



MAINSTREAMING DISASTER RISK REDUCTION IN THE WATER, SANITATION AND HYGIENE SECTOR (WASH)

March 2021



Building Disaster
Resilience in
Sub-Saharan Africa



Implemented by/Mis œuvre par:



DOCUMENT INDEX

This document was developed in support of the program “Building Disaster Resilience to Natural Hazards in Sub-Saharan African Regions, Countries and Communities”, which is financed by the co-operation between the African, Caribbean, Pacific Group of States, and European Union through the 10th European Development Fund Program which was launched in 2015. It is implemented along five result areas by several partners, including the African Development Bank, African Union Commission, the United Nations International Strategy for Disaster Reduction (UNISDR) and Global Facility for Disaster Reduction and Recovery / World Bank.

The SADC reports in this series are:

SECTOR MAINSTREAMING DOCUMENTS

SADC Mainstreaming Disaster Risk Reduction Guidelines

SADC Mainstreaming Disaster Risk Reduction in the Agricultural, Food Security and Nutrition Guidelines

SADC Mainstreaming Disaster Risk Reduction in Gender Guidelines

SADC Mainstreaming Disaster Risk Reduction in Education Guidelines

SADC Mainstreaming Disaster Risk Reduction in Infrastructure – Energy, Transport and Water Resources Management Guidelines

SADC Mainstreaming Disaster Risk Reduction in the **Water, Sanitation and Hygiene (WASH) Guidelines**

Additional copies of this report, or other reports in this series, may be ordered from:

Executive Secretary Assistant: A. Banda

SOUTH AFRICAN DEVELOPMENT COMMUNITY SECRETARIAT

SADC HOUSE

PLOT 54385

CENTRAL BUSINESS DISTRICT

GABORONE

REPUBLIC OF BOTSWANA

0001

ACKNOWLEDGEMENTS

The inputs from of all the contributors to the development of the Disaster Risk Reduction (DRR) Mainstreaming in the Water and Sanitation Hygiene Sectors are gratefully acknowledged. Special mention is made to the the Secretariat Disaster Risk Reduction Unit, the World Bank and the South African Development Community Member States (SADC):

- Angola
- Botswana
- Comoros
- Democratic Republic of Congo
- Eswatini
- Lesotho
- Madagascar
- Malawi
- Mauritius
- Mozambique
- Namibia
- Seychelles
- South Africa
- Tanzania
- Zambia
- Zimbabwe

TABLE OF CONTENTS

DOCUMENT INDEX	2
SECTOR MAINSTREAMING DOCUMENTS	2
ACKNOWLEDGEMENTS	3
TABLE OF CONTENTS	4
ACRONYMS	5
GLOSSARY OF TERMS	6
1 INTRODUCTION	8
2 OBJECTIVES OF THE GUIDELINE	8
3 DISASTERS AND WASH SERVICES IN THE REGION	8
4 INSTITUTIONAL FRAMEWORKS GOVERNING MAINSTREAMING OF DRR IN WASH	9
4.1 SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015 – 2030	9
4.2 SADC REGIONAL RESILIENCE FRAMEWORK 2020-2030	10
4.3 SADC REGIONAL WATER POLICY (2005) AND REGIONAL WATER STRATEGY (2006)	10
4.4 SUSTAINABLE DEVELOPMENT GOALS	10
5 GAP ANALYSIS	11
5.1 WATER SUPPLY AND MANAGEMENT	11
5.1.1 SADC PROTOCOL ON SHARED WATERCOURSES (2000)	11
5.1.2 REGIONAL WATER POLICY (2005)	11
5.1.3 REGIONAL WATER STRATEGY (2006)	12
5.1.4 SADC REGIONAL INFRASTRUCTURE DEVELOPMENT MASTER PLAN	13
5.2 REGIONAL HYGIENE PROMOTION	13
5.3 INSTITUTIONALISATION OF WASH	14
6 DRR MAINSTREAMING IN THE WASH SECTOR	15
6.1 UNDERSTANDING DISASTER RISK	15
6.1.1 RISK IDENTIFICATION AND ASSESSMENT	15
6.1.2 EARLY WARNING	15
6.2 RISK MANAGEMENT AND GOVERNANCE	16
6.2.1 RESPONSIVE FRAMEWORKS	16
6.2.2 INSTITUTIONAL STRENGTHENING	16
6.2.3 EFFECTIVE COORDINATION	16
6.3 ENHANCING PREPAREDNESS, RESPONSE AND RECOVERY	17
6.4 ADVOCACY, COMMUNICATION AND KNOWLEDGE BUILDING	18
7 MONITORING AND EVALUATION	18
8 REFERENCES	19
ANNEXURES	21
ANNEX 1: DRR MAINSTREAMING IN WASH MONITORING AND EVALUATION MATRIX	21

ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
AMCOW	African Ministers' Council on Water
COVID-19	Novel Corona Virus
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
IFRC	International Federation of the Red Cross
HIV	Human Immunodeficiency Virus
IPCC	Intergovernmental Panel on Climate Change
MS	Member State
RIDMP	Regional Infrastructure Development Master Plan
SDG	Sustainable Development Goals
SHD	Directorate Social and Human Development
TWG	Technical Working Group
UN	United Nations
UNDRR	United Nations Disaster Risk Reduction
UNICEF	United Nations International Children's Emergency Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WSP	Water Sector Plan

GLOSSARY OF TERMS

Adaptation means the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects (IPCC, 2015);

Capacity means the combination of all the strengths, attributes and resources available within an organisation, community or society to manage and reduce disaster risks and strengthen resilience (UNDRR, 2017);

Climate change means a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forces such as modulations of solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use (IPCC, 2015);

Disaster risk assessment means a qualitative or quantitative approach to determine the nature and extent of disaster risk by analysing 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 (United Nations, 2016);

Disaster risk reduction means the policy objective aimed at preventing new, reducing existing disaster risk, and managing residual risk, all of which contribute to strengthening resilience. 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 (UNDRR, 2017);

Early warning means the identification, interpretation and recognition of events that indicate potential emergency (UNDRR, 2017);

Ecosystem means a functional unit consisting of living organisms, their non-living environment, and the interactions within and between them (IPCC, 2015);

Exposure means people, property, systems, or other elements present in hazard zones that are thereby subject to potential losses (United Nations, 2016);

Food security refers to the ability of individuals to obtain enough food on a day-to-day basis. Internationally food security is defined as the ability of people to secure adequate food. More especially, it has always been defined by researchers as access by all people to enough food for an active, healthy life (IPCC, 2015);

Hazard means a potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. (UNDRR, 2017);

Humanitarian means the aid and action designed to save lives, alleviate suffering and maintain and protect human dignity during and in the aftermath of man-made crises and natural disasters, as well as to prevent and strengthen preparedness for the occurrence of such situations (SADC, 2017);

Land use means the arrangements, activities, and inputs undertaken in a particular land cover type (a set of human actions). The term land use is also used in the sense of the social, and economic purposes for which land is managed (e. g., grazing, timber extraction, and conservation) (IPCC, 2015);

Mitigation means the lessening or minimizing of the adverse impacts of a hazardous event (UNDRR, 2017);

Preparedness means the knowledge and capacities developed by governments, professional response and recovery organisations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current disasters. (hazard events or conditions) (SADC, 2017);

Prevention means the undertaking of activities and measures to avoid existing and new disaster risks (United Nations, 2016);

Recovery means decisions and actions aimed at improving livelihoods, health, as well as economic, physical, social, cultural and environmental assets, systems and activities, (the restoration, and improvement where appropriate, of facilities, livelihoods and living conditions) of disaster-affected community or society, aligning with the principles of sustainable development, including build back better to avoid or reduce future disaster risk. (efforts to reduce disaster risk factors) (SADC, 2017);

Rehabilitation means operations and decisions taken after a disaster with a view to restoring an affected community to its former living conditions, while encouraging and facilitating the necessary adjustments to changes caused by the disaster (UNDRR, 2017);

Resilience means 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 (UNDRR, 2017);

Response means actions taken during or immediately after a disaster and /or the provision of emergency services and public assistance 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 (UNDRR, 2017);

Vulnerability means 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 (United Nations, 2016).

1 INTRODUCTION

The Southern African Development Community (SADC) Regional Resilience Framework 2020-2030 indicates that the main climate hazards experienced in the SADC region are droughts, floods, and tropical cyclones. In addition to these risks, this Disaster Risk Reduction (DRR) mainstreaming in the Water, Sanitation and Hygiene (WASH) Guideline considers biological hazards and risks that manifests in disease outbreaks, epidemics and pandemics. These lead to loss of lives, disruption in the provision of basic services due to malfunctioning of communities, institutions, and economic and environmental assets. Such impacts may exceed the capacity of a communities and Member States to cope due to unresponsive policies and interventions.

DRR can play an important role in the sustainable growth and development of southern Africa through the reduction of the impacts of hazards on livelihoods, support sustainable economic development efforts and sustenance of the environment. It is therefore important to ensure that DRR approaches are mainstreamed in all protocols, policies, projects, strategies, development activities and Monitoring and Evaluation (M&E) for the WASH Sector.

The purpose of this guideline is to support integration of disaster risk in regional policies and interventions through Mainstreaming DRR in WASH.

2 OBJECTIVES OF THE GUIDELINE

Mainstreaming in any process serves two purposes: the first, to ensure that development is protected from existing and future disaster risk through prescribed DRR measures and the second to ensure that development does not increase existing and future levels of disaster risks.

The overall objective of this guideline is to provide the region and Member States with measures and actions that will promote DRR mainstreaming in infrastructure development and service provision in the WASH sector.

The specific objectives of the guideline are to:

- (i) Foster adoption of disaster risk reduction considerations in WASH through the adoption of DRR in key frameworks and programmes; and
- (ii) Support the strengthening of measures to monitor and evaluate DRR mainstreaming in WASH in the region.

3 DISASTERS AND WASH SERVICES IN THE REGION

The complementary benefits of interventions to provide water supply, sanitation services and promote hygiene behaviour have been recognised for some decades to deliver greater health and social benefits than silo implemented programme activities. Access to clean water and decent sanitation facilities, as well as good hygiene is critical for sustainable human development.

“According to the World Health Organization (WHO), improved water supply reduces diarrhoea morbidity by 21 percent; but the simple act of washing hands at critical times can reduce the number of diarrheal cases by up to 35 percent, and additional improvements of drinking-water quality, such as point-of-use disinfection and safe storage, would lead to a reduction of diarrhoea episodes of 45 percent. According to the Water Supply and Sanitation Collaborative Council, safe disposal of children’s faeces leads to a reduction of diarrheal disease of nearly 40 percent (UN Millenium Project, 2005)

Essential services, however, are often disrupted in disaster situations when there is damage to WASH infrastructure, which leads to contamination of water sources or disruption in supply and reticulation of systems, thus promoting water borne disease outbreaks such as cholera and typhoid.

On the other hand, disaster displacements lead to overcrowding that increases the spread of communicable diseases. High population densities are also caused by urbanization, emanating from climate change migration and the need for employment opportunities that lead to people moving to highly concentrated informal settlements in urban areas that have poor WASH facilities (water and toilet systems).

When WASH services are inadequate or fail, the impact on health and welfare can be severe, with particular consequences on children and women. The novel corona virus (COVID-19) pandemic brought to the fore the importance of WASH, in which effective hand washing (a core element of WASH) and social distancing were identified as vital preventive health measures to reduce the transmission of the disease.

4 INSTITUTIONAL FRAMEWORKS GOVERNING

MAINSTREAMING OF DRR IN WASH

Mainstreaming of DRR is guided by a number regional and global Disaster Risk Management (DRM) instruments. These include the Sendai Framework for Disaster Risk Reduction (United Nations, 2015), the SADC Regional Resilience Framework 2020-2030 (SADC, 2020) and the United Nations Agenda 2030 for Sustainable Development¹.

4.1 Sendai Framework for Disaster Risk Reduction 2015 – 2030

The Sendai Framework for DRR aims to guide the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries. The priority actions across all levels are to:

- **Understand disaster risk** in all its dimensions of vulnerability, capacity and exposure of persons and assets;

¹ “Transforming our world: the 2030 Agenda for Sustainable Development”, United Nations General Assembly, 27 September 2017

- **Strengthen governance** and institutions to manage risks at all levels, through a clear vision, effective coordination across sectors and participation of all stakeholders;
- **Invest in enabling capacities and resilience building** through structural and non-structural measures leading to risk prevention, preparedness and effective response; and
- **Building back better** in recovery and reconstruction, making nations and communities more resilient to disasters.

These priorities have been used to guide the development of these DRR mainstreaming in WASH guidelines.

4.2 SADC Regional Resilience Framework 2020-2030

The SADC Regional Resilience Framework describes resilience as “the capacity of the system to experience a disturbance or change and still retain its basic function, structure, and identity; the ability to self-organize; and the ability to increase its capacity to learn and adapt”.

The aim of the Framework is to provide a broad strategic path for understanding the complexity of resilience in the region and has as one of its objectives to manage water safety and adequacy as part of water services management. It also emphasizes on the need for the provision of shelter and basic services, such as water and sanitation, as important for sustainable development in particular in urban centres².

4.3 SADC Regional Water Policy (2005) and Regional Water Strategy (2006)

The SADC Regional Water Policy (SADC, 2005) and Regional Water Strategy (SADC, 2006), primarily focus on cooperation between Member States on shared watercourses matters. The policy and strategy objectives focus on the contribution of water to economic integration, peace, inter-sectoral cooperation, as well as on the harmonization of national policy and legislation, conflict management and international cooperation. However, the policy also addresses key areas of development and poverty reduction, as well as environmental sustainability, while the Regional Water Strategy dedicates an entire chapter to “security”, from water related disasters. The word “security” in this chapter refers to the mitigation of disaster risk and should be viewed in such a context. It also makes specific provision for action to achieve “security” from water-related disasters.

4.4 Sustainable Development Goals

WASH as a concept, was only recognised as a global development target under the Agenda 2030, in SDGs 3 and 6, that highlight the need for hygiene promotion interventions to accompany water and sanitation infrastructure investments:

Goal 3. Ensure healthy lives and promote well-being for all at all ages

² Regional Resilience Framework, 2020-2030, SADC 2020.

3.3 By 2030, end the epidemics of Acquired Immunodeficiency Syndrome (AIDS), tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

There are other targets that are relevant to WASH under SDG 3: -

Goal 6. Ensure availability and sustainable management of water and sanitation for all

6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

5 GAP ANALYSIS

The objective of mainstreaming DRR approaches in WASH in the region and Member States is to support the achievement of sustainable human development. In order to do this, it is necessary to understand what the engagements around WASH are, and to identify gaps that must be addressed for DRR to be mainstreamed in WASH.

5.1 Water supply and Management

SADC Member States have all committed to the achievement of the SDGs. Through the African Ministerial Council on Water (AMCOW), SADC governments had already embraced WASH goals more generally. However, this is not yet fully reflected in SADC protocols, policies and strategies. While most Member States are continuously addressing WASH, the risk reduction component can still be enhanced through frameworks that guide regional and national interventions.

5.1.1 SADC Protocol on Shared Watercourses (2000)

SADC's initial policy framework for the water sector was provided under the SADC Protocol on Shared Watercourses, first adopted in 1995 and revised in 2000 (SADC, 2000). The objectives of the Protocol focus explicitly on the management of shared watercourses since this was seen as an important contributor to the SADC agenda of regional integration and poverty alleviation. The Protocol contains specific provisions with respect to disaster risks but these are all at transboundary water resource management level, and do not address WASH-related issues.

5.1.2 Regional Water Policy (2005)

The SADC Regional Water Policy (SADC, 2005) does mention issues of water supply and sanitation services in Member States. However, SADC's primary focus continues to be on cooperation between Member States on shared watercourses matters. Although this policy addresses DRR in the management of water resources, it does not consider the application of DRR approaches to the WASH sector.

Section 4.2 of the 2005 Regional Water Policy, addresses domestic Water Supply, Sanitation and Hygiene. It enjoins Member States to ensure sustainable access to safe water supply for basic human needs in their respective countries to: provide water for productive activities to poor and marginalized communities in order to alleviate poverty and to correct imbalances in development; apply cost recovery to ensure sustainability of water supply services; facilitate the provision of sustainable access to adequate sanitation for all households; and ensure that provision of sanitation services is integrated into the provision of water supply for basic human needs.

All the policy positions place responsibility for WASH related services at Member State level. In a single paragraph, mention is made of the hygiene elements, again, not attributing any responsibility to the regional (SADC) level: -

Public awareness, as well as hygiene education and practice should be integrated in the provision, operation and maintenance of water and sanitation facilities.

The Regional Water Policy does include a section on Security from Water-related Disasters. This includes policy provisions covering people's protection from water related disasters such as floods and drought, as well as measures to address disaster prediction, management and mitigation. The only role mentioned for the Secretariat in relation to WASH is to support the mobilisation and coordination of support from cooperating partners. Provisions related to disasters do not identify any WASH focus beyond a consideration of the general impacts of floods and droughts.

5.1.3 Regional Water Strategy (2006)

The 2006 Regional Water Strategy makes reference to hygiene as a critical element of WASH, which is linked to the policy statement above. However, this was for the Water Supply and Sanitation Programme focused on infrastructure development, through which SADC would support Member States to achieve the Millennium Development Goals by, inter alia, sharing best practices. The focus of the strategy was to address broader problems to strengthen the water function in the Secretariat and for the establishment of formal governance mechanisms to enable the Water Division to interact more effectively with Member State Water Management decision makers and structures (Ministers and their national departments). Although there was attention to the need to build capacities for greater community participation, this was in water resource management rather than in WASH related areas.

There is recognition that water-related diseases pose a challenge for the region. Although the focus of the section on water-related disasters is mainly on floods and droughts and their management at a regional and shared watercourse level, it is mentioned that: -

“While poorly planned water infrastructure can and often does increase the risk of disasters, the absence of basic infrastructure can also predispose the region to heightened vulnerability and risk. Where appropriate and necessary the development of additional water infrastructure with a regional perspective is to be promoted. Additional water infrastructure is still lacking in some parts of the region. The fact that only about 40% of SADC citizens have access to water supply, sanitation and hygiene is an indictment to the region and needs priority attention. Those inadequacies make parts of the region vulnerable to droughts and water-borne diseases.”

The reference to the limited access of SADC citizens to WASH as well as to the increased risk of disasters due to poorly planned infrastructure highlights a recognition that the primary WASH-related risk is the absence of WASH service provision and management.

This recognition is not accompanied by substantive proposals for a strategy to address the situation. While such strategies are in place in all Member States, the absence of such a strategy at SADC level reduces regional ability to mainstream DRR in the WASH sector. A WASH Strategy will promote reduction of WASH-related risks through focus on the technical service provision, as well as the human and institutional and financial capacities and resources required.

5.1.4 SADC Regional Infrastructure Development Master Plan

The limited focus on WASH continues to be evident in the 2012 Regional Infrastructure Development Master Plan (RIDMP) - Water Sector Plan (WSP), which has no mention of domestic water supply and sanitation services or hygiene practices, however is specifically focused on water resources generally and transboundary watercourses in particular. The stated priorities for the Water Division as outlined in the 2012 WSP are the: -

- review of the current water sector infrastructure development situation in the SADC region and its ability to meet the current needs and those forecasted to 2027; and
- review the implementation status, mechanisms for enforcement and monitoring the progress of implementation of the approved SADC Protocols, policies and strategies in the Water Sector, which identifies the infrastructure implementation challenges and proposes possible solutions that constitute the strategic elements of the RIDMP.

Although this document pays extensive attention to water related hazards/disasters and their mitigation, this is at the scale of shared watercourses. It does not address the concerns raised in the policy and strategy documents about WASH services. It also does not mention that WASH-related activities are usually an important element in the response to both flood and drought hazards.

5.2 Regional Hygiene Promotion

Hygienic behaviour and practices are important in the improvement of health, where safe water supplies and proper sanitation have been provided. Personal domestic hygiene is particularly important for breaking the transmission cycle for diseases, in encouraging proper use and storage of water, and in promoting proper sanitation in the community. Hygiene education programmes should be incorporated in water and sanitation programmes to raise

awareness about diseases and to promote positive hygienic practices. This is critically important where the prevalence of communicable diseases such cholera and Human Immunodeficiency Virus (HIV)/AIDS and others, have an intricate relationship with health and poverty in the affected households and communities.

WASH has a specific focus on maximizing the health benefits of water and sanitation services. However, the 1999 Protocol on Health places responsibilities on state parties to develop mechanisms to promote the coordination of regional health and education and to develop appropriate guidelines for the development of health and education promotional materials. The communicable disease section focuses on the 'big three': HIV/AIDS, Tuberculosis and Malaria. While environmental health is highlighted, it is simply committing Member States to collaborate, cooperate and assist each other with "regional environmental health issues" and in coordinating, managing and creating awareness of disaster and emergency situations; in addition to "developing mechanisms for cooperation and assistance during emergency situations".

The other dimension of WASH that does not always receive adequate attention is the need for appropriate risk information and communication interventions in educational and health facilities and in other public facilities such as markets, transport facilities and other public buildings. These are all places where, because there is extensive human contact may become foci for the transmission of communicable diseases through mechanisms that can be interrupted by sound WASH practices.

There is no specific reference to WASH and the generic references to health promotion and education are very broad. The Protocol does not identify the absence of effective WASH as a potential risk, nor does it mention the potential contribution of effective WASH interventions to mitigate the impact of disaster events on the health of the communities concerned. WASH has not been institutionalized at the Regional level. Currently all WASH interventions are undertaken at the Member States level. This creates a challenge in terms of mainstreaming DRR in WASH at the regional level.

5.3 Institutionalisation of WASH

WASH services are facilitated by various development sectors, namely water and infrastructure for resource supply, health for well-being and sanitation, education for advocacy, communication and knowledge building to influence good hygiene practices, all coordinated for risk reduction.

At the Secretariat there is the:

- Infrastructure and Services Directorate (I&S) for adequate and safe water supply and reticulation and sanitation;
- Social and Human Development (SHD) for health and education;
- Gender Unit for differential groups considerations; and
- DRR Unit for DRM coordination.

The DRR Technical Working Group (TWG) which extends to the regional rosters (Emergency Response Team) for preparedness and response operations has been created in the Secretariat with representation from the various directorates and units. However, such an establishment does not address WASH issues through policy influence and programming.

6 DRR MAINSTREAMING IN THE WASH SECTOR

Given the institutional challenges and policy gaps outlined above, interventions are required to contribute to the mainstreaming of DRR in the water, sanitation and hygiene (WASH) sector. The Sendai Framework identifies four priority areas for disaster risk reduction: understanding disaster risk, strengthened governance, enhancing preparedness for effective response, and to “Build Back Better”, which together with knowledge building, establishment of measures and monitoring can enhance disaster risk reduction in WASH interventions.

6.1 Understanding Disaster Risk

Policies and practices for disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.

6.1.1 Risk identification and Assessment

Pre-disaster risk assessment, to inform the development of policy and interventions is essential for the region and Member States. There is therefore a need to enhance the understanding of risks by conducting assessments jointly with Member States to identify disaster risks for the WASH sector with a view to facilitate the development of response policies, programmes and the necessary lesson learning.

6.1.2 Early warning

WASH services depend on adequate infrastructure and its operation and maintenance. So, it follows that risks will be aggravated in situations where services are already inadequate. These should be identified so that emergency provision can be instituted if disaster situations threaten. Early warning of flood or other hazards (that may need evacuation to temporary accommodation) or drought (which may constrain supplies or provoke migration that requires other relief interventions) is important in order to prepare disaster risk reduction and mitigation measures through:

- Establishing the WASH sector early warning information generation and sharing systems. Such mechanisms could also include information on those most at risk;
- Develop risk information communication tool kits and materials to also:
 - Promote good hygiene practices and curb spread of disease outbreaks; and
 - Provide guidelines and procedures for effective management of infections and transmissions.

Early warning will often come from various sectors, therefore coordinated response and monitoring is vital to ensure that information about emerging threats is adequately communicated.

6.2 Risk Management and Governance

Disaster risk governance at the national, regional and global levels is of great importance for effective and efficient management of disaster risk. This can be undertaken through the development of appropriate frameworks and enabling institutional capacities and coordination.

6.2.1 Responsive Frameworks

Policies are critical for enhancing WASH services. The development of responsive Policies, plans, competence, and coordination measures across sectors, as well as participation of relevant stakeholders is important for WASH. To facilitate this, there will be need to:

- Foster collaboration and partnership across mechanisms and institutions for the implementation of instruments relevant the integration of disaster risk in WASH; and
- Review or develop WASH policies and strategies integrative of DRR and SDGs to also guide the development of programmes at regional and Member States levels.

6.2.2 Institutional Strengthening

The I&S Directorate Water Unit will work closely with the DRR Unit and other sectors (education and health) to:

- Enhance the capacities of the SADC Water Sector institutions, be they River Basin Organisations (RBOs) or national to strengthen risk-proofed project development and implementation; and
- Train and retain an adequate number of motivated and highly skilled water and infrastructure development resources with capacity to mainstream DRR.

6.2.3 Effective Coordination

In order to ensure that DRR approaches are effectively mainstreamed, a WASH ‘cluster’ could be established within the DRR TWG which extends to the regional rosters (Emergency Response Team) for preparedness and response operations.

- The Cluster will work closely with the Water Unit under I&S and the DRR Unit to promote implementation of WASH goals and the provisions of this guideline and will be comprised of the DRR Unit, Water Unit under I&S, Social and Human Development (SHD) - Health and Education Units and Gender Unit; and
- The WASH Cluster will have the following roles and responsibilities:
 - Identification of the risks and related issues that need to be considered in order to inform DRR mainstreaming in WASH;
 - Promote risk reduction planning and programming for WASH interventions.

- Promote the inclusion of WASH in learning institutions (school curricula) to influence good hygiene behaviour and maximise the benefit of infrastructural services;
- Identify and engage regional and Member States WASH International Cooperating Partners (ICP) and Non-Governmental Organizations (NGOs) such as United Nations International Children's Emergency Fund (UNICEF), World Vision, Save the Children and WaterAid for enhance technical support.
- Promote engagement with the other sectors to ensure a common understanding of inter-dependencies and to develop appropriate strategies to such inter-dependencies;
- Support sectoral implementation of WASH promoting interventions identified in coordination with the other relevant sectors;
- Monitor and evaluate the effectiveness of the interventions;

A similar establishment can be decentralised to national levels.

6.3 Enhancing Preparedness, Response and Recovery

Disaster preparedness, response and recovery capacities for extension of the WASH cluster in emergency and humanitarian operations at regional and national levels.

(i) Preparedness

- a. Develop well-resourced WASH contingency plan with preparedness, response and recovery intervention as well as complementary roles for responsibilities for partners (ICPs, NGOs and communities);
- b. Build the necessary capacities for water, sanitation and hygiene for regional and national response teams;
- c. Facilitate the promotion of the Community Based DRR across WASH to assist communities to identify and implement locally available and suitable mitigation interventions; and
- d. Promote the inclusion of DRR in WASH in school curricula across Member States where this is not yet the case to ensure that the importance of behaviour is promoted to maximize the benefit of infrastructural services.

(ii) Response

- a. Ensure access to safe and secure water supply and sanitary facilities as well as supplies for vulnerable groups such as women, children, the elderly and disabled during disasters; and
- b. Develop guidelines to identify and intervene adverse behavioural issues to curb the spread of outbreaks.

(iii) Recovery – “build back better”

The primary risk reduction approach in the WASH sector is the ongoing expansion of access to safe, reliable and sustainable water supply and sanitation services. These services require adequate infrastructure, which is affordable and resilient considering the financial capabilities of the communities served and the external institutions that support them. But

their provision must be accompanied by continued promotion of health supportive behaviour to maximise community health benefits.

In this regard, disaster situations can be an opportunity to foster behavioural change in communities as individuals are more receptive to health and related messages at such times. In addition, reconstruction of WASH infrastructure will provide an opportunity for innovative and more appropriate quality and resilient designs of the infrastructure.

6.4 Advocacy, Communication and Knowledge Building

Advocacy is a critical process in WASH for strategically managing and sharing key information to change or influence policy and practice that affect people's lives. In WASH this would be to:

- Create awareness on disaster risk associated with WASH at institutional and community levels;
- Promote research to provide evidence to inform policy and programming information enrichment to amongst others remove barriers and access to water sanitation and hygiene;
- Develop risk communication guidelines, education and tool kits for systems and capacity building at all levels;
- Establish partnerships for resource mobilization and realization of sustainable long-term WASH outcomes; and
- Promote individual behaviour change pertinent for food hygiene practices and knowledge building.

7 MONITORING AND EVALUATION

Monitoring and Evaluation (M&E) for DRR mainstreaming in WASH will include the determination of criteria that constitutes the successful mainstreaming of DRR and how to adapt and improve on measures already in place. This will be for effective tracking of the operationalization of the policies and implementation of programmes that will contribute to meeting the WASH goals at regional and national levels.

A critical success factor in ensuring the mainstreaming of DRR relies on the identification of institutional accountabilities for mainstreaming DRR across key sectors.

Annex 1 provides a matrix with measures that need to be monitored to guide enhanced mainstreaming of DRR in WASH under the I&S Directorate Water Unit.

8 REFERENCES

- African Union. (2019). *Africa Report on Disaster Risk Reduction 2015-2018*. Unknown: African Union.
- Benson, C; Twigg, J; & Rossetto, T. (2007). *Tools for mainstreaming disaster risk reduction: guidance notes for development organisations*. ProVention Consortium.
- Davis, I., & La Trobe, S. (2005). *Mainstreaming disaster risk reduction: a tool for development organisations*. Tearfund.
- Global WASH Cluster Network. (n.d.). *WASH Coordination Toolkit*. Retrieved from <https://washcluster.net/resources/ctk>
- Grey, D., & Sadoff, C. (2007). *Sink or Swim? Wate Security for Growth and Development*. *Water Policy* 9. 545 - 571.
- IFRC. (n.d.). *IFRC*. Retrieved from What is a Disaster? International Federation of the Red Cross.: <https://www.ifrc.org/en/what-we-do/disaster-management/about-disasters/what-is-a-disaster/>
- IPCC. (2015). *Summary for Policymakers*. In: *Climate Change 2014: Mitigation of Climate Change Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. New York: Cambridge University Press.
- Pacific, U. N. . (2017). *Mainstreaming Disaster Risk Reduction for Sustainable Development: A Guidebook for the Asia-Pacific*. . United Nations Economic, and Social Commission for Asia, and the Pacific.
- SADC. (1999). *Protocol on Health in the Southern African Development Community*. SADC.
- SADC. (2000). *Revised Protocol on Shared Watercourses in the Southern African Development Community*. Gaborone: SADC.
- SADC. (2005). *Regional Water Policy*. Gaborone: SADC.
- SADC. (2006). *SADC Regional Water Strategy, Final Draft*. Gaborone: SADC.
- SADC. (2012). *Regional Infrastructure Development Master Plan Executive Summary*. Gaborone: SADC.
- SADC. (2017). *SADC Disaster Preparedness and Response Strategy and Fund 2016-2030*. Gaborone: SADC.
- SADC. (2017). *SADC Disaster Preparedness and Response Strategy and Fund 2016-2030*. Gaborone: SADC.
- SADC. (2020). *Draft SADC Resilience Framework 2020- 2030*. Gaborone: SADC.
- Twigg. (2004). *Disaster risk reduction: mitigation and preparedness in development and emergency programming*. Overseas Development Institute (ODI).
- Twigg. (2015). *Disaster Risk Reduction, Good Practice Review 9*. London: Overseas Development Institute.

- UN Millenium Project. (2005). *Health, Dignity, and Development. What Will it TAke?. Task Force on water and Sanitation*. Earthscan.
- UNDP. (2010). *Guidelines for Mainstreaming Disaster Risk Reduction*. Pakistan.
- UNDRR. (2017). Retrieved from UNDRR Terminology: <https://www.undrr.org/terminology/>
- UNDRR. (2017, May 22). *Terminology*. Retrieved from UNDRR: <https://www.preventionweb.net/terminology>
- UNDRR. (2017). *UNDRR Terminology*. Retrieved from UNDRR: <https://www.preventionweb.net/terminology>
- UNISDR. (2009). *UNISDR Terminology*. Switzerland: United Nations International Strategy on Disaster Risk Reduction.
- United Nations - SDG. (2019). *Sustainable Development Goals*. Retrieved May 15, 2019, from <https://sustainabledevelopment.un.org/?menu=1300>
- United Nations. (2015). *Sendai Framework for Disaster Risk Reduction 2015 – 2030*. Pakistan: UNISDR.
- United Nations. (2016). *Report of the open ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction*.
- United Nations. (2016). *Report of the open ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction*.

Annexures

Annex 1: DRR Mainstreaming in WASH Monitoring and Evaluation Matrix

Activities	Indicators	Responsibility	Timelines
(i) Undertake assessments jointly with Member States to identify disaster risks for the WASH sector.	Assessment Reports	DRR Unit Water Sector Health Sector Gender Unit	2026
(ii) Facilitate the review of policies, strategies, plans, programmes and measures for the WASH sector.	Number of reviewed policies	DRR Unit Water Sector Health Sector Gender Unit Member State (MS)	2025
(iii) Develop preparedness and response plans and scale up best practices and lessons learnt.	Regional Multi hazard contingency Plan with WASH targets	DRR Unit	2025

Activities	Indicators	Responsibility	Timelines
(iv) Develop Regional DRR mainstreaming the WASH Sectors to be included as part of the sector-wide guidance.	DRR mainstreaming WASH Sectors guidelines	DRR Unit MS	2025
(v) Strengthening institutions responsible for WASH through training to addressing risks (e.g. local authorities, civil protection).	Assessment and Training Reports	DRR Unit Water Sector Health Sector Gender Unit MS	2024
(vi) Establish the WASH Cluster for coordination, partnership enhancement and resources mobilisations.	DRR TWG/ Emergency Response Team WASH Cluster Coordination Reports	DRR Unit Water Sector Health Sector Gender Unit MS	2022
(vii) Facilitate the promotion of the concept of Community Based DRR across the WASH to help communities to identify and implement locally available and suitable mitigation interventions.	Number of Community Based WASH institutions mainstreaming DRR and resilience building	DRR Unit Water Sector	2026

Activities	Indicators	Responsibility	Timelines
		Health Sector Gender Unit MS	
(viii) Promote the inclusion of DRR in WASH in school curricula across Member States where this is not yet the case to ensure that the importance of behaviour to maximise the benefit of infrastructural services.	Number of Member States that have integrated WASH education in curriculum.	MS	2025
(ix) Support advocacy critical to WASH and sharing key information to change or influence policy and practice.	Number of Member States with WASH Advocacy Material – Regional/ National/Community-based WASH Campaigns, Tool kits, Research Publications. (Communicable Disease) Risk Communication Education Material	DRR Unit Water Sector Health Sector Gender Unit MS	2030



An initiative of the African, Caribbean and Pacific Group of States funded by the European Union

Implemented by/Mis œuvre par:



GFDRR



WORLD BANK GROUP

