

REPUBLIC OF RWANDA



MINISTRY IN CHARGE OF
EMERGENCY MANAGEMENT

National Disaster Risk Reduction and Management Policy

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Abbreviations and acronyms

AfDB:	African Development Bank
CBRNE:	Chemical, Biological, Radiological, Nuclear, and high-yield Explosive
DDS:	District Development Strategy
DIDIMACs:	District Disaster Management Committees
DDMPs:	District Disaster Management Plans
DM:	Disaster Management
DRM:	Disaster Risk Management
DRRM:	Disaster Risk Reduction and Management
EAs:	Environmental Audits
EAC:	East African Community
EDPRS:	Economic Development and Poverty Reduction Strategy
EIAs:	Environmental Impact Assessments
ENR:	Environment and Natural Resources
ESIA:	Environmental and Social Impact Assessment
EWS:	Early Warning Systems
FAO:	Food and Agriculture Organization
GCF:	Green Climate Fund
GGCRS:	Green Growth and Climate Resilience Strategy
IFAD:	International Fund for Agriculture Development
IWRM:	Integrated Water Resources Management
MIDIMAR:	Ministry of Disaster Management and Refugee Affairs
MINAFFET:	Ministry of Foreign Affairs and International Cooperation
MINAGRI:	Ministry of Agriculture and Animal Resources
MINALOC:	Ministry of Local Government
MINEMA:	Ministry in charge of Emergency Management
MINECOFIN:	Ministry of Finance and Economic Planning
MININFRA:	Ministry of Infrastructure
MoE:	Ministry of Environment
MoH:	Ministry of Health
NDC:	Nationally Determined Contributions

NDIMS:	National Disaster Information Management System
NGOs:	Non-Governmental Organisations
NLUDMP:	National Land Use and Development Master Plan
NPDM:	National Platform for Disaster Management
NST:	National Strategy for Transformation
PSTA:	Strategic Plan for Agricultural Transformation
RAB:	Rwanda Agriculture Board
RBC:	Rwanda Biomedical Centre
RDF:	Rwanda Defence Force
RFA:	Rwanda Forestry Authority
RHA:	Rwanda Housing Authority
RNP:	Rwanda National Police
RRC:	Rwanda Red Cross
RTDA:	Rwanda Transport Development Agency
REMA:	Rwanda Environment Management Authority
RLA:	Rwanda Land Authority
RMB:	Rwanda Mines, Petroleum and Gas Board
RWB:	Rwanda Water Resources Board
SDGs:	Sustainable Development Goals
SEDIMACs:	Sector Disaster Management Committees
SFDRR:	Sendai Framework for Disaster Risk Reduction
SPCR:	Strategic Programme for Climate Resilience
SSPs:	Sector Strategic Plans
ToRs:	Terms of Reference
UNDP:	United Nations Development Programme
UNHCR:	United Nations High Commissioner for Refugees
UNICEF:	United Nations Children's Fund
WASAC:	Water and Sanitation Corporation Limited
WASH:	Water, Sanitation and Hygiene
WB:	World Bank
WFP:	World Food Programme
WVR:	World Vision Rwanda

Foreword

Rwanda faces several disasters, both natural and human-made which include volcanic eruptions, earthquakes, drought, floods, landslides, fire, mass movement of population, various storms (e.g. windstorms, lightning, rainstorms, and thunderstorms), accidents, technological and industrial hazards and epidemics. The intensity and frequency of these disasters have been increasing, in light of climate change, environmental degradation, population growth and urbanisation. These disasters disrupt people's livelihoods, endanger human and food security, damage infrastructure and hinder socio-economic development.

In an effort to respond and mitigate effects caused by disasters, the Government of Rwanda adopted the first ever National Disaster Management Policy in 2009 which was revised in 2012. However, the 2012 Disaster Management Policy has been overtaken by today's events and needed revision to reflect global, regional and national development agenda, e.g. Sustainable Development Goals (SDGs 2015-2030), Sendai Framework for Disaster Risk Reduction (2015-2030), Paris Agreement (2015), African Union Agenda 2063, East African Community Vision 2050, Rwanda Vision 2050, National Strategy for Transformation (NST-1).

This National Disaster Risk Reduction and Management (DRRM) Policy reaffirms our commitments to lay down foundations to a more effective disaster management and provide clear roles and responsibilities for each institution in the implementation of various policy actions.

Given the nature of disasters and its complexity, MINEMA will continue to collaborate with a range of stakeholders from the central government institutions, development partners, CSOs, Private Sector, Media, academia, research institutions, local entities and communities to implement the National Disaster Risk Reduction and Management Policy. We take this opportunity to acknowledge various technical insights from all stakeholders in the elaboration of this policy. It is, therefore, our sincere hope that all DRRM stakeholders will align their activities with this policy in order to ensure that resilience to disasters is built at national, local and community levels.

Honorable Marie Solange Kayisire
Minister in charge of Emergency Management

Executive summary

The National Disaster Risk Reduction and Management (DRRM) Policy provides a framework for effective disaster management that focuses on prevention and preparedness for effective response, recovery and longer-term resilience to future disasters. It is designed within the context of national (e.g. Vision 2050, NST1), regional (EAC Vision 2050), continental (Agenda 2063) and global development agenda (e.g. Sendai framework, SDGs, NDCs). The policy vision is to build a nation that is resilient to disaster risks and effective in emergency management. This will be achieved through through a set of 65 policy actions to achieve 14 policy objectives grouped into 4 pillars:

Policy Pillars	Policy objectives	Policy actions
I. Understanding disaster risks	1. Improve the understanding of disaster risks profiles at national, local and community levels	4
	2. Enhance research and assessments on disaster risk reduction and management (DRRM)	5
	3. Enhance disaster risk public awareness	4
	4. Build capacity at national, local, and community levels	4
II. Strengthening institutional governance to manage disaster risks	5. Enhance coordination and collaboration of all stakeholders in DRRM at the national level	6
	6. Strengthen coordination and collaboration of all stakeholders in DRRM at the local level	4
	7. Establish collaboration mechanisms to jointly handle transboundary disasters	3
III. Investing in disaster resilience across sectors in planning and implementation	8. Mainstream DRRM across development sectors	3
	9. Prevent and mitigate disaster risks and address the underlying disaster risk drivers	7
	10. Integrate the disaster risk reduction and management in the national education system	2
	11. Strengthen DRRM financing mechanisms at national level	3
	12. Develop DRRM financing mechanisms at local level	4
IV. Enhancing preparedness for effective response, and building back fairer for longer-term recovery and reconstruction	13. Develop efficient and effective early warning systems for hazards	4
	14. Strengthen disaster preparedness mechanism and ensure effective response and recovery interventions	12

The lifespan of this policy is 7 years aligned with Sendai Framework for disaster risk reduction and its implementation will require an estimated budget of 40,267,000,000 Frw for DRRM interventions coordination.

An implementation plan with clear institutional arrangements using the existing institutional organs (e.g. NADIMAC, NADIMATEC, DIDIMAC, SEDIMAC, NPDM, Social Cluster, Economic Cluster, Social Protection Sector Working Group, Agricultural Sector Working Group, ENR Sector Working Group, Joint Sector Reviews, Joint Action for Development Forum meetings), is provided in **Annex 3**.

1. Introduction

1.1. Background and context

Rwanda's development since the 1994 genocide perpetrated against the Tutsi is a unique story of remarkable social and economic growth based on the visionary leadership, resilience, dignity, determination and hard work of Rwandans. The Government of Rwanda has recorded significant achievements in poverty reduction, gender equality, environmental sustainability, education and public health, in line with the Sustainable Development Goals (SDGs).

However, these socio-economic gains have been challenged by the natural and human-made disasters. In recent decades, Rwanda experienced a growing number of disaster risks which include the impact of volcanic eruptions, earthquakes, drought, floods, landslides, fire, mass movement of population, various storms (e.g. windstorms, lightning, rainstorms, and thunderstorms), accidents, technological and industrial hazards as well as epidemics (Details of disaster risks profile in Rwanda are found in Annex 2). The frequency and intensity of disaster risks have been increasing, in light of climate change, population growth, improper urbanisation in some areas, and environmental degradation.

These disasters disrupt people's livelihoods including health, food, water, shelter and other basic needs; and they have heavily damaged infrastructure over years, thus hinder the socio-economic development

The impact of disasters on economic growth and poverty in the country is manifested through various types of losses. On average, in last five years (2018-2022), we record 237 human death, 7874 houses are destroyed, 6,864 hectares of crops, 212 classrooms, 67 roads sections, 59 bridges are damaged in Rwanda¹.

In an effort to respond and mitigate the effects caused by disaster risks, the Government of Rwanda adopted the first- National Disaster Management Policy in 2009 which was later revised in 2012 (GoR, 2012). Since its adoption, significant achievements have been recorded. In 2012, an assessment was done to develop a comprehensive disaster risk profiles of the country and the National Risk Atlas of Rwanda was published in 2015 (GoR, 2015c).

A number of laws and contingency plans have been developed to mitigate, prevent, and quickly respond to disaster risks and shocks. These include but not limited to:

- Law N° 41/2015 of 29/08/2015 relating to disaster management;
- Prime Minister's Order No 98/03 of 17/07/2018 determining organisation and functioning of Disaster Management Organs;
- Ministerial Order No 01/MIDIMAR/18 of 21/06/2018 relating to assisting actors and volunteers in case of disaster response (Official Gazette no 26 bis of 25/06/2018);

¹ These are from the compilation reports of Ministry in charge of Emergency Management (MINEMA).

- Ministerial Order No 01/MIDIMAR/18 of 21/06/2018 relating to assisting actors and volunteers in case of disaster response (Official Gazette, 2018);
- National Contingency Plan for El Nino-Related Epidemic Diseases (GoR, 2015a);
- National Contingency Plan for Storms (GoR, 2015b);
- National Contingency Plan for Population Influx In 2018;
- National Contingency Plan for Drought in 2018;
- National Contingency Plan for Storms in 2018;
- National Contingency Plan for Floods and Landslides in 2018;
- National Contingency Plan for Fire Incidents of 2019;
- National Contingency Plan for Managing the Emergency Consequences of Terrorist Incidents of 2019;
- National Contingency Plan for Earthquake in 2019;
- National Contingency Plan for Volcanic Eruption in 2019;
- Sector based National Preparedness plans, 2022, among others.

However, though measures and tools are in place, disasters occurred and the Government of Rwanda has also been supporting the communities affected in the last years. Furthermore, the central role of Disaster Risk Management as a key driver for Rwanda’s social and economic development was fully integrated in the National Strategy for Transformation (NST1 2017-2024) and other national strategic documents as cross-cutting areas of policy concern. Disaster risk management can be positively impacted by a range of development activities with priority given to agriculture, urbanisation, industries, energy, infrastructure, education, environment and natural resources, information and communication technology, health, the private sector, and youth and social protection (GoR, 2017).

Taking stock of 10 years in implementing the 2012 Disaster Management Policy, justifies the need to integrate the new national and international development aspirations as embedded in the National Strategy for Transformation (NST-1), Vision 2050, Sustainable Development Goals (SDGs 2015-2030) and Sendai Framework for Disaster Risk Reduction (2015-2030), as further elaborated below.

1.2. Rationale for the review of Disaster Management Policy

The justification for reviewing the 2012 Disaster Management Policy is fourfold.

First, the 2012 National Disaster Management Policy has several gaps including:

- (i) The policy did not fully elaborate on all the necessary pillars of DRRM, with a strong focus on response and consequent gaps were observed particularly in regards to prevention and preparedness.
- (ii) The policy lacks clarity in the allocation of clear roles and responsibilities between institutions at central levels in the implementation of various policy actions. Each disaster risk was assigned a lead institution to put in place all actions required for preparedness, prevention, mitigation, response and recovery while the overall coordination is under MINEMA.

However, in reality, it is not possible to have one entity leading all steps of disaster management including prevention, preparedness, response and recovery.

- (iii) The policy lacks clear framework for community-based disaster risk reduction and management.

Therefore, the DRRM Policy aims to lay down the foundations of a more effective disaster management that focuses on disaster prevention and preparedness for efficient response, recovery and longer-term resilience to future disasters. It also provides clear roles and responsibilities for each entity in the implementation of various policy actions. In addition, the revised policy provides a conducive environment for forging strong relationships between government institutions, development partners, civil society organisations (CSOs), private sector, local entities and communities, including vertical and horizontal linkages.

Second, Rwanda is currently undergoing a very crucial planning phase of its long-term transformational development. Indeed, the year 2018 marked the end of the Economic Development and Poverty Reduction Strategy (EDPRS-2) while the Vision 2020 ended in 2020. At the same time, National Strategy for Transformation-NST1 (2017-2024) and related Sector Strategic Plans (SSPs-e.g. Social Protection Sector Strategic Plan 2017-2024) and District Development Strategies (DDSs) were developed in 2017, several sectorial policies, Vision 2050 was approved at the end of 2020. This 2012 Disaster Management Policy is therefore revised within the context of aligning it to the national transformative journey highlighted above.

Third, the 2012 Disaster Management Policy needs also to be revised to reflect the wider global and regional development agenda, e.g. Sustainable Development Goals (SDGs 2015-2030), Sendai Framework for Disaster Risk Reduction (2015-2030), Paris Agreement on Climate Change, African Union Agenda 2063 and its First 10-Year Implementation Plan (2014-2023), East African Community Vision 2050, among others that call for mainstreaming and implementation of disaster risk reduction measures, activities and programmes.

Fourth, this DRRM Policy is meant to build national resilience of communities and provide overarching frameworks for decision-making and coordination. It presents the aspirations of the Government of Rwanda in ensuring that disaster effects and impacts are sustainably reduced and well managed in the future.

1.3. Policy review process

The review of the 2012 Disaster Management Policy involved:

- A desk review of disaster-related strategies and policy documents;
- Stakeholders' consultations including Central and Local Government Institutions, Private Sector, CSOs, International Organizations especially UN Agencies, International and National NGOs, Disaster Management Committees and sampled communities in different Districts;
- Sequential validation meetings with stakeholders in Social and Economic Clusters.

2. Policy and legal framework: linkages with national, regional and global development agenda

The DRRM Policy recognizes that there are already a number of laws, strategies, and policies where clear linkages exist with this policy.

2.1. Linkages with National Legal Framework

Concerning the legal framework, the constitution of the Republic of Rwanda of 2003 as amended in 2015 acknowledges through Article 21 on *Right to good health*: “All Rwandans have the right to good health”; article 22 on *Right to a clean environment*, article 53 on *Protection of the environment*. Article 136 on State of Siege and state of Emergency (GOR, 2003).

The law N° 41/2015 of 29/08/2015 on Disaster Management establishes the responsibilities of both the Government and disaster management organs. It also contains provisions for disaster prevention, mitigation, preparedness, response and recovery as well as source of resources allocated to disaster management.

The law N°48/2018 of 13/08/2018 on environment enacted several provisions relevant to environment and disaster management. Article 41 calls on the establishment of environment protection committees: “A committee responsible for conservation, protection and promotion of environment as well as climate change is established at the City of Kigali, District, Sector and Cell levels”.

The Official Gazette no Special of 16/04/2019 on Rwanda Building Code provides the minimum requirements to safeguard the public health, safety and general welfare.

This is done through regulating, controlling and monitoring the design, construction, quality of materials, use and occupancy, location, maintenance, sanitation, lighting and ventilation, energy conservation and safety including measures to protect life and property from fire and other hazards attributed to the built environment, for all buildings and related non-building structures in Rwanda.

2.2. Linkages with National Vision and related strategic documents

Vision 2050 aspires to transform Rwanda to become a middle income country by 2035 and a high-income country by 2050 and to ensure that Rwandans have high-quality living standards, with growth and development which follow a sustainable path in terms of use and management of natural resources while building resilience to cope with climate change (GOR, 2020c). By achieving this vision, Rwandan citizens will enjoy better livelihoods with adequate social protection, improved health, food security and disaster risk reduction.

National Strategy for Transformation (NST-1)/Seven Years Government Programme (2017-2024) presents three pillars for transformation including economic transformation; social transformation and transformational governance. Disaster preparedness response and mitigation is an important prerequisite in different sectors with priority to agriculture, social protection, infrastructure, education, urbanization, information and communication technology (ICT), health, environment, and natural resources. Disaster management,

environment and climate change were also highlighted in NST-1 as cross-cutting areas of policy concern.

National Land Use and Development Master Plan (NLUDMP 2020-2050) provides general directives for sustainable land use development (GOR, 2020a). Under the NLUDMP, the following activities are in line with the policy: (i) Developing early warning systems and technologies that pre-empt floods, droughts, famine, and diseases (ii) Integrating disaster risk reduction within crucial development sectors such as infrastructure, agriculture, environment, education, urbanization, information, communications, technology, and youth, (iv) Incorporating a continued enhancement of disaster risk reduction into district and local development plans.

Updated Nationally Determined Contributions (NDC 2020): Disaster management is one of the key sectors identified and prioritised under NDCs (GOR, 2020b). Specifically, the following are key interventions that inform the DRRM policy: (i) Installation of 165,000 ha land protection terracing structures in sloped arable areas to prevent soil erosion and landslide (ii) Developing engineering guidelines for climate-resilient road infrastructure to reduce the length of roads vulnerable to flood and landslides; (iii) Developing disaster risk monitoring systems (e.g. contingency plans); (v) Establishing an integrated early warning systems and disaster response plans.

Green Growth and Climate Resilience Strategy- GGCRS of 2011 has been revised since 2020 with the same vision in mind for Rwanda to be a developed climate-resilient and low-carbon economy by 2050. This vision is expected to be materialised through three strategic objectives, including the one on “*Ensuring Social Protection, Improved Health and Disaster Risk Reduction that reduces vulnerability to climate change impacts*”.

2.3. Linkages with National Sectoral Policies

This policy is in line with sectoral policies that are linked to DRRM. These include but are not limited to:

Social Protection Policy (2020): The policy main objective is to strengthen the national social protection system with a view to ensuring that all Rwandan citizens have a dignified standard of living through a number of policy actions, including coping with and recovering from lifecycle and climate-related shocks and risks; strengthening mechanisms for detecting, alert and prevention of disaster and shocks.

Land Policy (2019): It stresses that agroforestry should be part of the agricultural landscape on hills, given its contribution to soil protection.

National Policy on Environment and Climate Change (2019): The policy’s goal is for Rwanda to have a clean and healthy environment resilient to climate variability and change that supports a high quality of life for its society.

Agriculture Policy (2018): It aims to increase productivity and commercialization for better food, nutrition, and incomes; promoting resilience and sustainable crop intensification; inclusive employment and improved farmers' skills; and ensuring an effective enabling and responsive environment.

Forestry Policy (2018): It recognises the need to manage forest resources to support the country's development goals for sustainable low-carbon and climate-resilient growth to improve livelihoods of present and future generations.

National Feeder Roads Policy and Strategy (2017): It aims to organize and improve livelihood by bringing technologies to improve rational utilization and land use management, especially in areas meant for agriculture.

Water Supply Policy (2016): It aims to ensure sustainable, equitable, reliable, and affordable access to safe drinking water for all Rwandans, as a contribution to improving public health and socio-economic development. The policy stresses on the need to increasing climate resilience and effective disaster risk reduction in WASH, a mandatory risk-informed planning as well as more priority to water resource conservation/protection and water safety planning.

Sanitation Policy (2016): It aims at enhancing storm water management in urban areas to mitigate impacts on properties, infrastructure, human health and the environment. It also stresses on the need to ensure safe management of e-waste, industrial waste, nuclear/radioactive waste and health-care waste

Housing Policy (2015): It relies on principles of integrated and coordinated planning, efficient use of land, safeguarding the fertile agricultural land and adoption of green principles for economic growth, including efficient use of water and energy. This policy provides principles of disaster risk mitigation and adaptation to achieve resilience of human settlements.

National Urbanization Policy (2015): It highlights the need to mitigate the negative environment and socio costs resulting from uncontrolled rapid urban development with its long-lasting impacts, a recognition of existing links between urban people, economic opportunities and environment need to be diagnosed for a better, safe and sustainable human settlement free of urban poverty and hazard posed by climate change and natural disasters. Physical planning and development shall aim at improving quality life and mitigation of disaster risks.

Wildlife Policy (2013): It acknowledges that Rwanda's wildlife-protected areas significantly contribute to the production of global public goods and services, such as protection of biodiversity, climate stabilisation, carbon sequestration and global waters.

National Policy for Water Resources Management (2011): It considers water resources conservation, protection and management in order to secure and enhance its availability for and utility to, the present and future generations. The policy institutes measures for managing

water related disasters and stresses, arising from climate change, floods, droughts and demographic trends

Biodiversity Policy (2011): It considers the rehabilitation of degraded ecosystems in Rwanda as an urgent and major task that requires the commitment of significant resources from both national budgets and other sources.

Mining Policy (2010): It sets out legal and regulatory frameworks for EIAs, environmental monitoring, checklists for mine inspectors, environmental auditing, among others.

Revised National Gender Policy (2021): It stresses on the increase of adaptive capacities to all forms of climate change and hazards variabilities for both men and women.

2.4. Linkages with Sector Strategic Plans and District Development Strategies

This policy is in line with several Sector Strategic Plans (SSPs) including social protection, environment and natural resources, agriculture and transport sectors, and District Development Strategy (DDS).

The Social Protection Sector Strategic Plan calls for ensuring that District Disaster Management Plans are reviewed on an annual basis, strengthening monitoring of implementation; integrating disaster risk reduction into the social protection sector's community sensitisation activities and ensuring the timely provision of emergency assistance to households affected by disasters to mitigate impacts.

The Environment and Natural Resources Sector Strategic Plan focuses on optimizing sustainable and climate-resilient management of natural capital resources to anchor and accelerate the achievement of Rwandan prosperity. The specific focus with regards to disaster management is to strengthen governance structures for Integrated Water Resources Management (IWRM) at catchment, national and transboundary levels and ensure effective management of water-related disasters.

The Strategic Plan for Agricultural Transformation (PSTA-4) states that in the context of Rwanda's agriculture, the main production-limiting factor is climate change and related extreme weather events. PSTA-4 calls for investment in sustainable and climate-resilient development of infrastructure and technologies (e.g. irrigation systems) and sustainable land husbandry and climate-smart practices (e.g. reducing soil erosion and landslide, improving soil water infiltration, and holding capacity, enhancing nutrient supply, and increasing soil biodiversity).

The Transport Sector Strategic Plan (2018-2024) calls for using Environmental and Social Impact Assessment (ESIA) for roads. To ensure that transport policies are implemented in an environmentally, economically and socially sustainable manner, the sector will conduct a Strategic Environmental Assessment on its policies by 2024.

The District Development Strategies (DDSs) were developed to support and contextualize the implementation of the NST-1 based on districts' specific potentialities. Therefore, the

DDSs show the new development aspirations and innovations that will drive the District's contribution towards national goals over the next seven years (2017-2024). In addition to increasing the land area available for agricultural purposes and promoting agricultural land use consolidation, hillside irrigation, and marshlands development, the DDSs propose to improve soil conservation, wetlands, and river banks; and sustainably improve environmental protection.

2.5. Linkages with global, continental and regional development framework

The Sustainable Development Goals (SDGs): This was adopted in September 2015 and consists of 17 goals and 169 targets. There are a number of relevant targets across different goals which are related to disaster risk reduction and management, including points 1.5 under Goal 1, 2.4 under Goal 2, 11.5 and 11.b under Goal 11, 13.1 and 13.3 under Goal 13.

The Sendai Framework for Disaster Risk Reduction (2015-2030): This is divided into four pillars or priority areas of action: (i) Understanding disaster risk; (ii) Strengthening governance to manage disaster risk; (iii) Investing in economic, social, cultural, and environmental resilience and (iv) Enhancing preparedness for effective response and building back better in recovery and reconstruction.

The Paris Agreement: recognises the urgency of minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events and the role of sustainable development in reducing the risk of loss and damage.

The African Union Agenda 2063 is the strategic framework for Africa's transformation that aims to attain inclusive and sustainable development. The policy is linked to aspirations 1 on a "*Prosperous Africa, based on Inclusive Growth and Sustainable Development*" and 7 on "*Africa as a strong, united, resilient and influential global player and partner*".

The East African Community (EAC) Vision 2050: calls for the development of meteorological services to inform decisions that will reduce the impact of weather and climate-related disasters and fortification of the regional capacities in disaster response (e.g. violent extremism, maritime insecurity and epidemics related to communicable diseases among others).

3. Issues and challenges in DRRM

The DRRM sector faces multiple issues and challenges as summarised below:

Ineffective rural and urban integrated planning: Rwanda is experiencing a high rate of urbanization (Group, 2017, Goodfellow, 2017), often associated with high population density and expansion of paved, impermeable areas which limit water infiltration, increase the amount and speed of water runoff and stormwater, particularly in urban areas and low-lying areas (Niyonkuru et al., 2018). In rural areas, the increasing erosion and landslides due to misuse of land practices contribute to the degradation of ecosystems which induce huge losses and damages. This issue requires a holistic and integrated planning in terms of effective drainage and appropriate stormwater management as well as proper landuse practices countrywide.

Insufficient community-based DRRM: Effective DRRM should pass through the establishment of strong community-based activities for resilience (Arnold et al., 2014). The most important risk managers are often those who live with those risks while other actors are considered as external stakeholders. Local communities themselves are also the first responders to any hazard. The disaster risks and shocks are generally very localized, with Western, Southern and Northern Provinces are prone to landslides and flooding, while Eastern Province is exposed to drought. Currently, the local communities in Rwanda are not well organized to address disaster risks (Nahayo et al., 2017), which make them resort to coping strategies that erode their livelihoods and undermine resilience (WFP, 2020). This may be one of the central challenges to improving disaster response as external stakeholders try to bring external solutions and initiatives which are neither tailored to the local context -nor fit for purpose.

Limited mainstreaming in the practice of DRRM across sectors: Although Rwanda has mainstreamed DRRM across all sectors and the policy commitments exist, there are issues related to the practical and effective mainstreaming as well as gaps related to the construction in high-risk zones, lack of infrastructure to retain rainwater for future use, lack of proper water channelling and drainage systems, ecosystem protection, among others. Furthermore, DRRM activities are not clearly planned or given sufficient budget in *Imihigo* targets of districts and sectors.

Limited functional and operational capacity of some disaster management organs: Diverse disaster management organs (NPDM, DIDIMACs, and SEDIMACs) were established and institutionalised, but they are yet to be more effective in practice (especially for DIDIMACs and SEDIMACs).

Limited coordination of DRRM specific interventions: It is well known that a successful implementation of policies requires a clear institutional framework that defines clearly the administrative arrangements, roles and responsibilities of each stakeholder (Bartram et al., 2015) and how these bodies interact in both preparedness and response. In the current context,

disaster management and emergency management responsibilities are spread across ministries and agencies (Rutagengwa et al., 2020) with potential duplication of functions. It will be important to show clearly the roles and responsibilities of each institution in the implementation plan.

Limited knowledge on disaster risk reduction and management (DRRM): While some National Platform for Disaster Management (NPDM) stakeholders have knowledge and skills in various disaster risk concepts (e.g. vulnerability, hazard monitoring, exposure assessment, etc.), the level of knowledge about these concepts is still relatively limited among members of DIDIMACs and SEDIMACs. Other related issues and gaps include the limited capacity to conduct risk assessments (both pre and post crises) and no disaster observatory of historical disaster events. Therefore, the capacity to handle these disaster events needs to be improved across sectors by ensuring appropriate preparedness and readiness for response, recovery, and better resilience.

Early Warning Systems (EWS): This is a major element of disaster risk reduction as it prevents loss of life and reduces the economic and material impact of disasters. To be effective, EWS needs to involve the communities at risk, facilitate and ensure public education and awareness of risks, effectively disseminate messages and warnings and ensure there is constant state of preparedness for both men and women, with more focus on women constrained with unpaid care work. The latest statistics have proven that women spend 25.3 hours per week compared to 13.5 hours for men (NISR,2019).

Although progress in EWS was registered in hydrometeorological and socio-natural hazards, there is a need to continue to have an effective multi-hazard EWS for all types of hazards (e.g. geological hazards, hydrometeorological hazards, socio-natural hazards, technological hazards).

Ownership and sustainability: Local entities and communities have gaps in ownership of infrastructure (e.g. inadequate road maintenance) which has also been found to be a factor limiting sustainable long-term results. This remains a major challenge across the key sectors (e.g. road with no drainage leading to flooding and erosion) (ESRI, 2019). This is largely a manifestation of inadequate holistic planning across sectors and districts. For effective implementation, there is a need to have extended engagement of sectors and districts in the future and prioritize DRRM activities within available funding. Ensuring sustainable development will also require a better consideration of the existing and future disaster risks and jointly addressing them through integrated projects (Nahayo et al., 2018).

Issue of poverty: The issues of disaster risks decrease with the increase of socio-economic conditions. The existing poverty status complicates the effective implementation of resilience activities. The 2017 poverty trends report highlighted that exposure to livelihood shocks has resulted in highly dynamic consumption among Rwandan households as a whole and among households at the lower end of the consumption distribution in particular. In terms of gender perspective, findings of EICV-5 (2016/17) show that more female headed households are

classified as poor (39.5%) than male headed-households (37.6%). Furthermore, according to NISR 2018, around 40 percent of households were affected by a shocks, mainly weather-related (irregular rains or drought but also hailstones, floods and landslides). The negative consequences of disasters on household well-being have been reported as the disasters damage houses, infrastructure and crops which in turn results in loss of income, food insecurity and increased food prices, and constrains access to markets, education and health services (WFP, 2020).

Issue of hazards, vulnerabilities and exposure: Disaster risk is fundamentally known as a function of hazards, vulnerabilities and exposure. While hazards are inevitable, vulnerabilities and exposure are avoidable and often could be managed. It is often the conditions of vulnerabilities and exposure which pose threats to human security. Particular groups including low-income and labor constrained households, older people, people with disabilities, female-headed families in the community are more exposed and vulnerable than others and need special attention during the disaster risk management. Further, households who do not own adequate land to safely build their houses, tend to settle with sub-standard conditions such as poor housing built on either rugged terrain, steep slopes or along riverbanks resulting in increased exposure to floods, landslides and strong winds (MINEMA, 2018). Faced with these economic insecurities, people become more prone to disasters.

Climate change, climate variability, and extreme weather events: Rwanda is highly vulnerable to the impacts of dry-spells/droughts and rainfall variability (Nahayo et al., 2019). Over the last decade, the frequency and severity of disaster risks, particularly floods, droughts, and landslides have significantly increased, resulting in damage of infrastructure, loss of lives and property (including crops), contributing to soil erosion and water pollution and reduced land availability that impacts food security and export earnings (GOR, 2019).

4. Vision, Mission and Guiding Principles

4.1. Vision

Building a nation that is resilient to disaster risks and is effective in emergency management.

4.2. Mission

To enhance national and local capacities to minimize disaster risks, prevent, mitigate, prepare and respond for effectively recovering from adverse impacts of hazards towards a disaster-resilient nation.

4.3. Goal

The goal of this policy is to reduce and avoid the potential losses from disasters, assure prompt and appropriate assistance to victims of disasters and achieve rapid and effective recovery.

4.4. Policy guiding principles

The following principles will guide the formulation and implementation of the policy:

- 1) Collaboration, partnership and effective coordination;
- 2) Humanism, impartiality, objectivity, common interest and transparency;
- 3) Timeliness, effectiveness, responsiveness and relevance;
- 4) Gender equality and equity across the implementation of the policy;
- 5) Public awareness and education.

5. Disaster risk reduction and management policy framework

Taking into account the current national development aspirations as reflected in the Vision 2050, NST1 and other international development agenda such as SDGs and Sendai Framework for Disaster Risk Reduction (2015-2030), this section provides a set of policy actions proposed to address the identified issues and challenges. This policy is structured around seventeen (17) policy objectives clustered under four (4) main policy pillars as detailed below:

5.1. Policy pillar 1: Understanding disaster risks

This policy pillar is focused on understanding of DRRM concepts and practices, awareness and enhancing risk governance in DRRM system at all levels. This pillar has 4 Policy objectives: (i) Improve the understanding of disaster risks profiles at national, local and community levels; (ii) Enhance research and assessments on DRRM; (iii) Enhance disaster risk public awareness; (iv) Build capacity at national, local, and community levels.

5.1.1. Policy objective 1: Improve the understanding of disaster risks profiles at national, local and community levels

The ability of the country to reduce disaster risks depends on the capacity to understand and assess hazards, risks, exposure and vulnerability. Policymakers, researchers, public and private sectors should use that capacity and knowledge to make informed decisions on appropriate steps for disaster prevention and mitigation. The creation of disaster risk reduction knowledge combined with effective research strategies can enhance public participation in dealing with disaster risk reduction and management. This policy objective will be achieved through the implementation of the following policy actions:

- 1) Develop and regularly update national disaster risks profiles;
- 2) Upgrade and operationalise National Disaster Information Management System (NDIMS);
- 3) Enhance districts data management and risk assessment;
- 4) Involve and empower local communities in disaster risk assessment, analysis and researches.

5.1.2. Policy objective 2: Enhance research and assessments on DRRM

Rwanda's disaster risk profile, climate change and weather variabilities calls for an integrated national coordination framework and risk informed data generated through researches and assessments to build a disaster-resilient nation. Rwanda has shown its interest in the promotion of science and technology to drive research in all sectors of inclusive development. Its commitment is reflected in the building of the knowledge-based economy programme. To achieve this, it is important to:

- 1) Review and update the National Risk Atlas of Rwanda;
- 2) Promote research and evidence generation on DRRM in higher learning and research institutions;

- 3) Enhance the capacity of the public and private sectors, civil society, and research institutions to develop and utilize disaster-resilient technological innovations;
- 4) Assess and monitor regularly critical infrastructure to ensure safety standards and resilience;
- 5) Promote the use of traditional knowledge in DRRM.

5.1.3. Policy objective 3: Enhance disaster risk public awareness

Public awareness is essential in efforts to prevent, mitigate, respond and recover from disasters. The Government of Rwanda recognizes the role of communities in mitigating disasters and lessening the negative impacts. Public awareness raising is a DRRM component to be enhanced disaster resilient communities. This will be achieved through the following policy actions :

- 1) Raise awareness and continuously sensitize the population on risk resilience;
- 2) Develop and disseminate DRRM tailored toolkits, modules, brochures, and posters for all types of disaster risks across the country;
- 3) Engage media houses, civil society, private sector in DRRM awareness campaigns;
- 4) Evaluate periodically the level of awareness in disaster risk reduction and management.

5.1.4. Policy objective 4: Build capacity at national, local, and community levels

A disaster free country has been highlighted as the Ministry's long-term aspiration since its inception in 2010. To fulfil this vision, a range of capacities in disaster risk reduction and management is a prerequisite. During the implementation of this policy, all DRRM actors at all levels will be capacitated to enhance disaster risk governance. To achieve the policy objective, the following policy actions are required:

- 1) Build and strengthen the capacity of DRRM actors;
- 2) Organize training and simulation exercise for specialized response teams and other DRRM actors to ensure national, local and community readiness;
- 3) Reinforce and strengthen the capacity of thematic sectors and Districts in risk determination and monitoring;
- 4) Conduct capacity needs assessment of all DRRM actors.

5.2. Policy pillar 2: Strengthening institutional governance to manage disaster risks

This policy pillar outlines the requirements of an effective legislative, policy and institutional system as enabling factors for the implementation of DRRM measures. Policy objectives under this policy pillar comprise: (i) enhance coordination and collaboration of all stakeholders in DRRM at national level; (ii) strengthen coordination and collaboration of all stakeholders in DRRM at the local level (iii) put in place collaboration mechanisms to jointly handle transboundary disasters.

5.2.1. Policy objective 5: Enhance coordination and collaboration of all stakeholders in DRRM at the national level

DRRM is a multi-sectoral and multi-disciplinary field that involves various actors in a diversified way. The coordination and collaboration of these DRRM interveners/practitioners is key to effectively manage disaster risks. The coordination and collaboration between DRRM practitioners not only provides a framework for specific sector interventions but also focuses on the delivery of initiatives of nature and scope. The DRRM Policy defines the coordinating role of the institution in charge of DRRM and hence ensures collaboration between DRRM stakeholders at national level. This will be achieved through the following policy actions:

- 1) Establish mechanisms for effective collaboration with DRRM stakeholders;
- 2) Facilitate national and regional information exchange;
- 3) Operationalise sub-clusters and disaster risk management technical teams;
- 4) Develop a strategic plan for DRRM interventions;
- 5) Ensure dissemination of legislation, policies and strategies relating to DRRM at central level, district and local levels;
- 6) Ensure regular monitoring and enforcement of risk resilience indicators across all sectors.

5.2.2. Policy objective 6: Strengthen coordination and collaboration of all stakeholders in DRRM at the local level

The DRRM Policy aims to establish strong institutional frameworks that define roles and responsibilities of relevant stakeholders using existing structures at local level. Without proper institutional frameworks, DRRM remains at risk of overlaps, duplications and misuse of resources. The institutional frameworks at local level provide orientations to the working mechanisms of platforms and clusters in DRRM. The following are the policy actions:

- 1) Operationalize and strengthen District and Sector Disaster Management Committees (DIDIMAC & SEDIMAC) and local actors to ensure effective DRRM interventions;
- 2) Facilitate development and implementation of inclusive community based DRRM plans;
- 3) Inspect disaster risks across development programs and projects at local level;
- 4) Design and adopt effective mechanisms and measures for a more qualitative and quantitative participation of women and men in decision-making processes for disaster management at local level.

5.2.3. Policy objective 7: Establish collaboration mechanisms to jointly handle transboundary disasters

Disasters do not have borders or restrictions. Rwanda shares its borders with four countries and having in place collaboration mechanisms with neighbouring countries will strengthen the management of transboundary disasters. To achieve this, it is important to implement the following policy actions:

- 1) Establish joint surveillance mechanisms to collect, analyse and share data and information on potential disasters in the areas surrounding shared borders;
- 2) Develop, review and test required joint preparedness and response plans;
- 3) Establish agreements on working mechanisms and exchanges on global and regional disaster risks.

5.3. Policy pillar 3: Investing in resilience across sectors in planning and implementation

This policy pillar is centred on the planning and implementation of structural and non-structural measures at sector levels to reduce potential disaster risks and increase the resilience of at-risk populations. It also provides policy orientations on how to increase the national resilience, mainstreaming DRRM across development sectors, mitigating disaster risks (natural and man-made) and reduce underlying factors, integrating the DRRM in the national education system and putting in place DRRM financing mechanisms at national and local levels.

5.3.1. Policy objective 8: Mainstream DRRM across development sectors

Disaster risk resilience is a national priority. Measures to address existing disaster risks and achieve national development goals cannot be reached without mainstreaming DRRM in all development sectors. Therefore, mainstreaming requires integrating DRRM into all sectoral planning, resourcing, design; building DRRM into monitoring and evaluation; ensuring all sectors have formulated disaster risk-aware results/targets that are well tracked. Therefore, the policy actions are to:

- 1) Mainstreaming disaster risk reduction and management into development sectors policies, strategies and plans; and ensure regular monitoring of target indicators;
- 2) Continuously inform national planning and budgeting on required sector DRRM investment to ensure risk resilience and sustainability;
- 3) Enhance public-private partnership in DRRM mainstreaming.

5.3.2. Policy objective 9: Prevent and mitigate disaster risks and address the underlying disaster risk drivers

A disaster occurs when there is 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. Through Rwanda's development initiatives, there is a commitment to address the risks people face and the reasons for their vulnerability to hazards. This policy objective will be achieved through implementing the following policy actions or interventions:

- 1) Monitor enforcement of laws and regulations contributing to disaster risk resilience and formulate recommendations for necessary improvement;
- 2) Determine required investment in disaster risk prevention, mitigation and adaptation and mobilize stakeholders to address identified risk factors across sectors;

- 3) Implement anticipatory actions to protect households and business in high-risk areas;
- 4) Strengthen and implement community-based disaster risk reduction and management initiatives;
- 5) Promote effective land use and safe building and construction practices for resilience;
- 6) Promote risk transfer mechanism across sectors;
- 7) Promote socio-economic development initiatives to improve households' livelihoods and disaster risk resilience.

5.3.3. Policy objective 10: Integrate the disaster risk reduction and management in the national education system

A knowledge-based society is the longer-term vision of the Government of Rwanda with the key entry point being formal education. To allow the country to have a knowledge-based population in DRRM, all education levels should integrate Disaster Risk Reduction and Management from the initial subjects of formal education. To achieve this, it is important to implement the following policy actions:

- 1) Integrate disaster risk management into education programmes;
- 2) Promote awareness on disaster risk resilience and sustainability to education sector actors.

5.3.4. Policy objective 11: Strengthen DRRM financing mechanisms at national level

Through the Government of Rwanda, financial manuals for public financial management and different laws have been put in place to inform and guide all financial mechanisms including DRRM financing. In addition, different specific structures have been put in place to effectively manage disasters. However, public institutions are mainly depending on the recurrent budget to cope with disasters which is often not sufficient to afford the cost required to manage disaster risks. Funding mechanisms for DRRM at the national level should be based on a comprehensive mechanism that defines the process to access and channel the funds to implement DRRM activities. This will be achieved through policy actions as follows:

- 1) Set multi-sectorial guidelines for DRRM financing at the national level;
- 2) Establish and operationalize the national disaster risk reduction and management financing facility;
- 3) Mobilize the Private Sector, NGOs, UN Agencies and Development Partners to contribute in DRRM financing.

5.3.5. Policy objective 12: Develop DRRM financing mechanisms at local level

Disaster Risk Reduction and Management has a multi-sectoral aspect, no single institution alone can ensure its full management. This requires joint planning and budgeting from different entities and organs to handle issues related to DRRM. However, at the local level, there is no effective and comprehensive funding mechanism to raise and allocate funds meant to implement DRRM activities. Therefore, this policy objective will be achieved through implementing the following policy actions:

- 1) Set multi-sectorial guidelines for DRRM financing at the District level;

- 2) Establish and operationalize disaster risk financing instruments at local level ;
- 3) Mobilize local actors and partners to implement community based DRRM;
- 4) Strengthen the role of the private sector, civil society, and NGOs at local level in financing DRRM.

5.4. Policy pillar 4: Enhancing preparedness for effective response and building back better for longer-term recovery and reconstruction

This policy pillar has a specific focus on structures, tools and operational capacities related to disaster preparedness, response, recovery, rehabilitation and reconstruction. It provides the basis for longer-term recovery and strengthens resilience for the future. The main policy objectives under this policy pillar are: (i) develop efficient and effective early warning systems for hazards; (ii) Strengthen disaster preparedness mechanism and ensure effective response and recovery interventions

5.4.1. Policy objective 13: Develop efficient and effective early warning systems for hazards

An effective EWS is very crucial in DRRM to reduce potential losses and assists communities to adopt proper coping measures and lifesaving . Effective people-centred early warning systems should be established to improve disaster preparedness and readiness to cope with the disasters.

The EWS in place lacks some important features to be more effective for DRRM. This policy endeavours to bring all necessary mechanisms to improve it and address gaps through necessary infrastructures and capacity for data collection, analysis and dissemination for an informed multi-hazard people-centred disaster communication system. To achieve this, it is important to:

- 1) Acquire necessary human resources, physical infrastructures, information and communication technology tools, and equipment for effective preparedness and readiness;
- 2) Strengthen the existing multi-hazard EWS for all types of disaster risks;
- 3) Establish mechanisms for communication and anticipatory deployment of specialized response capabilities;
- 4) Promote inclusive community-based early warning information sharing, with special attention to vulnerable groups.

5.4.2. Policy objective 14: Strengthen disaster preparedness mechanism and ensure effective response and recovery interventions

Disasters disrupt the functioning of a community beyond short- and mid-term periods. It is therefore important to anticipate all potential consequences, mobilize resources and ensure an appropriate response interventions to reduce the impact of disasters. Further, for the mid- and long-term rehabilitation, it is crucial to conduct a comprehensive post-disaster need assessment. Building back better shall be done to improve a community's physical, social, environmental and economic conditions to create a more resilient community . . . This policy objective will be achieved through implementing the following policy actions:

- 1) Strengthen risk surveillance capacity to inform preparedness and readiness;

- 2) Ensure regular development and update of required preparedness and response plans;
- 3) Organize regular simulation exercises to test national, local and community readiness;
- 4) Facilitate development and operationalization of community-based disaster readiness plans;
- 5) Strengthen mechanisms, frameworks and resources arrangement for effective response and recovery functions;
- 6) Increase contingency stock of necessary emergency relief items;
- 7) Operationalize a 24/7 disaster emergency operation centre to effectively coordinate disaster response operations;
- 8) Establish DRRM database with specific data and information on risk and impact of disasters;
- 9) Put in place mechanisms to determine the physical, social and economic cost of past, actual and future disaster impacts;
- 10) Strengthen the socio-economic recovery;
- 11) Strengthen collaboration and partnerships with stakeholders to ensure effective response and recovery interventions.
- 12) Monitor and ensure sustainable and effective recovery as well as building back better.

6. Implementation Framework

6.1. Institutional arrangements for Disaster Risk Reduction and Management

The successful implementation of this policy will require the active participation of all concerned stakeholders. These include central government, local government, private sector, NGOs, development partners, academia and research institutions and communities.

6.1.1. Central Government

MINEMA is the leading institution to deliver on the implementation of the four pillars of this policy. However, given the complexity and the cross-cutting nature of disaster risks management, MINEMA will work closely and collaborate with a range of stakeholders as well as disaster management organs(Annex 4).

MINEMA will also engage DRRM stakeholders in the implementation of the policy using existing coordination mechanisms including: (i) Social Cluster; (ii) Economic Cluster (iii) Social Protection Sector Working Group, (iv) Agricultural Sector Working Group; (v) ENR Sector Working Groups; (vi) Joint Sector Reviews.

All these platforms will serve both as a means to ensure participatory, joint-planning and accountability as well as ensuring the inclusion of disaster risks management into Imihigo (performance indicators) and priorities of development sectors to foster ownership and accountability.

6.1.2. Local Government

This policy will be implemented at local level using the existing organs including District Disaster Management Committees (DIDIMAC) and Sector Disaster Management Committees (SEDIMAC), their responsibilities are detailed in annex 4.

6.1.3. Private sector

It is expected that the private sector members will contribute in building risk resilience in their respective areas of operation. In addition, through Joint Action Development Forum (JADF), they shall support the implementation of community based DRRM at District and Sector levels including financing,, playing a key role in early response and long-term recovery, ,driving innovation and facilitating technology use in DRRM.

6.1.4. Non-Governmental Organisations

NGOs will support the implementation of this policy at different levels, including resource mobilization, community education and campaigns, providing relief and recovery materials as well as participation in development of prepadness plans among others.

6.1.5. Development partners

Development partners will support the government at various stages from pre-disaster, response operations to recovery programmes as well as the capacity building.

6.1.6. Academia and research institutions

Academia and research institutions are increasingly playing a role in disaster research, analysis and will contribute to the generation of evidence based data to inform the policy and decision-making.

6.1.7. Communities

Communities both men and women, young boys and girls are expected to play a vital role in making every effort to reduce disaster risks impacts in their daily life.

6.2. Monitoring, evaluation and learning

Monitoring, evaluation and learning (MEL) is an important management tool to track progress and facilitate decision making. The policy will be implemented through annual action plans that are formulated to translate policy pillars and objectives into actions. MEL will be done at all levels: national, sectoral and local and will constitute collecting data and producing reports on the implementation of planned activities and results. Specifically, three elements will be considered:

- 1) Systematic monitoring against the policy objectives and policy actions indicators;
- 2) Space for reflection and learning;
- 3) Rigorous analysis of policy outcomes and impact showing how the policy gaps will be filled.

MINEMA will also ensure that the following indicators of the SDG and Sendai framework are regularly monitored and evaluated: (i) Number of deaths attributed to disasters, per 100,000 population, (ii) number of injured or ill people attributed to disasters, per 100,000 population, (iii) number of people whose damaged dwellings were attributed to disasters, (iv) number of people whose destroyed dwellings were attributed to disasters, (v) number of people whose livelihoods were disrupted or destroyed, attributed to disasters, (vi) direct agricultural loss attributed to disasters, (vii) direct economic loss in the housing sector attributed to disasters, (viii) number of destroyed or damaged health facilities attributed to disasters, (ix) number of destroyed or damaged educational facilities attributed to disasters, (x) number of other destroyed or damaged critical infrastructure units and facilities attributed to disasters, (xi) number of people per 100,000 that are covered by early warning information through local governments or through national dissemination mechanisms, (xii) percentage of population exposed to or at risk from disasters protected through pre-emptive evacuation following early warning.

6.3. Policy implications

6.3.1. Economic and financial implications

The National Disaster Risk Reduction and Management Policy has some economic and financial implications.

First, focusing on reducing disaster risk is a cost-effective investment in preventing future losses. Investing in resilient infrastructure is key to tackling the three central challenges facing

the global community: sustaining growth, delivering on the Sustainable Development Goals, and reducing climate risk in line with the Paris Agreement.

Two, this policy will have financial implications in terms of the budget needed for investing in preventing, mitigating, and responding to disaster risks. This will require innovative resource mobilisation strategies, including attracting external sources of funding beyond internal public investment resources. In addition, development partners, private sector and civil society organisations will be encouraged to accommodate the aspirations of this policy in their normal interventions.

6.3.2. Legal implications

This policy may imply few changes in disaster management law and regulations to ensure that all related legal instruments are consistent, complementary, enforced and disseminated to all stakeholders.

6.3.3. Social implications

It is anticipated that the continuous relocation of households from the high-risk zones to the integrated planned settlements (IDP model villages) and VUP support as well as other social protection schemes are expected to increase resilience and social economic development of Rwandan citizens. Beyond providing decent living without the fear of being victims of natural hazards such as flooding, landslides and other disasters, these IDP model villages will also facilitate the provision of the basic services (e.g. electricity, water, etc.) and high expectations for off-farm employment and access to finance.

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Annexes

Annex 1. Glossary

Biological hazard: Process or phenomenon of organic origin or conveyed by biological vectors, including exposure to pathogenic micro-organisms, toxins and bioactive substances that may cause loss of life, injury, illness or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage (MINEMA, 2018).

Build back better: The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies and the environment (UNISDR, 2019).

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 (UNISDR, 2015). In the context of Rwanda, disasters are classified into the following categories (GOR, 2016b):

- 1) **Category 1:** a disaster which has occurred in a Sector and is managed using resources available in the Sector in collaboration with its partners;
- 2) **Category 2:** a disaster which occurs in any District and which is managed using resources available in the District in collaboration with its partners;
- 3) **Category 3:** a disaster which occurs in any District and is managed using resources from the Ministry and its partners;
- 4) **Category 4:** a disaster which is beyond the Country's means.

Disaster Management (DM): It is a systematic process of using administrative directives, institutions, operational skills and capacities to implement strategies, policies and improved coping capacities in order to prevent and mitigate disasters, prepare for imminent disasters, rehabilitate or reconstruct damages caused by disasters (GOR, 2016b).

Disaster Risk Assessment: A qualitative or quantitative approach to determine the nature and extent of disaster risk by analyzing potential hazards and evaluating existing conditions of exposure and vulnerability that together could harm people, property, services, livelihoods and the environment on which they depend (UNISDR, 2019).

Disaster Risk Information: Comprehensive information on all dimensions of disaster risk, including hazards, exposure, vulnerability and capacity, related to persons, communities, organizations and countries and their assets (UNISDR, 2019).

Disaster Risk Management (DRM): 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 (UNISDR, 2019).

Disaster Risk Reduction (DRR): This is a concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events (GOR, 2016b).

Early warning system (EWS): 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 (UNISDR, 2019). In the context of Rwanda, EWS is defined as a set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities, organizations and other States threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss (GOR, 2016b). The Ministry in Charge of Emergency Management, together with other organs in charge of disaster management, shall develop a warning system for disasters in order to prevent them and mitigate their effects. They shall also put in place a mechanism for providing the inhabitants of Rwanda with various information related to disaster (Article 12) (GOR, 2016b).

Emergency management: It is used sometimes interchangeably, with the term disaster management, particularly in the context of biological and technological hazards and for health emergencies (UNISDR, 2019). In Rwanda, emergency management refers to an organization and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps (GOR, 2016b).

Epidemic: An epidemic is the occurrence of more cases of a disease or a health event than expected at that place and at that time in a specific population or community (MINEMA, 2018).

Evacuation: Moving people and assets temporarily to safer places before, during or after the occurrence of a hazardous event in order to protect them (UNISDR, 2019).

Exposure: The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas (UNISDR, 2019).

Geological hazard: A geological process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. Geological process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage (MINEMA, 2018).

Hazard: It is a dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption or environmental damage (GOR, 2016b).

Hydro-meteorological hazards: Process or phenomenon of atmospheric, hydrological or oceanographic nature that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Mitigation: The lessening or minimizing of the adverse impacts of a hazardous event (UNISDR, 2019).

Monitoring: The continuous or periodic review and overseeing by stakeholders of the implementation of an activity, to ensure that input deliveries, work schedules, target outputs are proceeding according to plan (MINEMA, 2018).

National Platform for Disaster Risk Reduction: A generic term for national mechanisms for coordination and policy guidance on disaster risk reduction that are multisector and interdisciplinary in nature, with public, private and civil society participation involving all concerned entities within a country (UNISDR, 2019).

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 (UNISDR, 2019).

Prevention: Activities and measures to avoid existing and new disaster risks (UNISDR, 2019).

Public awareness: The extent of common knowledge about disaster risks, the factors that lead to disasters and the actions that can be taken individually and collectively to reduce exposure and vulnerability to hazards (MINEMA, 2018).

Reconstruction: The medium- and long-term rebuilding and sustainable restoration of resilient critical infrastructures, services, housing, facilities and livelihoods required for the full functioning of a community or a society affected by a disaster, aligning with the principles of sustainable development and “*build back better*”, to avoid or reduce future disaster risk (UNISDR, 2019).

Recovery: The restoring or improving of livelihoods and health, as well as economic, physical, social, cultural and environmental assets, systems and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and “*build back better*”, to avoid or reduce future disaster risk (UNISDR, 2019).

Rehabilitation: The restoration of basic services and facilities for the functioning of a community or a society affected by a disaster (UNISDR, 2019).

Resilience: The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management (UNISDR, 2019).

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 (UNISDR, 2019).

Risk transfer: The process of formally or informally shifting the financial consequences of particular risks from one party to another, whereby a household, community, enterprise or State authority will obtain resources from the other party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party (UNISDR, 2019).

Socio-natural hazard: The phenomenon of increased occurrence of certain geophysical and hydrometeorological hazard events, such as landslides, flooding, land subsidence and drought, that arise from the interaction of natural hazards with overexploited or degraded land and environmental resources (MINEMA, 2018).

Technological hazards: A hazard originating from technological or industrial conditions, including accidents, dangerous procedures, infrastructure failures or specific human activities, that may cause loss of life, injury, illness or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage (MINEMA, 2018).

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 (UNISDR, 2019).

Annex 2. Disaster risks profile in Rwanda

Rwanda's disaster profile is dominated by volcanic eruptions, earthquakes, drought, floods, landslides, fires, mass movement of population, various storms (e.g. windstorms, lightning, rainstorms and thunderstorms), accidents, technological and industrial hazards, terrorism, and epidemics as explained below:

Volcanic eruptions: The north western parts of Rwanda has a chain of volcanoes, some of which are inactive and other active. In 2002, Nyiragongo volcano erupted in Eastern DRC and caused damage, 400,000 Congolese fled to Rwanda, Rubavu District bordering Goma (GoR, 2016a). On 22 May 2021, Nyiragongo volcano erupted again and by 25 May, in Democratic Republic of Congo (DRC), 32 people died as a result of the eruption and 1,000 homes were destroyed. About five hectares of Rwanda territory have been covered by the volcanic lava flows, cracks in Rwanda were reactivated where the opening can reach 3m wide, and the cracked zone is about 50 m wide per 8 Km long. (PDNA, 2021). An estimated 415,700 people have been displaced across several localities in DRC and across the border in Rwanda. The magnitude and extent of experiences on volcanic activity require preparedness and a contingency plan for Rwanda focusing not only on the direct impact but on also dealing with the potential associated mass influx of refugees. While leading to mass displacement of population, volcanic activities can also have a direct impact on the community's environment in Rwanda.

Earthquakes: Available seismic information indicates that parts of the western region of Rwanda are prone to seismic activity. Whereas the probability of occurrence of earthquake can be determined by existing technology, its exact time is not easy to ascertain. This makes it imperative to have adequate preparedness for disaster related to earthquakes. In 2008, Rusizi and Nyamasheke (both in the western province) were severely hit by a 6.2 earthquake causing 39 deaths, more than 600 injuries and more than 2000 people were left homeless. Following the eruption of Nyiragongo volcano in DR Congo, earthquakes have also hit Rubavu District in the Western Province, damaging people's properties and infrastructure. According to data from Rwanda Seismic Monitor, earthquakes were mostly experienced in Rubavu District but there were also trembling in Kigali and the Eastern Province. The earthquake risk is also be monitored on the border with Tanzania with the west African rift valley faults.

Drought: This is mainly triggered by a prolonged dry season or a delay in the onset of the rainy season. Recurrent drought incidences over the past decade, between 1998 and 2000 and annually from 2002 to date, have caused a serious deterioration in food security. Recurrent droughts have caused crop failures and severe food deficits. Rwanda's forests have also become particularly susceptible to fire hazards due to drought, such as the major fire outbreaks in Nyungwe National Park in 2005. Combined with the potential impacts of climate change, predicting reduced rainfall in the east and southeast, there is growing concern that desertification is gaining a foothold over the savannah landscapes.

Floods: These are common in Rwanda but have increased in frequency over the past decade. They usually originate from heavy rainfall, which causes rapid and unpredictable surges in the flow of rivers downstream. The two predominant types of floods are the localized floods caused by exceptionally heavy rains and run-offs; and widespread floods caused by overflowing rivers and their tributaries. Rwanda experiences both slow and rapid onset floods. They are common in the Northern and Western parts of Rwanda. Floods can also trigger outbreaks of water borne diseases and malaria, hence compounding community to health hazard. They also cause physical damage by washing away structures, crops, animals and submerging human settlements.

Landslides: These are rapid movements of a large mass of land, mud and rock, formed from loose soil and water. They are usually triggered by heavy rainfall and high ground water flowing through cracked bed rock and earthquakes and lead to the sudden and massive movement of soil and/or rock particles.

Landslides and mudslides are difficult to predict but their frequency and extent can be estimated by use of information on the area's geology, geomorphology, climate and vegetation cover and traditional knowledge. Community settlement on steep slopes and other uncontrolled land use practices increase the likelihood of landslide and mudslide prevalence. Since 2010, Rwanda has experienced several occurrences of landslides and mudslides, especially in the Northern and Western parts, due the prevalence of heavy rains in that most hilly and steep sloped part of the country.

Fires: These include the unplanned and massive burning which may cause the destruction of equipment, settlement, property and lives. Hazardous electric wiring, poor construction standards, accidents, and uncontrolled burning of bush are among many factors that cause fire hazards. In the last years, there were a number of fires occurring in cities and natural parks. These include for example the incident of a forest fire in 2009 that spread to the top of mount Muhabura in the Volcanoes National Park, consuming 150 hectares of the park, and fire incidents in schools, hotels, prisons and commercial buildings in Kigali and other urban areas.

Mass movement of population: This refers to both the sudden and rapid crossing of international borders by large numbers of uninvited foreigners who are seeking safety from acute danger or other threats to their life and liberty and the sudden and rapid displacement of people within the borders of Rwanda who are seeking safety from acute danger or other threats to their life. This can lead to a major crisis disrupting the livelihood of the local population and affecting every sector of the society including negative impacts to health, water and sanitation, agriculture and safety.

Storms: Rwanda is prone to several extreme storms such as thunderstorms, hailstorms, windstorms, lightning which have caused the loss of lives and property as well as injuries in population (GoR, 2016a). Thunderstorms are often accompanied by high winds, hail, lightning, heavy rain and in rare cases can produce tornadoes. Windstorms have been of the major hazards that caused several damages in some areas of Rwanda. Often, the windstorms

associated with heavy rain have destroyed houses, schools, churches, health facilities, buildings, vehicles, crops, cut off electricity and downpour of electrical wires supports, bridges, roads, communication networks, etc. Lightning has become one of the most alarming hazards to affect the country in recent years as these have been causing deaths and injuries to Rwandan population.

Technological and industrial hazards: Rwanda's long-term socio-economic development programs focus on agriculture modernization and industrialization. The later however, increase the risk of industrial hazards such as CBRNE events that can be accidental or voluntary actions. It is therefore imperative to develop the awareness and preparedness for emergency areas within or near industrial installations. Preparedness involves building the capacity to identify risks and have appropriate reduction and management strategies.

Epidemics: An epidemic is the occurrence of more cases of a disease or a health event than expected at that place and at that time. Diseases include: Food and water borne diseases (cholera, Typhoid fever, dysentery, others food and water poisoning...) highly, pathogenic viral diseases such as (Yellow fever, Ebola, Influenza, Covid-19, etc...) meningitis and other health events of public health importance. For example, cholera outbreak seems to be endemic in some part of the country. Since 2010, fifteen outbreaks have been recorded with a total of 285 cases and 3 deaths recorded. 73% of outbreaks are located in Rusizi and Nyamasheke district respectively with 40% and 33% (RBC, 2016).

Such disasters are exacerbated by escalating impacts of climate change evidenced by extreme weather events and erratic climatic conditions, exploitation and use of environment components (land, water resources, forests), fast-phased development trend trekked by the country, rapid urbanization, population growth, poverty and limited capacity to cope with risks and limited enforcement of existing policy tools related to resilience.

Annex 3: Implementation Plan

Policy pillar 1: Understanding disaster risks					
Policy objective 1: Improve the understanding of disaster risk profile at national, local and community levels					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Regularly update the national disaster risk profiles.	National Risk Atlas	Disaster risk profiles updated	MINEMA, Districts.	2023-2031	500,000,000
Enhance districts data management and risk assessment.	0	District disaster database	MINEMA, MINALOC, CoK, Provinces.	2023-2030	200,000,000
Upgrade and operationalise National Disaster Information Management System (NDIMS)	NDIMS	NDIMS upgraded and operationalised	MINEMA, MINALOC, CoK, Provinces.	2023-2025	100,000,000
Involve and empower local communities in disaster risk assessment and analysis	Existing volunteer. Red Cross, youth volunteers	Local communities / volunteerers empowered	Districts, MINEMA, MINALOC.	2023-2030	100,000,000
Policy objective 2: Enhance research and assessments on DRRM					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Review and update the National Risk Atlas of Rwanda	National Risk Atlas of Rwanda	Update the national risk profiles	MINEMA, NCST, Sector Ministries/ agencies	2024-2026	1,000,000,000
Promote research and evidence generation on DRRM in academic and research institutions	Existing researchers in HLIs	Evidence generation on DRRM in HLIs	MINEDUC MINEMA, NCST, NPDM.	2023-2030	300,000,000
Enhance the capacity of the public and private sectors, civil society, and research institutions to develop and utilize disaster-resilience technological innovations;	0	Local and appropriate disaster prevention and mitigation technologies developed	MINEMA, MINICT, MINALOC, MINICOM, RDB.	2023-2030	160,000,000
Assess and monitor regularly critical infrastructure to ensure safety standards and resilience	Monitoring on fire safety management	Critical infrastructure monitored	MINEMA, NADIMATEC institutions, Districts.	2023-2030	200,000,000

	t, road & bridges				
Promote the use of traditional knowledge in DRRM	Identification of traditional knowledge holders	Use of traditional knowledge promoted	MINEMA MINALOC, Districts.	2023-2030	100,000,000
Policy objective 3: Enhance disaster risk public awareness					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Raise awareness and continuously sensitize the population on risk resilience	Public awareness	General public	Districts MINEMA, MINALOC, MIGEPROF.	2023-2030	840,000,000
Develop and disseminate DRRM-tailored toolkits, modules, brochures, and posters for all types of disaster risks across the country	Existing tools on hydrometeorological and fire hazards	DRRM tools developed and disseminated for all hazards	MINEMA , NPDM institutions.	2023-2030	50,000,000
Engage media houses, civil society, private sector in DRRM awareness campaigns	Involvement of NPDM in DRRM	Media, CSOs and private sector engaged in DRRM awareness	MINEMA MINALOC, MINICOM, OGS, NPDM.	2023-2030	80,000,000
Evaluate periodically the level of awareness in disaster risk reduction and management	-	Level of awareness periodically evaluated	MINEMA , Districts, NISR.	2023-2030	160,000,000
Policy objective 4: Build capacity at national, local, and community levels					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Build and strengthen the capacity of DRRM actors	Training sessions for NPDM stakeholders, DIDIMAC and SEDIMAC members	NPDM stakeholders, DIDIMAC, and SEDIMAC members trained	MINEMA MINALOC, NPDM stakeholders, DIDIMAC, and SEDIMAC	2023-2030	180,000,000
Organize training and simulation exercise for specialized response teams and other DRRM actors to ensure national, local and community readiness	Training and simulation sessions for key institutions	Key institutions trained on emergency management	MINEMA MINALOC, NADIMAC Institutions.	2024-2030	500,000,000

Reinforce and strengthen the capacity of thematic sectors and Districts, in risk determination and monitoring	Capacity building of development sectors in disaster risk monitoring	Reinforcement and strengthening the capacity of sectors in risk determination, monitoring and assessment	MINEMA, NADIMAC institutions	2024-2030	200,000,000
Conduct capacity needs assessment for all DRRM actors	DRRM Capacity needs assessment (2019)	Capacity need assessment conducted	MINEMA, NPDM institutions	2023-2030	60,000,000
Sub-Total					5,630,,000,000
Policy pillar 2: Strengthening institutional governance to manage disaster risks					
Policy objective 5: Enhance coordination and collaboration of all stakeholders in DRRM at the national level					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Establish mechanisms for effective collaboration with DRRM stakeholders	Existing MoUs and agreements	Mechanisms for collaboration established	MINEMA, NPDM institutions	2023-2030	10,000,000
Operationalise sub-clusters and risk management technical teams	Existing NPDM and NADIMAT EC organs	Sub-clusters operationalised	MINEMA, NPDM institutions and organizations	2023-2025	80,000,000
Facilitate national and regional information exchange	Exchange of information with Meteo Rwanda, RWB, RMB,OVG	Facilitation of national and regional information exchange	MINEMA, NADIMATEC Institutions, RWB, Rwanda Meteo Agency, RMB, REMA, NISR.	2023-2030	30,000,000
Develop a strategic plan for DRRM interventions	Strategic plan (2010-2015)	DRRM strategic plan developed	MINEMA	2023-2024	30,000,000
Ensure dissemination of legislation, policies and	Disaster management law	All policies, laws and strategies	MINEMA, MINALOC/ Districts.	2023-2030	20,000,000

strategies relating to DRRM at central level, district and local levels		documents disseminated at district and sector levels			
Ensure regular monitoring and enforcement of risk resilience indicators across all sectors.	Existing DRRM indicators	Regular monitoring of risk resilience indicators	MINEMA, NADIMAC institutions, CoK/Districts	2023-2030	300,000,000

Policy objective 6: Strengthen coordination and collaboration of all stakeholders in DRRM at the local level

Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Operationalize and strengthen District and Sector Disaster Management Committees (DIDIMAC & SEDIMAC) and local actors to ensure effective DRRM interventions	Existing local committees	Operationalisation of DIDIMACs and SEDIMACs	MINALOC, MINEMA, Districts.	2023-2030	240,000,000
Facilitate development and implementation of inclusive community based DRRM plans	Participatory plans in Ngororero	DRRM plans developed at sector level	Districts, MINALOC, MINEMA, MIGEPROF, MINITYOUTH.	2023-2030	416,000,000
Inspect disaster risks across development programs and projects at local level	Existing joint inspection on fire, mining and construction	Disaster risks inspected across development projects	Districts, MINALOC, MINEMA.	2023-2030	40,000,000
Design effective mechanisms and measures for a more qualitative and quantitative participation of women and men in decision making processes for disaster management at local level	Existing consultation forums for activity planning and response mechanisms with both men and women stakeholders	Involvement of men and women in planning processes for DRRM	Districts, CNF, NYC, MINALOC, MINEMA, MIGEPROF	2023-2030	10,000,000

Policy objective 7: Establish collaboration mechanisms to jointly handle transboundary disasters

Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
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Establish joint surveillance mechanisms to collect, analyse and share data and information on potential disasters in the areas surrounding shared borders	Surveillance on volcanic eruption	Joint surveillance mechanisms established	MINEMA, MINAFFET, NADIMAC institutions.	2023- 2030	30,000,000
Develop, review and test required joint preparedness and response plans	Existing preparedness and response plans	Joint preparedness and response plans reviewed and tested	MINEMA NADIMATEC institutions, NPDM.	2023- 2030	80,000,000
Establish agreements on working mechanisms and exchanges on global and regional disaster risks	0	Agreements established	MINAFFET, MINEMA, MINAGRI, MOH MINALOC,	2024- 2026	70,000,000
Sub-total					1,356,000,000

Policy pillar 3: Investing in disaster resilience across sectors in planning and implementation

Policy objective 8: Mainstream DRRM across development sectors

Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Mainstreaming disaster risk reduction and management into development sectors policies, strategies and plans; and ensure regular monitoring of target indicators	Monitoring of DRRM mainstreaming reports	DRRM mainstreamed across all sectors	MINEMA, MINECOFIN, Sector' Ministries.	2023- 2030	14,000,000
Continuously inform national planning and budgeting on required sector DRRM investment to ensure disaster risk resilience and sustainability	Monitoring of DRRM mainstreaming reports	DRRM mainstreamed across all sectors	MINEMA, MINECOFIN, Sector' ministries.	2023- 2030	-
Enhance public-private partnerships DRRM mainstreaming	Identification and engagement of private operators in insurance, fire	PP partnership in DRRM enhanced	MINEMA MINICOM, MINALOC, RDB, Districts.	2023- 2030	25,000,000

Policy objective 9: Prevent and mitigate disaster risks and address the underlying disaster risk drivers

Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Monitor enforcement of laws and regulations contributing to disaster risk resilience and formulate recommendations for necessary improvement.	Existing laws and regulations	Enforcement of laws and regulations	MINECOFIN MINEMA, RDB, MoE, RMB, REMA, Sector' Ministries, Districts.	2023-2030	21,000,000
Determine required investment in disaster risk prevention, mitigation and adaptation and mobilize stakeholders to address identified risk factors across sectors.	Existing investments in sectoral programmes	Investments in prevention and mitigation	MINECOFIN MINEMA, NPDM.	2023-2030	8,000,000
Implement anticipatory actions to protect households and business in high-risk areas	Existing programs of relocating households and businesses from high risk areas and adaptation measures	Relocation and adaptation measures enhanced	MININFRA, MINALOC, MoE, MINEMA, RHA, REMA,RWB, MINICOM, Private sector	2023-2030	20,000,000,000
Strengthen and implement community-based disaster risk reduction and management initiatives	Existing flood mitigation measures	DRRM community-based measures enhanced	MINALOC, MINEMA, Districts.	2023-2030	1,500,000,000
Promote effective land use, safe building and construction practices for resilience	NLUDMP20 20-2050	Effective implementation of NLUDMP20 20-2050	MoE, RLA, COK, Districts.	2023-2030	-
Promote risk transfer mechanism across sectors	Meeting with insurance companies	Risk transfer schemes promoted	MINECOFIN MINEMA, NADIMAC Institutions	2023-2030	50,000,000
Promote socio-economic development initiatives to	Guidelines to mainstream DRRM	Resilient socio-economic initiatives	MINALOC, MINECOFIN, MINEMA, LODA,	2023-2030	20,000,000

improve households' livelihoods and risk resilience	across sectors		CoK, Districts		
Policy objective 10: Integrate the disaster risk reduction and management in the national education system					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Rwf)
Integrate DRRM into education programmes	DRRM in general paper subject and social studies	DRRM related courses integrated in curriculum and modules	MINEDUC, MINEMA, HLIs.	2023-2030	40,000,000
Promote awareness on disaster risk resilience and sustainability to education sector actors.	DRRM indicators framework	DRRM integrated in M&E systems	MINEMA, MINEDUC, Districts.	2023-2030	70,000,000
Policy objective 11: Strengthen DRRM financing mechanisms at national level					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Set multi-sectorial guidelines for DRRM financing at the national level	None	Guidelines for DRRM financing	MINECOFIN MINEMA	2023-2025	-
Establish and operationalize the national disaster risk reduction and management financing facility	Disaster Management Law	Disaster Response instruments	MINECOFIN MINEMA, NPDM.	2023-2030	100,000,000
Mobilize the Private Sector, NGOs, UN Agencies and Development Partners to contribute in DRRM financing.=	UNDP project	Specific projects in DRRM developed	MINEMA MINECOFIN	2023-2030	80,000,000
Policy objective 12: Develop DRRM financing mechanisms at local level					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Rwf)
Set multi-sectorial guidelines for DRRM financing at District level	None	Guidelines for DRRM financing	MINALOC MINECOFIN, MINEMA, Districts	2023-2025	-

Establish and operationalize disaster risk financing instrument at local level	Earmarked funds for awareness	Increased DRRM budgetary allocation to districts	MINEMA MINECOFIN, MINALOC, MOE, MoH, MININFRA, MINAGRI, NGOs.	2023-2030	100,000,000
Mobilize local partners to implement community based DRRM initiatives	-	Local partners engaged in DRRM	Districts, MINEMA, NPDM.	2023-2030	630,000,000
Strengthen the role of the private sector, civil society, and NGOs at local level in financing DRRM	None	Private sector, CSOs engaged	MINECOFIN MINEMA MINALOC, , Districts	2023-2030	10,000,000
Sub-total					22,668,,000,000
Policy pillar 4: Enhancing preparedness for effective response, and building back fairer for longer-term recovery and reconstruction					
Policy objective 13: Develop efficient and effective early warning systems for hazards					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Acquire necessary human resources, physical infrastructures, ICT tools, and equipment for effective preparedness and readiness	DIMS Existing staff ICT tools	Required Resources in place	MINEMA Meteo Rwanda, RWB, MINAGRI, MoH, MINALOC, RNP, RDF, RMB, REMA.	2023-2030	800,000,000
Strengthen the existing multi-hazard EWS for all types of disaster risks	DIMS	MHEWS strengthened	MINEMA Meteo Rwanda, RWB, RMB, MINAGRI, MoH, MINALOC, RNP, RDF, REMA	2023-2030	200,000,000

Establish mechanisms for communication and anticipatory deployment of specialized response capabilities	Response plan	Enhanced comprehensive mechanism for response	MINEMA NADIMAC institutions	2023-2030	6,000,000
Promote inclusive community-based information sharing with special attention to vulnerable groups	DIMS	Community based information enhanced	Districts MINEMA MIGEPROF	2023-2030	150,000,000
Policy objective 14: Strengthen disaster preparedness mechanism for effective response and recovery interventions					
Policy actions	Baseline	Targets	Responsible	Timeline	Estimated budget (Frw)
Strengthen risk surveillance capacity to inform preparedness and readiness	Capacity enhanced for DIDIMAC (30) SEDIMAC(317)	Capacity of institutions strengthened	MINEMA NPDM Institutions	2023-2031	500,000,000
Ensure regular development and update of required preparedness and response plans	Contingency plans	Preparedness and response plans updated	MINEMA, NADIMATEC , NPDM Institutions.	2023-2030	70,000,000
Organize regular simulation exercises to test national, local and community readiness	Contingency plans	Contingency plans tested	MINEMA NPDM Institutions	2023-2030	700,000,000
Facilitate development and operationalization of Community-Based disaster readiness plans	Community plans in Ngororero	Selected communities at risk	Districts MINEMA, MINALOC, NPDM Institutions	2023-2030	70,000,000
Strengthen mechanisms, frameworks and resources arrangement for effective response and recovery functions	Existing equipment	Available equipment identified	MINEMA, MININFRA, MOH, MINAGRI, MINALOC, RNP, RDF, RWB.	2023-2030	100,000,000
Increase contingency stock of necessary emergency relief items	None	Emergency strategic stores	Districts MINEMA	2023-2030	7,000,000,000

		increased per district	NPDM Institutions, JADF		
Operationalize a 24/7 disaster emergency operation centre to effectively coordinate disaster response operations	Operation room	Operation center upgraded	MINEMA NADIMAC Institutions	2024-2027	100,000,000
Establish DRRM database with specific data and information on risk and impact of disasters	NDICS	Data and statistics on impact of disasters by age, gender and vulnerable groups established	MINEMA MINALOC DISTRICTS	2024-2023	60,000,000
Put in place mechanisms to determine the physical, social and economic cost of past, actual and future disaster impacts	PDNA 2018 National Risk Atlas	Data and statistics on impact of disasters by age, gender and vulnerable groups established	MINEMA MININFRA MOH MINAGRI MINALOC MINECOFIN MOE RNP RDF RWB LODA	2024-2030	100,000,000
Monitor and ensure sustainable and effective recovery and building back better	Recovery strategy	Resilient recovery ensured	MINEMA MININFRA MINAGRI MINALOC MoE MINECOFIN RHA WASAC REG RTDA	2023-2030	50,000,000
Strengthen the socio-economic recovery	Socio economic supports	Livelihood activities enhanced	MINEMA MINECOFIN NPDM Institutions	2023-2030	700,000,000
Strengthen collaboration and partnerships with stakeholders to ensure effective response	Partnership with members of NPDM	Partners and stakeholders mobilised	MINEMA MINECOFIN Development partners,	2023-2030	7,000,000

and recovery interventions at all levels.			NGOs, private sector		
Sub-total					10,613,000,000
Overall total estimated budget					40,267,000,000

Annex 4. Disaster Management Organs composition, responsibilities and functioning as per Prime Minister’s Order No 98/03 of 17/07/2018

a) National Disaster Management Committee (NADIMAC)

This is the highest disaster management organ chaired by the Minister in charge of disaster management and the Minister in charge of Defence-MOD (Vice-Chairperson). Other members of NADIMAC are Minister in charge of Rwanda National Police, Minister in charge of Local Government (MINALOC), Minister in charge of Health (MoH), Minister in charge of Infrastructure (MININFRA), Minister in charge of Finance and Economic Planning (MINECOFIN), Minister in charge of Agriculture and Animal Resources (MINAGRI), Minister of Foreign Affairs and International Cooperation (MINAFFET), Minister in charge of lands, Minister in charge of Environment (MOE), Chief of Defence Staff and Inspector General of Rwanda National Police (Article 4).

The meeting of NADIMAC is held twice (2) a year and at any time it is considered necessary, upon invitation by its Chairperson or Vice-Chairperson when the Chairperson is absent (Article 6). Depending on the items on the agenda, NADIMAC may invite in its meeting any other person or any other institution but without the right to vote (Article 7).

NADIMAC’s responsibilities include providing disaster management guidelines based on national strategies; advising relevant bodies on the prevention of, response to, resilience to and recovery from disasters; coordinating relief efforts within all institutions; taking necessary decisions on which actions to be taken in case of categories 3 (disaster which occurs in any District and is managed using resources from the Ministry and its partners) and 4 (disaster which is beyond the Country’s means) disasters; advising on the state of emergency declaration.

b) National Disaster Management Technical Committee (NADIMATEC)

This is composed of the following members: (1) Director in charge of Risk Reduction and Preparedness Unit in the Ministry in charge of disaster management (Chairperson), (2) Staff in charge of Civil-Military Cooperation in RDF (Vice-Chairperson), (3) Director in charge of Outbreak Preparedness and Response Unit in Rwanda Biomedical Centre (RBC), (4) Director in charge of Housing Inspection and Audit in Rwanda Housing Authority (RHA), (5) Director General in charge of Agriculture in MINAGRI, (6) Director General in charge of Animal

Resources Development in MINAGRI, (7) Director General in charge Europe, America, and International Organizations in MINAFFET, (8) Director in charge of lands in MOE, (9) Director in charge of water resources management in MOE, (10) Commanding Officer in charge of Fire and Rescue Brigade in RNP, (11) Director in charge of climate change in Rwanda Environmental Management Authority (REMA), (12) Director in charge of weather forecast in Meteo-Rwanda, (13) Director in charge of water and sanitation development services in Water and Sanitation Corporation (WASAC), (14) Director in charge of Electricity service in Rwanda Energy Group (REG), (15) Director in charge of Roads Maintenance in Rwanda Transport Development Agency (RTDA), (16) Director in charge of charge of Planning Response and Recovery in MINEMA (Secretary) (Article 10).

The meeting of NADIMATEC is held twice (2) a year and at any time it is considered necessary upon invitation by its Chairperson or the Vice-Chairperson in case of absence of the Chairperson (Article 11). Depending on the agenda, NADIMATEC may invite in its meeting any other person or institution, but without the right to vote (Article 12). The responsibilities of NADIMATEC are to assess the imminence of all disasters that can hit the country and develop strategies to prevent them; provide technical advice to NADIMAC; monitor the implementation of strategies for prevention and mitigation of disaster risk; provide support in the development of response strategies for categories 3 and 4 disasters; monitor the mainstream of disaster management in all development programs; monitor rehabilitation and recovery in case of damages caused by disasters.

c) District Disaster Management Committees (DIDIMAC)

This is a disaster management organ with the responsibility of coordinating disaster management at district level. DIDIMAC is composed of the following members: (1) Mayor of the District (Chairperson), (2) Senior Military Commandant deployed in the District (Vice-Chairperson), (3) District Police Commandant, (4) Representative of Reserve Forces in the District, (5) Representative of RRC at the District level, (6) Director of the District Hospital, (7) Executive Secretary of the District, (8) Vice Mayor in charge of Social Affairs in the District, (9) Coordinator of District Administration Security Support Organ (DASSO) at the District Level, (10) Director in charge of Infrastructure in the District, (11) Director in charge of Development in the District, (12) District officer in charge of disaster management (Secretary) (Article 14).

The meeting of DIDIMAC is held once (1) a quarter and at any time it is considered necessary, upon invitation by its Chairperson or the Vice-Chairperson in case of absence of the Chairperson (Article 15). Depending on the agenda, DIDIMAC may invite in its meeting any other person, but without the right to vote (Article 16). DIDIMAC's responsibilities include conducting the assessment of recurrent disasters in the District for protection, prevention and preparedness for response; raising public awareness on prevention and mitigation of disasters in areas of residence; integrating disaster management into all District programs; developing disaster management programs and integrating them into the District or Sector action plans; preparing and submitting the draft budget proposal to be approved by the Council and monitoring its execution; ensuring the District budgeting for disasters; taking

necessary decisions on actions to be taken in case of categories 1 (a disaster which has occurred in a Sector and is managed using resources available in the Sector in collaboration with its partners) and 2 (disaster which occurs in any District and which is managed using resources available in the District in collaboration with its partners) disasters; providing prompt information on disasters which have occurred, specifying operations already conducted and those exceeding their capacity, thus requiring support from other sources; carrying out comprehensive assessment and stock-taking of damages caused by disasters, coordinate relief and assistance operations and monitor the use of received assistance; submitting report on disaster management from relief to rehabilitation and recovery operations.

d) Sector Disaster Management Committees (SEDIMAC)

This is a disaster management organ at sector level. SEDIMAC is composed of the following members: (1) Executive Secretary of the Sector (Chairperson), (2) Senior Military Commander in the Sector (Vice-Chairperson), (3) Sector Police Commander, (4) Head of health center in the Sector, (5) Representative of RRC at the Sector level, (6) Representative of Reserve Forces at Sector level, (7) Sector Social Affairs Officer (Secretary) (Article 18).

The meeting of SEDIMAC is held once (1) a quarter and at any time it is considered necessary, upon invitation by its Chairperson or the Vice-Chairperson in case of absence of the Chairperson (Article 19). Depending on the agenda, SEDIMAC may invite in its meeting any other person, but without the right to vote (Article 20). SEDIMAC's roles are to collect and analyse information on the management of category 1 disasters; mobilize the community towards their contribution to disaster management; implement disaster management strategies as adopted by NADIMAC and DIDIMAC; monitor relief operations and provide basic assistance to disaster victims; fulfil such other responsibility relating to disaster management as may be assigned by DIDIMAC.

e) National Platform for Disaster Management (NPDM)

It is composed of the following members: (1) Members of NADIMATEC, (2) Representative of the private sector, (3) Representative of United Nations agencies intervening in disaster management, (4) Representative of NGOs intervening in disaster management, (5) Representative of Faith-Based Organisations (FBOs) intervening in disaster management. Any other institution or organisation seeking to be member of NPDM submits a written request to the Minister, and the approval is based on the evaluation of its activities and its importance for NPDM. NPDM is chaired by the Director in charge of Planning Response and Recovery in MINEMA (Article 22). The meeting of NPDM is held once (1) a quarter and at any time it is considered necessary, upon the invitation of the Minister (Article 23).



Ministry in charge of Emergency Management (MINEMA)

📍 KN 3 AV Avenue, Nyarugenge Pension Plaza, Sopetrade
✉ info@minema.gov.rw

