

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Abbreviations and acronyms

| | |
|-----------|---|
| ASWG | Agriculture Sector Working Group |
| CFSVA | Comprehensive Food Security and Vulnerability Analysis |
| CHWs | Community Health Workers |
| DIDIMAC | District Disaster Management Committees |
| DM | Disaster Management |
| DRM | Disaster risk reduction management |
| DRRM | Disaster Risk Reduction and Management |
| DRRMP | National Disaster Risk Reduction and Management Policy |
| FAO | Food and Agriculture Organization of the United Nations |
| FNS | Food and nutrition support |
| FPs | Farmer Promoters |
| GRSS | Grain Reserve Strategic Stores |
| INGO | International Non-Government Organization |
| MIDIMAR | Ministry of Disaster Management and Refugee Affairs |
| MIGEPROF | Ministry of Gender and Family Promotion |
| MINAGRI | Ministry of Agriculture and Animal Resources |
| MINALOC | Ministry of Local Government |
| MINECOFIN | Ministry of Finance and Economic Planning |
| MINEMA | Ministry in Charge of Emergency Management |
| MININFRA | Ministry Of Infrastructure |
| NADIMAC | National Disaster Management Committee |
| NCDA | National Child Development Authority |
| NCPD | National Commission for People with Disabilities |
| NFIs | Non-Food Items |
| NGO | Non-Government Organization |
| NISR | National Institute of Statistics of Rwanda |
| NPDM | National Platform for Disaster Management |
| NUDOR | National Union of Disability Organization of Rwanda |
| NWC | National Women Council |
| RDF | Rwanda Defence Forces |

| | |
|---------|---|
| REG | Rwanda Energy Group |
| RNP | Rwanda National Police |
| SEDIMAC | Sector Disaster Management Committees |
| SOPs | Standard Operating Procedures |
| SOPs | Standard Operating Procedures |
| SRE | Search, Rescue and Evacuation |
| ToRs | Terms of Reference |
| UNHCR | United Nations High Commissioner for Refugees |
| UNICEF | United Nations Children’s Fund |
| WASH | Water Sanitation and Hygiene |
| WFP | World Food Program |
| WVI | World Vision Rwanda |

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NB: This document should be reviewed every two years to ensure its validity to address real situation related to **Food and Nutrition Assistance Preparedness Plan** in Rwanda.

Glossary of key terms

Contingency planning

A management process that analyses disaster risks and establishes arrangements in advance to enable timely, effective and appropriate responses.

Capacity

The combination of all the strengths, attributes and resources available within an organization, community or society to manage and reduce disaster risks and strengthen resilience.

Disaster

A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.

Disaster Risk Management

Disaster risk management is the application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses.

Disaster Risk

The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity.

Early Warning System

An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events.

Exposure

The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas.

Hazard

A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.

Preparedness

The knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters.

A **preparedness plan** establishes arrangements in advance to enable timely, effective and appropriate responses to specific potential hazardous events or emerging disaster situations that might threaten society or the environment.

Response

Actions taken directly before, during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Vulnerability

The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.

Food Security

According to the United Nations' Committee on World Food Security, food security is defined as meaning that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life.

Nutrition

The human nutrition is the act or process of nourishing or being nourished. Specifically, it is the sum of the processes by which a human takes in and utilizes food substances.

1. Introduction

1.1 Background

The nature, frequency, intensity, and duration of a disaster determines its impacts on different entities, including food security and nutrition, with smallholder farmers and the poor households in both urban and rural areas disproportionately affected. In Rwanda, disaster events such as drought, floods, landslides, volcano eruption, health pandemic exert a heavy toll on various sectors, and are jeopardizing food security and nutrition. Climate change-related shocks appear to be leading to more volatile, highly variable rainfall, placing agriculture in a vulnerable and unpredictable position. Besides impact of multiple disasters, many factors contribute to chronic malnutrition and food insecurity issues including soil erosion, inadequate farming inputs, and lack of access to markets and financial services. One of the major constraints to domestic food production is also low productivity gains for smallholder farmers. The socio-economic impact of COVID-19, and the disruption of economic activity country-wide led to increase food insecurity, among the vulnerable individuals and households.

The food and nutrition security indicators show that about 48.7 and 22.1% of the rural and urban populations in Rwanda, respectively, are still food and nutrition insecure¹. On malnutrition, Rwanda has one of the highest rates of prevalence of child stunting in the world. The UNICEF, World Health Organization and World Bank estimates Rwanda's prevalence of stunting in children under 5 years of age was 33.1% for 2020². This represents a modest decrease from the 2010 prevalence of 44.3%. It is estimated that the effects of hunger and undernutrition costs Rwanda approximately US \$820 million (504 billion Rwanda francs) annually³.

Vulnerable groups and are often among the most affected in disaster events, with cascading consequences for value chains, food security and even national economy. Protracted crises and increased disaster risk exposure has become the 'new normal' and the impact of climate change -induced disaster is set to exacerbate these challenges even further. As these crises persist, the country and communities need more effective and

¹ FAO. 2018. Hunger and Food Security, Rwanda. FAOSTAT, Rome. Found at: <http://www.fao.org/faostat/en/#country/184>. Accessed on 19th Apr 2020

² UNICEF, WHO, World Bank: Joint child malnutrition estimates (JME). Aggregation is based on UNICEF, WHO, and the World Bank harmonized dataset (adjusted, comparable data) and methodology

³ The Cost of Hunger in Rwanda: Social and Economic Impacts of Child Undernutrition in Rwanda - Implications on National Development and Vision 2020

sustainable disaster preparedness strategies in the efforts to design a sustainable future. Insufficient governance and institutional framework for disaster preparedness plan to deal with the resulting challenges pose a serious threat to food systems in the country.

1.2 Purpose and Rationale

The purpose of this National Disaster Preparedness Plan for the Food Security and Nutrition (FSN) Sector in Rwanda is to establish a comprehensive multi-hazard approach to a spectrum of activities in disaster preparedness. This National plan covers one phase of the disaster management cycle, that is preparedness which refers to measures taken to prepare for and reduce the effects of disasters. The National disaster preparedness plan is to ensure there is effectiveness in coordination of all preparedness activities within the FSN sector in the country.

This disaster preparedness plan for FSN sector incorporates global best practices and provides a framework of interaction between the Government ministries, departments, Non-Governmental Organizations, United Nations Agencies, Private sector, and Community-Based Organizations engaged in FSN sector in the country. In addition, the national plan provides a focus for inter-agency and inter-governmental disaster preparedness, planning, training, coordination and information sharing. This national plan also spells out the approaches and strategies for implementing a preparedness and providing support technical services before the disaster. The FSN sector plan is meant to maximize efficient utilization of scarce resources needed for effective preparedness for disaster response.

The plan also documents roles and responsibilities of the various actors and institutions engaged in disaster preparedness within the FSN sector in Rwanda. It is also intended to bolster coordination role of Ministry in Charge of Emergency Management (MINEMA), and improve overall disaster preparedness coordination, collaboration and integration of national, district, United Nations agencies, private sector and Non-Governmental Organization partners. This plan document various national government and partners preparedness actions with the view of saving lives and livelihoods within FSN sector.

The overall objective of this FSN sector plan is to provide a framework for national preparedness for hazard events to reduce damage or address potential threats, and to be able to respond effectively in an emergency and to assist those who have been adversely affected.

1.3 Framework and Legislations

The National Disaster Preparedness Plan for Food Security and Nutrition sector is informed by priorities of the Republic of Rwanda for National Disaster Risk Reduction and Management Policy (DRRMP), and DRRM Strategic Plan for 2020-2030, and aligned to Vision 2050 Pillar on Agriculture for wealth creation, and the Rwanda's Constitution, especially on food security.

The overall national development framework articulated under Rwanda's Vision 2020 defined five key performance indicators and targets relevant to FSN namely: (i) agriculture production in terms of energy availability (Kcal/capita/day), (ii) food consumption score, (iii) acute child malnutrition, (iv) underweight and (v) chronic malnutrition. Various sector policies and strategies are being implemented to contribute to achieving targets set under the above five performance areas⁴.

This national disaster preparedness plan is also expected to contribute to the achievement of food security and nutrition in Rwanda. Through the actions articulated in this Disaster Preparedness Plan for FSN sector, MINEMA, MINAGRI, MINALOC and partners shall contribute to the national development agenda, and the achievement of the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction, Comprehensive Africa Agriculture Development Programme (CAADP) among other global and regional commitments.

⁴Ministry of Gender and Family Promotion (2018). Rwanda Country Strategic Review of Food and Nutrition Security. Ministry of Gender and Family Promotion Kigali, June 2018.

2. Sector status

2.1 Food and Nutrition Status in Rwanda

Rwanda has taken great strides in reducing food insecurity and malnutrition in the country. However, increasing natural and man-made hazards in the country continue to erode the gains made on FSN sector. According to the existing estimates, 19 percent of the population (or slightly more than 468,062 people) are food insecure⁵. The latest Strategic Review on FSN undertaken by Ministry of Gender and Family Promotion with support of WFP, revealed that 40% of the population are food secure, 40% are marginally food secure, 17% are moderately food insecure and 3% are severely food insecure⁶.

Rwanda is highly vulnerable to the effects of climate change and natural hazards (landslides, floods, droughts) as ~70% of land nationally is on hillsides with limited terracing and low levels of irrigation (~1.6% agricultural operators have invested in irrigation). High levels of undernourishment, leading to negative health outcomes such as stunting (33.1% of children under-five)⁷, driven by challenges in the food systems such as limited availability, access and affordability of nutritious foods. While the rates of wasting and stunting among children under five has steadily decreased since the early 2000s, undernourishment in the general population has risen from 22.2% in 2012 to 35.6% in 2020.

Country's Food Systems, which are a hybrid of rural/traditional and informal, play a critical role in the national economy. However, insufficient production and low crop due to small landholdings, limited use of agricultural inputs and mechanization as well as constrained access to finance. Limited diversity in production with a focus on priority, staple crops (e.g., maize, potatoes) and cash-crops (e.g., coffee, tea), resulting in low production, affordability and availability of nutrient-rich foods (e.g., vegetables, fruits) contains sustainable food systems in the country. There is also limited income and income growth for a large share of the population that depends on agriculture for their livelihoods (67% of the active workforce). Part of this population depends on social protection programs from the government to survive and few can make their way out of poverty.

⁵ 2018 Comprehensive Food Security & Vulnerability Analysis (CFSVA)

⁶ Ministry of Gender and Family Promotion (2018). Rwanda Country Strategic Review of Food and Nutrition Security. Ministry of Gender and Family Promotion Kigali, June 2018.

⁷

2.2 Food Security and Nutrition Sector Actors

The key actors in disaster preparedness for the Food Security and Nutrition (FSN) sector interventions in Rwanda include MINEMA, MINAGRI, MIGEPROF/NCDA, Ministry of Health, and MINALOC, and UN agencies (WFP, UNICEF, UNHCR, FAO), bilateral and multilateral partners, international and national Non-Government Organizations (NGOs), and the national Red Cross Society. Other institutions such as the private sector, research and development organization also play a critical role. However, there are a growing number of stakeholders in Rwanda who are working on food security and nutrition.

At the interagency level, the following need to be taken into consideration for effective disaster preparedness in the FSN sector:

- Effective information sharing related to available resources and capacities with various actors and players is necessary.
- Need to improve governance systems and accountability through joint planning, budget allocation, joint interventions/activity implementation, synchronized intervention and M&E for FSN.
- Need to create systems for data and information sharing, including an accessible dashboard or portal for disaster preparedness actions.

In the country, food security food assistance is undertaken by MINAGRI through the distribution of food items from the National Strategic Grain Reserves: these are the government-owned food reserves to respond to food shortages. In addition, other UN agencies (WFP, FAO, UNICEF) and government partners such as Rwanda Red Cross, International and local NGOs, also contribute to food assistance where the government capacity is overwhelmed.

2.3 Food grains reserve strategic stores

The Government of Rwanda has set up through the Ministry of Agriculture, grains strategic stores as a mechanism to ensure readiness to food stock in case of shocks and emergencies. The stores are established in different locations across the four provinces and the City of Kigali. The grains stores are equipped based on the risk forecasted. However, items are purchased regularly to assure the set minimum strategic levels is maintained. Stores grains include maize, beans and rice. Additional items especially nutrition ones (Sugar, salt, oil, porridge) can be added depending on the forecast, needs but also the agriculture production.

In 2017, these stores had 10,000 metric tonnes of maize and 5,000 tonnes of beans. This is projected to increase to 49,500 metric tonnes of maize and 18,600 tonnes of beans by 2024, according to the country's fourth Strategic Plan for Agriculture Transformation (PSTA4).

2.4 SWOT Analysis

The SWOT (strengths, weaknesses, opportunities, and threats) analysis was conducted to illustrate raised gaps and challenges. Results of the consultative and workshop discussions are presented in the table below.

Table 1. SWOT Analysis for the Food Security Sector

| Categories | Strengths | Weaknesses | Opportunities | Threats |
|-------------------------------------|--|--|---|---|
| Risk assessment | <ul style="list-style-type: none"> ➤ Strong existing data systems including HH profiles, ➤ Disaster communication system from MINEMA, ➤ CFSVA assessment, ➤ EWS including meteo messages with well-defined hazard triggers | <ul style="list-style-type: none"> ➤ Continuous food security monitoring system is not operational ➤ Data sharing with stakeholders. ➤ Fragmented data sources and not regularly updated. | <ul style="list-style-type: none"> ➤ Opportunity to have standardized and one repository data source for all the risk assessment information | <ul style="list-style-type: none"> ➤ Multiple and complex risks (pandemic, volcano eruptions, drought, population influx, flooding) ➤ Climate change and changing weather patterns ➤ Food prices increase, inflation |
| Partnership and Coordination | <ul style="list-style-type: none"> ➤ Good governance structure from village to national, ➤ Existing coordination structures between MINEMA, MINAGRI, MINALOC, Districts on the use of GRSS resources | <ul style="list-style-type: none"> ➤ NPDM -no regular meetings. | <ul style="list-style-type: none"> ➤ Existing forum-NPDM ➤ Opportunity to establish inter-sector coordination mechanism for FSN. | |
| Localizations | <ul style="list-style-type: none"> ➤ Active culture of solidarity and volunteerism at grassroot level/ community-based structures (CHWs, FPs, Friends of Family) | <ul style="list-style-type: none"> ➤ Few local actors (CSOs) with capacities to respond effectively to emergencies | <ul style="list-style-type: none"> ➤ Availability of local actors and community volunteers. | |
| Response plan/preparation | <ul style="list-style-type: none"> ➤ Existence of contingency plans ➤ Triggers for climate induced hazards are well defined ➤ Existence of multi-hazards response plans. | | <ul style="list-style-type: none"> ➤ Updated the disaster response and contingency plans | |

| | | | | |
|-------------------------------|--|---|---|--|
| | <ul style="list-style-type: none"> ➤ Cash transfer mechanisms in place | | | |
| Resources mobilization | <ul style="list-style-type: none"> ➤ Existence of national food grain reserve strategic stores (GRSS). ➤ Use of international standards to calculate the ratio per person (2500kcal per day). ➤ Existence of logistical capacity with MINEMA, Districts and other gov bodies. | <ul style="list-style-type: none"> ➤ GRSS are not geographically equally distributed. ➤ Nutritious products for children, women, elders not stocked. ➤ Districts do not budget for emergency response ➤ Response budget for cat. 3 is limited or non-existent | <ul style="list-style-type: none"> ➤ Partnership with experienced organizations in FSN such as WFP, FAO, NGOs, Red Cross Society | |
| Capacity building | <ul style="list-style-type: none"> ➤ Expertise in FSN ➤ Existence of ASWG at MINAGRI | <ul style="list-style-type: none"> ➤ Few local actors (CSOs) with capacities to respond effectively to emergencies, ➤ DRRM is not embedded in roles and responsibilities of community-based volunteers | <ul style="list-style-type: none"> ➤ Opportunity to introduce more formalized trainings on DRRM in community-based volunteers training tools | |

3. Disaster preparedness strategies and approaches

Preparing for disasters saves countless lives, speeds up people’s recovery and saves money. MINEMA together with key government ministries (MINAGRI, MINELOC etc.) and stakeholders in the food security and nutrition sector continually improve their disaster preparedness and response capacity - ultimately preventing and reducing the impacts of disasters on vulnerable populations. The strategies indicated could help structure and support disaster preparedness in the country for the FSN sector.

The table below provides detailed preparedness actions and institutions involved.

Table 2. Roles and responsibilities of involved institution

| Actions | Institutions involved |
|---|--|
| Data collection, analysis, dissemination of FS and nutrition | NISR, MINAGRI, FAO, WFP |
| Coordination functions & structures, activation | MINEMA, MINALOC, MINAGRI, MIGEPROF/NCDA |
| Awareness creation and sensitization of the vulnerable community | MINALOC, CSOs, Red Cross Society |
| Mapping of key actors in FSN (who, where, what, and capacity) | MINEMA |
| Strategic prepositioning of essential food and nutrition items | MINEMA, MINAGRI, WFP, UNICEF, International and Local NGOs |
| Establishing contracts with FIs, telecommunication companies, and private sectors for cash-based assistance | MINEMA, MINALOC, LODA, MINECOFIN |
| Resource mobilization (human, finance, equipment) | MINEMA, DPs, Red Cross Society |
| Establishment/replenishment of food strategic stores | MINAGRI |
| Market and price assessment and analysis | MINAGRI, NISR, MINICOM, MINICOM |
| Early warning systems for climate-related disasters | Meteo Rwanda, MINAGRI, MINEMA, FAO, MINALOC |
| Development/updating of contingency and response plans | MINEMA |
| Capacity building, trainings, simulations of local responders | MINEMA, DPs, Red Cross Society |

3.1 Hazard risks and vulnerability assessments

Hazard vulnerability analysis (HVA) and risk assessment are systematic approaches to identifying hazards or risks that are most likely to have an impact on food security and nutrition. The process could include:

- Hazard and shocks identification
- Vulnerability analysis

- Exposure analysis
- Ensure there is continuous food security monitoring system
- Put in place data sharing protocols with stakeholders
- Develop a repository data source for all disaster exposed population

Risk Analysis: Risk assessment and identification is a continuous activity that should be done periodically to identify all factors that may lead to food insecurity and malnutrition. It includes surveillance, surveys, assessments, and regular monitoring.

Action to be undertaken under risks and vulnerability assessments should take into considerations some of cross-cutting issues like gender and diversity, protection, accountability to affected population. This should include vulnerable people disproportionately affected by disasters, e.g., girls, PWDs, children, elders, pregnant and lactating mothers. Etc.

Vulnerability analysis: The Comprehensive Food Security and Vulnerability Analysis (CFSVA) is a unique tool used in Rwanda and it's designed to understand these factors. It describes the profile of the food-insecure and vulnerable households, identifies the root causes of hunger, and analyzes risks and emerging vulnerabilities among populations. Districts officials lead assessments though their skills and capacity need to be enhanced.

Early warning: Inadequate early warning systems (EWSs), coupled with limited investment and weak institutional and technical capacity, are implicated in contributing to food insecurity-related emergencies in the country. Consistent with one of the goals of the Sendai Framework for Disaster Risk Reduction (SFDRR), increasing investment in EWSs would contribute to a substantial increase in the availability of, and access to multi hazard and disaster risk information, one of the key inputs in achieving zero hunger.

- There is need for reliable, timely information regarding food production and availability, food prices, and hunger levels goes beyond simply responding to such periods of food crisis;
- Strengthen systematic data and information sharing that anticipate food security crises in order to mitigate the severity of their effects.

3.2 Partnership and Coordination

Inter-agency coordination and collaboration are essential to successful disaster preparedness. MINEMA is central in the coordination of roles and responsibilities in disaster preparedness and ensuring stakeholders incorporate disaster planning into their

policies and operations. For effective preparedness, there should be clear definition of roles and responsibilities to avoid duplication, overlaps and prevent misuse of available resources.

In Rwanda, FSN interventions are coordinated at three levels of administration: national, Sector, and District levels. Coordination and partnership that involve government and non-governmental organizations, UN Agencies, Private sector, CSOs, Red Cross Society, and local community organizations are essential for disaster preparedness. MINEMA will enhance partnership and coordination of disasters with the support of MINAGRI to ensure there is regular technical working group meetings on FSN sector for disaster preparedness.

Some the functions for MINEMA in coordination include the following:

- Convening of inter-agency coordination
- Mapping of resources, stocks from partners and their locations
- Dissemination of preparedness information on FSN to partners.
- Coordinate the inter-agency assessment, district-led assessments and response plans

MINEMA has the responsibility to inform all FSN sector members on the occurrence of an incident that has a potential of triggering FSN needs. In strengthening MINEMA coordination role, there should be effective way in which the initial data and information is communicated to all members for their initial consideration in disaster preparedness. Similarly, FSN sector partners should inform MINEMA on available resources for effective coordination so that it is taken into consideration in the preparedness planning.

- MINAGRI should pro-actively steer the coordination of the food security sector in disaster preparedness.
- MINAGRI and MINEMA should also ensure that the planning and coordination of food security preparedness and responses is timely, needs- and evidence-based.
- The sector lead should also ensure there is use of the results of Early Warning Systems (EWS) and assessments as a basis for preparedness planning and coordination.
- Effectively facilitation, coordination and dissemination of rapid assessment / need assessment to the FSN members.
- The sector lead in its coordination role, should promote FSN members inclusiveness, and pro-actively engages with local (NGOs, CSO, etc.), UN agencies

and new actors (new to the coordination system) to enhance effectiveness and harmonization of the sectoral preparedness.

3.3 Localisation

For effective disaster preparedness, engagement of the local institutions, structures and civil society organizations is essential. This entails activating and using the DIDIMAC and SEDIMAC as coordination platforms and engaging with the district partner coordination structures such as JADF. The use of local actors is essential for sustainability since they understand the context, community needs and have presence in the communities. Therefore, they must be involved in disaster management programmes from the start, and supported by initiatives to develop their capacities and linkages so that they can help overcome the damage.

In this regard, below are listed key specific roles of local actors and district authorities in preparedness.

The roles of local actors:

- Ensure that they include disaster-risk prevention and mitigation in their sector of activity
- Conduct and/or participate in awareness campaigns
- Depending on needs and area of activities, local actors should respond to the request from disaster management committees through JADF at any stage of disaster preparedness.

The roles of the districts:

- Ensure active meetings of the DIDIMAC and SEDIMAC to discuss risk and early warning information and inform all stakeholders of the situation.
- Convene a meeting with JADF to sensitive partners about risk analysis, discuss preparedness planning and map available partners and resources at the local level.
- Share information about local actors and resources with MINEMA and provide feedback on the response plan.
- Collect information about needs at community level and share these upwards with MINEMA.

3.4 Response plan/preparation

The national preparedness plan for food and nutrition assistance should be regularly updated, using findings of the risk assessment to inform the response plan. Once the risk is eminent (referring to hazard-specific triggers and data from the early warning system),

a response plan should be immediately developed for the food security and nutrition sector. Based on the forecasts and early warning, the response plan should also integrate anticipatory actions and forecast based financing: early actions in anticipation of the full onset of the disaster to mitigate the impact.⁸

This should be led by MINEMA in coordination with the food security and nutrition working group or stakeholders. The response plan should be developed in a short timeframe and include the following:

- Disaster context (including an analysis of population in need by gender, age and vulnerability status to inform targeting, locations, beneficiary numbers)
- Response options and modalities (**Annex 1:** Intervention proposed response options) (assessment and selection of most appropriate modality of assistance – in-kind, cash, etc.)
- Resources available (sources, amounts, both financial, in-kind and human)
- Roles and responsibilities in the specific response
- Monitoring framework

The sector leads should ensure that findings of assessments and surveys inform and are actively incorporated into the response planning processes.

The development of the response plan shall be a consultative process, including consultations with key actors in the food security and nutrition sector, agreeing with each actor on their roles and responsibilities. The plan should be shared with all stakeholders after approval, to ensure alignment.

Preparedness for doing cash-based response should be strengthened through:

- Market and financial sector assessments
- Exploration of existing framework agreements and contract possibilities for financial service providers
- Establishment of standard minimum transfer values and transfer value setting guidance
- Training to stakeholders on cash-based assistance

Response Modalities of food assistance

⁸ In the FSN sector, these can include drought-resistant seeds, food storage facilities, irrigation equipment, destocking of livestock, cash transfer top-ups, etc.

The modalities of food assistance must respect the fundamental humanitarian principles of humanity, impartiality, neutrality and independence. The FSN sector should strive to provide flexible resources to support the use of the most appropriate and efficient combination of emergency response tools, including cash, vouchers, in-kind food aid, capacity building and other commodities or services.

In the country, in-kind food distribution is mainly conducted by the Government, MINEMA, MINAGRI, and Local Governments. However, the preference of affected communities and the information on available resources is normally taken into consideration. Currently, preferences are on what modality is used for food and nutrition assistance is mainly determined by the leading institution after an assessment.

- There should be some basic guidelines showing the process of determining the response modality within the FSN sector.
- The amount that constitutes what should be in the minimum food basket or in the amount/quantity to be transferred should also be determined. This could be calculated based on recommended daily nutrients food content per person, respecting of age, sex and other special nutrition aspects of vulnerable groups.

The following are the response principles in this preparedness plan:

- **Effective data collection and sharing:** Any interventions should base on accurate data and information about the impact and the needs. Partners should agree on the following for the data collection:
 - o What type of data is to be collected?
 - o What tools or format are to be used?
 - o What are the means of verification of the quality of data?

Table 3. Some of the data aspect for consideration

| Data aspects | Variables/measurables | Means of verification |
|-----------------|---|---|
| Effects | Causes of the effects (what has triggered the needs: Drought, floods, landslides, etc) What was the magnitude of the triggering event (High, medium, small)? | Contacts of local leaders Media on the ground Physical assessment |
| Affected people | Number of affected families Number of people Number of Children under 5 Number of people with chronic illness Number of elderlies above 65 Number of people with disabilities (Reduced mobility, vision, mental illness) Affected are District, Sector, Cell, villages Number of affected people by category and per area Number of men and women Number of pregnant and lactating women | |

- **Timely and harmonized interventions:** Food and nutrition assistance is often a lifesaving tool. It is also a community and or family stabilizer after a huge impact since food is among the basic needs for well-being. It is therefore crucial to ensure timely provision of the assistance. It is equally important to harmonize the provided assistance. If one community or family is assisted with a given type of the assistance their neighbor in the same condition should get the same to avoid imbalances and any form of favoritism.

The agreed upon interventions should ensure provision of required quality and quantities considering special needs: nutrition need of special vulnerable groups. When resources are scarce a minimum package should be agreed upon and all beneficiaries be treated in the same ways. Interventions should be planned and implemented in a way that no one (eligible) is left behind.

- **Beneficiaries' involvement:** Any interventions planned and implemented without the beneficiaries take may not be fully beneficial and effective for them. During assessment beneficiaries' ideas about how, they would wish to be assisted should be collected and considered. Beneficiaries should know options that they have and the quantity of resources available. They should play a role in confirming the list of beneficiaries and in distribution.

3.5 Resource mobilization

In a disaster preparedness plan for the FSN sector, the identification of the resources required (financial, human, equipment, stocks), is critical for effective response. It is therefore necessary that an effective resource mobilization plan be developed by the Government and actors. This should be based on an analysis of available resources and identification of the gap.

Financial

The Government avails budget for disaster response on an annual basis for central government and districts. For category 3 and 4 disasters, MINEMA receives budget for prevention and mitigation. Categories 3 and 4 can include an appeal to international partners.

Districts receive an earmarked budget allocation to select districts (based on their disaster risk profile) for category 1 and 2 disasters. Districts should budget for emergency preparedness and response in their annual budget.

- Districts are to work with district partners through the JADF to map out complementary resources. If the district does not have a sufficient number of complementary resources from partners, it is to submit a timely request for resources to MINEMA.
- Districts are to also leverage other sector-specific programmes and budgets, such as that of social protection, to support populations.
- Limited resources: Resources for food and nutrition assistance are relevant when there are immediately available but also when they are enough to cover all the needs. Provision of insufficient food resources may trigger conflicts and more issues in addition to the effects of the disasters.

Stocks: The Strategic Grain Reserve stocks sufficient basic staples for 10% of the population each year (considering population increase). Key to preparedness is ensuring the regular review of framework agreements with suppliers and transport companies.

Based on district-led assessment (and data on population affected, ration), districts prepare a request for food from the SGR. Districts can also identify additional suppliers of food should the SGR capacity not be adequate.

- MoH, NCDA and RBC should be informed of requirements for nutrition commodities and milk for PLW and under-5s.

- Supply should be done using their framework contracts with suppliers of these foods.

Livelihood support

- Districts should identify appropriate warehousing and storage facilities to store food items. District pharmacies should be engaged for the storage of fortified blended foods.
- Transport planning is to be done by the requesting entity (MINEMA and line ministries or district), using their own framework contracts and budget.
- Equipment and non-food items

Districts, in collaboration with MINEMA and partners such as Red Cross and NGOs, are to ensure adequate local stock of food related NFIs and infrastructure, including cooking equipment and fuel, WASH items for adequate hygiene and clean drinking and cooking water, handwashing equipment/supplies and facilities. Environmental and environmental health considerations should be considered, especially for cooking and disposal of items and waste.

Should there be a risk of inadequate non-food items, cash-based assistance may be considered as an appropriate modality, based on the assessment findings.

Human

Human resource needs should be identified at all levels of Government. This includes defining the required numbers and profiles of staff and volunteers needed to deliver the response. For national level disasters, MINEMA leads the process; while for cat. 1 and 2, this is done by the district.

The response should draw upon capacity, skills and knowledge at the community-level: community structures and processes (such as *umuganda*), mobilization of existing community volunteers and proximity advisors (such as CHWs, farmer promoters, etc.). These local stakeholders should be informed, and their possible contributions identified.

3.6 Capacity Building

Capacity building is defined as the process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and economic goals. In the preparedness context, capacity development should incorporate campaigns, training, research, simulations and drills to develop knowledge, skills,

attitudes, systems and mechanisms that reduce vulnerabilities and help various stakeholders to cope with hazards.

In Rwanda, capacity building at the national and decentralized units, for example through simulations and trainings in disaster preparedness is essential for saving lives and livelihoods. The capacity building of partners, especially the local organizations, in order to maximize their contribution towards the collective food security disaster preparedness and responses is critical. Training should be done regularly and during the preparation phase. Capacity building activities should include training and refresher training on:

- Food security assessment and analysis (enhance partners' capacity to collect and analyze data)
- Food and cash preparedness (delivery model, distribution practices, etc.)
- Beneficiary targeting and identification in food security context
- Training on contingency planning process
- Raising awareness on disaster impact of FSN sector
- Conducting a flood table-top exercise/ simulation
- Individual staff attending a training course on DRRM etc.
- Developing a regular capacity building plan.

Standardized training packages covering these areas specifically focused on the FSN sector are not yet in place and should be developed as a key preparedness action by MINEMA.

Simulation exercises should be organized regularly to test the systems and capabilities of concerned actors to deploy and ensure effectiveness of interventions.

Capacity building should equally focus on resources, logistics and communications as these all play a vital role in disaster preparedness.

4. Implementation framework

4.1. Development, enforcement and updating of the SOPs

SOPs are a set of written and required safety procedures to be known and followed by all leading sectors and stakeholders, in the event of disasters or emergencies. These are designed to be a template for government and non-government involved institutions to adapt and adopt as standard guidance for emergency shelter and are essential part of preparedness and response before or after a disaster.

In this regard, MINEMA in consultation with actors should ensure that SOPs are prepared according to the developed checklist (see the annex 3). The checklist intends to help people, communities and institutions understand issues of disaster recovery, taking multi-sector approach to deal with the challenges and incorporating disaster risk reduction measures into the recovery process.

The food and nutrition cluster should consider all these factors while planning for interventions. Advocacy has to be continuously made to other sectors to consider the risk of food insecurity into plans and programs.

4.2. Activation guidelines and protocols

This plan shall be activated after the assessment has demonstrated an exclusive coming hazard that shall affect the food security sector.

- The activation of the plan shall be done by NADIMAC for potential disasters likely to be occurred and require national level interventions, disasters of Level 3 and 4 (see annex 4).
- The activation of the plan shall be done by DIDIMAC for potential disasters that require the interventions at district level (Disasters of Level 1 and 2).

4.3. Logistic and supply chain

During the Emergency Phase, in collaboration with actors, MINEMA shall assume the following roles and responsibilities:

- Coordination of requirements for supply chain (requests from actors and government)
- Coordination of information about road network/access to locations, warehousing locations, distribution locations
- Transportation of personnel to those locations, particularly for locations that are difficult to access

- Ensuring coordination of convoys
- Ensuring transport of food to the final distribution point.
- Ensuring the availability extra storage capacity (MSUs, tents) – identifying where these can be obtained, agreeing to use them etc.
- Ensuring the availability of equipment – weigh scales, packaging, etc.
- Ensuring the availability of the trained personnel including volunteers.

Institutions participating directly and indirectly to food and nutrition interventions should communicate the available resources so that the level of preparedness is known and continuously gauged in comparison with the levels of risks. Resource inventory (see the template in annex 2) shall consider the following

- Stored food items available inside the country with specific locations and conditions of release
- Available funds that can be mobilized for interventions and conditions of release
- Available necessary equipment and material required for interventions
 - ✓ Transportation trucks, vehicles
 - ✓ Nonfood items (Plates, cups, spoons, folks, saucepans, dishes)
 - ✓ Cooking material (Firewood, gas, other)
- Available trained and non-trained personnel
 - ✓ Managers
 - ✓ Casuals
 - ✓ Volunteers

For each type of resource, the following should be clarified

- Available quantity
- Location
- Conditions for release
- Time for release and deployment
- Contact person with phone number, email, and address
- Alternative contact person

To remain accurate, the resource inventory should be updated every 6 months and anytime there is a major change.

4.1 Monitoring

- **Food Market Price Monitoring:** MINEMA shall continuously collaborate with MINAGRI and other actors to ensure that market price monitoring surveys are

regularly conducted. This would provide an early warning on high food prices at c that may negatively affect food security.

- **CFSVA:** MINIMA shall continuously collaborate with MINAGRI, NISR, and other actors to ensure that the CFSVA survey is regularly conducted. Results should inform ahead of time on alarming trends that may lead to food insecurity.
- MINEMA shall always analyze early warning messages regarding eventual hazards to evaluate the impact on food security.
- From this preparedness plan, MINEMA will prepare the annual action plan which will be monitored quarterly.
- MINEMA should review tools that are already available and harmonize them for use in responses.
- MINEMA should ensure that all planned M&E activities are timely conducted and learning sessions organized with stakeholders for a better future programming.

List of references

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Annex

Annex 1: Intervention proposed response options

| S/N | Assistance option | Applicable situation | Requirements | Advantages | Challenges |
|-----|--------------------------|---|--|---|--|
| 1 | Dry meals | Dry meals such as energy biscuits, juices, water, can be used for very short time and temporary situation where affected people are out of their usual environment but are heading to a more established accommodation. | Affected people transiting Available resources and supplies | Dry meals can help the affected people to safely transit. No need of heavy logistics | No time for resource mobilization and proper organization Some people may not be served due to limited organization and coordination |
| 2 | Hot meals | When there is no possibility of affected people to cook meals themselves due to various reasons When they have taken dry meals more than 4 times | Affected people should be together in selected place(s) | Effective use of cooking materials Hygiene and safety can be controlled | Organizing cooking activities may be time and resource consuming Need for control and monitoring |
| 3 | In kind food items | When affected people have remained in their location and environment and when they can be able to cook for themselves. The option can also be used when there is possibility of several rounds of assistance | Affected people should be in an accessible area; Food items must be available and stored in existing storage facility; Transportation and distribution capabilities have to be in place | Beneficiaries play a role and own the process | Monitoring the use of the provided assistance may be difficult; Requires a lot of logistics Vulnerable groups may not be reached |
| 4 | Cash based interventions | A situation where a disaster did not affect food supply chain in the area. | Food items to be easily accessible within the affected area Cash sending and receiving schemes to be available | No logistic required Affected families can diversify type of items to be purchased Not time consuming, immediately deployable | Effective use of the provided difficult to be ensured Can trigger raise of food items prices in the area; Risk of not covering the expected period |

| S/N | Assistance option | Applicable situation | Requirements | Advantages | Challenges |
|-----|-------------------|--|--|--|---|
| | | | The identification of beneficiaries to be effectively done | once the list of beneficiaries is available | |
| 5 | Food vouchers | When a disaster can be anticipated and when community preparedness mechanisms are in place. | Vendor distribution system to be in place Food items to be easily accessible within the affected area Strong monitoring system | Success or failures are linked to the level of preparations and awareness of all parties; No logistic required Affected families can diversify type of items to be purchased | Requires a lot of preparation Effective use of the provided difficult to be ensured Can trigger raise of food items prices in the area; Risk of not covering the expected period |
| 6 | Food for work | Applicable to the initial phases of a slow onset disaster to mitigate a crisis that is not yet there | Beneficiaries have to be able to work Mechanisms of works to be in place or can quickly be organized | Can use different other options: In kind, cash and vouchers. Beneficiaries' identification effective since those in real need can be willing to participate Prevent aid dependance | Exclude special vulnerable groups A lot of organization and monitoring required |

Annex 2: Emergency food and nutrition capabilities

Name of the organization:

| Item | Quantities available per province | | | | | Conditions for release | Time for release and deployment (hours) | Contact person | | |
|---|-----------------------------------|------------------|-------------------|-------------------|------------------|------------------------|---|----------------|-------|-------|
| | Kigali City | Western Province | Southern Province | Northern Province | Eastern Province | | | Name | Phone | email |
| Food (Kg) | | | | | | | | | | |
| <i>(i). Cereals</i> | | | | | | | | | | |
| <i>(ii). Pulses</i> | | | | | | | | | | |
| <i>(iii). Dry food</i> | | | | | | | | | | |
| <i>(iv). Salt</i> | | | | | | | | | | |
| <i>(v). Sugar</i> | | | | | | | | | | |
| <i>(vi). Porridge</i> | | | | | | | | | | |
| <i>(vii). Other bio-fortified food</i> | | | | | | | | | | |
| Available Funds (Rwf) | | | | | | | | | | |
| Transportation trucks (cubic meters) | | | | | | | | | | |

| | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|
| Vehicles (number of seats) | | | | | | | | | | |
| Cooking materials | | | | | | | | | | |
| <i>(i). Firewood (cubic meters)</i> | | | | | | | | | | |
| <i>(ii). Gas (kg)</i> | | | | | | | | | | |
| Non-food items | | | | | | | | | | |
| <i>(i). Number of plates</i> | | | | | | | | | | |
| <i>(ii). Number of spoons</i> | | | | | | | | | | |
| <i>(iii). Number of cups</i> | | | | | | | | | | |
| <i>(iv). Number of folks</i> | | | | | | | | | | |
| <i>(v). Number of dishes</i> | | | | | | | | | | |
| <i>(vi). Number of saucepans</i> | | | | | | | | | | |
| Trained and non-trained personnel | | | | | | | | | | |

| | | | | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|--|--|--|
| <i>(i). Number of permanent staff</i> | | | | | | | | | | |
| <i>(ii). Number of casuals</i> | | | | | | | | | | |
| <i>(iii). Number of volunteers</i> | | | | | | | | | | |

Annex 3. Checklist for the FSN

| List | Check |
|--|---|
| Data | <ul style="list-style-type: none"> ✓ Sex- and age-disaggregated data are collected, analysed, and routinely reported on including the data on pregnant and lactating women, single parent/female or child headed households, elderly, persons with disabilities, etc. |
| Food and nutrition capabilities | <ul style="list-style-type: none"> ✓ Available food stored ✓ Available transportation capacity ✓ Available funds (cash) ✓ Available non-food items ✓ Personnel available including volunteers. ✓ Available storing capacity |
| Required capabilities | <ul style="list-style-type: none"> ✓ Quantity of food ✓ Transportation capacity ✓ Funds (cash) ✓ Non-food items ✓ Personnel ✓ Storing capacity |

Annex 4. Disaster levels in Rwanda

| No | Types of Disasters | Response activities | LEVEL 1 | | LEVEL 2 | |
|----|---|--|--|---|--|---|
| | | | Level criteria (Impact) | Responsible | Level criteria (Impact) | Responsible |
| 1. | Landslide Flood Heavy rains & storms | <ul style="list-style-type: none"> - Rescue - Rapid needs assessment - Community works/Umuganda - Provision of appropriate relief - Psychosocial care | <ul style="list-style-type: none"> -Nr/ Dead ≤0 -Nr/ Injured ≤ 5 -Nr/ damaged houses ≤10 -Damaged crops ≤10ha -School rooms ≤ 5 - destroyed Sector road/bridge | SEDIMAC & community/ Neighbors Schools, FRT | <ul style="list-style-type: none"> -Dead 1-5 -Injured 6-20 -Houses 11-20 -Crops ≤ 100-500 ha -Infrastructure -School rooms -Local roads & bridges | All responsible for Level 1 + DIDIMAC and local stakeholders ⁹ |
| 2. | Earthquake Volcanic eruptions | <ul style="list-style-type: none"> -Rescue -Psychosocial care -Rapid assessment -Provision of appropriate relief -Psychosocial care -Elevate the information | <ul style="list-style-type: none"> -Dead/Any -Injured/Any -Houses/Any -Crops/Any -Once there are signals | SEDIMAC & community/ Neighbors Schools | <ul style="list-style-type: none"> -Dead/Any -Injured/Any -Houses/Any -Crops/Any -Once there are signals - 50% of production | All responsible for Level 1 + DIDIMAC and local stakeholders |
| 3. | Drought and famine | <ul style="list-style-type: none"> -Rapid assessment -Psychosocial care - Provision of food | <ul style="list-style-type: none"> Dryness of a period between 3-6 months -Households affected by food shortage <1,000 -Crops <1,000ha | SEDIMAC & community/ Neighbors Schools | <ul style="list-style-type: none"> -Households affected 1,000-2000 -Crops >1,000ha - Dryness of a period > 6 months | All responsible for Level 1 + DIDIMAC and local stakeholders |
| 4. | Fire, Lightning | <ul style="list-style-type: none"> - Rescue - rapid assessment | <ul style="list-style-type: none"> -Injured 1-10 -Houses 1-5 - No deeds | SEDIMAC & community/ Neighbors | <ul style="list-style-type: none"> -Dead ≤10 -Injured 11-40 -Houses 6-10 | All responsible for Level 1 + DIDIMAC and |

⁹ Local stakeholders refers at District and sector offices of the PSF, civil society (churches, NGO and other organization operating at District and sector level in socio-economic development area

| | | | | | | |
|----|---|--|---|--|---|--|
| | | -provision of appropriate relief | | Schools, FRT | | local stakeholders FRB, FRT |
| 5. | Epidemics: Human Animal Crops | -Rapid assessment -Provision of appropriate relief -Quarantine measures | -Households 1-10 -Crops 10-100ha | SEDIMAC & community/ Neighbors Schools | -Households 11-100 -Crops 101-500ha | All responsible for Level 1 + DIDIMAC and local stakeholders, FRT, RBC |
| 6. | Mass movement ¹⁰ | -Report to the district and national levels - Avail temporary shelter -Providing basic needs assistance (Hygiene- available Safe drinking water-Sanitation materials) | Mass movement Influx ≤20 | SEDIMAC & community/ Neighbors Schools | -Mass movement Influx ≤100 | DIDIMAC and local stakeholders, FRT, RBC |
| 7. | Terrorism- Technology hazard and major accidents ¹¹ | -Security intervention -Medical evacuation -Rapid assessment -Psychosocial assistance | -Dead/Any -Injured/Any -Houses/Any -Attack/Any | SEDIMAC & community/ Neighbors Schools | -Dead/Any -Injured/Any -Houses/Any -Attack/Any | DIDIMAC, FRT, FRB, RNP, RDF, RBC |

¹⁰ Mass movement refers to refugee influx and returnees

¹¹ Building collapse, traffic accidents that affect more than 30 persons, mining and other structural accident that affect more than 10 persons

Annex 5. Disasters and sector risk scenario

Rwanda is a country prone to a wide range of both man-made and natural hazards that every year put a strain on the most vulnerable communities and takes a considerable toll both in terms of economic losses and human lives. Over the last decade, the frequency and severity of natural disasters, particularly caused by floods and droughts, have significantly increased, with increasing toll of human casualties as well as economic and environmental losses. Five major natural hazards discussed in the risk Atlas include: droughts, floods, landslides, earthquakes and windstorms¹². The physical vulnerability of lives and assets varies across hazards, with high vulnerability to drought and landslides and moderate vulnerability to earthquakes and windstorms.

- *Drought*: Districts within the Eastern province are highly likely to experience severe drought. The highlands of the Congo-Nile Ridge in the Western, Southern and Northern provinces are prone to landslide.
- *Floods*: flood hazards are likely to occur in many different locations in the country, however due to data limitations only catchment analysis was possible in this study.
- *Earthquakes*: Rwanda is located in a seismic zone and so the entire population faces exposure to ‘strong’ or ‘very strong’ earthquakes.
- *Windstorms*: a geographic belt of the Southwest through the extreme Northwest of the country are prone to windstorms.
- *Landslides*: 40% of the country’s population have a moderate to very high level of susceptibility to landslide; 43% of health facilities in the country face a high level of susceptibility to landslide.

On that note, all of these hazards may affect cropping activities as well as the nutrition and health affected people. Below are described the risk scenario with their respective anticipated impacts on the livelihood of people¹³.

a) Drought Scenario

¹² MIDIMAR. (2015). *The National Risk Atlas of Rwanda*. Kigali: Rwandan Ministry of Disaster Management and Refugee Affairs

¹³ Unfortunately, past actual figures for the number of people affected and support received in terms of FSN are not available.

Considering the past two decades and the projections with the effects of the climate variability and change, Rwanda can expect to be affected by dryness, severe, moderate or catastrophic droughts especially agricultural, meteorological and hydrological droughts (MINEMA, National Contingency Plan for Drought, 2018)¹⁴. The drought events are likely to cause massive food insecurity and malnutrition if adequate disaster preparedness measures are not put in place.

Based on historical trend and population affected previously, the likelihood scenarios are tabulated in the table 4 for the FSN sector.

Table 4. Highlight the risk scenario of drought on food and nutrition

| Type | Expected duration | Estimated population to be affected | Likelihood |
|--------------|-------------------|-------------------------------------|-------------|
| Dryness | 3 months | 10-100,000 | Most likely |
| Moderate | 3-6 months | 100,000-500,000 | Likely |
| Severe | 6-12 months | 500,000-1,000,000 | Likely |
| Catastrophic | Above 12 months | 1,000,000 -3,000,000 | Less Likely |

b) Floods, landslides, Storms

Rwanda continues to experience heavy rainfall which affected many parts of the country. Many rivers across the country received huge levels of rainwater and overflow along their courses, causing flooding and landslides. Storms are also frequent occurrence in the country. These hazards are the most frequent due to the country risk profile. Every year there are records of impact from the floods, landslides and storms. For example, in 2020, out of 4,661 Ha of crops damaged by disasters, 4,652 Ha were damaged by either floods, landslides, or storms¹⁵; this affected the food security and nutritional status of thousands of households. The effects are localized and depends on the vulnerability especially poverty, and lack of structural resilience.

Table 5 summarizes the scenario related to floods, landslides and storms (MINEMA, National contingency plans for floods, landslides, and storms, 2018)¹⁶.

¹⁴https://www.minema.gov.rw/fileadmin/user_upload/Minema/Publications/Contingency_Plans/Contingency_Plan_for_Drought.pdf

¹⁵ Disaster Communication System and Desinventar, MINEMA 2020 (https://www.minema.gov.rw/fileadmin/user_upload/Minema/Publications/Reports/Disaster_Damages_January-December_2020.pdf)

¹⁶https://www.minema.gov.rw/fileadmin/user_upload/Minema/Publications/Contingency_Plans/Contingency_Plan_for_Storm.pdf

Table 5. Floods, landslides and storms scenario

| Type | Expected return period | Effects on food and nutrition | Estimated population to be affected |
|------------|------------------------|-------------------------------|-------------------------------------|
| Floods | 3 months | Very High | 100,000-1,000,000 |
| Landslides | 3-6 months | High | 100,000 – 700,000 |
| Storms | 1-2 months | Very high | 100,000-3,000,000 |

c) Other hazards (Earthquake, Volcanic eruption, and Epidemics)

A series of earthquakes have previously hit western Rwanda's Rubavu district that borders eastern Democratic Republic of the Congo (DRC). This often leads to massive displacement, and destruction of properties leading to the need for food assistance. In most cases, the food and nutrition assistance are required until people can return to their normal lives. This can take weeks or months depending on the magnitude.

Rwanda has made notable efforts to fight the pandemic. However, the impacts of the COVID-19 pandemic on the country's economy are numerous and the refugees residing in Rwanda are not spared these effects. The impacts of COVID-19 are far-reaching and food security and nutrition is not an exception. The country is also considered a priority 1 for Ebola preparedness due to its proximity to DRC which is often the epicenter of Ebola virus. Although Rwanda has one of the most trusted healthcare systems by its citizens globally according to a Wellcome Trust report¹⁷, it has still struggled under the weight of the COVID-19 pandemic.

The table below highlights the situation (MINEMA 2019, National Contingency Plan for Earthquake)¹⁸.

Table 6. Hazard Type and expected duration and effects

| Type | Expected return period | Expected duration of the emergency phase | Effects on food and nutrition |
|-------------------|------------------------|--|-------------------------------|
| Earthquake | Every year | Short to medium | Very High |
| Volcanic eruption | Every 5 to 10 years | Short | High |

¹⁷ Wellcome; 2019. Available from: <https://wellcome.org/news/most-important-healthcare-tool-trust>.

¹⁸https://www.minema.gov.rw/fileadmin/user_upload/Minema/Publications/Contingency_Plans/Contingency_Plan_for_Earthquake_2019.pdf

| | | | |
|----------------------------|--------|----------------|----------------|
| Technological and man made | Random | Short | Low to medium |
| Fires | Random | Short | Low |
| Epidemic | Random | Medium to long | Medium to high |

