

NATIONAL MULT-HAZARD CONTIGENCY PLAN (MHCP) 2019 - 2020



"An adaptive, resilient and disaster safe Kingdom of Eswatini"

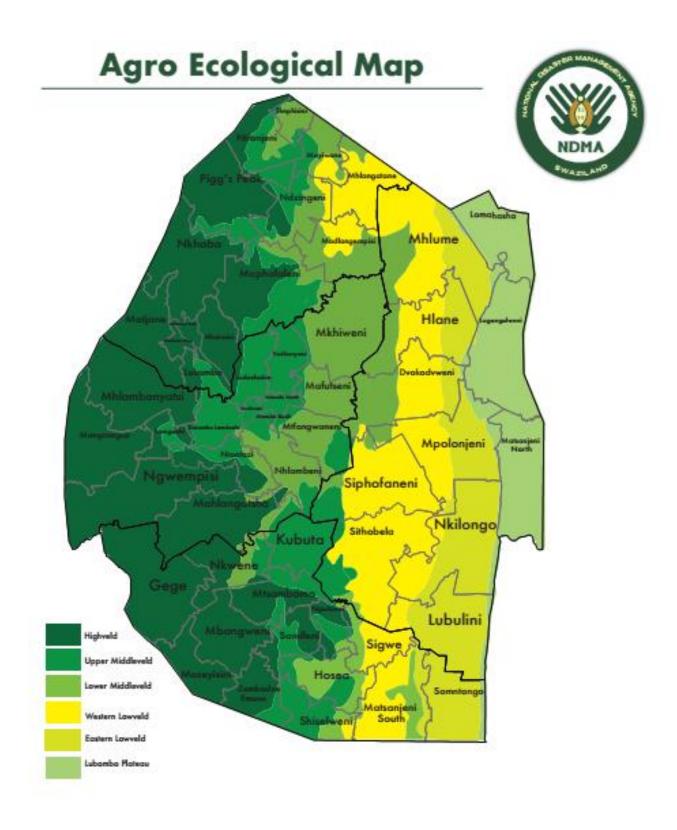


Figure 1: Agro-Ecological Map

Acknowledgement

Message from the Principal Secretary

The Office of the Deputy Prime Minister would like to acknowledge the effort of all stakeholders whose inputs resulted to the production of the National Multi Hazard Contingency Plan 2019/20. The plan was developed through an inclusive and participatory process involving all development sectors from Government, the United Nations Agencies, Non- Governmental Organizations and Private Sector representatives. The MHCP serves as a guiding document whenever the country is faced with a threat of a particular hazard in order to deal with the impacts accordingly.

The DPMO is grateful to the various ministries of the Government of Eswatini as well as the United Nations Agencies, NGOs and Private Sector stakeholders who provided various technical inputs for the drafting of the contingency plan to the end.

The increasing frequency and magnitude of natural hazard and human induced disasters in the country has exerted the need for the Government to strengthen preparedness and response efforts as well as the need to improve the capacity of all systems to recover from the various impacts. The government has over the year improved contingency planning as means to improve anticipation of common hazards, to provide a comprehensive guide to all humanitarian actors on emergency response as well as to create evidence needed to make decisions on the allocation of disaster risk management resources.

In the same wave, His Majesty's Government under the leadership of His Excellency the Right Honorable Prime Minister, is grateful for the strides made by the National Disaster Management Agency in ensuring that the country is prepared for different hazards it might face now and in the near future. The ministry will continue to engage the NDMA to move forward by being proactive as compared to reactive and increase investments on Disaster Risk Reduction.

Principal Secretary

Deputy Prime Minister's Office

Message from the CEO

The National Disaster Management Agency (NDMA) appreciates the cooperation and valuable inputs of all

stakeholders who were consulted and participated during the review and updating of the National Multi

Hazard Contingency Plan (MHCP).

The MHCP presents sector response plans with estimated cost of interventions. The sector plans are

structured with priority activities in three stages of the emergency, namely "Preparedness", "Emergency

Response" and "Recovery". The Plan identified gaps, which will be instrumental for the Government and

partners to allocate resources from internal sources as well as for the advocacy to mobilize more resources

from external sources.

The updated MHCP demonstrates Government's commitment to preventing and mitigating the effects of

natural hazards. Successful implementation of the plan requires concerted efforts and collaboration from all

stakeholders.

The NDMA will continue to invest in prevention, preparedness and mitigation measures as more evidence is

availed that response is more expensive compared to investing in Disaster Risk Reduction.

Chief Executive Officer

National Disaster Management Agency

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Acronym/ Abbreviation

ARV: Antiretroviral

BRCS: Baphalali Eswatini Red Cross Society CBOs: Community Based Organizations CCM: Camp Coordination and Management DPMO: Deputy Prime Minister's Office DRM: Disaster Risk Management

DRR: Disaster Risk Reduction

EPR: Emergency Preparedness and Response FAO: Food and Agricultural Organization

FAW: Fall Army Warm

GBV: Gender Based Violence GDP: Gross Domestic Product

IASC: Inter Agency Standing Committee

ICT: Information and Communication Technology

IDNS: Immediate Diseases Notification System IDPs: Internally Displaced Persons

MHCP: Multi Hazard Contingency Plan MET: Eswatini Meteorological Services

MDR: Multi Drug-Resistance

NDMA: National Disaster Management Agency

NEOC: National Emergency Operations Center

NERMAP: National Emergency Response, Mitigation and Adaptation Plan

NEWU: National Early Warning Unit

NFIs: Non-Food Items

NGOs: Non-Governmental Organizations OVC: Orphaned and Vulnerable Children

PLWHIV: People living with HIV RSPS: Royal Eswatini Police Services RSSC: Royal Eswatini Sugar Corporation

SADC: Southern African Development Community SARCOF: South Africa Regional Climate Outlook

Forum

SEA: Eswatini Environmental Authority SGBV: Sexual and Gender Based Violence SRH: Sexual and Reproductive Health SWSC: Eswatini Water Services Corporation

TB: Tuberculosis

UNDP: United Nations Development Programme

UNICEF: United Nations Children's Fund UNFPA: United Nations Population Fund USDF: Umbutfo Eswatini Defence Force

VAC: Vulnerability Assessment Committee (Swazi

VAC)

WASH: Water, Sanitation and Hygiene

WFP: World Food Programme
WHO: World Health Organization
WVI: World Vision International
VaC: Violence against Children
XDR: Extensively Drug-Resistance

Executive Summary

The Kingdom of Eswatini is vulnerable to several recurring natural as well as man-made hazards. The prominent ones are drought, extreme weather, flash floods, high wind, cyclonic storms, hailstorm, diseases outbreak and fire. The agriculture sector significantly contributes to the national GDP, where rain-fed agriculture is the primary livelihood means of the majority population. The country is yet to achieve self-sufficiency in food production; the shortfall in domestic demand for staples and grains is met through commercial import. The fragile coping capacity of moderate to marginal population is unable to withstand any small-scale disaster shocks and these events often have compounding impact aggravating vulnerability in all areas of human needs particularly; the food security, health, nutrition, water and sanitation. The country is still recovering from the worst impact of the recent El-Nino drought, particularly the farmers and agriculture-related employment. The weather forecast for 2019-20 rainfall season appears promising, with a projected probability of the weather systems to create normal to above normal rainfall conditions. however, threats from extreme weather and other types of hazards consistent with climate change and variability are imminent.

The updated National Multi Hazard Contingency Plan (MHCP) is fundamental for better preparedness at all levels, anticipating potential hazards, response readiness with provision for emergency assistance therefore, minimizes the impact, saves lives and ease sufferings of the affected population. In consultation and with full engagement of relevant stakeholders in the planning process, all components of the MHCP have been thoroughly examined and analyzed which enriched the preparation of sector response plans and estimate cost of interventions. The sector plans are structured with priority activities in three stages of the emergency, namely "Preparedness", Humanitarian Response" and "Recovery". An effective humanitarian response in emergencies and early recovery from the disaster would be heavily reliant on preparedness; therefore, the emphasis was given to each of the nine thematic sectors preparedness actions throughout the MHCP. The costed MHCP and identified gaps will be instrumental for the Government and partners to allocate resources from internal sources as well as for the advocacy to mobilize resources from external sources.

As a mandated Government institution, the NDMA holds overall management responsibilities of Disaster Risk Reduction (DRR) where MHCP is an integral mechanism in favour of the national platform and the priority areas of Sendai Framework for DRR. The NDMA promotes an integrated and coordinated system of disaster management focused on decreasing vulnerability and increasing preparedness and mitigation capacity in the country. Functional coordination structures at the National and Regional levels are the fundamental requirements for an effective and coordinated response to any disaster. Following policies and principles, a decentralized approach to coordination and decision-making process at the regional level with strong linkages to national network and authorities will further enhance operational effectiveness in disaster management.

Implementation of the response plan is a shared responsibility among all partners supporting the Government efforts for the wellbeing of the population. Operationalization of the MHCP requires involvement and partnership of the Government Ministries, Departments, the specialized UN agencies, NGOs, CBOs and private sectors. Joint programming, monitoring, reporting and advocacy would enable reaching the affected communities on time, optimize scarce resources and avoid duplication. Experience gained and lessons learned from the recent drought should be applied to appropriately adjust the policies, strategies and initiate innovative programmes.

Multi Hazard Contingency Plan (MHCP)

The first MHCP was developed in 2012 and subsequent revisions were made in the years 2012/13, 2015/17, 2016/17, 2017/18, 2019/20 and now 2019/20. The development of the contingency plan is instrumental for preparedness actions, coordinated response to humanitarian needs and post-disaster efforts to recovery. The Government of Eswatini has been pioneering the process with the engagement of relevant national, regional and international partners. In the changing context of the country's disaster profile and associated vulnerability, it is essential to revise and incorporate new phenomenon, capitalize the disaster management experiences, taking further improvement measures and estimate cost for preparedness, response and recovery activities. This plan analyzed the likelihood of disaster occurrences, consequences of other natural and man-made disasters such as extreme weather, diseases outbreak, earthquake, landslides, pollution and contamination (environmental hazards), fire and emerging threats of Fall Army Warm (FAW).

The Disaster Management Act 2006, National Disaster Management Policy 2010, Information Management Strategy for Emergency Preparedness and Response 2013, NERMAP 2016-2022 are the guiding principles; while recent reports, surveys, and publications are also consulted to revise the MHCP. The updated and costed national MHCP 2019-20 provides a comprehensive overview of the situation, anticipate the number of people potentially be affected, preparedness and response activities, coordination arrangement, resources requirements, and gaps. The MHCP also provides the strong rationale and justification for resources, enables the Government to allocate internal resources, advocate for external support in favor of determined priority actions also draw adequate attention from the regional and international partners as well as the private sectors.

<u>Objectives:</u> The principal purpose of the MHCP is to anticipate and forecast imminent disasters, predict possible consequences, better prepare for necessary measures, saving lives, minimize the disaster impact, ease sufferings of the affected people through preparedness, humanitarian response and recovery assistance provisions. Fully costed MHCP will be instrumental for the government, international organizations, CBOs, institutions, and private sector partners to anticipate the cost of interventions, allocation of resources and advocate for emergency programme support and assistance.

<u>MHCP Structure:</u> The revised MHCP 2019-20 is structured and primarily oriented along nine thematic sectors, namely: 1) Agriculture and Food Security, 2) Health and Nutrition, 3) Education, 4) Social Protection, 5) Water, Sanitation and Hygiene (WASH), 6) Logistics and Transportation, 7) Camp Coordination Management, Emergency Shelter and Non-Food Items (NFIs), 8) Emergency ICT and 9) Environment and Energy. Each sector has provided a situation analysis, identified key objectives, listed priority activities to be undertaken prior to and in the event of a disaster, defined the expected results against each action. For the efficient and coordinated functioning of these sectors, it is essential to have a common platform or inter-sector coordination. To give prominence and drawing due attention to this important function, "Coordination" has been included in the MHCP specifying the roles, outcomes and required resources.

<u>Scope and Limitation of MHCP</u>: The MHCP is an important component and an integral part of the overall National Disaster Risk Management (DRM) Programmes. The sectoral approach is adopted to structure the plan while causes, concerns, consequences and relevant matters were highlighted through all hazard approach. The MHCP actions are limited to disaster impact and ease sufferings of the affected people therefore, significantly contribute but not solely address the socio-economic issues, structural concerns of poverty, recurring vulnerability and underdeveloped functions and services system.

Background

The Kingdom of Eswatini is a landlocked country with an area of 17,364 km² bordering South Africa and Mozambique, an estimated population of 1.3 million, a lower middle-income country with a gross domestic product (GDP) per capita of about US \$3,000¹. The economy is predominantly agriculture-based, with 77 percent of the population residing in rural areas and deriving their livelihoods from subsistence agriculture. The terrain is mainly mountains and hills with only 11 percent arable land. Livestock plays a significant role supplementing dietary and nutrition needs of families and widely considered as the traditional barometer of wealth. The Royal Eswatini Sugar Corporation (RSSC) is the largest foreign exchange earner for the country, employing highly skilled professionals, technicians to unskilled casual labor for the sugar cane plantation and sugar production. The RSSC is the second largest employer after the civil services. As a major consumer of water for the sugar cane plantation, the RSSC plays a significant support role to the Government for the water resources management. Many people also seek seasonal and regular employment in South Africa and send remittance to support family members in Eswatini.

Eswatini is divided into four administrative regions namely, Hhohho, Manzini, Shiselweni and Lubombo and further devolve into 55 local administration areas (Tinkhundla) and over 360 Chiefdoms. The country consists of four-major agro-ecological zones² based on elevation, the Highveld lies between 900 to 1400 meters, the Middleveld between 700 and 800 meters, and the Lowveld between 250 - 400 meters, the far east of the country consists of the Lubombo plateau bordered by the mountains. The Highveld and Middleveld areas are most densely populated hosting major cities and urban centers. Due to mountainous terrain, the population distribution is uneven throughout the country with the higher concentration in the valleys and plains. Significant cattle populations use the extensive mountain rangelands and semi-arid areas of the Lowveld in a mixed farming system. October to March marks the main rain season, the long-term mean annual rainfall is above 1100mm in the Highveld, around 830mm in the Middleveld, 650mm in the Lubombo plateau and 550mm for the Lowveld. A small proportion of farmers use mechanized irrigation techniques, while most farming activities are reliant on adequate and timely rain, hence nature dependent production.

The country continues to face numerous challenges including but not limited to slow economic growth, 63 percent poverty rate, 29 percent lives below the extreme poverty line, high unemployment rates especially, among the youth, 26 percent prevalence rate of HIV (considered one of the highest in the world), high maternal mortality, and high levels of chronic malnutrition. Over the years, HIV/AIDS has caused loss of many lives including the death of the main bread earners who have left behind orphans; this has left families vulnerable. According to UNICEF, about 210,000 people are living with HIV and almost a third of the total population is aged below 14 years.

Disaster History and Impact

The last three decades of disaster records shows that common and recurring disasters in Eswatini are drought, flash floods, storms and diseases outbreak. The frequency of disaster occurrence has gradually increased in the past 15 years with moderate to devastating impact. Between 2001 to 2018, the country was hit 7 times by the drought, 4 times by different types of storms (heavy wind, thunder, lightning, cyclone and hailstorm), 4 epidemiological hazards (A/H1N1, Avian influenza, cholera, MDR and XDR TB), at least 2 large

¹ The World Bank, April 2017

² Eswatini Baseline Profile February 2016

wildfires and 2 extreme cold spells. Five consecutive years of erratic, rainfall caused persistent drought during 2007-2016³, the degree of impact was moderate to severe which affected many marginalized populations. The drought of 2007 affected the livelihood means of nearly half of the population, who needed relief and external assistance. In the thirty-five years of Eswatini disaster record, the worst was the 2015-16 El-Nino induced drought that devastated not only agriculture, livestock and employment but across the sectors of Health and Nutrition, WASH, Education and Social Protection. Rain-fed agriculture and nature dependent livestock are highly vulnerable to adverse weather conditions such as drought and extreme weather.

The flash flood of 2005 inundated low-lying areas of the Lowveld and Middleveld zones and the last major floods was early 2008 affecting 272,000 people. The frequency of flash floods is irregular, there is potential for localized flash floods, which are likely to cause severe impact on the communities residing along the riverbanks and downstream. The magnitude 4 Richter Scale Earthquake/Earth tremors in May 2012 was felt but no significant damages were reported. The 2005 storm affected about 100,000 people, causing widespread damage to dwellings and communal facilities⁴. The occurrence of lightning, thunderstorms, and hailstorms are common, sometimes fatal, causing damages to properties and facilities in specific locations. To create farmland or clear the unwanted plants and trees, burning forest during the dry months remained a common practice, which poses a grave danger of spreading fire, which may turn uncontrollable with catastrophic consequences. Almost 3,000⁵ people were affected by two fire incidents during 2007 and 2008.

Large-scale disaster can have serious consequences at the household level hunger, malnutrition, diseases and erode coping capacity and family assets; while at the community level these equally impact on the social and public services, employment and economy. It may not be possible to eliminate the risk or avoid the occurrences of disaster entirely, however, with precautionary and mitigation measures, preparedness plans, the impact on lives and livelihoods can be significantly minimized thus enabling fast recovery of the affected people to quickly get back on to their feet and building resilient communities.

Climateological/ Hydro/ Geological Man-Made Biological Meterological Drought Floods Epidemic/ Outbreak • Fire Extreme weather Landslides Infectoius Diseases Environmental Hazard Storms (localized wind Earthquake Insects infestation Global Warming, thunder, hail, cyclone) Climate change Outbreak

Eswatini Exposure to Hazards

Figure 2: Eswatini's exposure to hazards

Context Analysis

Eswatini is experiencing recurring natural and human induced disasters such as drought, extreme weather, flash floods, high wind, cyclonic storms, hailstorm, diseases outbreak and fire. The most common and recurring disasters in the record were drought, floods, storms, fires and disease outbreak. These disasters

³ Eswatini DRR-EPR Capacity Assessment Report August 2013

⁴ OCHA Report 2005

⁵ MHCP 2015-2017

have caused a varying degree of impact on lives and livelihood of the population as well as the social and economic landscape of Eswatini. Recurring natural disasters aggravate the household food security situation, cause widespread interruption, impact on all sectors of livelihood and services, as a result, marginal population continue to remain vulnerable. Disasters not only affect the agriculture-dependent communities but also negatively impacted on the livestock and agro-based wages and trade. The FAW infestation which evolved in the year 2015 became a new phenomenon that destroys or damages crops and further affecting the food security situation before the farmers attend to the new invasive species. Recently the country has experienced an outbreak of the African Army Worm (AAW). Although farmers have escaped the last FAW attacks in 2015-16 seasons, this could have a significant impact on crop production. Overgrazing, deforestation, soil depletion/erosion, unplanned rapid urbanization are continuing to disrupt conservation of nature, contribute to environmental degradation and loss of bio-diversity, ultimately have serious consequences to people's lives and their livelihoods.

The coping capacity of moderate to marginal population is very fragile, the poor segments of the population are unable to withstand small-scale disaster shocks, that have the compounding impact on the vulnerability in all areas of human needs. Low production or loss of crops always has a ripple effect on food security, health and nutrition, education and raising protection concerns. People often find it difficult to cope with minimum requirements for their survival and tend to depend on borrowing, kinship and external assistance. High prevalence rates of HIV/AIDS and TB have further aggravated individual family earning by reducing the workforce in manual labor-intensive farming and wage market. The recurring disaster of various types has made people more vulnerable to the extent that the recovery process became slow for many poor people.

The global warming and climate change phenomenon appeared to be a reality, one such extreme weather was the 2015-16 El-Nino induced drought, which has adversely affected the greater region of Southern African nations. The Kingdom of Eswatini is still striving to recover from the impact of the 2015/16 drought even in the current season. Eswatini was one of the hardest hit countries where prolonged drought conditions exceeding the level of the past 35 years' drought records.

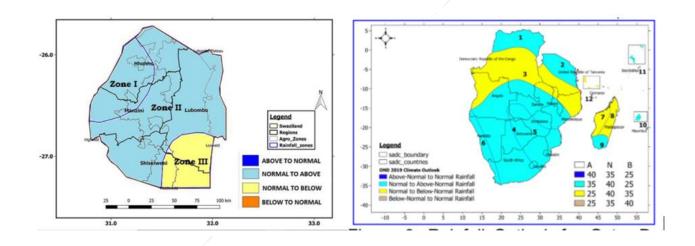
Vulnerability Assessment and Analysis Projections:

Between October 2019 and March 2020, around 232,000 people (25% of the rural population) are estimated that they will likely experience severe acute food insecurity, out of which an estimated 185,000 people will likely face a crisis situation (IPC Phase 3), and 47,000 people will likely be in an emergency situation (IPC Phase 4). Around 370,000 people will also be in a stressed situation (IPC Phase 2). Compared to the current analysis, around 28,000 people are likely to slip into Crisis (IPC Phase 3). This projected situation is based on the following assumptions: Above average rainfall conditions are expected country-wide between October and December, leading to an increase in water availability and improved pasture, but also the possibility of some disease outbreaks such as cholera, malaria and Acute Watery Diarrhea. Animal disease outbreaks, mainly affecting cattle, are also expected. The Fall Armyworm will still remain a major threat and Alien Invasive Plant Species could affect rangelands, livestock and crop production and water availability. Maize and legume prices are expected to increase. Furthermore, all households will have depleted their food stocks before the end of the year.

2019-20 Seasonal Weather Outlook6:

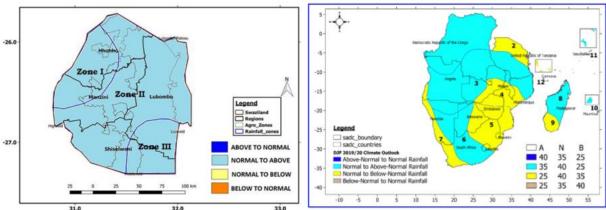
The Eswatini Meteorological Services (MET) seasonal rainfall outlook for 2019/20 indicates a forecast with a bias for the weather system to generate normal to above normal rainfall, as shown in the figures below. For the October, November and December (OND) period, the predictors used indicates a probability for the whole country to experience normal to above-normal rainfall particularly in climatic zones I and II. in zone III there is a high chance for the weather system to generate normal to below normal rainfall. For the January, February and March (JFM) forecast period, the predictors used indicate that the country expects normal to above normal rainfall. Temperatures will relatively remain warm during the day, with occasional cold episodes.

Figure 3 National level downscaled forecast for the OND period compared to the seasonal forecast for the SADC Region.



⁶ 2019/20 Seasonal Weather Outlook

Figure 4: National level downscaled forecast for the JFM Period compared to the Seasonal forecast for the SADC Region.



Eswatini Disaster Risk Ranking and Risk Profile

Following the IASC guidelines for the preparation of Emergency Preparedness and Response (EPR)7, the context and disaster trends for the Kingdom of Eswatini were analyzed. The country's disaster pattern has critically evaluated the likelihood of occurrence and magnitude of impact from potential hazards. The measurement for likelihood and impact ranking scale used as 1=low to 5=high. The risk scale determines the impact and ranked as high, medium and low. Each type of disaster was analyzed and ranked independently for the lifespan of the MHCP and the results reflected below is the best portrait of "Eswatini Disaster Risk Profile".

⁷ IASC guidelines – Emergency Preparedness and Response – 2014 Annex 1, Risk Graph

RISK = IMPACT X LIKELIHOOD

Hazard	Likelihood	Impact	Score
Drought	4	4	16
Floods	3	4	12
Epidemic, Pandemic	4	4	16
Storms	4	3	12
Extreme Weather	3	3	9
Fire	3	3	9
Earthquake	2	4	8
Environmental	3	4	12
Emerging Threats	2	2	4

	Swaziland Risk Profile												
			LIKELIHOOD										
		Very Likely 5	Likely 4	Moderately Likely -3	Unlikely 2	Very Unlikely 1							
	Critical 5	25	20	15	10	5							
	Severe 4	20	16 Drought, Epidemic, Pandemic	12 Floods, Environmental Hazard,	8 Earthquake	4							
IMPACT	Moderate 3	15	12 Storms	9 Extreme Weather, Fire	6	3							
	Minor 2	10	8	6	4 Emerging threat	2							
	Negligible 1	5	4	3	2	1							

SCALE: HIGH: 25-15, Medium: 14-8, Low: 7-1

Figure 8: Eswatini Disaster risk ranking

Figure 9: Eswatini's Disaster risk profile

Despite the fact that, Eswatini has not experienced some of the listed hazards in the profile such as landslides; disasters do occur suddenly when least expected, therefore, the fundamental requirement is response readiness to address adverse situation if any of these events strike communities. Urbanization or people's desire to live in cities and growth centers with better access to civic amenities has been a global phenomenon over the past several decades. Eswatini is not far behind the trend. For the types of geographical terrain of Eswatini, the urban centers are mostly located on the slope of hills and valleys. Unplanned expansion of cities, uncontrolled building construction and related installations without proper consideration of consequences, pose serious threats to the lives of residents and infrastructures. Instability and unrest in the neighboring countries may encourage or force people to cross the geographical border of much stable Eswatini. Large-scale migration, displacement, and refugee situation (although not likely), the current level of preparedness may have to be adjusted if such situation arises.

Household exposure to different Hazard by Region – an estimation

It is critical to identify communities that are exposed to various hazards and estimate the number of households (HH) that can potentially be affected by each hazard who would likely to seek assistance beyond their own means in the event of a disaster. The 2017 National Census figures formed the basis for estimation of HH numbers broken down by the geographical regions up to the Tinkhundla level against each potential disaster that may strike the country or a specific area. For the planning purposes, the HH numbers are an estimation based on local knowledge and expert judgement, brainstorming during the working sessions. Both percentages and absolute numbers were considered to come up with the best estimate determining the number of HH in each Tinkhundla. Two sets of HH numbers on the table below represent the "Worst case" and the "Most likely" scenarios against each hazard type. Please see below summary table (Region and Hazard Type) and **Annex – 11** for the Tinkhundla level breakdown by each of the four Regions.

Worst Case Scenario (Household)

Likely Scenario (Household)

Hazard Type	Hhohho	Manzini	Lubombo	Shiselweni	Total	Hhohho	Manzini	Lubombo	Shiselweni	Total
Total HH										
Drought	20977	18852	25378	11819	77026	8194	4423	16918	7272	36807
Floods	11539	2444	861	0	14844	1444	305	418	0	2167
Storms	2437	3717	1266	980	8400	714	1599	263	296	2872
Extreme	894	17220	22978	5445	46537	830	3878	5259	1361	11328
Temperature										
Epidemic	23014	17702	5565	6777	53058	8790	9231	2784	6777	27582
Environmental	13194	5059	4763	0	23016	6597	1224	1344	0	9165
Hazard										
Fire	851	1168	145	872	3036	352	364	99	872	1687
Emerging	39696	5735	1218	5566	52215	19850	2866	430	5566	28712
Threats										

Table 1: Estimated household numbers exposed to different Hazard types in each Region⁸

Early Warning Systems

Monitoring and messaging: The record indicates that most common disasters in Eswatini have been natural, primarily caused by Hydro-Meteorological (Weather and Climate) events. Appropriate and timely forecast, early warning and alert messages are critical to minimizing large casualties and damages. Eswatini has established mechanism and functioning systems for weather indicators monitoring and forecast. The Eswatini Meteorological Service (MET) and the National Early Warning Unit (NEWU) of Ministry of Agriculture are two specialized technical institutions of the Government designated to collect, interpret and analyze weather-related data and reports. Both organizations transform the technical data into meaningful early warning alert messages and publish the forecast for public consumption through various mode, particularly the popular media radio, TV, newspaper, social media and the websites. Most common warning indicators are weather conditions, rainfall data and forecast, the water level at the dams, river and reservoirs and any specific situation that require people's attention and action.

Among many issues raised during the lessons learned exercise⁹, the avoidance of conflicting messages was highlighted and emphasized the importance of strategizing, consolidating and agreeing on the key messages that are easy to understand, translate in a manner capturing the attention of the large audience and effectively used to make judgemental actions. Therefore, each sector should not only contribute to the development of right alerts and messages but also facilitate transmission and distributions of these messages. Both the institutes should maintain steady contact and close working relations among various Government Ministries and Departments as well as with the regional and international specialized organizations for the technical cooperation and information exchanges.

<u>Humanitarian Consequences and Needs</u>: With the advancement of technology, early detection, symptoms analysis and prediction are possible for an imminent slow onset disaster i.e. drought, floods, storms, soil erosion etc. Convey the right early warning alert messages of imminent threats and danger, reaching out to

⁸ 2007 Eswatini Population and Housing Census, Eswatini Central Statistics Office

⁹ Eswatini Drought Response Learning Event Report February 2017

mass population is critical particularly those exposed to disaster in certain locations. Appropriate precautionary measures taken on time can minimize losses of lives, assets and possessions. Each hazard has distinct nature of destructive characteristics, the consequences on people and community may vary, therefore, the needs and requirements would be different. Therefore, timely appropriate measures have to be determined prior to the occurrence of disaster events.

It is important to acknowledge that every community has certain coping techniques and strategy in disaster or in the difficult time. In a disaster, often the most common needs of the affected communities are food, WASH, health services and protection concerns; however, the situation should be evaluated as the event approach or happened to determine the extent of needs, types and duration of required support. For the planning purpose, four such common hazards Drought, Floods, Storms, and Epidemics are generically analyzed in the Eswatini context. The table below highlights the Early Warning Indicators, Humanitarian Consequences, Response requirement (needs) and the usual community/HH Coping Strategies.

Common Disaster - Early Warning Indicators, Humanitarian Consequences, Needs and Coping Strategies

Fault Manager Indicators	Humanitarian Canasananas	Decrease very inspect (Needs)	Camina Stratagias
Early Warning Indicators	Humanitarian Consequences	Response requirement (Needs)	Coping Strategies
Drought and Extreme Tempo			
Lack or below normal	Farmers unable to prepare the land, partially or completely	Food and essential commodities supply	Food consumption
rainfall recorded during the	missed the plantation season, fewer hector coverage for	through drought relief, provision of safe	pattern, skipping
rainy seasons, late or	agriculture, marginal farmers lost seeds unable to replant.	water supplies at household and facilities,	meal/ reduce
untimely rain, dry-spells	Low yield or total crop failure, wage reduction, losses of	introduction of alternate water collection	frequency,
prevailed affecting farming	employment. Depletion of livestock numbers with low	methods and purification, agriculture and	imbalanced diet,
and grazing. Water level at	demand and dropped market price. The scarcity of grains and	farm inputs, animal feed, livestock	consumption of
the dam and reservoir	staple food, influence market price for essential commodities	support programmes, nutrition	green maize (early
dangerously low unable to	including food, aggravate household food insecurity, lower	supplements, institutional feeding	crop), reliance on
pump sufficient water to	food consumption, increased risk of malnutrition, non-	programmes especially at schools,	kinship and
the supply network and	adherence to ART treatment, TB and Hypertension	emergency education kits, health and	borrowing, use of
irrigation. Natural springs	medication, higher risk of deaths from HIV/AIDS and other	nutrition centers. Health services, mobile	alternative water
dried up, depleted	diseases. Scarcity of water heavily weighs on household and	clinics for treatment and prevention	sources, sale of cattle
groundwater table unable	facilities to maintain sanitation and hygiene condition,	programmes, priority to the vulnerable	and migration.
to support boreholes. High	adversely affect student enrolment, study focus/ attention.	and special need groups, emergency cash	Prioritize HH
temperature dries up	Unsafe water increases the cases of waterborne diseases and	grants, livelihood support, SGBV/GBV	expenses and
grazing land, large	risk of an outbreak. Exposer to protection concerns, increase	survivor support programmes, trained	reliance on relief and
concentration of animals.	the number of GBV and SGBV cases, abuses and exploitation.	protection and rights counseling.	feeding programmes.
Floods			
Excessive and way above	Inundation and damage to dwellings, inundation of farmland,	Temporary accommodation, camp sites,	Moving to higher
normal seasonal average	partial or complete loss of crops, possessions, and assets,	shelters, essential NFIs, relief supplies	ground, communal
rainfall in short period,	temporary displacement, viable loss of nutrition and dietary	(food) to targeted population, access to	facilities, low dietary
dams and reservoirs	supplement due to livestock death, contaminated natural	health services, nutrition supplement and	intake, compromise
exceeded capacity, running	water sources, deteriorated sanitation and hygiene	feeding, supply of dignity kits, safe water	quality of necessities
over the danger level,	conditions, In camp situation potential for fast spreading of	supply, water trucking and distribution of	and services,
overflowing or spills	contagious diseases (TB, Cholera, Measles, Flue), affected	purification reagents/tablets, diseases	prioritize among
reported, creaks or signs of	communal facilities, i.e. schools, marketplaces, health	surveillance, institutional feeding	family essentials.
dam collapse, crop field,	centers, unsafe water supplies, damaged infrastructure,	programmes, agriculture inputs, livestock	
roads and paths are under	increase in protection concerns, cases of violence, abuses and	feeding and diseases control.	
	exploitation.		

tan Disasta di da ette anal			
water, livestock deaths and			
diseases reported.			
Storms			
Warning/alert messages of	Damaged houses, losses of dwelling, affected standing crops	Immediate shelter needs, housing and	Temporary shelter
strong cyclone, high winds,	results low production leading to food insecurity, flying debris	facilities reconstruction support, NFIs,	with local materials,
thunder storms and large	causing injuries and death, high wind cause damage to	establish field hospital or increase the	seek help from
hails, or combination of one	communal facilities, affects communication infrastructure,	capacity for surgical and first aid support	available sources and
or more of these hazards,	disrupt media and communication.	to injured person, food supplement to	service providers,
high number of reported	aisi apt media and communication.	affected families.	borrowing and credit
		affected faiffilles.	_
injures.			support.
Epidemic & Pandemic			
The number of patient's	Delays receiving treatment and health services, increase risk	Access and availability to treatment and	Ignoring and or
visit to hospitals and health	of communicable diseases, increase expenses on medicine,	referral services, supplementary or free	unable to prioritize
centers increased, the	transportation and feeding, increase mortality, health issues	medical services and provision for	health and nutrition
spread of viral and	affect agriculture productivity, losses of employment, eroded	medication and food. Priority support and	concerns until
infectious diseases,	savings and possession, existing health facilities face	services to special need groups, i.e.	situation become
repetition and wide	difficulties and unable to cope with the patient flow, shortage	pregnant and lactating women, elderly,	dire, sale of assets to
coverage of health hazard	of medicine and medical supplies, overwhelmed service	disabled, PLHIV/AIDS, TB and other	meet the treatment
_	providers (Doctor, Nurse and health assistants).	chronic illness. Reproductive health	and medication cost.
and warning messages.	providers (Doctor, Nurse and Health assistants).	-	and medication cost.
	/	services for appropriate age group.	
		Advocacy and awareness campaign to	
		alert general population on health hazard	
	/	and concerns.	

Planning Assumptions

- The NDMA continue to provide leadership and facilitate national, regional and inter-sectoral coordination and maintain constant liaison among different stakeholders particularly the UN and NGOs for the implementation of the MHCP and subsequent revisions.
- The UN, regional and international partners' programme continue to support the Government efforts to prepare for and respond to emergencies.
- The Disaster Management Fund from the Government of Eswatini is released and available for initial life-saving humanitarian response, simultaneously national and international resources are available for timely response to the disaster-affected people.
- Emergency funds from regional and international partners are made available for prepositioning and preparedness activities as the mitigation measure and prompt response actions.
- Humanitarian assistance is targeted and prioritized with adequate quantity, appropriate types and in time following "Humanitarian Principles" at all level of response operations.
- At the national level, Sector and Inter-Sector coordination forum are effectively functioning with strong linkages complementing inter-related sector activities to maximize the scarce resources and avoid duplications.
- The coordination structures at Regional and lower level of administration remained functional all through the year providing guidance and leadership for mitigation measures and emergency response.
- The operational arrangement exists and enhanced among different Government Ministries and Departments, support and cooperation extended to joint programming with partners.
- Trained human resources and sufficient technical capacities are available to carry out preparedness, response and recovery activities.
- The SADC regional resources are accessible, technical assistance extended to Eswatini for national capacity building, preparedness, and response.

Response Strategies

The disaster affected communities are likely to become vulnerable and dependent on support, services, and assistance that require properly targeted interventions. The principal objective of the humanitarian response in emergencies is to provide lifesaving and life-sustaining assistance to ease sufferings and safeguard the well-being of the affected people with dignity and respect for individuals, restoration of

basic services and delivery mechanism to build resilience. Activities in different phases are targeted in a manner strengthening the protection and respecting the rights of affected people with the specific focus on vulnerable and special need groups. The nine functional sectors have laid out response plan categorized by different phases of the emergency. Each sector is expected to make full efforts to implement the plan and ensure complementarity to other sector activities for a common cause. Cross-cutting issues such as gender, age, protection and environment etc. must be incorporated in all areas of programming. Humanitarian actions must be well coordinated and where possible carried out jointly



Figure 5: Disaster Risk Management cycle

between the Government and partners based on identified priorities at minimum requirement level. At all phases, the emergency response must adhere to humanitarian principles of Humanity, Neutrality, Impartiality, and Independence.

As a mandated institution of the Government, NDMA will lead, liaise and coordinate with partners in response activities and subsequent information management and reporting. The Government may or may not declare an emergency, which should not be a prerequisite for the implementation of planned activities particularly responding to an emergency. The UN systems play a significant role in disaster risk reduction, mitigation and response, therefore, at every stage, maintaining a strong partnership between the UN and the Government is crucial. The UN systems may plan and launch an appeal in support of the Government response (as was the case launching Humanitarian Response Plan 2016 in support of NERMAP¹⁰) and have the expertise, capacity, and means for direct implementation. For greater coverage and timely response, coordination is vital to maximizing use of limited resources and avoiding duplications.

Sector Preparedness and Response Plan

Each sector has critically analyzed the needs separately against potential hazard and the trend, possible impact on the sector situation, services functionality and subsequent response requirement. The current situation, ongoing programme initiatives, progress made and challenges encountered were taken into consideration to analyze the sector needs and proposed activities. The components of the sector response plan have strong inter-linkages and correlation, i.e. activities are expected to produce results, results should address specific objectives and leading towards achieving the overall objective. The sector response plan has clearly spelled out the actions required in three phases of the emergency - preparedness, response, and recovery. Three areas of resources planning - requirement, availability, and gaps were reflected in the planning based on sector expertise, local knowledge, market price and experience from recent disaster response. Please see **Annexes 1 to 10** for the detailed "Sector Response Plan" and "Estimated Cost".

<u>Cross-Cutting Issues:</u> The sector partners will make every effort to include gender-sensitive approach, focusing and prioritizing the special need groups in planning and implementation of response activities. Communities affected by disaster, mothers, children and persons with specific needs including single female heads of household, older people without adequate support, persons living with the disability, unaccompanied and separated children who require solid material and psychosocial support to ensure their safety and well-being. While conducting the assessment, surveys, monitoring and other forms of information gathering, sector partners should collect age and sex-disaggregated data, which ultimately enable designing appropriate programmes and targeting the right beneficiaries. The MHCP has specific sector plans to address critical protection and environmental concerns, however, these two falls across every sector and required due consideration at all level of planning and implementation.

<u>Assessment methodologies and tools:</u> Following or during an emergency, conducting assessments are vital actions to collect data and information, analyze the situation, measure the extent of damages, locations affected, and communities impacted by the disaster and to determine the number of affected population. The scale and magnitude of a disaster, severity, and impact on the lives and livelihoods should determine

¹⁰ Humanitarian Response Plan 2016, for June 2016 - March 2017

the types of data, information, and evidence required to measure response requirements, the nature and types of assistance needed, timeline and duration of responses. Prior to any response actions, adequate information on the operating environment such as accessibility, infrastructure, transport and storage, security and distribution mechanism should be gathered and analyzed. It is necessary to have the "baseline data sets" for comparison with the generated data from the evolving situation. At the planning stages, appropriate methods and types of assessment must be agreed and planned accordingly with the clear division of responsibilities based on expertise, duration, coverage and end results. The assessment results are critical for programme planners to prepare and guide the response, allocation and seeking resources.

As each disaster is unique, data and information need widely varies therefore, single format, template or questionnaire as a tool for conducting assessment will not serve the purpose for data and information gathering. Each sector has the responsibility to ensure that appropriate data and information is gathered, analyzed to guide the sector actions. In normal time, the sector partners should determine the sets of data need, design and develop required format accordingly. Data needs are often diverse, however time appropriate (initial, mid or post) and coordinated multi-sector assessment would save time resources and expedite the response actions.

Standard, Quantity and Variety: In an emergency, assistance packages are designed or measured to meet the basic requirements of people in need, the types and verities are determined by the culture, tradition, and habits. For instance, food parcel or basket are determined based on kilocalories required for a person per day, one of the WASH standards is the number of HH per communal latrine, or liters of water is needed per person per day. The SPHERE standards are globally acceptable however, needs may differ and often the quantity and variety are largely dependent on the availability. When there are agreed guidelines, set standards for the country, in line with the international standards and quality, sector partners should adhere to these standards. Some sectors may exercise flexibility but should maintain the minimum required level to localize the package contents, quantity and variety i.e. food basket or NFI kits. When securing resources, planning, preparing for the response, a certain standard should be followed by respective sectors for fairness across all response areas. These standards, contents, and quantity must be adapted to fit the local context, cultural norms, habits and practices, respecting sensitivities. In peacetime, the sector experts and stakeholders should determine and agree on the standards applicable and appropriate to implement sector activities for consistency and equal treatment to all recipients.

<u>Search, Rescue and Evacuation:</u> Responding to sudden disasters such as storms, fire, flash floods, landslides, earthquake, and or environmental disasters when people's life is exposed to danger, trapped or unable to move to safety with their own means and ability, may trigger simultaneous or gradual search, rescue and evacuation operations. The specific type of hazard would require the affected people to be rescued and evacuated to safer locations. This operation primarily envisaged deployment of trained personnel, equipment and transport means to the affected sites and arrangement of safer accommodation and securing essential services. Although every life counts, for the rescue in a disaster situation, priority must be given to vulnerable and special groups such as elderly, pregnant women, mentally or physically retired person, underage children.

At a small-scale localized incident, the Fire Service and Civil Defence Department of the Government will be able to carry out search and rescue activities within its limited capacity. To address large-scale sudden disaster that require search and rescue, may likely exceed the existing local capacity, necessitate seeking

additional support and engagement of technical experts and equipment from others beyond national boundaries. Often, the community themselves are the first responders, come forward, extend helping hands in an event of sudden disaster. Search and rescue may sound simple as anyone can do that; however, require certain technical knowledge and professional skills and expertise. The surge capacity is critical to minimize losses of lives in a disaster; therefore building community level capacity should be part of preparedness and ongoing programmes. To build search and rescue capacity at the National, Regional and Tinkhundla level, basic and advanced training should be provided to create the roving pool of trained personnel readily available for quick deployment to affected locations when needed.

<u>Displacement and Population Movement</u>: The severity of impact and prolongation of any disaster result or force people to leave their natural habitat taking refuge in safer locations. The move can be in the neighborhood, within the region, within the country may create an Internally Displaced Person (IDP) situation. In search of food and other necessities, economic hardship in a disaster can significantly contribute to displacement. Disaster-related displacements are often last for a short duration, when the situation improves, conditions permit, and displaced people tend to return to their homes. When people flee mainly fearing persecution, escaping violence or adverse conditions, crossing the national boundaries into neighboring countries trigger refugee situation, such group of refugees and asylum seekers are already being hosted by Eswatini. Both IDPs and refugees either temporary or long-term, require humanitarian response including rights and protection. The Camp Coordination and Management, Emergency Shelter and Non-Food Items sector has developed the plan to address displacement and subsequent shelter and NFIs needs.

<u>Access and Security concerns:</u> Reaching out to the affected population and people's access to services are often interrupted following a disaster. Maintaining and facilitating access is a critical part of the response, assistance delivery and related operations. Disasters, for instance, floods, heavy storms, landslides, and earthquake may wash away, inundate, damage or destroy infrastructure (roads and bridges) consequently can cause delay to reach affected population and delivering humanitarian assistance. In the event of a large-scale disaster, all partners including the government should make joint efforts ensuring fast access for saving lives, assets, and wellbeing of the disaster-affected population. Logistics and Transport sector players are the frontrunners to secure access, transport, storage and handling of the relief goods reaching the people in need on time.

The Government is the principal custodian of its citizen at all time including at the time of disaster and has the discretionary authority to maintaining law and order situation in the country, protection of the people and their assets. For the peaceful purposes and maintaining the integrity of the affected people, the government may deploy the USDF (military) and or RSPS (police) contingents and their assets and equipment for rescue, evacuation, and relief operations. In addition, to minimize any potential threats for rights violation, abuses, exploitation, violence either physical or psychological or both, it is the prerogatives of the Authorities to deploy security forces (army or police or mixed group) in the affected locations. The deployment should be specifically restoring security and maintain the law and order situation in the disaster-affected areas or in the assembly places, camps or shelter locations, assistance delivery/distribution points etc. Humanitarian partners should liaise with relevant government authorities and maintain steady contact when such deployment takes place or actions are deemed necessary.

Coordination Structure and Management

The Disaster Management Act 2006 proposed different coordination mechanism and structures, outlines specified roles and functions of various committees and membership at the different level of administration. Through this act, the NDMA¹¹ was created as the Principal Institution for Disaster Management at the national level of government with the objective of promoting an integrated and coordinated system of disaster management focused on decreasing vulnerability and increasing preparedness and mitigation capacity. For effective and well-coordinated actions in emergencies, it is

Swaziland DRM Coordination Structure

Ministerial Disaster Management Team

Lead by Prim Minister, to ensure a sound policy and institutional framework for sustainable disaster management that shall assist the country to reduce disaster risk through creation of a resilient society

National Disaster Management Council

To support the development of a sustainable, integrated and coordinated system of disaster management in the country based on the consultative approach and partnerships between role players. Principal Secretaries of different Ministries (Strategic/Policy Level)

Senior Official Level

GoS Departmental Heads, Heads of UN agencies and NGOs Country Representatives

Inter-Sector Coordination

Technical experts representing GoS and Sector Leadership -NDMA Led

Sector coordination (Technical Level)

Experts and Technical officials from the GoS, Sector Partners – Lead by Sector

National Disaster Risk Management (DRM)

NDMA Led, Senior officials from the Government, representatives of the UN & NGOs

Regional Disaster Management Committee (RDMC): Led by Regional Secretary, supported by NDMA and members are Regional representatives of the Government Departments, UN, NGO's, CBOs, Baphalali Swaziland Red Cross Society, Commanding Officer of the USDF and RSP, Representative of Tinkhundla, labour organization, business, religious and welfare organizations, medical and para-medical organizations, traditional Chiefs, and relevant professional and scientific organizations and institutions.

Tinkhundla Disaster Risk Management Committee

Officials representing the Administration, grass root NGOs, religious groups and CBOs,

Chiefdom Disaster Management Committee Community Disaster
Management Committee

essential to establish the structures and mechanisms, make these instruments fully functional, and

Figure 6: DRM Coordination structure

maintain strong linkages among response activities, consistent flow of information, keeping all stakeholders well informed on the ongoing initiatives, progress, and challenges for optimum use of limited resources and avoiding duplication.

At the national level, several thematic sectors (currently there are nine sectors) are functional, have established the regular forum contributing positively to coordinate sector activities among liaise with the partners. Few of the sectors are still lagging, need to proactively establish the coordination forum and

Policy, Strategy – GoS Level

Decision & Operations level

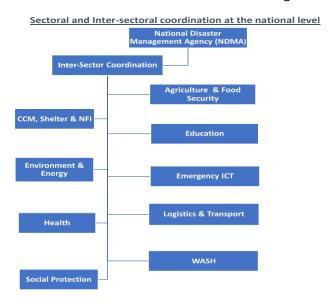
Operations, Administrative Level

¹¹ Disaster Management Act 2006

improve engagement with partners and steer all sector activities. In consultation with the partners, NDMA and the UN have jointly developed the detailed ToR for the sector coordination; all sectors should follow the guidelines not only in an emergency but also for the preparedness and be ready for any eventuality.

Status and functionality: A significant progress has been made for coordinated disaster management

particularly the humanitarian response activities during the 2015-16 drought. The lessons learned exercise conducted on the recent drought12 has improvement documented in response coordination at the national level and commended the NDMA leadership roles, however, suggested enhancement of sectoral level coordination. Strengthening coordination at all level of administration largely remained a challenge while coordination during peacetime is not viewed/considered as a priority, failing to draw attention among stakeholders. The NDMA Regional Offices have enhanced its capacity and with the support from HQs would be able to strengthen the Regional, Tinkhundla, Chiefdom and community level disaster management forum with the active engagement of relevant Figure 7: Sectoral & inter-sectoral coordination at national level stakeholders before the next disaster strikes.



Decentralized Approach: For the effective disaster risk management and implementation of response activities at Regional, Tinkhundla, Chiefdom and Community level, delegation of appropriate authorities and decentralization of decision-making process are important aspects of coordination. In line with the national policies, rules and guidelines, the Administrators hold the primary responsibility within their area of operations for coordination, identification of needs, resolving major impediments and establish the strong linkages to seek support and guidance from the upper level. The structure, authority and composition of the coordination forum at the Regional and below administration levels have been defined in the Disaster Management Act 2006. Decentralized approach to coordination and allocation of adequate resources would encourage and motivate increased local participation to improve response readiness and would be benefited from the local expertise and services engagement. Each actor must be clear about their roles and boundaries, accountabilities and obligation to serve the population, particularly in an emergency. NDMA has been actively engaged with partners and will further strengthen its support to different levels of coordination.

¹² Eswatini Drought Response Learning Report – January 2017, NDMA and the UN.

Coordination Hub and Monitoring

<u>Situation Appraisal and Monitoring:</u> Continue appraising the situation of the affected population, their assets and vulnerability, coping capacity, are critical elements for the continuation of assistance delivery, follow-up actions, adjustment to ongoing and planned programmes. Joint, combined and independent response monitoring is fundamental responsibilities of all actors to determine the response requirement, effectiveness, time-frame, and resources mobilization. The NDMA established situation center (the NEOC) should have the facilities and means to collect, analyze and consolidate updates, the publication and dissemination of progress on the response, pipelines, major challenges, and gaps. This is a joint responsibility of all stakeholders involved in sharing reports, channel and maintain a consistent flow of information into the systems that produce consolidated reports on behalf of the humanitarian partners and the Government. Reaching an understanding among stakeholders and complying with the commitment made for common reporting would ultimately avoid conflicting information and reports. In a large-scale disaster, current NDMA capacity would not be sufficient to meet the high demand for information, products and reporting services, therefore, would require expertise support from the UN, NGOs and technical departments of the Government.

National Emergency Operations Center (NEOC): With the financial support from UNDP and the Government of Japan (JICA), the NDMA has established the NEOC, in Mbabane to facilitate the mandated coordination functions in emergencies among all stakeholders. The principal purposes of the NEOC are to serve as coordination hub and service center for disaster preparedness and response activities including situation monitoring, information sharing and reporting. The NEOC is open to all partners and intended to provide ample space under one roof for decision makers and response teams maintaining a constant and steady flow of communications, coordinate response activities, manage the rapid deployment of personnel such as search and rescue team, assessment and response missions. The NEOC should act as situation monitoring center with relevant updates on imminent and ongoing disaster. The NEOC management responsibilities are with the NDMA supported by the Fire and Civil Emergency Department. In the event of an emergency, the facility would be able to host limited organizations, institutions, and key Government Ministries. As stipulated in the disaster management act 2006, the NEOC is designated to perform five key functions namely coordination, planning, response operations, logistics and finance.

The NEOC already has established office spaces with functioning workstations and meeting room for holding mid-size (40-space) gathering for the sector and inter-sector coordination meetings, small group works, and bilateral discussions. The center is yet to be adequately equipped with GIS mapping and printing/plotting facilities, Remote Sensing (RS) based earth observation products, media monitoring, high powered/capacity internet servers, communication systems and trained technical staff. The NDMA has been and will continue exploring all probable avenues to secure resources, making it the fully equipped functioning center to serve as the central location for coordination particularly in emergencies.

Information Management Strategy

<u>Information flow, system and management</u>: Consistent and reliable information on all aspects of the operations is key to make decisions and response coordination in an emergency. The Information Management Strategy¹³ for Emergency Preparedness and Response (EPR) document, proposed the establishment of systems and processes that enable information availability and dissemination in a coordinated, timely and operationally useful manner to facilitate targeted and well-thought response maximising available resource. It outlines information management activities that should be done before, during and after a disaster and proposes a plan of action for each stage, detailing the activities and assigned responsibilities.

As a national institution of the Eswatini Government, the NDMA holds the leadership roles and has broader coordination responsibility for information management. The information management process consists of defining data requirement, collection, synthesize, analyze, and translate into reports and subsequent dissemination, which should be the shared among all stakeholders under the coordination umbrella of NDMA. Expert support and assistance from the specialized UN agencies and the UN as a whole remain important. In an emergency, "Situation Reports" should be released periodically with facts and analysis of disaster impact on population, ongoing and planned response activities, progress made and population reached, major gaps and impediments. Wider circulation of these updates and reports will inform concerned authorities and partners for successive programme actions, inter-linkages among other sectors and their activities. The authentic and credible information would significantly contribute to the advocacy on behalf of the affected people and mobilization of resources.

Public Information and Advocacy: In a disaster or aftermath of an event, concerned people are keen to learn about the welfare of their family members and friends, also learn the situation updates, conditions of affected people and extent of the impact from a disaster as well as the ongoing response initiatives, progress made and gaps. Media and Press are powerful, they play a vital role in publication, broadcast and other forms to disseminate relevant news and information to larger audiences. Authenticity and reliability remained a constant challenge, information may deviate from the reality or sometimes misinterpreted. To ease the conflicting reports, press release and press briefing, publication of interviews on the popular radio broadcast and TV channels are the appropriate platforms for providing accurate information to the public. The traditional publication means and social media are the perfect avenues for advocacy on behalf of the affected people, launching appeals and request for required support and assistance from a wide range of interested partners beyond national boundaries. Government and humanitarian organizations have the moral responsibility to provide and circulate accurate and timely information. Public information is a specialized field and requires certain skills, therefore, the roles should be given to the representatives of the Government or an appropriate (authorized) person of the organization to disclose and provide relevant information on disaster impact, people's need and ongoing response efforts.

¹³ Information Management Strategy for Emergency Preparedness and Response, May 2012

The National DRM platform and MHCP

Linkages and Complementarity: The MHCP intends to establish strong linkages and complementarity to the national DRM, NERMAP and other strategic planning and programme initiatives. The proposed actions in the MHCP and activities in the sector response plan, not only focused on addressing the most immediate needs of the affected people but also address underlying causes and effects, therefore, are expected to contribute to the national efforts for DRM. For instance, awareness raising, capacity building across the sector-specific areas, setting up system and structures, obligations and compliance to national policies and procedure, cooperation with the regional and international organizations and forum are all leading towards resilience building. The sector interventions for the recovery phase are complementary to the ongoing national and international efforts to achieve vision 2022. Although not in its entirety, the MHCP touched on all four-priority actions of the Sendai Framework for Disaster Risk Reduction 2015-2030, more specifically the fourth priority "Enhancing disaster preparedness for effective response and "Build Back Better" in recovery, rehabilitation and reconstruction.

<u>MHCP Activation</u>: The updated MHCP covers three distinct phases of the emergency, preparedness, response, and recovery, therefore, implementation of the plan should be effective following endorsement of the document by the stakeholders. The publication, launching or other ceremonial events would be helpful drawing attention from various quarters, however, not a precondition to implement the priorities laid in the MHCP. The starting points should be the preparedness actions outlines by respective sectors along with ongoing sector improvement programme initiatives. The plan should act as the reminder and guide all partners and stakeholders at the onset of a disaster and for the response phase. As the mandated coordinating entity, the NDMA is responsible for maintaining linkages among respective Government Ministries, Directorates, the sector lead organizations and partners at all levels of implementation of the plan.

MHCP annual update: The planning and cost estimation is based on a year life cycle until 2018. The MHCP should be treated as a dynamic living document. Changes in the context, shift in policies and new development, would require adjustment to the MHCP to address new reality, incorporation of changes to meet the needs of the population affected by a disaster. Assumptions and estimation may remain relevant and applicable to the situation in the subsequent year(s). A thorough analysis of fundamental aspects and careful review of the overall situation are important for the yearly review including significant impediment encountered, applied innovations and positive changes. Revision of the MHCP should be led by the NDMA as entrusted body and should be done through the consultative process with the engagement of stakeholders and major role players.

Declaration of Emergency

It is the prerogative and discretionary authority of the Prime Minister to declare an "Emergency" as and when considered necessary as deemed stipulated in the Disaster Management Act 2006. In an imminent or in a disaster situation, the PM's office will be provided expert advice from various special committees in favor of the PM's decision-making process either or not to declare an emergency. As the national coordinating institution, working closely with partners to provide evidence-based disaster update and response requirement, the NDMA plays central roles advising the PM's office making such decision. The magnitude and geographical spread of a disaster and more importantly the impact on human life and livelihood are the determining factors whether to call for national emergency or for the affected region(s). The declaration of emergency authorizes the authorities to take required measures including allocation, releases of resources and assets addressing the emergency and response activities. The declaration also enables the stakeholders and international partners (UN and NGOs) seeking assistance and mobilization of resources from internal as well as external sources.

Annex 1, Agriculture and Food Security Sector Response Plan

Triggers:

- Livestock death mortality
- Malnutrition
- Skipping meals, a day/ a meal a day
- Reduced household dietary diversity
- Depleting of productive assets
- Delayed onset of rains
- Dried water sources/ earth dams.

Threshold

• Livestock mortality reaching 7% at national level

Lead and Co-Lead Organization: Ministry of Agriculture, Food and Agriculture Organization (FAO) and World Food Programme (WFP)

Partner Organizations: Swazi MET, World Vision International, ADRA, National Maize Corporation (NMC), NAMBOARD, Eswatini Dairy Board (SDB), CSO, Africa Cooperative Action trust (ACAT), Baphalali Red Cross Eswatini (BRCS), Save the Children (SCF) and CARITAS

Situation Overview: Eswatini is yet to achieve self-sufficiency in food production. Every year the shortfall in domestic demand for staples and grains is met through commercial import. Agriculture and related employment including the sugar plantation, processing and export remain the backbone of the country's economy. The traditional farming and rain-dependent agriculture are primary livelihood means of the majority of the rural population. Mechanized and commercial farming is concentrated on cash crops especially sugar production for export. The El Nino induced drought caused successive failure of rains for two plantation seasons (2015 and 2016) resulted in a devastating impact on food production which became the significant driver of humanitarian needs. Livestock is an important contributor to the livelihood systems and the household food security sector supplement the family nutrition and sources of income. Feed shortage from the last drought has killed 89,000 heads of cattle (14 percent of the national stock) made the farmers more vulnerable. Families continue struggling to recover from the losses of crops and livestock. To ease hunger, save lives, and tackle malnutrition, the Government with the assistance from the UN, donors and partners, distributed emergency food assistance to a large number of the affected people. In addition, needed agriculture and farm inputs were provided to support the farming communities.

Out of the 70 percent of households with access to arable land 23 percent reported not to have cultivated, 65 percent were observed to have cultivated between less than 0.5ha to 2ha of land, while 12 percent recorded to have cultivated more than 2 hectares of land as shown in the figure 10 below. Hhohho had the highest land under cultivation at 19 percent while Lubombo had the least land under cultivation of 6 percent, VAC 2019. The balance of the 37.2 percent need was met through import. Low food production creates scarcity and price inflation at the local market, reduce the affordability of food by ordinary people

and affect the consumption level. Any interruption in agriculture production either caused by natural or manmade hazards, the food security situation deteriorates faster particularly, among the poor and the very poor segment of the population. Food insecurity has a direct impact on several other community welfare systems such as school attendance, nutrition status of children, mothers, elderly and people with medical conditions who require dietary support. The Government and food security sector partners have been implementing projects such as nutrition intervention targeting people living with HIV/AIDS, TB patient, providing safety nets for young orphans and vulnerable children, food supplement to caregiver families, institutional feeding programmes, and address child malnutrition to prevent stunting.

The primary focus of the sector is to ensure short and intermediate term household level access to food, continued support to enhance food security and agricultural and livestock productivity. Food insecurity has direct implications and influence on inter-related sector activities; therefore, require strong linkages and complementarity to other sector interventions such as Education, WASH, Health and Nutrition and Social Protection. The sector response plan should adopt the type and scale of responses based on the severity of food insecurity, seasonality (lean period, land preparation, plantation and harvest), ensure better targeting through the participation of authorities, communities and affected people.

<u>Overall Objective</u>: Improve access to food and address the food insecurity through the provision of assistance delivery and support feeding programmes, saving lives and protecting livelihoods in emergencies.

Specific Objectives:

- Provide targeted food interventions for a limited duration to affected households in need of assistance.
- Support the coping capacity and supplement the unmet needs of selected vulnerable and eligible population through "Cash/voucher Transfer Programme".
- To maintain the functionality of the education institutions, health and welfare structure, continue supporting the institutional and other supplementary feeding programmes.
- To minimize further deterioration of nutrition indicators (prevent stunting) of the affected people and special groups, continue provision of supplementary, therapeutic and other feeding programmes.
- To reduce dependency, restoration and recovery of the food production, assist marginal population with inputs for agricultural, livestock and aquaculture.

Table 2: Summary of Agriculture and Food Security Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 16,720,000	0	E 16,720,000
Response	E 35,700,000	0	E 35,700,000
Recovery	E 15,600,000	0	E 15,600,000

Table 3: Agriculture and Food Security Sector - Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness for all hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Available	Gap
Early warning and weather forecast monitoring and	MET and NEWU	3	Wide coverage of Early	E 100,000	0	E 100,000
optimum coverage of alert messages.		months	warning and alert messages			
Food security situation monitoring, analyze and	MoA and	3 weeks	Locations/needs group	E 70,000	0	E 70,000
forecast shortfall specific to locations and groups.	communities		identified for targeted			
			distribution			
Create and update baseline standard data set and	MoA, GoS	2	Comparative analysis of the	E 100,000	0	E 100,000
indicator determining the food security status and	Ministries and	months	disaster impact and assistance			
comparison following a disaster.	Partners		needs			
Farmer awareness and extension programmes for	Sector Partners	3	Farmers are aware of crop	E 100,000	0	E 100,000
drought tolerant seed varieties, use of farm chemicals	and MoA	months	varieties and use of chemicals			
and pesticides.						
Surveillance of transmittable livestock diseases,	Sector Partners	3	Information assist for quick	E 50,000	0	E 50,000
interface with human health, potential outbreaks of	and	months	measures to address animal			
pest infestation and invasive species.	communities		diseases and crop infestation			
Support ongoing targeted food distribution to food	30,000 HH	2	Reduce hunger, vulnerability	E 9,000,000	0	E 9,000,000
insecure, vulnerable families and special need groups.		months	and provide social protection			
Assist the feeding programmes to retain acceptable	50,000 targeted	2	Address malnutrition and	E 5,000,000	0	E 5,000,000
nutrition status of the mothers, children, OVCs,	beneficiaries	months	assist special need groups			
caregiver families and patients with dietary need.						
Maintain the level of feeding programmes at	50 schools/ 10	3	Support the learning and	E 1,300,000	0	E 1,300,000
institutions particularly at the schools and health	health facilities	months	patient's recovery			
facilities.						
Preposition limited quantity of food and farm inputs,	MoA and	2	Readily available food stock or	E 1,000,000	0	E 1,000,000
pre-arrange for immediate availability of emergency	Partners	months	prospect of quick shipment			
food stock.						
Explore agricultural risk insurance tool/ products for						
livestock and crops						
Estimated Cost for Preparedness activities				E16,720,000	0	E 16,720,000

Activities	Target	Duration	Expected Results	Estimated Cost	Available	Gap
Initial rapid assessment to determine access to food,	Sector	1 week	Evidence base food assistance	E 100,000	0	E 100,000
needs, gaps, types of assistance and locations of the affected people.	Partners		planning			
Blanket/targeted food distribution to the affected communities immediately following disaster who have limited or no access to food.	20-50,000 HH	3-4 months	Securing access to food, save live and ease sufferings	E 14,000,000	0	E 14,000,000
Selected and targeted CASH/voucher support programme, easing dependency on direct relief assistance.	10,000 HH	2 months	Supplement other family priority needs, uphold dignity	E 7,000,000	0	E 7,000,000
Support animal feed and vaccination campaigns of livestock to reduce disease outbreaks.	20,000 affected HH	2months	Reduce animal death and livestock diseases outbreak	E 6,200,000	0	E 6,200,000
Targeted distribution of agricultural inputs, support for livestock and fisheries to enhance production and minimize food insecurity.	30,000 HH/ farmers	2 months	Inputs enable people to restart food production and agricultural activities	E 6,000,000	0	E 6,000,000
Maintain steady flow of information and reporting on the sector situation, progress, needs and gaps.	Sector partners	3 months	Updated report making informed decision	E 100,000	0	E 100,000
Coordinate and supplement related activities of other sectors, optimum use of limited resources and avoiding duplication.	Other sectors and partners	3 months	Coordinated emergency response, duplication avoided	E 100,000	0	E 100,000
Assist partners to provide nutrition supplement feeding programmes for the individual at risk especially mothers, children, OVCs, and patients.	30,000 individuals	2 months	Malnutrition issues addressed	E 1,000,000	0	E 1,000,000
Support school and institutional feeding programmes in emergency to a) retain students and teacher attention on learning and b) patients with special dietary needs.	100 schools/ 10 health facilities	3 months	Learning environment maintained and supported patient's recovery	E 1,200,000	0	E 1,200,000
Estimated Cost for Humanitarian Response activities				E35,700,000	0	E 35,700,000

Recovery actions for all hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Available	Gap
Conduct regular apprising of the food security situation and post distribution monitoring for further actions on food distribution.	MoA, Partners, communities	2 months	Updated food security situation and programme adjustment	E 100,000	0	E 100,000
Continue recovery efforts including selected interventions for food distribution and cash transfer programme.	20,000 HH	2 months	Reduce vulnerability and expedite recovery	E 8,000,000	0	E 8,000,000
Follow-up on the use of agricultural inputs and livestock support, continue extension services to famers and herders.	MoA, partners	2 months	Recovery support to farmers and herders	E 1,000,000	0	E 1,000,000
Promote appropriate crop diversification and restocking of livestock interventions for resilience.	40,000 Affected HH	3 months	Resilience support to farmers	E 2,000,000	0	E 2,000,000
Continue supporting supplementary and therapeutic feeding programme for remaining cases of malnutrition and meet the needs of special group.	10,000 individuals	2 months	Malnutrition rates stabilized or decreased	E 1,000,000	0	E 1,000,000
Support school and institutional feeding programmes in emergency to a) retain students and teacher attention on learning and b) patients with special dietary needs.	100 schools/ 5 health facilities	3 months	Learning environment maintained and supported patient's recovery	E 3,000,000	0	E 3,000,000
Promote innovative agriculture withstanding certain type of disaster and building food security safety net at the HH level.	MoA, partners, communities	3 months	Programme innovation and resilience	E 500,000	0	E 500,000
Estimated Cost for Humanitarian Response activities				E 15,600,000	0	E 15,600,000

Annex-2, Health and Nutrition Sector Response Plan

Triggers:

- Extreme heat and exposure to rain
- Water source problems/ insufficient water.

Threshold:

3-5 cases of diarrhea.

Lead and Co-Lead Organization: Ministry of Health and World Health Organization (WHO)

Partner Organizations: Baphalali Eswatini Red Cross Society(BERCS), World Vision International, FLAS, NERCHA, USAIDs' project PEPFAR, Ministry of Agriculture, Nutrition council, FAO, UNICEF, and WFP.

Situation Overview: The health systems in Eswatini has addressed epidemiological hazards including vaccine-preventable diseases. Predominant health hazards are infectious and waterborne diseases i.e. dysentery, diarrheal diseases, the vector-borne diseases i.e. malaria, bilharzia, intestinal worm, skin conditions (scabies, fungal infections) etc. Buildings or house collapse, flying debris, caused by different hazards i.e. storms, landslides, and earthquake may necessitate treatment of patients with injuries, surgery and trauma counseling. Although not very common, consumption of contaminated meat from infected animal and birds may transmit certain diseases to human and some cases these are highly contagious and spread rapidly. In a disaster situation, scarcity of safe water, improper hygiene practices, lack of food or imbalanced diet, medicine affordability are notable contributing factors raising the number of new cases or significantly deteriorate the health conditions of patients. Pregnant and lactating mothers, infants and children, elderly and people with pre-existing health conditions are particularly vulnerable in an emergency due to the dietary and medication needs.

Access to health services and affordable health care system is essential especially during an emergency. The informal health care system comprised of traditional health practitioners and unregulated service providers while the primary health care systems are of formal arrangement. The health services and infrastructure are supported by the government, missionaries and private health facilities. There are 14 hospitals (including 6 private hospitals), 5 government health centers, 6 public health units, 215 clinics and outreach sites. The clinics are mostly situated in the rural areas managed by nurses and only 23 have basic maternity facilities. Following a disaster, on-site (at the affected locations) diagnostic facilities such as laboratory, reagents, equipment and items are essential, the sector should ensure easy access to the nearest one or set up the mobile laboratory. In the event of a disaster, the existing health infrastructure and current level of trained health personnel will face immense pressure and without external support it would be difficult to provide medical services to the affected people particularly dealing with outbreaks and high casualty numbers.

The country has one of the highest HIV prevalence in the world at 26 percent among the sexually reproductive adults (aged 15-49) and requires Antiretroviral Therapy (ARV) treatment. In addition to HIV/AIDS, the Multi Drug-Resistant (MDR) and Extensively Drug-Resistant (XDR) Tuberculosis and coinfection of HIV and TB have been major health concerns. The HIV and AIDS epidemics made an estimated 144,000 orphans and vulnerable children (OVCs), who would require support and care. Malaria continues to be a public health concern and is more prevalent in the Lubombo Region where more than 50 percent

of the cases occur. The WFP assisted "Food by Prescription Programme" has been supporting the people living with HIV and TB, or the prevention of mother to child transmission services, and their families through a monthly household ration. Continuation of similar programmes to protect these groups and when needed should be expanded for the disaster affected people.

Health sector partners continue to monitor diseases situation for early detection and have established the Immediate Disease Notification System (IDNS). For the response readiness, make adequate arrangement for procurement of essential drugs and medical items, capacity strengthening of the health personnel, trained human resources, and laboratory facilities.

<u>Overall Objective</u>: Strengthen national capacity to prepare for and respond to epidemics, outbreaks, malnutrition providing integrated health services, surveillance, and medical supplies for the affected population in a timely and coordinated manner.

- To ensure access to and provision for primary and secondary life-saving health services as a priority in disaster affected areas.
- Enhance the referral system for surgical and medical emergencies, with priority for trauma patients and obstetric emergencies.
- To strengthen and expand early detection and timely management of outbreaks related to epidemiological hazard through activate disease surveillance and response systems.
- Strengthen services and support interventions for reproductive, maternal, newborn, child and adolescent health including survivors' support for the affected communities.
- To support community-based health initiatives in emergency and sustain the main pillars and infrastructure of the country's health systems.
- To prevent deterioration of malnutrition status, deliver quality micronutrient support, life-saving interventions for malnourished girls and boys and pregnant or lactating women.
- To ensure availability of relevant policies, strategies, and SOPs to guide health and nutrition sector interventions in disaster risk management (DRM) and support compliances during the response.

Table 4: Summary of Health and Nutrition Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 16,470,990	E6,110,000	E 10,360,990
Response	E 7,605,000	E 10,000	E 7,595,000
Recovery	E 9,300,000	0	E 9,300,000

Table 5: Health and Nutrition Sector Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness							
Activities	Target	Duration	Expected Results	Unit Cost/	Estimated	Availability	GAP
				Lumpsum	Cost		
Drought				<u> </u>			
Conduct awareness campaign for	All health facilities	1 week	Evidence based planning	E 450,000	E 450,000	0	E 450,000
health workers and communities	Health workers and		and implementation,				
on common diseases and potential	Community health	2 weeks	minimize risks of outbreaks				
for outbreak in drought situation	workers (RHMs)						
Procurement of micronutrients	20,000	4 months	Decrease morbidity and	E 1,000,000	E 1,000,000	0	E 1,000, 000
supplements and supplies for	malnourished		mortality related to	(E 250,000			
management of acute malnutrition	children and		malnutrition	per month)			
	mothers						
Floods							
Conduct health facility assessment	Public-Private and	2 weeks	Safe hospital index report	E 260,000	E 260,000	0	E 260,000
to determine Hospital index	Mission health		define surge capacity in				
	facilities		hospital/health facility				
Develop hospital disaster	Health facility	1 week	Safe hospitals continue to	E 120,000	E 120,000	0	E 120,000
management and evacuation plans	management		function in disaster				
Storms							
Conduct community sensitization	Countrywide, every	4 (1 day)	Reduced the risk of people		E 750,000	0	E 750,000
(drills, simulations, campaigns) on	community likely to	sessions	struck by lightning and save				
safety measures during storms	exposed to storms		from storm impact				
Extreme Temperature							
Sensitize public on proper	Media and health	2 weeks	Prevented dehydration and		E 50,000	0	E 50,000
hydration and severe cold	services network –		hyperthermia related				
protection programs through	countrywide		complication i.e. fainting,				
media and public announcement	coverage		heat strokes, frost bites				
Train health workers on snake bite	220 health workers	6 daily	Management of snakebites	E 46,210	E 46,210	5,000	E 41,210
management		training					
Fire							

Preposition burns management kits	2,000 burns cases	2 months	Burn treatment provided, prevented secondary infection and deaths	E 300	E 600,000	0	E 600,000
Establish and train community workers on basic first aid with specific attention to fire hazards	200 community workers from Tinkhundla at high risk of wildfire	3 days training x 5 groups 15days	First responder's practices improved, decreased number of fatalities	E 134,780	E 134,780	5000	E 129,780
Epidemic, Pandemic							
Develop and disseminate IEC materials	Communities prone to epidemics	1 month	Readily available universal customer friendly and disease specific health promotion material. Prepared health facility isolation rooms/ward	E 250,000	E 250,000	0	E 250,000
Strengthen surveillance system (IDNS, laboratory diagnosis, active case investigation, ports of entry surveillance) Train health workers on IDSR	Health facilities, laboratory EPR, EDCU	Ongoing 12 months	Notifiable diseases promptly reported through IDNS and efficiently managed at all health levels. Improved laboratory diagnostic measures and turn-around time	-	E 6,000,000	E 6,000,000	0
Conduct public health sensitisation sessions (campaigns and health days)	Public	Twice a year	Created health services demand and improved health seeking behaviors	E 225,000	E 450,000	E 100,000	E 350,000
Preposition and replenish emergency stock inclusive of PEP, Dignity Kits, NCD treatment, malaria insecticides	Regional response team	6months	Regions prepared for disease prevention and control	2700 000 Insecticides 360 000	E 3,060,000	0	E 3,060,000
Emerging and re-emerging threats i	ndustrial chemical and	d gas accider	its				
Develop programmes for detection, reporting of and responding to industrial disasters.	MOH Labour and Social Department	2 months	Minimized casualties from industrial disaster	E 50,000	E 200,000	0	E 200,000

Conduct health days/campaign on	Communities with	1month	onth Decreased violence and		E 1,000,000	0	E 1,000,000
violence & injury prevention, and	high gender base	4 health	4 health injury cases, Prompt multi				
rehabilitation	violence	days	stakeholder response				
Order and Keep Post Exposure	Health workers and	3 months	Controlled work induced	No cost	0	0	0
prophylaxis for emergencies	disaster survivors		diseases and conditions	involved			
Procure and maintain ports of	3 Ports of entry	12	Functioning ports of entry	E 2,000,000	E 2,000,000	0	E 2,000,000
entry surveillance scanners	(formal)	months	screening devices				
Procure and brand gazebos for	Health cluster	2 months	Hard to reach areas	5 000 per	E 100,000	0	E 100,000
health cluster response outreach			outreach meeting health	Gazebo			
			standards				
Estimated Cost for Preparedness activities					E16,470,990	E 6,110,000	E 10,360,990

Humanitarian Response							
Activities	Target	Duration	Expected Results	Unit Cost	Estimated Cost	Availability	GAP
Drought							
Prescribe supplementary food, and therapeutic feeding for PLWHIV, TB patients pregnant/lactating women Children Under 5	50,000 malnourished clients	3 months	Decreased morbidity and mortality rates	1,000,000 per month	E 3,000,000	0	E 3,000,000
Liaise with WASH sector for safe water supply and sanitation at health facilities and institutions	30 Health facilities and 50 Institutions	3 months	Prevented, controlled water borne diseases, improved hygiene conditions	500 000 per month	E 1,500,000	0	E 1,500,000
Floods							
Dispatch emergency medical services, evacuations teams, referral services. Ensure access to ART, TB Drugs, NCDs Drugs, dignity kits/SRH commodities, activate emergency risk communication strategy	Reaching out 40,000 patients in 4 affected communities		Decrease morbidity and mortality	50 000 per community	E 200,000	0	E 200,000

Storms							
Managed lightening survivors as	500 survivors	10 days	Decreased fatalities	No cost	МОН	МОН	МОН
per medical SOPs, conduct							
outreach services							
EXTREME TEMPERATURE							
Liaise with other sector partners	Sector Partners	3 months	Essential supplies and	No cost	_	_	_
for required assistance and			services are available and	involved			
services and maintain access to			secured access to health				
health services			services				
LANDSLIDES, FIRE and EARTHQUAK				1			
Include medical personnel in the	2000 rescued and	10 days	Rescued, causalities	E 20,000	E 200,000	0	E 200,000
search and rescue team,	500 evacuated		managed, trained				
emergency medical services,	persons		personnel for the				
medical evacuations and transport			evacuation/transportation				
services.			to health facilities				
Conduct rapid assessment	Affected	5-7 days	Risk mapped and given	E20,000	E 100,000	0	E 100,000
	communities		priorities	per day			
Identify and sensitize referrals	Referral hospitals	2 months	Identify hospital surge	No cost	0000	0	0
hospitals on mass causalities			capacity	involved			
Provide psychological post trauma	Survivors	1 week	Survivors kept in safe	E 20,000	E 100,000	0	E 100,000
care			environment	per day			
Redeploy additional health	Health workers	1 month	Adequate staff at disaster	E 5,000 per	E 200,000	0	E 200,000
personnel to affected area			zone	staff			
EPIDEMIC, PANDEMIC							
Prompt management of diseases	Infected and	10 days	Produce reports	No Cost	0	0	0
and outbreaks according to	affected			Involved			
defined diagnostic and treatment	population						
guidelines							
Monitor thresholds and notify	Health facilities	Immediately	Bulletin produced and	No Cost	0	0	0
cases (IDNS)	EPR EDCU	– 24hrs	disseminated	Involved			
Commission Rapid response team	Epidemic Task	Immediately	Disease outbreak	E 15,000	E 75,000	0	E 75,000
regionally and nationally	force and Rapid	– 24- 48hrs	contained	per team			
	Response team						

Conduct daily briefing meeting	Epidemic Task	24hrs	Developed flush reports	50 per	E 100,000	0	E 100,000
through outbreak	force and Rapid		Epidemiology study	person			
	Response team						
Preposition medical supplies,	Health facilities in	2 weeks	Replenished stock	No Cost	0	0	0
equipment and medication	disaster zone		prepositioned stocks	Involved			
Isolate infectious diseases	Health facilities in	1 week	Contained outbreak	No Cost	0	0	0
	disaster zone			Involved			
Vaccinate all vulnerable groups as	Special groups	1 week	Prevent and control	E 2,000,000	E 2,000,000	0	E 2,000,000
per adopted guidelines			contamination of				
			responders				
Activate emergency risk	Epidemic Task	5 days	Communication done	No Cost	0	0	0
communication strategy	Force			Involved			
Manage infectious dead bodies as	Rapid response	2 weeks	Dead bodies buried under	No Cost	0	0	0
per disease burial SOP	team		environmental health	Involved			
			supervision				
EMERGIN	NG THREATS, ENVIRO	NMENTAL HAZ	ARD, INDUSTRIAL CHEMICAL	SPILLAGE AND	/ GAS EMISSIC	ONS	
Timely, efficient and effective	Affected	Immediately	Triaged causalities as per	-	E 130,000	E 10,000	E 120,000
response to prevent, control and	communities		priorities				
combat Industrial disasters.							
Commission Rapid response team			Safely evacuated				
regionally and nationally,			causalities				
Activation of emergency risk							
communication strategy							
Estimated Cost for Humanitarian Re	esponse activities				E 7,605,000	E 10,000	E 7,595,000

Recovery Actions							
Activities	Target	Duration	Expected Results	Unit	Estimated	Availability	GAP
				Cost	Cost		
Drought, Floods, Storms, Extreme Temperatur	e, Landslides, Fire a	ınd Earthquak	e				
Define and declare post disaster phase	Drought	6 weeks	Disaster declared	No cost	0	0	0
	stricken area	post disaster	over	involved			
Discharge recovered clients, Link survivors to	Survivors or	3 months	Acute malnutrition	E100,00	E300,000	0	E300,000
community food security aids and	recovered		case below global	0			
rehabilitation centres	clients		thresholds				
Conduct evaluation, less learnt and review of	Responders	Post	Reviewed sector	Worksh	E 300,000	0	E 300,000
sector response plan		disaster	contingency plans	op cost			
Conduct stock inventory and do transitioning	Regional and	Monthly	Adequate stock for	-	E 3,000,000	0	E 3,000,000
(food supplements, micro-nutrients and other resources)	national rapid response teams		response				
Conduct debriefing meeting all implementers	Responders	Periodically	Motivated	-	E 200,000	0	E 200,000
			responders				
Provision for incentives/ in kind contribution	Responders	Post	Motivated	-	E 500,000	0	E 500,000
	·	disaster	responders				
Epidemic, Pandemic							
Conduct epidemiological investigation,	20	Post	Epidemiology	-	E 4,000,000	0	E 4,000,000
Replenish medicine, PPE and medical supplies	Health facilities	disaster	bulletins				
			emergency stock				
Emerging threats, Environmental Hazard, Indu	strial chemical spill	age and/gas e	emission accidents				
Facilitate information exchange, resource	DRM Multi-	Every post	Improved -	-	E 350,000	0	E 350,000
sharing, joint exercises and training of team	stakeholders in	disaster	Contingency				
responsible for combating industrial disasters.	country		planning,				
			Coordinated multi				
			stakeholder				
			response				
Conduct research	Pre-service	Yearly	Evidenced based	250 000	E 650,000	0	E 650,000
Conduct KAP survey every after 2 years	institution and	ongoing	budget plans and	+400			
Conduct post disaster impact assessments	Health workers		decision making	000			
Estimated Cost for Recovery activities					E 9,300,000	0	E 9,300,000

Annex- 3, WASH Sector Response Plan

Triggers:

- Insufficient water at household
- Inadequate rainfall and intra-surface runoff
- Outbreak of communicable diseases

Lead and Co-Lead Organization: Department of Water Affairs (WASH Forum), Ministry of Natural Resources and Energy and UNICEF.

Partner Organizations: Ministry of Agriculture, Royal Eswatini Sugar Corporation (RSSC), Ministry of Commerce and Trade, Ministry of Environment and Tourism, Eswatini Water Services Corporation (SWSC), UN agencies (UNICEF, UNFPA, WFP, UNAIDS), NGOs, CBOs and private sector partners.

Situation Overview: Water, Sanitation and Hygiene are necessities for survival and well-being of human life specifically at the initial stages of most emergencies. WASH sector programmes in emergencies are to ensure supply of safe water, promotion of hygiene practices and subsequently reduce the transmission of diseases. Scheduled areas mainly urban centres have over 95 percent access to water supply managed by a central utility company for the entire country that is challenged by increased informal settlements. The same utility company, operating centralized wastewater collection, manages urban sanitation; however, the use of septic tanks is acceptable.

Rural areas are dependent on rural water systems that are the point source and reticulated, of which 70 percent utilize groundwater. The systems are community managed with persistent maintenance challenges where 28 percent of the systems are non-functional and 4 percent are partially functioning (refer to NMRE 2018/19 annual report). This situation is prevalent in the Lubombo and Shiselweni Regions. Micro water systems do not have a storage facility and when the system fails, the community resorts to alternative unsafe water sources. Rural water supply lacks water quality management systems to ensure continued water quality monitoring, and any change in water quality remains undetected until diseases occur. However, there is an annual schedule for developing water management systems, which is implemented by the Department of Water Affairs. About 11 percent of the country's population (mainly in rural areas) practices open defecation, contaminate reservoir with the fecal matter which is washed to surface water sources. The global indicators for personal hygiene indicate that the national practice of good hygiene behavior is low especially in rural areas.

Unsafe water and poor sanitary conditions either one or combination of both significantly increase the risk of spreading waterborne diseases and related health complication in a post-disaster situation. Ensuring access to adequate supply of safe water and maintaining the standard level of hygiene remains a challenge particularly in emergencies. Various hazards affect the WASH sector, more prevalent being hydro-meteorological events either reduce water availability or excess water, which encourages the proliferation of water-borne diseases, or skin problems. Water pollution from industry and accidental spills pose a threat to surface water bodies that are a source for urban and rural water supply. Man-made hazards such as poisoning of water reservoirs can only be detected during routine monitoring; therefore, protection of reservoirs remained a national security concern. The WASH sector experiences a variety of diseases such as acute watery diarrhoea (AWD) which is in the top ten diseases responsible for child

deaths. The rainwater harvesting (RWH) is not a common practice but potentially could provide backup water and reduces demand for water.

The WASH sector maintains a strong linkage and works closely with related sectors of Health and Nutrition, Education, and Logistics, Environment and Energy to mitigate and minimize public health risks by ensuring adequate WASH facilities are supported at the institutions, households and displacement camps. The WASH and Protection Sectors are to strengthen partnership in relations to appropriate placement and design of WASH facilities, delivery or distribution points particularly to minimize the risks of young girls and women exposure to SGBV, exploitation and other protection concerns.

<u>Overall Objective:</u> To ensure access to adequate safe water for the affected communities and institutions and ensure favourable conditions prevail maintaining hygiene conditions and practices at the household and facilities level.

- Ensure affected communities have access to sufficient quantity of safe water and are able to maintain appropriate standards of hygiene practices.
- Mobile purification plants and water purification reagents are available to serve affected communities and institutions.
- Encourage adaptation of alternate sources and sustainable use of water at household, community and institutional level.
- Sufficient WASH kits are available for distribution at the locations and among the appropriate age group of the affected women and girls.
- To ensure trained human resources and capacities available for sustainable WASH sector interventions and monitoring systems.
- Ensure waste management systems are functional for garbage, solid waste and disposables at different levels prior to and during the disaster.

Table 6: Summary of WASH Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 4,870,000	0	E 4,870,000
Response	E 9,200,000	0	E 9,200,000
Recovery	E 5, 770,000	0	E 5,770,000

Table 7: WASH Sector- Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness for all hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Availabili ty	GAP
Awareness raising, sensitization among communities and national media campaign, distribution of printed materials on WASH concerns in disaster prone areas	500 communities (50,000 HH)	3 months	People's consciousness raised on WASH issues, behavioural changes in water use and hygiene practices	E 800,000	0	E 800,000
Update database/map on water sources and potential alternative to secure water supplies.	Ministries	1 month	Information updates are available on water source and alternatives.	E 200,000	0	E 200,000
Prepare inventory of water tankers and sanitation service facilities at National and Regional level for immediate deployment in emergencies	Ministries/ Departments	1 month	Inventory of water and sanitation equipment and facilities and locations	E 100,000	0	E 100,000
Preposition collapsible water treatment plants, water purification reagents, sanitation items and equipment in preparation for disaster response	80,000 HH initial coverage	2 months	Water treatment facility and purification stocks available.	E 1,600,000	0	E 1,600,000
Support the water security, management and hygiene training/education in communities	5,000 community members	3 months	Community members are empowered and able to make precautionary measures in disaster	E 500,000	0	E 500,000
Work with relevant stakeholders to strengthen early warning and alert messaging on imminent hazard and precautionary measures necessary	Early Warning Institutions	3 months	User friendly and unified early warning messages transmitted to alert people and make the aware	E 50,000	0	E 50,000
Human, material and financial resources mobilization in support for the WASH preparedness activities	Ministries, Departments, Partners	4 months	Prospect of resources availability for the WASH activities	E 100,000	0	E 100,000
Prioritize WASH services delivery to critical facilities maintaining operational capacity in disaster	100 schools and 30 health facilities	1 month	Identified critical facilities for priority and uninterrupted supplies during disaster	E 1,120,000	0	E1,120,000
Involve and engage partners for building central laboratory capacity	Government	3 months	The central laboratory has increased capacity	E 200,000	0	E 200,000

Establish and or strengthen the monitoring	Sector	2	Monitoring system in place,	E 200,000	0	E 200,000
system for water related illness, outbreak,	Partners	months	provides updated situation and			
hygiene concerns and measures			analysis of needs			
Estimated Cost for Preparedness activities				E 4, 870,000	0	E 4,870,000

Humanitarian Response, All hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Undertake comprehensive/rapid WASH	Sector	1 week	Informed decision making based on	E 100,000	0	E 100,000
assessments immediately following a disaster to	partners,		observations, needs and gaps			
determine the assistance needed and delivery	Communities		analysis from the rapid assessment			
mechanism			report			
Dispatch technical experts and emergency	20,000 HH	2 weeks	Restoration works assist operational	E 600,000	0	E 600,000
responders for restoration of water and sanitation			supply line and sanitation facilities			
facilities						
Quick repair, rehabilitation and decontamination	20, 000 HH	2 weeks	Functional water and sanitation	E 800,000	0	E 800,000
of water installations and supply infrastructure			facilities are serving the affected communities			
Procurement of water and delivery to the affected	30,000 HH	1 month	Safe water is delivered to affected	E 3,000,000	0	E 3,000,000
communities for uninterrupted water supplies to	and 100		communities, essential services and			
communal and service delivery facilities	facilities		communal facilities			
Distribution of household water treatment/	40,000 HH	2	Minimize the risk of waterborne	E 2,000,000	0	E 2,000,000
purification products in the affected areas		months	diseases and threats of outbreaks			
Construction of emergency latrine and desludging	20,000 HH	2	Access to sanitation and	E 750,000	0	E 750,000
programmes including solid waste management		months	improvement of personal hygiene			
Distribution of hygiene kit to promote	10,000	3	Improved hygiene practices	E 1,000,000	0	E 1,000,000
hygiene in emergencies using the WASH sector	persons	months				
central/regional supply hubs	(kits)					
Develop "access to sanitation programs" targeting	100 facilities	2	Improved sanitation conditions at	E 200,000	0	E 200,000
facilities i.e. schools, health and nutrition centres		months	the institutions and facilities level			

Disseminate messages focusing on key areas of	Reaching	2	Positive changes in behaviour	E 300,000	0	E 300,000
WASH usages and practice including disease	50,000 HH	months	among communities			
control. (National/Regional WASH campaign)						
Provision of WASH services for the affected	1,000 HH	1 month	WASH services are available at the	E 300,000	0	E 300,000
communities evacuated and or relocated.	(Camp sites)		relocation sites			
Liaise with the relevant Ministries, Departments	WASH	Regular	Coordinated response of WASH	E 50,000	0	E 50,000
and partners for coordinated WASH response.	Partners		activities			
Work with relevant sector partners for	WASH	Routine	Response coordination among	No cost	0	0
complementarity and avoidance of overlaps, and	Partners	activity	sectors, applied and maintained	involved		
maintain countrywide standards and approaches.			minimum standards.			
Maintain consistent monitoring of activities for	WASH	Routine	Monthly response reported and 4W	E 100,000	0	E 100,000
immediate response and adjustment to ongoing	Partners	activity	matrix updated			
emergency programmes						
Estimated Cost for Humanitarian Response activiti	Estimated Cost for Humanitarian Response activities					

Recovery Action, all hazard types						
Activities	Target	Duration	Expected Results	Estimated	Availability	GAP
				Cost		
Include WASH components in the Post Disaster Needs	Assessment	1 week	Sector analysis and evidence	E 70,000	0	E 70,000
Assessment (PDNA), identify needs and gaps for early	team and		based sector recovery plan			
recovery actions	partners		developed			
Continue distribution of dignity kits and mama kits to	5,000 kits	2 weeks	Improved personal hygiene	E 500,000	0	E 500,000
maintain personal hygiene.						
Continue provision for safe water and sanitation	20,000 HH	2 weeks	Safe water and sanitation	E 1,000,000	0	E 1,000,000
materials to the remaining population in need as well			needs at facilities are covered			
as the facilities						
Rehabilitate and operationalize the WASH services	10,000 HH	3 months	Functioning WASH services for	E 1,000,000	0	E 1,000,000
and facilities.	and 50		the communities and service			
	Facilities		facilities			
New boreholes drilling, extension of supplies network	20,000 HH	3 months	Safe water supply network	E 2,000,000	0	E 2,000,000
to provide safe water to households, institutions and			extended to HH and facilities			
facilities.						

Repair and rehabilitate drilling rigs to expedite new	20,000 HH	2 months	Functional drilling rigs, more	E 700,000	0	E 700,000
boreholes drilling for safe water supply particularly in			boreholes securing access to			
rural areas			safe water			
Promote rainwater harvesting and provide storage	10,000 HH	2 months	Alternative sources and storage	E 500,000	0	E 500,000
facilities at the HH level and the institutions	20 facilities		for water availability			
Estimated Cost for Recovery activities				E 5,770,000	0	E 5,770,000

Annex-4, Social Protection Sector Response Plan

Triggers:

- Increasing domestic and gender based violence (GBV).
- increasing Sexual and reproductive health issues (SRH)

Lead and Co-Lead: Department of Social Welfare (DSW), Deputy Prime Minister's Office and UNFPA

Partner Organizations: National Surveillance System, Baphalali Eswatini Red Cross Society, Save the Children Eswatini, World Vision International, NDMA, Ministry of Health (MoH), SWAGAA, NERCHA, Ministry of Labour, Family Life Association (FLAS), Ministry of Education and Training (MoET), the UN agencies (WFP, UNICEF, UNAIDS, UNFPA, UNDP), Royal Eswatini Police Services (RSPS), Umbutfo Eswatini Defence Force (USDF), and DGFI.

Situation Overview: Women in Eswatini continue to face unequal social, economic, legal, political and cultural treatment. There is a high incidence of child sexual abuse in Eswatini, however, the availability of specialist to provide appropriate care and management of child survivors is very limited. The Eswatini Action Group Against Abuse(SWAGAA) offer psychosocial counseling services to survivors of abuse and their families with referral to other service providers including the RSPS, Health Facilities, Safe Havens/Halfway Houses and Legal Assistance. Access to justice, improving the lives and experiences of survivors of abuse in the criminal justice process is a continuing priority for all stakeholders in the fight against GBV. The MHCP will provide holistic prevention and response to the protection issues during an emergency especially to vulnerable groups, such as women and children, OVCs, visibly pregnant women, elderly, chronically ill, PLHIV and persons with disabilities.

The country is experiencing a number of social ills that include rape, high rate of passion killing, suicide, GBV that may be accelerated during a hazardous situation. Rape and GBV amongst young girls by parents and relatives are on the rise and can result in trauma, undesired pregnancy, mental health disorders, and sexually transmitted infections including HIV transmission, stigma and discrimination among other social consequences of heightened exposure to hazardous situations. Passion killings of women and girls in particular by their partners (boyfriends and husbands) has become one of the major development challenges in the country. With an unemployment rate at 28.1 percent, women and youth become vulnerable to exploitation and abuse resulting in human trafficking, prostitution among girls and crime among boys. This situation can be accelerated by common hazards in Eswatini making the role of the social protection sector important, through preventative and adequate response measures.

The government of Eswatini has established social safety nets programmes like the OVC, Disability and Elderly grant, which are aimed to assist the most vulnerable groups. The cash transfer elderly grant and disability grant present a huge pressure on the government fiscus hence they are not provided regularly and consistently. During an emergency, the vulnerable groups become even more vulnerable; therefore, the database of these can be used as a starting point for any response or scaling up the existing grants

through increasing the value of the grant.

The traditional leaders play a central role in addressing protection issues in communities particularly on sexual and reproductive health (SRH), HIV and GBV. Support to OVCs at the community level is given through providing meals at Neighborhood Care Points and allocation of land to the traditional leaders for agricultural production. In recent years, the rural health motivators (RHMs), social workers, nurses, police from the specialized Domestic Violence Units, and NGO service providers were trained on GBV, SGBV, clinical management of rape, minimum standards on GBV and GBV guidelines in emergencies. The sector has strengthened the Regional Multi-sectoral GBV Response and Referral Networks for timely response at the regional level. The sector partners embarked on developing a national referral directory on Protection service providers for communities and targeted beneficiaries.

Preserving dignity, maintaining self-esteem and confidence are important to cope with stressful and potentially overwhelming humanitarian situations. The lack of financial resources may lead to families prioritizing other necessities of life overlooking sanitary needs of adolescent girls and women. Under such conditions, the sector provides dignity kits composed of sanitary pads, soap, toothpaste, toothbrush, lotion, facecloth, roll-on, tissue paper etc. For resilience building, the sector is working with other sectors i.e. Agriculture and Food Security, which encourages communities to avail land to produce food for vulnerable groups.

<u>Overall Objective</u>: To provide protection, resilience, strengthening national, regional and community-based systems that prevent and mitigate all forms of violence, enabling survivors and persons at risk to access specialized care and support.

- To prevent possible abuse and exploitation, minimize the risk of GBV, SGBV; implement prevention and mitigation strategies during disasters and humanitarian situations.
- To ensure survivors have access to improved basic social services before, during and after an emergency.
- To facilitate the protection, care and well-being of all survivors in disasters, recognizing basic human rights.
- To strengthen community structures in monitoring, dealing with and reporting of social protection problems to reduce trauma and enable integration of survivors into the society.
- To aid recovery of communities and societies, supporting local and national capacity to create lasting solutions to the problem of protection in emergencies.

Table 8: Summary of Social Protection Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 4,067,750	E 197,750	E 3,870,000
Response	E 2,690,000	0	E 2,690,000
Recovery	E 780,000	E 40,000	E 740,000

Table 9: Social Protection Sector - Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness for all hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Conduct research and assessment on	Sector partners	3 months	List of behaviors and practices that	E 100,000	0	E 100,000
household behaviors and practices for	and Govt.		have emergency implications,			
key messages development.	Departments		developed messages			
Messages standardization,	Sector partners,	1 month	Communication messages/ materials	E 150,000	E 50,000	E 100,000
preposition communication materials	Government, 500		developed and channels identified			
for community engagement for	communities					
protection.						
Awareness campaign among	All stakeholders	2 weeks	Raised awareness of social protection	E 250,000	0	E 250,000
stakeholders and communities on	and Communities		issues and application of measures in			
social protection in emergencies.	200 5: .	5 1 2	emergencies	F 200 000	5 40 000	F 250 000
Train protection workers and	300 First	Each 3	Capacity raised, Men/boys are engaged	E 300,000	E 40,000	E 260,000
community response structures on	responders,	days of 10	as agents of change preventing GBV/			
protection issues.	Community	training	SGBV other violence and promoting			
	leaders		survivor's right to care		_	
Awareness raising, develop and	All Stakeholders	2 months	National Social Protection Service	E 150,000	0	E 150,000
distribute the service directory	(Government and		directory, Strengthened SRHR/ HIV/			
	partners)		GBV, service delivery and referral			
	50 1: .	4	system	5.460.000		F 4 60 000
Conduct hazard exposure and	50 disaster prone	1 month	Risk profile for the different vulnerable	E 160,000	0	E 160,000
community risk mapping, safety	communities		groups identified, Safe havens in			
audits for vulnerable groups			communities identified	- 100 000		- 100 000
Strengthen collection, analysis and	50 communities,	1 month	Strengthened National Surveillance	E 100,000	0	E 100,000
use of data for evidence based	vulnerable and		System on Violence and Case			
approach and interventions planning	special groups		management and availability of			
			records, database and reports			
Advocate for availability and	Health sector	3 months	Ensured access to life-saving health	E 2,500,000	E 100,000	E 2,400,000
preposition of post-rape treatment as	partners and		care and post-rape treatment and			
per Minimum Initial Service Package (MISP)	service providers		referral systems in place			

Establish mechanism for protection	Community	2 months	Maintain/ re-establish the safety and	E 100,000	0	E 100,000
and safety of the victims and	leaders, security/		security for affected people to			
communities and advocate among the	law enforcement		mitigate GBV/SGBV risks and protect			
security and law-enforcement actors	actors		survivors from recurring violence			
for required support	(RSP/USDF)					
Advocate empowering women and	300 women	3 months	Leadership roles of women/	E 57,750	E 7,750	E 50,000
other at-risk groups for leadership	community		vulnerable group recognized, full			
and active participation in	leadership		participation in response activities			
emergencies.			included			
Continue lobby for integration of GBV,	Government and	Ongoing	GBV risk mitigation and survivor	E 100,000	0	E 100,000
protection and rights concerns in	other sector	activities	support mainstreamed, in line with the			
government and humanitarian	partners		IASC GBV Guidelines.			
policies and programmes						
Establish protection guidelines and	30 focal points at	2 months	PSEA focal points advocate for	E 100,000	0	E 100,000
conduct identify focal points for	the national		reduction measures and connect			
protection from Sexual Exploitation	level, 50 focal		affected people with the support			
and Abuse (PSEA).	points at each		service providers.			
	Region					
Estimated Cost for Preparedness activi	ties			E 4,067,750	E 197,750	E 3,870,000

Humanitarian Response, All hazard types						
Activities	Target	Duration	Expected Results	Estimated	Availability	GAP
				Cost		
Conduct sensitization meetings with humanitarian response partners to equip volunteers and staff to be advocates for PSEA	Partners		Volunteers and staff responding to emergencies equipped to prevent sexual exploitation and the abuse of beneficiaries	300,000	0	300,000
Enable free social protection areas	Partners and community leaders		Safe havens in communities	100,000	0	100,000
Provided with free legal assistance	Victims			-	0	0

Conduct rapid assessment to determine	30 disaster	1 week	Survivors affected by disaster are	E 100,000	0	E 100,000
disaster impact on communities, identify	affected		identified with age and gender			
needs and gaps.	communities		segregated data, needs and gaps			
Situation monitoring, progress recording	Partners, affected	Ongoing	Monitored progress, gaps reviewed,	E 100,000	0	E 100,000
and reporting maintaining confidentiality.	communities		interventions adjusted accordingly			
Support sectors to mainstream social protection issues in all assessments according to the IASC GBV Guidelines.	All sector, multi- sector assessments	Ongoing	GBV risk mitigation and survivor support are incorporated in response, the IASC GBV Guidelines followed.	E 50,000	0	E 50,000
Place individuals in need of protection within the safe havens.	200 cases	3 months	Promoting protection, care and well-being of person with protection needs.	E 100,000	0	E 100,000
Provide services and cash voucher to survivors of violence, exploitation and discrimination.	2,000 individuals and survivors	3 months	Survivors support and protection services are provided	E 1,000,000	0	E 1,000,000
Publicity, information dissemination/key messages among affected communities, schools, institutions on SGBV and VaC and other rights violation.	Wide coverage, 30 schools targeted in affected communities	3 months	Awareness raised among communities and service providers on SGBV, VaC and other rights issues.	E 200,000	0	E 200,000
Ensure that eligible persons have immediate access to priority reproductive health services as guided by the MISP in emergency.	5,000 persons served with RHS	3 months	Reproductive Health services are provided to eligible and affected persons.	E 200,000	0	E 200,000
Advocate for availability of post-rape treatment supplies and other clinical commodities	20 Health centres, mobile clinics and 100 health actors	3 months	GBV survivors access to quality, life- saving health care, including post- rape treatment are provided	E 100,000	0	E 100,000
Engage the law society to provide legal aid to victims and vulnerable groups.	500 victims of violence	3 months	Professional representation, legal support available to the victims of violence.	E 250,000	0	E 250,000
Specific activities for Floods, Landslides, Fir	e, Earthquake					
Identify, register and reunify separated, missing and unaccompanied children,	400 separated children, 200	3 months	Family tracing, reunification and secured alternative family	E 200,000	0	E 200,000

provide alternative care, family tracing,	family		arrangement for unaccompanied			
and reunification with families or	reunification		children			
placement in family based care.	services					
Provide protection support in the	100 counseling	2 months	Camps /shelters are covered under	E 70,000	0	E 70,000
temporary shelters/ camps.	services		protection service providers'			
			activities.			
Specific activities for Epidemic, Pandemic						
Monitor all protection concerns	600 cases	3 months	Social protection issues are recorded	E 120,000	0	E 120,000
particularly the SGBV and VAC in and	recorded and		and service provisions are ensured			
around health centres	followed-up.					
Reduce vulnerable group's exposure to	200 cases	3 months	Ensure GBV survivors have secured	E 200,000	0	E 200,000
associated risks (confidential access to	addressed		access, transportation and			
services, safe transportation to and from			confidentiality is maintained at all			
health centres and follow-up).			level			
Estimated Cost for Humanitarian Response	activities			E 3,090,000	0	E 3,090,000

Recovery actions for all hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Provide life-saving psychosocial support for all survivors of GBV and VaC.	GBV/VaC Survivors	Ongoing	Resilient communities, Victims' access to life-saving health care and psychosocial support secured	E 100,000	0	E 100,000
Collect, examine, evaluate promising practices, successes, challenges, and document lessons learned	Sector partners and communities	1 month	Report of lessons learned helps development of future programmes	E 50,000	0	E 50,000
Re-assess and update referral systems for all reported cases of violation.	All Stakeholders	1 month	Updated referral system	E 70,000	0	E 70,000
Document at least three Most Meaningful Change Stories (MSCS) on the impact of emergency on the vulnerable groups. Advocacy, awareness raising and resource mobilization for recovery programmes.	Stakeholders, communities and partners	2 weeks	Documentation of the experience Awareness raised on social protection issues	E 60,000	E 40,000	E 20,000

Incorporate social protection concerns into the early recovery action plan (including risk reduction) and monitor the implementation of plans.	All Stakeholders	1 month	Social protection issues are part of the Early Recovery Action Plan	No cost Involve	0	0
Implement exit strategy for survivors receiving social protection interventions (dignity kits /relief packs, cash transfers)	1,000 survivors, 500 vulnerable	2 months	Increased resilience of communities	E 300,000	0	E 300,000
Engage the law society to provide pro-borno legal aid for persons, special focus on vulnerable groups.	200 cases	Ongoing	The victims have access to quality health care and professional legal support services	E 100,000	0	E 100,000
Facilitate the rehabilitation of affected families and reunification with their next of kin, caregivers, registration and screening for appropriate assistance	200 separated children	3 months	Reunification of separated family members and restoration of family structure	E 100,000	0	E 100,000
Estimated Cost for Recovery activities				E 780,000	E 40,000	E 740,000

Annex- 5, Education Sector Response Plan

Triggers

- Food and water insecurity affecting teaching and learning.
- Destruction of education infrastructure (schools and facilities)
- Disrupted curriculum for water dependant subjects.

Threshold

340 affected learners.

Lead and Co-Lead Organization: Ministry of Education and Training (MoET), UNICEF, Save the Children

Partner Organizations: Ministry of Health (School health, Environmental Health), Ministry of Natural Resources and Energy (Rural Water, Department of Water Affairs), Ministry of Agriculture (Nutrition Council), Deputy Prime Minister's Office (Social Welfare, National Children's Coordination Unit), National Disaster Management Agency (NDMA), Adventist Relief Agency (ADRA), World Vision International (WVI), Baphalali Red Cross Eswatini (BRCS).

Situation Overviews: The primary focus of the education sector in emergencies are the learners, teachers and support staff in education institutions. For a variety of reasons, learning and related education activities often become the first casualty of most disasters either as direct or indirect consequences. Common hazards affecting the education sector are hail and windstorms, drought, wildfire, floods, outbreak of diseases. Infrastructure damage or destruction, access difficulties or obstructions (washed away bridges, inundated roads), extreme weather (heat or cold) on the way to reach the education facilities or engagement in survival endeavors of both students and teachers, are prominent factors force the learners and teachers to be away from schools. According to the Annual Education Census (AEC, 2015) Report¹⁴, there are 901 primary and secondary schools with approximately 339,000 learners and 13, 499 teachers. Moreover, the education sector in emergencies has a responsibility of 12 Government aided tertiary institutions that fall under the broad jurisdiction of the MoET with a total of 13,065 students and 695 lecturers.

In a disaster situation, often the household level food security decline or diminish meaning that many children go to classes hungry and unable to concentrate. The consequences are a high dropout rates, increased absenteeism, and compromised quality of education that result in high repetition rates. Teachers and support staff are equally impacted by the disaster who would not be able to cope with the demand for maintaining regular attendance and education needs of the children. School feeding programme has positively contributed to children's learning in normal time, the continuation of feeding should remain as priority intervention in an emergency. Availability of adequate water supply in school premises remained an essential operational requirement for safe drinking, provision of the School Feeding Programme, maintain hygiene and sanitation conditions. Shortage of safe water contributes to exposure to the risk of waterborne diseases among children in schools. Every year, storm damages an average of 150 classrooms and teacher's houses affecting some 6,000 learners and teachers.

¹⁴ Annual Education Census Report, 2015

The principal purpose of the sector response plan is to maintain acceptable operational levels of all educational institutions across the country to enable continuous teaching and learning during emergencies. The education sector interventions have a wide array of overlapping activities that require expertise and assistance from other sectors particularly WASH, food security, health and nutrition and social protection. The sector activities continue to face capacity challenges to cope with disaster impact due to lack of comprehensive sector development programmes including human and financial resources to manage and mitigate disasters. To address these challenges, initiatives and viable programmes need to be in place in collaboration with other sectors and stakeholders, to ensure that, education institutions remain functional in the event of a disaster.

<u>Overall Objective</u>: To ensure continuity of teaching and learning sessions at all levels of education and retaining sufficient capacity, securing adequate resources for the functioning institutions during emergencies.

Specific Objective:

- To ensure the continuation of teaching and learning environment for all children of school going age and students in affected areas through the Education in Emergencies interventions.
- To create awareness among students and teachers on different hazard types, potential impact, and safety precautions needed.
- To advocate for mainstreaming "Disaster Risk Reduction" as part of the school curriculum.
- To strengthen multi-sectoral approach addressing the needs to maintain a learning-friendly environment especially the water, sanitation and hygiene and feeding programmes.
- To ensure Education in Emergencies, prioritize actions to secure learning space and preposition essential teaching and learning materials.

Triggers

The education cluster response will be triggered when one school is affected, when about 340 learners are affected.

Table 10: Summary of Education Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 6,720,000	E 200,000	E 6,520,000
Response	E 3,880,000	E 670,000	E 3,210,000
Recovery	E 2,505,200	0	E 2,505,200

Table 11: Education Sector Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Drought, Extreme Temperature						
Preposition water harvesting facilities in schools prone to water shortage and provision of alternative sanitary and hygiene facilities.	50 schools/ 10,000 students	3 months	Water harvesting facilities available (water tanks, gutters)	E 800,000	0	E 800,000
Create awareness on water saving techniques, hygiene promotion, safety, control measures for extreme weather.	901 Head teachers	1 month	Teachers are aware, pass the techniques and practices to students.	E 200,000	0	E 200,000
Creation of special fund to procure food and other commodities to continue school feeding programme in emergencies.	115,000 students	1 month	Resources available for school feeding programme. Enhanced class attendance and improve concentration.	E1,150,000	0	E1,150,000
Drill boreholes or secure alternative water sources, storage tanks for schools in water scarce areas.	60 schools	3 months	Secure water sources at schools for drinking, meal preparation and maintaining hygiene	E2,000,000	0	E2,000,000
Conduct water point mapping for schools	270 schools	1 month	Status of schools	E100,000	0	E100,000
Floods		L				
Conduct awareness raising campaigns on safety precautions during floods.	901 teachers	2 weeks	Awareness raised among children on water saving techniques and hygiene practices	E 100,000	0	E 100,000
Preposition teaching and learning materials "School in a Box".	50 units	1 month	"School in a box" available for continue learning space for children	E 150,000	0	E 150,000
Preposition items to establish child friendly temporary learning spaces (TLS).	25,000 students	3 months	Learning materials available for continue education	E 150,000	0	E 150,000
Storms and Landslides		·				
Preposition temporary learning spaces, materials and teaching aid.	10 schools (3,500 learners)	3 months	Temporary learning spaces (Tarpaulin), material stock available	E 200,000	0	E 200,000

			benefiting children's continuation of school curriculum.			
Preposition construction materials for immediate repair/rebuilding of damaged/destroyed schools.	60 schools	1 month	Construction and rehabilitation materials are available as and when needed for rehabilitation works	E 500,000	E 200,000	E 300,000
Conduct awareness raising on disaster risk reduction as pilot project and replicate these to cover more schools.	30 schools 10,500 learners	3 months	Teachers and students are engaged in disaster risk reduction initiatives	E 60,000	0	E 60,000
Retrofit schools especially those are exposed to disasters.	20 Schools	3 months	Selected schools retrofitted	E1,000,000	0	E1,000,000
Fire, Earthquake, Epidemic and Pandemic						
Create awareness on keeping schools protected against fires.	901 teachers	3 months	Teachers to student knowledge transfer	E 70,000	0	E 70,000
Conduct Fire drills in schools.	100 schools	Twice/Year	Fire awareness raised among children	E 70,000	0	E 70,000
Create awareness on safety precautions during an earthquake.	100 schools	3 months	Raised awareness among children	E 70,000	0	E 70,000
Create awareness on disease prevention, health and hygiene practices.	50 schools	3 months	Awareness raised among children	E 100,000	0	E 100,000
Estimated Cost for Preparedness activities				E6,720,000	E 200,000	E 6,520,000

Humanitarian Response						
Activities	Target	Duration	Expected Results	Estimated	Availability	GAP
				Cost		
Common Actions in all hazard types						
Carryout rapid assessment to assess the conditions of	Affected	5 days	Needs identified to determine	E 100,000	E 6,000	E 94,000
learning space and needs of the students and teachers	locations		the assistance requirement			
Continuity of the school feeding programme during	340,000	3	Retain and attract students in	E 1,700,000	E 204,000	E 1,496,000
emergency.	students	months	classes			
Provide meal preparation items, fuel, cooking pot and	340,000	3	Ready meals are served to	E 340,000	0	E 340,000
serving utensils, etc.	students	months	maintain students in class			

Distribute tents Tarpolines and or "school in a box" in	30 tents,	3	Ensured space availability for	E 300,000	0	E 300,000
the area where school buildings are affected and	20 boxes	months	learners			
learning materials destroyed						
Provide temporary learning spaces for children	8 schools	1 month	Temporary space available to	E 160,000	E 4,000	E 156,000
including displaced people			continue learning during			
			emergency			
Distribute teaching and learning materials among	3,500	2 weeks	teaching and learning materials	E 150,000	0	E 150,000
affected children.	learners		enable learning continuity			
Drought						
Distribute portable water to schools.	60	3	Availability of safe water at	E 600,000	E 408,000	E 192,000
	schools	months	schools			
Distribute WASH kits for schools.	60	3	Improved hygiene practices	E 240,000	0	E 240,000
	schools	months				
Floods, Fire, Storms and Landslides						
Provide on-site services including psycho social	2800	2	Emergency support and services	E 120,000	E 48,000	E 72,000
support, first aid and rescue services.	learners	months	availability at the school			
			premises			
Extreme Temperature (Heat/Cold), Earthquake						
Broadcast appropriate messages alerting children and	340,000	1 week	Alert messages encourages for	E 70,000	0	E 70,000
teacher for safety and protective measures from	students		precautionary measures			
adverse weather conditions.						
Disseminate key messages to strengthen awareness	340,000	2 weeks	Raised awareness among school	E 100,000	0	E 100,000
and safety precautions.	students		children			
Estimated Cost for Humanitarian Response activities				E 3,880,000	E 670,000	E 3,210,000

Recovery action for all hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Continue school feeding programmes and teacher's incentive for active engagement in scholastic activities.	115,000 learners	3 months	Retained student in schools and avoid missing of classes, extended support to teachers	E 900,000	0	E 900,000
Implement resilience building activities, setting up water harvesting infrastructure.	60 schools	3 months	Schools begun water harvesting facilities	E 400,000	0	E 400,000
Drill boreholes for schools, alternate water sources and storage facilities.	20 schools	1 month	Water availability improve health and hygiene situation in school premises	E 800, 000	0	E 800,000
Fast track the rehabilitation and reconstruction of education facilities affected by disaster for continued studies.	8 schools	3 months	Schools are made functional	E 400,000	0	E 400,000
Create awareness or advocate for proper siting of schools	20 people	1 month	Decision makers at all levels of the education system	E5 200	0	E5 200
Conduct regular monitoring to ascertain if children attend classes and that teaching and learning takes place	60 schools	Ongoing	Schools affected by disaster	0	0	0
Estimated cost for recovery activities				E 2,505,200	0	E 2,505,200

Triggers

- Internal displacements due to disasters
- Damages to household shelter and critical infrastructure
- Losses of life central amenities and services

Lead and Co-Lead Organization: Ministry of Home Affairs, Deputy Prime Minister's Office and Department of Social Welfare, WFP and Baphalali Red Cross Eswatini.

Partner Organizations: Ministry of Housing and Urban Development (MoHUD), MoTAD, Ministry of Home Affairs (MoHA), Umbutfo Eswatini Defence Force (USDF), Royal Eswatini Police Services (RSPS), UNICEF, Municipalities and Town Boards, UN agencies, NGOs, CBOs and Private Sector partners.

Situation Overview: Recurring threats of flash floods, fire, and storms (cyclone and hailstorm) are common in Eswatini. These may inundate or damage dwellings and cause loss of belongings, make households vulnerable, and in many cases, results in displacement. Protecting people from the adverse conditions, sector interventions with shelter and other material assistance becomes a necessity. The sector has three distinct components, Camp Coordination and Management, Emergency Shelter and NFIs. In the event of a hazard, may require activation of either one, mixed or all three components of the sector. It is imperative that there is sufficient preparedness and response readiness irrespective of actions required, justify these sector activities incorporated as an integral part of the contingency plan.

About 1,800 people who fled from several conflict-affected African countries seek refuge and or asylum in relatively peaceful and stable Eswatini. The Government of Eswatini through the MoHA has established the registration system and extended funding for shelter and provision for other basic needs such as the establishment of a reception camp in Mpaka in the Manzini Region. In support of finding durable solutions to this group, the local integration of asylum seekers into the community projects have been implemented, voluntary returns to the places of origin are also being facilitated as per need. Displacement is either caused by human or nature, shelters and household support would be necessary. Depending on the number of people affected and the duration of displacement, affected people should require protection and provision of temporary shelter or establishment of camps. An inventory of available structures/facilities (mapping exercise) for temporary shelter in potential disaster-prone areas has to be identified during peacetime; therefore, appropriate arrangement would be possible when disaster strikes. Deployment of trained human resources and people with technical capacity is important for effective humanitarian response planning and coordination. It is important to have the information base of existing capacity or create a pool of expert and trained personnel on sector functions particularly the establishment of camp and management activities. The trained personnel should be ready for immediate deployment in the disaster situation.

During the 2016 cyclonic storms, 157 family homes were damaged and under the shelter project, NDMA coordinated distribution of building materials among these affected families while others were provided with permanent structures following the deployment of the USDF. Prepositioning of shelter materials and NFIs are necessary to address similar situation, while other necessities such as food supplies, WASH, health services, protection support etc. are expected to be considered in the respective sector response plans. Early warning messaging plays critical role in saving human lives and household assets in certain

events. The sector works closely with the Meteorological Department (MET) and National Early Warning Unit (NEWU) of the Ministry of Agriculture, ensuring that appropriate and easy to understand and timely messages are reaching people at risk. The sector holds liaison and information exchange responsibilities with relevant authorities and partners ensuring a coordinated response to affected communities.

<u>Overall Objective</u>: To ensure the provision of fully managed temporary camps to accommodate displaced or affected people and provide appropriate basic shelter materials and NFI family packages.

- To protect disaster-affected families from the adverse conditions, ensure reliable, adequate and secure shelter is available and accessible with basic amenities.
- To map potential facilities for temporary shelter in disaster-prone areas.
- For immediate response, pre-position of shelter materials and NFIs in the Regional storage facilities.
- Build national capacity for camp coordination and management, handling and distribution of materials and NFIs.
- To ensure early warning messages are provided on time, easy to understand to enable people making an informed decision in various situations.

Table 12: Summary of CCM, Emergency Shelter and NFIs Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 3,370,000	0	E 3,370,000
Response	E 2,620,000	0	E2,620,000
Recovery	E 1,870,000	0	E 1,870,000

Table 13: CCM, Emergency Shelter and NFIs Sector Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness Action for all hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Establish sector coordination mechanisms and convene for information sharing.	All sector stakeholders	Monthly/ Quarterly	Partners are informed on sector preparedness and coordinated response	E 50,000	0	E 50,000
Advocate for resource mobilization and prepositioning for effective response activities, national budget allocation, private sector and NGOs contributions.	5,000 HH	2 months	Resources availability to preposition items for response activities	E 70,000	0	E 70,000
Conduct mapping exercise to identify potential facilities to be used as temporary accommodation for the displaced and affected communities.	20 facilities, 5 in each region	1 month	Inventory of temporary accommodation facilities	E 50,000	0	E 50,000
Take inventory of available stock and resources with sector partners and potentially available stock in emergency.	Government and partners	2 weeks	Updated shelter materials and NFIs stock inventory for emergency response	E 50,000	0	E 50,000
Conduct training on camp coordination and management, storage, handling, distribution of shelter materials and NFIs.	100 staff	4 batch, 3 days/Train	Pool of trained personnel ready for deployment in response to disasters	E 200,000	0	E 200,000
Prepositioning building/shelter materials (tents, plastic sheets etc.) and NFI packages for immediate response.	20,000 HH 5,000 HH	3 months	Shelter materials and NFI packages Prepositioned at the warehouses	E 2,500,000	0	E 2,500,000
Maintain an update inventory of shelter materials and NFIs stocks by location and responsible authorities and ownership, information shared among relevant partners.	Stakeholders	Quarterly	Updated stock inventory assists sector partners for response planning	E 50,000	0	E 50,000
In consultation with authorities, develop timely, people's friendly early warning messages on different hazards.	NEWU and MET	3 months	Awareness raised enable communities at risk to prepare for the disaster	E 100,000	0	E 100,000
Strengthen community volunteer network and provide basic training on sectoral response.	500 volunteers	6 months	Trained community-based first responders', reduced risk of casualties	E 250,000	0	E 250,000

Liaise with law enforcement offices for potential	GoS	2 months	Reinforced law, security and	E 50,000	0	E 50,000
deployment at the campsites for the	Authorities/		protection at the camp sites or			
protection/security of disaster affected displaced	institution		temporary shelter sites			
people and communities.						
Estimated Cost for Preparedness activities				E 3,370,000	0	E 3,370,000

Humanitarian Response, all hazard types						
Activities	Target	Duration	Expected Results	Estimated	Availability	GAP
				Cost		
Conduct assessment to determine the impact of	Sector Partners	1 week	Evidence based decisions on	E 100,000	0	E 100,000
disaster, damage and losses, identify shelter and NFI	and		camp establishment, shelter			
needs and gaps. Assess the operational environment	communities		and NFI needs, operational			
for assistance delivery.			environment			
Arrange primary and secondary transportation,	25,000 HH	2 weeks	Materials and NFIs are at the	E 1,000,000	0	E 1,000,000
handling and storage facilities at the distribution			distribution points			
points						
Distribute emergency shelter and or establish	Shelters 20,000	1 month	Immediate shelter and life-	E 500,000	0	E 500,000
temporary camps, distribute NFIs and other materials	HH, NFIs		saving priority relief assistance			
needed	5,000HH		provided			
Provide camp management and other services	5,000 HH	2	Secured shelter with amenities	E 500,000	0	E 500,000
required for those accommodated in camps/		months	and services at the shelter			
temporary shelters			locations			
In cooperation with the Civil Defence Services	5 Search/rescue	Initial 7	Trapped and vulnerable people	E 300,000	0	E 300,000
Department (GoS) provide search, rescue and	team	days	are rescued and taken to safe			
evacuation services			location			
Alert and warning public messages for precautionary	Nationwide	3	Minimize post-disaster risks	E 100,000	0	E 100,000
actions to minimize threats to human life and	coverage,	months	and vulnerability, information			
livelihood of affected communities, information on	communities		on services availability			
service provisions and locations						
Continue monitoring the situation and reporting on	Sector partners	3	Situation updates, enable	E 70,000	0	E 70,000
the humanitarian responses, impediments, assistance	and	months	decision making for			
needs and gaps	communities		continuation or exiting			
			assistance delivery			

Strengthen linkages among sectors and authorities	Sector partners	3	Services and assistance are	E 50,000	0	E 50,000
implementing the response activities, and services	and authorities	months	provided by other sector,			
particularly for food security, water and sanitation,			meeting the needs of the			
health and nutrition.			affected people			
Estimated Cost for Humanitarian Response activities				E 2,620,000	0	E 2,620,000

Recovery Actions, all hazard types						
Activities	Target	Duration	Expected Results	Estimated	Availability	GAP
				Cost		
Provide rehabilitation and reconstruction materials to	5,000 HH	1 month	Damaged family houses are	E1,000,000	0	E1,000,000
the affected families and communities			repaired, reconstructed			
Manage and coordinate camp operation (when	2,000 HH	1 month	Camp operations are managed and	E 500,000	0	E 500,000
established) and cater for the camp residences			coordinated			
Provide initial returnee packages including food and	5,000 HH	2 weeks	Displaced families have returned	E 300,000	0	E 300,000
NFIs for the displaced families to return			with initial assistance packages			
Liaise with other sector partners for continuation of	Sector	3	Continue recovery support enable	E 70,000	0	E 70,000
assistance delivery and recovery support to affected	partners	months	people to begin their livelihood			
communities			activities			
Estimated cost for recovery activities				E1,870,000	0	E 1,870,000

Annex – 7, Environment and Energy Sector Response Plan

Triggers

- Environmental degradation
- Soil erosion
- Loss of bio-diversity
- Water and air pollution
- Disrupted eco-systems

Lead and Co-Lead Organization: Eswatini Environment Authority (EEA), United Nations Environment Programme (UNDP).

Partner Organizations: Eswatini Environment Authority (EEA), UNDP, Eswatini National Trust Commission (ENTC), Eswatini Meteorological Services (MET), Conserve Eswatini (NGO).

Context: One of the disaster risk drivers in the country is climate change and climate variability that accounts for extreme weather events inducing hydro-meteorological disaster. The country currently experiences episodes of La Nina and El Nino phenomena resulting in erratic weather such as extreme temperatures, hailstorms and downstream impacts such as epidemics and environmental degradation. The weather phenomenon causes serious interruption of hydro electricity generation or unstable energy production and supply systems. Climate change manifests at a period where human activity such as unplanned urbanisation and rapid population growth, induce stress on the natural environment, increasing risk and vulnerability to human lives, livelihoods and critical infrastructure. Human activities significantly contribute to environmental degradation including soil erosion, deforestation, overgrazing and uncontrolled veld burning which cause an imbalance in the natural ecosystems and biological diversity. The onset of disaster in the country results in the impairment and degradation of the natural environment.

Nature dependent or rain-fed agriculture is the vital livelihood source for majority population in Eswatini. Livestock contributes a significant dietary support to families and measured as the wealth of families and communities. Both agriculture and livestock form the economic backbone and the well-being of the people. Human activities in the farming sectors such as the use of fertilizer, pesticides, and insecticides, burning forest and grassland; have often caused significant damage to the natural process and has negatively affected the environment and ecological balance systems. Overgrazing, deforestation, losses of natural vegetation, soil erosion, land degradation and unplanned urbanization are recognized factors with serious impact on nature hence the environmental exploitation. Over the past decades, degradation of several key environmental factors has increased people's vulnerability and exposure to disaster.

Each year, people use fire to create and maintain farmland and grazing areas, keep unwanted plants from invading crop fields or rangelands, to drive grazing animals away from areas more suitable for crops, remove crop stubble and return nutrients to the soil, and convert agricultural land. Uncontrolled fires have potential threats to life and property can caused substantial economic losses. An emerging threat to the country's biodiversity is anticipated through the introduction of living modified organisms (LMOs)

particularly wild plants and local crop varieties risk acquiring the engineered traits, giving rise to strains of plants with a fitness advantage.

During the recent El Nino induced drought, the hydropower generation systems (22 MW capacity) stalled. The Government had to import 100 percent electricity from South Africa, which significantly strained the national economy. The integration of this sector in the MCHP is to increase protection and conservation of environment given the growing concerns of degradation and national energy sufficiency risk.

<u>Overall Objective</u>: To conserve and protect the environment, balance the eco-system minimizing the impact of hazards and ensure minimal interruptions of energy generation and supplies.

- Mainstreaming environment management at all levels of intervention preparedness, response and recovery activities linking to the national disaster risk reduction and management plans.
- Providing standard operating procedures to prepare and respond to environmental hazards.
- Meeting the demand for electricity supplies and ensure minimal interruptions to energy supplies during emergencies.
- Augmenting national Renewable Energy capacity and environmental management consistently at all levels of operations and activities.
- Advocate for environmental protection and raise awareness among the population, responding appropriately to the policies and operations level of Government and partners.

Table 14: Summary of Environment and Energy Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 2,970,000	0	E 2,970,000
Response	E 2,240,000	0	E 2,240,000
Recovery	E 1,600,000	0	E 1,600,000

Table 15: Environment and Energy Sector Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Drought, Extreme Weather						
Raise awareness on drought, extreme weather patterns and other hazards through media network and social media.	Entire population	2 weeks	Awareness raised on preparedness, and coping mechanism, reduced vulnerability	E 70,000	0	E 70,000
Construct inter-basin pipelines/ connectivity, explore rainwater/ cloud enhancement technology (cloud seeding), develop environmental friendly alternative sources of energy		Ongoing	Improved vegetation cover, continuous supply of energy and diversified energy supply systems	E 1,000,000	0	E 1,000,000
Floods						
Clearing of storm water drains and water ways, Afforestation and reforestation programmes, Wetlands rehabilitation and protection, Rehabilitation of dongas, create artificial waterways, and construction of water retention infrastructure	Municipalities and Communities	Ongoing	Reduced flood impacts on people's livelihood and environment, flood water retention and storage, increase in infiltration, reduced surface run off	E 1,000,000	0	E 1,000,000
Create awareness: sirens						
Media						
Storms		T				
Trimming of tree tops/vegetation growth control under power lines, Erect wind breakers, identify safe havens,		2 months	Free flow of air around power lines, reduced impact on built environment	E 100,000	0	E 100,000
Develop emergency standard operating procedure (e.g. underground cables)						
Fire						
Rehabilitate and maintain firebreaks and fire escape routes, Engage community-based fire brigades and satellite fire stations for rescue and protection.	Communities in afforested areas	3 months	Reduced fire impacts on the environment, human life and property, Improved protection, prevention skills	E 500,000	0	E 500,000
Drone technology						

Environmental hazards						
Monitor the movement of hazardous chemicals	SEA aı	d 12	Minimized risk of accidents from	E 300,000	0	E 300,000
Develop a response plan for chemical spillages	Companies	months	spills pollution and explosions			
Educate the nation about the GHS to minimise						
exposure.						
Develop SOP/s						
Estimated Cost for Preparedness activities				E 2,970,000	0	E 2,970,000

Humanitarian Response							
Activities	Target	Duration	Expected Results	Estimated	Availabilit	GAP	
				Cost	у		
Drought, Extreme Weather							
Ground water exploration, reduce total reliance on	Communities	3 months	Reduced vulnerability, access to	E 500,000	0	E 500,000	
hydro energy generation, provide communities with			food and water, steady power				
energy efficient technologies (stoves, solar/wind			supply.				
power).							
Raise awareness on implications of extreme	Communities	3 months	Decrease the number of people	E 70,000	0	E 70,000	
temperature and needed measures.			affected by extreme temperature.				
Establish and strengthen the linkages to all sector and	Government	1 month	Environmental aspects are	E 50,000	0	E 50,000	
other partners incorporating environment into	and sector		covered in emergency				
emergency programme intervention.	partners		programmes.				
Floods, Storms, Fire, Landslides							
Messages and alert on danger associated with	SEA, MNRE	2 weeks	Increased awareness on impacts	E 50,000	0	E 50,000	
imminent disasters and exercising cautions.			associated with the hazard.				
Ensure critical infrastructure are maintained for the	IPP, MNER	3 months	Protect employment, industries	E 1,000,000	0	E 1,000,000	
continued energy supplies for agriculture, industries			remained operational, minimized				
and production of commercial goods.			risk of crop losses.				
Support humanitarian actors in response actions to	Government	Ongoing	An integrated conservation and	E 70,000	0	E 70,000	
follow SoP on conservation of nature and protection	SEA, MNER,		natural resources response plan.				
of environment.	SNTC						
Environmental Hazards, Epidemic, Pandemic							
Provide chemical toilets, Environmentally sound solid	MoH and	1 week	Improved hygiene, sanitation,	E 300,000	0	E 300,000	
waste management system.	SEA		waste management.				

Barricade or codon off affected site, treatment of spills	Affected	2 months	Reduced	impact	on	the	E 200,000	0	E 200,000
affected sites.	areas		environme	nt and hum	nan life	, and			
			rehabilitati	on cost red	uction				
Estimated Cost for Humanitarian Response activities							E 2,240,000	0	E 2,240,000

Recovery						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Drought						
Afforestation and reforestation programmes, Wetlands rehabilitation and protection, Rehabilitation of dongas, Rain water harvesting programmes, climate smart interventions (agriculture) and provision of environmental friendly farm inputs, developing alternative energy sources to hydro power e.g. Solar energy, wind power, biogas etc.	SEA, River Basin Authorities, MoA, Affected communities, Electricity Company	6 months	Increased dam storage capacity, Increased flood chokes, Improved availability of energy, Climate adaptation strategies, State of the Environment Assessment Report	E 900,000	0	E 900,000
Floods						
Clearing of storm debris, creation of artificial waterways.	Affected communities	2 weeks	Clean storm drains and waterways Infrastructure such as dams	E 200,000	0	E 200,000
Storms						
Restoration of energy supply, repair and maintain supply line and restore power supply.	SEA, Electricity companies	1 month	Power supply restored	E 100,000	0	E 100,000
Management of wind breaks and fire breakers.	SEA, Electricity companies	2 months	Power lines protected and restored power	E 100,000	0	E 100,000
Integrate indigenous knowledge into early warning awareness and strengthen community based early warning systems.	Entire population	2 months	Functional early warning system, and awareness campaigns	E 50,000	0	E 50,000
Fire, Earthquake						
Maintain community based fire brigades, satellite fire stations, raise awareness on fire, capacity enhancement for firefighting.	20 communities	3 months	Retain community based firefighting capacity	E 60,000	0	E 60,000
Environmental Hazard, Chemical spills and explosions	S					

Rehabilitation of exposed environment,	SEA, MENR	2 weeks	Rehabilitated exposed	E 100,000	0	E 100,000
environmentally sound disposal of chemical and			environment, treatment of			
affected soil.			exposed population			
Environmentally sound solid waste management	30 Hot spot	3 months	Existence of environmentally	E 90,000	0	E 90,000
system.	communities		sound waste management			
			system			
Estimated cost for recovery activities				E 1,600,000	0	E 1,600,000

Annex 8, Logistics and Transportation Sector Response Plan

Triggers

• Emergency response operations/relief efforts.

Lead and Co-Lead Organization: Ministry of Public Works and Transport (MoPWT), World Food Programme (WFP) and Baphalali Red Cross Eswatini (BRCS).

Partner Organizations: National Disaster Management Agency (NDMA), Umbutfo Eswatini Defence Force (USDF), Royal Eswatini Police Services (RSPS), Eswatini Fire and Emergency Services, Central Transport Authority (CTA).

Situation Overview: Logistics Sector plays a vital role in the provision of transport, storage, handling and delivery of goods in all three phases of the response operations. The principal objective of the sector is to reach out to affected people and communities in need with material assistance on time particularly following a disaster to save lives and ease sufferings. The sector activities are primarily the service functions to all other sectors' response endeavors. Therefore, strong linkages and cooperation among sectors and the relevant partners are fundamental for effective and coordinated response in emergencies. The sector should provide leadership in the dissemination of logistics information to Authorities and partners to enable them to prepare for the assistance delivery and required precautionary measures for supplies movement. The logistics sector is led by the Ministry of Public Works and Transport (MoPWT) in close partnership with WFP and Baphalali Red Cross Eswatini (BRCS). The MoPWT maintains the fleet of vehicles and trucks for transportation, heavy machinery and equipment for roads and bridges repair and maintenance, also provides guidance and advice on rehabilitation and reconstruction of buildings. These assets and services are essential not only for restoration of the road network, transporting assistance but also for the search, rescue, and evacuation in disasters.

Eswatini has a well-established road network, and infrastructure to support transport between major towns and communities. Recent national developments have enabled tarring of roads as well as the establishment of feeder roads in urban and rural communities across the country. Some rural communities have difficult access to roads, they are often viewed as living in remote areas. The country's railway line runs from Mozambique through Mhlumeni to Matsapha and South Africa to Matsapha with plans to extend further to neighbouring South Africa, which could enable easier transportation of goods and commodities during the event of a hazard. Access to neighbouring countries is through 13 border points with three main ones namely, Oshoek, Lavumisa and Mhlumeni with the capacity to handle major logistics.

Regular maintenance of feeder routes, low-level bridges, and crossing points remained a major challenge. Flash floods, landslides, or similar events are likely to disrupt road communication, some areas would be difficult to reach or become inaccessible in the event of a disaster. Logistics sector in consultation with the authorities has to find alternative transport means to reach affected people and moving relief goods to areas cut off from normal transport routes. It may be an expensive option, when necessary, air services and airdrops are possible through King Mswati III International Airport and there are other smaller airstrips across the country. The existing storage capacity at the warehouses managed by different Ministries/Departments, NDMA, UN and partners may not be adequate for large-scale emergency

response operations. Limited capacity commercial private sector transport and storage can be rented for the emergency operations.

<u>Overall Objective</u>: To ensure that response interventions in all phases of an emergency (before, during and after) reach the intended beneficiaries within the shortest time possible and in good condition, reducing further threats to life and property which may be caused by response delays.

Specific Objectives:

- To ensure the provision of adequate transportation, sufficient storage space and timely delivery services to facilitate emergency response operations.
- To maintain and share up to date information on the transportation network conditions, secure access routes, alternate means and advisory services on safety precautions for movement of goods and personnel.
- For optimum utilization of available logistics capacity, coordinate among the stakeholders, identify and fill the logistics gaps.
- To provide assistance for speedy repair and rehabilitation of existing infrastructure enabling people's movement and delivery of relief goods to affected people.
- Provide logistics information management services in support of operational decision making to improve the efficacy of the logistics response in an emergency.

Table 16: Summary of Logistics and Transportation Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 2,450,000	0	E 2,450,000
Response	E 4,900,000	0	E 4,900,000
Recovery	E 1,500,000	0	E 1,500,000

Table 17: Logistics and Transportation Sector Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness action for all hazard types						
Activities	Target	-		Estimated Cost	Availability	GAP
Take inventory of available canacity of personnel	GoS and	2 weeks	Undated inventory of logistics		0	E EO 000
Take inventory of available capacity of personnel,		2 weeks	Updated inventory of logistics	E 50,000	U	E 50,000
equipment, vehicles, warehouse and fuel stock.	partners		capacity and resources	5 4 000 000		5 4 000 000
Preposition the repair/rehabilitation materials to	GoS and	2	Secured materials for emergency	E 1,000,000	0	E 1,000,000
keep the roads and bridges accessible for the	Partners	months	repair ensuring access to people,			
movement of goods and services, arrange			availability of temporary storage.			
temporary storage facilities.						
Mapping of non-sensitive critical infrastructure	GoS, Private	2	Critical infrastructure identified	E 300,000	0	E 300,000
(roads, bridges, dams, power generators) and	sector	months	and measures taken for			
alternate routes and temporary connectivity			protection			
Develop and update SOPs on logistics services and	Stakeholders	1 month	Relief material prepositioned for	E 50,000	0	E 50,000
procurement policies in emergencies			quick response			
Activate sectoral coordination, prioritizing	Sector	monthly	Functioning coordination	E 50,000	0	E 50,000
preparedness actions and defining responsibilities	partners		mechanism enable to prioritize			
of various actors			preparedness			
Maintain steady flow of logistics information and	All sectors	Every 2	Logistics information available	E 50,000	0	E 50,000
updates among partners including safer routes and	and partners	months	among partners for response			
alternative roads.			planning			
Maintain sufficient stock of spare parts and tools	GoS and	2	Spare parts and tools are	E 800,000	0	E 800,000
for servicing vehicles and equipment ready for	partners	months	available for vehicles and			
deployment at a short notice.			equipment maintenance.			
Provide training to create a pool of technician and	300	6	Additional capacity available	E 150,000	0	E 150,000
equipment operators	volunteers	months	· · · · · · · · · · · · · · · · · · ·			
Estimated Cost for Preparedness activities				E 2,450,000	0	E 2,450,000

Humanitarian Response for all hazard types						
Activities	Target	Duratio n	Expected Results	Estimated Cost	Availability	GAP
Deploy heavy equipment and machineries along with	10 affected	2 weeks	Search and rescue operation	E 700,000	0	E 700,000
trained rescuers for search and rescue operations as needed.	communities		supported			
Provide transport services for the movement of relief	20,000 HH	3	Timely delivery of relief	E 1,000,000	0	E 1,000,000
goods to the nearest storage facilities and at the distribution points.	emergency supplies	months	assistance to affected population			
Prepare for and set up mobile storage facilities rub	8 Rub halls/	3	Available nearby storage	E 400,000	0	E 400,000
halls closest to the distribution points	storage tents	months	facilities ease travel distances with relief			
Facilitate fuel management system for the fleets	100,000 ltrs	3	Fuel supplies to run fleets,	E 2,000,000	0	E 2,000,000
engaged in emergencies, fuel supplies to generators in	of fuel, 20 generators,	months	uninterrupted services at the			
essential establishments such as hospitals and emergency institutions.	20 health		emergency institutions			
emergency motitudions.	centers					
Undertake minor repair and maintenance of damaged	GoS	1 month	Secure passages for movement	E 700,000	0	E 700,000
infrastructure/ building to facilitate emergency operations	Ministries		of people and goods.			
Maintain priority logs of request for logistics support,	All Sector	3	Activities prioritized and timely	E 50,000	0	E 50,000
coordinate and facilitate delivery of humanitarian	leads and	months	movement of assistance to			
cargo in order of priority.	partners		affected communities			
Provide logistics information and updates to all	GoS and	3	Response activities prioritized	E 50,000	0	E 50,000
humanitarian partners and relevant government	partners	months	and assistance delivery			
offices.			scheduled			
Estimated Cost for Humanitarian Response activities				E 4,900,000	0	E 4,900,000

Recovery actions for all hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Continue assisting sector partners with logistics support for the recovery activities of the stakeholders.	GoS and partners	3 months	Logistics support provided for recovery activities.	E 300,000	0	E 300,000
Constant monitoring the condition of critical infrastructure, maintain the updated maps, logistics and transport information widely share among stakeholders.	GoS and Partners	3 months	Critical infrastructure, logistics and transport information shared	E 100,000	0	E 100,000
Repair and rehabilitate roads, bridges and other infrastructure for people's movement and flow of goods.	GoS Ministries and Depts.	3 months	People's access to services and different actors access to communities are maintained	E 1,000,000	0	E 1, 000,000
Conduct post-disaster evaluation of sector performance and make necessary adjustment to procedures and operations preparing for the next disaster.	Stakeholders	2 months	Evidence for revision of procedures and adjustments to SOPs	E 50,000	0	E 50,000
Liaison and coordination among GoS ministries and partners for secure access routes and alternatives.	Stakeholders	2 months	Sector partners have updated information on access routes	E 50,000	0	E 50,000
Estimated cost for recovery activities				E 1,500,000	0	E 1,500,000

Annex 9, Emergency Information & Communication Technology (ICT) Sector Response Plan

Triggers

Damages to critical ICT infrastructure

Lead and Co-Lead Organization: Ministry of Information and Communication Technology (MoICT) and World Food Programme (WFP).

Partner Organizations: Eswatini Communications Commission, Eswatini Post and Telecommunication, Mobile Companies (MTN and Swazi Mobile), NDMA, Royal Eswatini Police Services (RSPS), and Umbutfo Eswatini Defence Force (USDF).

Situation Overview: Maintaining steady and uninterrupted communication during the emergency response is a critical requirement for humanitarian operators, the Government and more importantly the affected people. With the digital evolution and electronic information edge, everyone's operational environment is entirely dependent on the connectivity to communications equipment such as telephone, mobile phone, and internet. Transmission and broadcast of early warning messages and public information on disaster response through mass media are critical tools for saving lives and protection of livelihood. Two-way information transmission becomes a necessity for every individual and institutions including the Government involved in the response operations and beyond. The communication installations and equipment are classified as the critical infrastructure for the national security, country's capacity to maintain the minimum level of functionality and the people's connectivity for civic activities.

The key roles of this sector are to ensure countrywide network coverage, maintenance of telecommunication services, continuity of media broadcast at all time and the physical and ensuring network infrastructures are resilient to both man-made and natural disasters. The Emergency ICT sector encompasses, the Ministry of ICT, telecommunications sector regulators, telecommunication companies, internet service providers and IT companies. Protection of critical infrastructure and immediate restoration of communication services remain as the highest priority for everyone in the event of a disaster that affects the communication network. The mobile phones, private TV channels and internet services are commercial ventures on a subscription basis. The Government holds primary responsibility to secure communication for the population, the private sector engagement is necessary to invest, filling the budgetary gaps, and technical capacity support to maintain these services, and expedited reestablishment of the network connectivity.

<u>Overall Objective</u>: To provide uninterrupted countrywide telecommunication, network connectivity and broadcast services supporting the disaster response activities.

Specific Objectives:

- To support effective response operations through timely and reliable telecommunication services.
- To strengthen public-private partnership for the restoration of affected network infrastructure.
- Maintain and amplify the media broadcast for early warning public messaging and relevant information on imminent disaster and precautionary measures.
- Provide reliable network services in the operational areas for all actors and partners.

Table 18: Summary of Emergency ICT Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 1,740,000	0	E 1,740,000
Response	E 4,500,000	0	E 4,500,000
Recovery	E 1,300,000	0	E 1,300,000

Table 19: Emergency ICT Sector Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness actions for all hazard types						
Activities	Target	Duration	Expected Results	Estimated Cost	Availability	GAP
Update critical network and telecommunications infrastructure exposed to disaster and possible alternative means of communication when affected by disaster.	Communications network	1 month	Information available on alternate communication in emergency	E 70,000	0	E 70,000
Advocate for maintaining existing broadcast services and when necessary request for allocation of radio frequency to appropriate entities.	GoS, and Private sectors	2 months	Wider coverage of the radio broadcast	E 100,000	0	E 100,000
Provide ICT training to crate pool of technician for the emergency repair and maintenance of the telecommunication and internet services.	100 technician Public-Private partnership	3 months	Trained technicians will restore the services fast	E 300,000	0	E 300,000
Procurement of stand-by capacity and uninterrupted power supplies to critical IT infrastructure	5 Generators	3 months	Standby capacity to protect IT services	E 1,000,000	0	E 1,000,000
Advocate for integration of toll-free lines compatible to local mobile network and easy accessibility by all subscribers.	GoS, mobile phone service providers	3 months	Information Access simplified	E 100,000	0	E 100,000
Develop communication strategies and required measures in disaster preparedness and response.	GoS, and sector partners	2 months	Communication strategies determined	E 70,000	0	E 70,000
Establish and strengthen public private partnership for the communication in emergency.	GoS and Private sectors	3 months	Enhanced public-private partnership	E 100,000	0	E 100,000
Estimated Cost for Preparedness activities				E 1,740,000	0	E 1, 740,000

Humanitarian Response actions for all hazard types						
Activities	Target	Duration	Expected Results	Estimated	Availability	GAP
		2 1		Cost		5 200 000
Deploy technicians and engineers to ensure	GoS, Technical	2 weeks	Communication	E 300,000	0	E 300,000
communication systems are functional supporting the	departments,		maintained for			
response operations and the affected population are	partners		emergency operations and people's			
connected.			connectivity			
Provide back-up power supplies (generators and	5 generators,	3 months	Assurance of power	E 1,500,000	0	E 1,500,000
batteries) to major equipment that are life-line for active	20 heavy-duty	3 months	supplies at the	2 1,500,000		2 1,500,000
communication network functions.	power cells		communication			
	p a second		facilities.			
Operationalize electronic systems and network coverage	GoS and	3 months	Radio network in	E 1,000,000	0	E 1,000,000
through UHF/VHF radio communication, easier	Sector		remote areas assist			
transmission for the response team in remote locations.	Partners		emergency operations			
Use of messaging services (SMS) through mobile	GoS, cellphone	2 months	Warning and	E 100,000	0	E 100,000
operators for early warning and alert messages to mass	companies		information messaging			
population.			through SMS			
Assist all sector partners for broadcast and disseminate	Sector	3 months	Information	E 200,000	0	E 200,000
messages, and information updates related to	partners,		disseminated to the			
emergency.	Departments		public			
Establish linkages among relevant Government and	GoS and	3 months	Communication	E 100,000	0	E 100,000
stakeholders and coordinate deployment of emergency	partners		coordination for			
assets and equipment.			effective emergency			
	5	2 11	response	5 4 000 000		5 4 000 000
Mobilize resources for the immediate restoration of	Private and	2 months	Resources availability	E 1,000,000	0	E 1,000,000
services including private sector involvement and	Regional		for services restoration			
regional expertise.	organizations	4	Forther I to control	F 200 000		5 200 000
Facilitate expedited process to import necessary	GoS, Technical	1 month	Fast track import of	E 300,000	0	E 300,000
equipment, technology and entry of technical experts in	service		equipment and entry of			
the country for establishment of emergency network.	providers		network experts	E 4 E00 000	0	E 4 E00 000
Estimated Cost for Humanitarian Response activities				E 4,500,000	0	E 4,500,000

Recovery Actions for all hazard types						
Activities	Target	Duration	Expected Results	Estimated	Availability	GAP
				Cost		
Continue advocating for the provision of emergency	Private and	1 month	Services maintained	E 100,000	0	E 100,000
telecommunication services to all actors and population.	sector					
	partners					
Rehabilitate damaged critical infrastructure for country	GoS and	3 months	Expanded services	E 1,000,000	0	E 1,000,000
wide coverage of the network.	Private sectors		covering entire			
			country			
Maintain and strengthen public-private partnership for	GoS and	3 months	Stronger partnership	E 100,000	0	E 100,000
business continuity and improvement of the	Private sectors					
communication services.						
Establish post-disaster feed-back systems to private sector	Private sectors	1 month	Improved services	E 100,000	0	E 100,000
partners to enhance coverage, timeliness and quality of			quality			
services.						
Estimated cost for recovery activities				E 1,300,000	0	E 1,300,000

Annex 10, Health (Points of Entry) Sector Response Plan

Triggers

• Outbreak of communicable and non-communicable diseases.

Lead: Ministry of Health – Department of Environmental Health.

Partner: World Health Organisation (WHO).

Situation Overview: The Kingdom of Eswatini has an obligation to ensure safety of travellers, imports and exports of both food and non-food commodities through all points of entry. Port health services are implemented through the World Health Organisation's International Health Regulations (IHR) of 2005 and other local legislation to monitor and evaluate all foodstuffs, cosmetics, disinfectants, hazardous substances and medicines entering the country. It also helps to control and monitor the possible entry of all serious contagious diseases into the country. These infectious diseases include yellow fever, cholera, plague and Severe Acute Respiratory Syndrome (SARS). The IHR (2005) are an international legal instrument that is binding in 194 countries globally, including all WHO member states. The aim of IHR is to help the international community prevent and respond to health threats that have the potential to cross borders and threaten people worldwide, without imposing unnecessary or excessive restrictions on travel or trade. The most recent version of the regulations became effective July 18, 2007. The updated version specifies obligations to assess and manage serious health threats and provides guidance to meet those obligations.

Yellow fever is currently the only disease for which proof of vaccination, in the form of an International Certificate of Vaccination or Prophylaxis (ICVP), might be **required** of travellers as a condition of entry into a country. This requirement is a public health measure to prevent the international spread of the disease by protecting countries from the risk of importation and spread of yellow fever virus within their jurisdictions. Countries with entry requirements include those where yellow fever virus is maintained in an enzootic and endemic transmission cycle and those in which the ecological conditions are suitable to maintain yellow fever virus circulation, if it is introduced. The WHO through their country offices notify member states of any outbreaks or serious health threats so that countries put in place all necessary prevention measures for that particular threat.

It is mandatory that member states notify WHO of diseases or other events within their territories that falls into one of the following two groups:

Group A: Any cases of the following four diseases: smallpox, polio caused by a wild-type poliovirus, human influenza caused by a new subtype, and SARS.

Group B: Any event that is designated as a public health emergency of international concern, whether infectious, chemical, biological, or radiologic.

Overall Objective: Timely detection of and effective response to any potential hazards that may be imported and exported or occur at the Points of Entry (PoE).

Specific Objectives

- To strengthen and expand early detection and timely management of outbreaks related to epidemiological hazard through activating disease surveillance and response systems.
- To respond to public health emergencies occurring at points of entry e.g. plane crash.
- To provide access to equipment and personnel for the transport of ill travellers to an appropriate medical facility.

•	To provide trained personnel for the inspection of conveyances, provision of medical services
	and control of vectors.

•	To control imp	portation and	exportation of	foodstuffs for	human and ar	nimal consump	otion.
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Points of Entry (PoE) Sector Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness							
Activities	Target	Duration	Expected Results	Unit Cost/ Lumpsum	Estimated Cost	Availability	GAP
Conduct trainings for port health officers and other health workers on disease outbreak preparedness, response and containment	All port health officers and health workers at health facilities for referral of ill-travellers	1 week	Timely and effectively response to any public health event	E 500,000	E 500,000	0	E500,000
Train health workers on the management of all notifiable diseases and any disease outbreak	Doctors, Nurses, Laboratory Technician, Radiographers, Orderlies	1 week	Effective management of cases	E500.000	E500.000	0	E500,000
Strengthen surveillance system at ports of entry and train health workers on IDSR	All port health and immigration officers	2 weeks	Prompt detection and reporting of notifiable diseases	E300,000	E300,000	0	E300,000
Train environmental health officers on any new or emerging vector of public health significance	All environmental health officers at PoE and healthcare facilities	1 week	Control and elimination of vectors	E250,000	E250.000	0	E250,000
Procurement of pesticides for control of vectors of public health significance	Point of Entry (PoE) premises and Conveyances	Ongoing	Control and elimination of vectors	E300,000	E300,000	0	E300,000
Conduct sensitization or awareness campaign for other workers at ports of entry (PoE) on notifiable diseases and outbreaks	All other workers at points of entry (Port Health stakeholders)	1 day per PoE	Assist in the control of notifiable diseases and outbreaks	E200,000	E200,000	0	E200,000
Procurement of diagnostic tools, contingency medicines, personal protective equipment (PPE) for port health officers	15 formal PoE and 12 informal PoE	Ongoing	Early detection of infections	E 2,500,000	E 2,500,000	0	E 2,500, 000

Development of IEC material for creating	Travellers and general	Ongoing	Creation of	E100,000	E100,000	0	E100,000
awareness of any public health event or	public		awareness				
notifiable diseases			about				
			notifiable				
			diseases and				
			outbreak				
					E4'650'000	0	E4'650'000
Total							
		_					

Humanitarian Response							
Activities	Target	Duration	Expected Results	Unit Cost	Estimated Cost	Availability	GAP
Sensitize port health officers and other health workers on responding to the outbreak	All port health officers and health workers at health facilities for referral of ill-travellers	1 day	Effective response to a public health event	E75,000	E75,000	0	E75,000
Sensitize referrals hospitals on case management and response to a public health event	Doctors, Nurses, Laboratory Technician, Radiographers, Orderlies	1 day	Effective management of cases	E75,000	E75,000	0	E75,000
Sensitization of travellers and communities about an outbreak or public health event	Travellers and communities	Ongoing	Creation of awareness about notifiable diseases and outbreak	E100,000	E100,000	Available slot at SBIS	E100,000
Maintenance, calibrate and repair of diagnostic tools and other equipment	Thermal scanners, spray	Ongoing	Precise/accura cy in detection of infection	E180,000	E180,000	0	E180,000

Conduct contact tracing of suspected and ill-travellers	pumps, thermore Suspect ill-travel	ed and	Ongoing	and keeping of equipment in a good state of repair Effective control of spread of	No cost involved	-	-	-
				infection				
Total						E430'000	0	E430'000
		T						
Recovery Actions		T	Donation	Form a ske al	Hait Cast	Fatherstand	A 11 - 1- 11 11	CAR
Activities		Target	Duration	Expected Results	Unit Cost	Estimated Cost	Availability	GAP
Conduct stock inventory and replenish supplies	c	Travellers	Ongoing	Adequate	E500,000	E500,000	0	E500,000
(medicines, reagents, disinfectants, pesticides		PoE	Oligonia	stock for	2300,000	2500,000		L300,000
(medicines, reagents, distinectants, pesticides	CtC.,	compound	is l	future				
		and	.5	outbreaks				
		Conveyan	c					
I		es						
Conduct evaluation, lesson learnt and review of	of sector	Health	Post	Reviewed	E300,000	E 300,000	0	E 300,000
response plan		workers	epidemic 3	sector				
		and	days	contingency				
		stakehold	er	plans				
		S						
Conduct epidemiological investigation of notifi	iable	All	Post	Status, cause	E500,000	E500,000	0	E500,000
diseases		Health	epidemic 3	of an outbreak				
		facilities	days	and				
				documentatio				
				n of workable				
				preventive				
Tatal				measures		F1/200/000	0	F1/200/000
Total						E1'300'000	0	E1'300'000

Annex- 11, Coordination Sector Response Plan

Lead and Co-Lead Organization: National Disaster Management Agency (NDMA), UNDP, UN Office for the Coordination of Humanitarian Affairs (OCHA) and UN Office for Disaster Risk Reduction (UNISDR).

Partner Organizations: The Ministries, Departments and Civil Administration, Government Parastatals, UN Agencies, Funds and Programmes, Municipal Authorities, NGOs, CBOs and private sector partners.

Situation Overviews: Coordination among different actors is a fundamental requirement for mitigation and effective response to emergencies, optimizing limited resources and avoiding duplications. The Government has mandated the NDMA for the overall coordination responsibilities of DRR affairs including the emergency response. The NDMA plays a critical role in disaster management across the country bridging the links among various Government entities as well as between the Government and international partners including the UN, Donors, NGOs and other regional partners. The Government of Eswatini has adopted a sector-wide approach to the coordination of emergencies in the country. Nine sectors with specific focus on respective areas of specialization, operate in cooperation with other sector partners with an established sector coordination mechanism.

The NDMA provides the "Inter-sector Coordination" platform to address common concerns or overarching issues and resolve critical gaps in an emergency. This forum has significance, by enabling the NDMA to inform, draw attention and advise senior-level decision makers (Office of PM, DPM and GoS Ministries) for policies and guidance on important issues facilitating the emergency operations. Respective GoS institutions are responsible for the application and adherence to the National and Regional policies, principles and regulations, through coordination in emergencies. NDMA provides required support to sector organizations and partners. At the NDMA premises, the National Emergency Operations Center (NEOC) remained fully functional as the central coordination hub for activities and is open to all relevant partners for a coordinated response. The coordination sector as led by NDMA and coled by UNDP should hold the responsibilities of joint facilitation, information consolidation and reporting to wider audiences. In addition, the sector advocates for resource mobilization on behalf of all sectors against the activities outlined in the sector response plans of the MHCP.

Overall Objective: To ensure a coordinated and effective system of disaster risk reduction/management in Eswatini.

Specific Objectives:

- To facilitate and support sector partners' efforts of providing necessary assistance to the affected communities in a timely manner.
- To foster a culture of adherence to humanitarian standards and principles among stakeholders and partners while providing humanitarian assistance to the affected population.
- To encourage evidence-based interventions through assessments, research for sustainability of interventions and resilience.
- To effectively lobby for resources mobilization for the emergency response activities.

Table 20: Summary of Coordination Sector – Estimated Cost of Activities

All Hazard Types	Estimated Cost	Available	GAP
Preparedness	E 2,250,000	0	E 2,250,000
Response	E 1,150,000	0	E 1,150,000
Recovery	E 1,200,000	0	E 1,200,000

Table 21: Coordination Sector- Preparedness, Humanitarian Response and Recovery Plan and Estimated Cost

Preparedness for all hazard types						
Activities	Target	Duration	Expected Results	Estimated	Availabili	GAP
A	Ni atta a all	4	Character halos to a sufficient	Cost	ty	5 200 000
Awareness raising, sensitization among communities and media campaigns on eminent threat or hazards.	Nationally	1 month	Change in behaviour, attitude of the population on specific hazards	E 200,000	0	E 200,000
Maintain constant liaison with the DPMO's office providing advisory services on DRM and updates on the imminent hazard, intensity and potential impact.	NDMA and DPM's Office	3 months	Informed decisions made at the senior level GoS offices	E 50,000	0	E 50,000
Liaise with all relevant GoS Ministries, Departments as well as UN agencies and partners informed and requires support and assistance for the response readiness.	GoS Ministries, UN, Partners and NDMA	3 months	All stakeholders are well informed, prepared for response	E 200,000	0	E 200,000
Information products, update database, GIS maps on potential hazards and threats.	NEOC and NDMA	3 months	Hazard profile/maps shared for planning	E 500,000	0	E 500,000
Dissemination of key messages and alerts for specific hazards and precautionary measures to protect lives.	Nationally	1 month	Appropriate and timely messages transmitted	E 200,000	0	E 200,000
Provide support and guidance to sector coordination and the platform for inter-sector coordination, defining clear roles in an emergency through regular consultation and meetings.	All 9 sectors and partners	4 months	Common concerned addressed, plans for coordinated sector response	E 100,000	0	E 100,000
Liaison, lobby and advocate for internal and external resources mobilization supporting the sector preparedness plans	GoS and Potential Donors	3 months	Pledge and commitment for resources for preparedness plans	E 200,000	0	E 200,000
Strengthen the capacity, extend support for functional coordination structure at all level of administration (priority National and Regional level)	NDMA and partners	2 months	Functioning coordination at different level of administration	E 800,000	0	E 800,000
Estimated Cost for Preparedness activities				E 2, 250,000	0	E 2,250,000

Humanitarian Response, All hazard types						
Activities	Target	Duration	Expected Results	Estimated	Availability	GAP
				Cost		
Deployment of NDMA team to the affected areas	Sectors and	2 weeks	Guided and coordinated	E 250,000	0	E 250,000
and coordination of rapid assessments to	communities		assessments			
determine the impact						
Coordinate response plans and facilitate delivery	Partners and	3 months	Coordinated and prioritise	E 100,000	0	E 100,000
of assistance by different sectors and partners	NDMA		response activities			
Data management, preparation and wide	NDMA and	3 months	Advocacy materials	E 300,000	0	E 300,000
circulation of advocacy materials and relevant	Partners		circulated, partners are well			
situation updates and various reports on response			informed and secured data			
operations			management			
Support sector coordination and hold inter-sector	Sector	3 months	Coordinated response and	E 200,000	0	E 200,000
coordination forums to prioritize response and	partners and		challenges addressed			
resolving challenges.	GoS					
Capacitate and strengthen coordination forum at	Authorities	3 Months	Functioning and effective	E 200,000	0	E 200,000
national and regional level for humanitarian	and partners		coordination among			
response			partners			
Continue advocacy and lobby for resource	NDMA and	3 months	Resources pledge and	E 100,000	0	E 100,000
mobilization for humanitarian response activities.	Partners		commitment for response.			
Estimated Cost for Humanitarian Response activitie	es			E 1,150,000	0	E 1,150,000

Recovery Action, all hazard types						
Activities	Target	Duration	Expected Results	Estimated	Availability	GAP
				Cost		
Efforts continued to strengthen coordination	GoS, UN, NGOs	3 months	Functioning coordination	E 100,000	0	E 100,000
among stakeholders at all levels for recovery	Partners and		structures, effective			
planning and interventions	Private sectors		recovery plans			
Advocacy for resources allocation for recovery	NDMA and	2 months	Resources allocated for	E 100,000	0	E 100,000
activities	Partners		planned recovery activities			
Maintain a functional NEOC to provide	Sectors and	3 months	Functioning NEOC supports	E 250,000	0	E 250,000
coordination services and products to a wide array	Partners		coordination services			
of stakeholders						
Situation monitoring, provide updates, inform and	NDMA and	3 months	Updated information and	E 250,000	0	E 250,000
disseminate reports, publications	partners		reports shared			
Coordinate "lessons Learned Events" and	NDMA led with	Ongoing	Lessons and best practices	E 300,000	0	E 300,000
document the experiences for future preparedness	all		documented			
and response planning and actions	stakeholders					
Lobby for adjustment to guidelines and procedures	NDMA and	2 months	Favourable guidelines and	E 200,000	0	E 200,000
for DRR based on findings from lessons learnt.	Stakeholders		procedures for DRR			
Estimated cost for recovery activities				E 1,200,000	0	E 1,200,000

Annex 12, Summary of estimated cost for Sector Response Plan

Sector	All Hazard Types	Estimated Cost	Available	GAP	
Agriculture and Food	Preparedness	E 16,720,000	0	E 16,720,000	
Security	Response	E 35,700,000	0	E 35,700,000	
	Recovery	E 15,600,000	0	E 15,600,000	
Health and Nutrition	Preparedness	E 16,470,990	E 6,110,000	E 10,360,990	
	Response	E 7,605,000	E 10,000	E 7,595,000	
	Recovery	E 9,300,000	0	E 9,300,000	
Water, Sanitation and	Preparedness	E 4,870,000	0	E 4,870,000	
Hygiene (WASH)	Response	E 9,200,000	0	E 9,200,000	
	Recovery	E 5, 770,000	0	E 5,770,000	
Social Protection	Preparedness	E 4,067,750	E 197,750	E 3,870,000	
	Response	E 3,090,000	0	E 3,090,000	
	Recovery	E 780,000	E 40,000	E 740,000	
Education	Preparedness	E 6,720,000	E 200,000	E 6,520,000	
	Response	E 3,880,000	E 670,000	E 3,210,000	
	Recovery	E 2,505,200	0	E 2,505,200	
CCM, Emergency Shelter	Preparedness	E 3,370,000	0	E 3,370,000	
and NFIs	Response	E 2,620,000	0	E 2,620,000	
	Recovery	E 1,870,000	0	E 1,870,000	
Environment and Energy	Preparedness	E 2,970,000	0	E 2,970,000	
	Response	E 2,240,000	0	E 2,240,000	
	Recovery	E 1,600,000	0	E 1,600,000	
Logistics and Transportation	Preparedness	E 2,450,000	0	E 2,450,000	
	Response	E 4,900,000	0	E 4,900,000	
	Recovery	E 1,500,000	0	E 1,500,000	
Emergency ICT	Preparedness	E 1,740,000	0	E 1,740,000	
	Response	E 4,500,000	0	E 4,500,000	
	Recovery	E 1,300,000	0	E 1,300,000	
Port Health (Points of Entry)	Preparedness	E 4,650,000	0	E 4,650,000	
	Response	E 430,000	0	E 430,000	
	Recovery	E 1,300,000	0	E 1,300,000	
Coordination	Preparedness	E 2,250,000	0	E 2,250,000	
	Response	E 1,150,000	0	E 1,150,000	
	Recovery	E 1,200,000	0	E 1,200,000	
Summary for All Sectors for	Preparedness	E 49,575,460	E 403,860	E 49 171 600	
All Hazards	Response	E 74 915 000 E 680,000		E 74,235,000	
	Recovery	E 43,125,200	E 40,000	E 43,085,200	

Annex 13, Estimated population exposure to hazards, breakdown Region and Tinkhundla level

Hhohho				Wo	rst Case							Most Li	kely Scenari	О		
Tinkhundla				Affe	cted HH							Aff	ected HH			
	Drought	Flood	Storm	Ext.	Epidemic	Environ	Wildfire	FAW	Drought	Flood	Storm	Ext.	Epidemic	Environ	Wildfire	FAW
				Temp		Hazard						Temp		Hazard		
Hhukwini	459	77	77	77	612	558	31	153	0	0	0	39	306	279	0	766
Lobamba	2516	629	314	0	1716	0	126	629	0	126	157	0	858	0	0	2145
Mandlangempisi	2512	471	314	157	1256	1256	63	314	2512	0	157	79	628	628	0	1570
Maphalaleni	891	149	148	0	1188	1384	54	297	0	59	0	0	594	692	27	1485
Mayiwane	1275	77	128	51	1020	1020	51	255	1275	0	0	0	510	0	0	1275
Mbabane East	2699	561	108	539	4536	0	0	0	0	540	54	180	525	0	0	0
Mbabane West	1808	355	72	362	2600	0	0	0	0	362	36	121	325	0	0	0
Mhlangatane	3239	0	405	202	1619	1620	81	404	3239	0	81	101	810	810	41	2023
Motjane	616	307	123	308	2462	1994	123	615	0	0	62	154	1231	997	62	3078
Ndzingeni	1264	0	158	158	1264	1102	63	316	0	0	35	0	632	551	32	1581
Nkhaba	523	130	78	131	1045	948	53	261	0	131	40	68	523	474	27	1307
Ntfonjeni	1534	767	192	0	1534	1534	77	383	0	192	32	0	767	767	39	1918
Pigg's Peak	473	947	237	95	1494	1218	95	473	0	0	40	48	747	609	48	1867
Timphisini	1168	417	83	83	668	560	34	170	1168	34	20	42	334	280	17	835
	20977	11539	2437	2163	23014	13194	851	4270	8194	1444	714	832	8790	6087	293	19850

Lubombo				Wo	rst Case				Most Likely Scenario											
Tinkhundla		Affected HH										Affe	cted HH			ire FAW				
	Drought	Flood	Storm	Ext.	Epidemic	Environ	Wildfire	FAW	Drought	Flood	Storm	Ext.	Epidemic	Environ	Wildfire	FAW				
				Temp		Hazard						Temp		Hazard						
Dvokodvweni	2944	145	216	2944	981	768		680	1963	90	50	563	491	260		250				
Hlane	751		0	751	0	530			500		0	275	0	158						
Lomahasha	2539		0	2539	846	463			1692		0	658	423	138						
Lubuli	1612		134	1612	537	499			1075		27	745	269	130						
Lugongolweni	2074		173	2074	691	625	87	538	1383		35	453	346	115	87	180				

Matsanjeni	1397	408	116	997	0	466	58		931	180	24	126	0	102	12	
North																
Mhlume	3585	308	0	1585	0	143			2390	148	0	78	0	69		
Mpolonjeni	2140		178	2140	713	325			1427		36	345	357	90		
Nkilongo	2726		227	2726	909	133			1817		46	598	454	48		
Siphofaneni	2665		222	2665	888	333			1777		45	652	444	76		
Sithobela	2945		0	2945	0	478			1963		0	766	0	158		
Total	25378	861	1266	22978	5565	4763	145	1218	16918	418	263	5259	2784	1344	99	430

Manzini		Worst Case							Most Likely Scenario							
Tinkhundla				Affe	cted HH				Affected HH							
	Drought	Flood	Storm	Ext.	Epidemic	Environ	Wildfire	FAW	Drought	Flood	Storm	Ext.	Epidemic	Environ	Wildfire	FAW
				Temp		Hazard						Temp		Hazard		
Kukhanyeni	1125		412	1125	506	273		425			206					207
Kwaluseni	1382		170	1382	6360	741							6360	341		
La-Mgabhi	591	338	219	591	230	997	193	591			111	273			57	311
Ludzeludze	1558		485	1558	563	373		588			243		563			352
Mafutseni	1190		321	1190	343	401		390	1934		160	611	343	187		156
Mahlangatsha	912	363	112	271	271			457		60	58	912				290
Lobamba	1356	378	125	365	670	393	126	256			65		277	191	72	148
Mangcongco	765		97	765	237			365			47					162
Manzini North	1721		69	1721	4696	637						321	496	237		
Manzini South	651		41	651	1735	331						151	335	131		
Mhlambanyatsi	610	398	161	610	351	237	359	305			79			137	78	109
Mkhiweni	1652		312	1652	371	178	95	652	460		152		371		30	298
Mthongwaneni	2174		217	2174	496			277	1457		109		267			107
Ngwempisi	1451	557	541	1451	355		161	651		157	163	451			42	295
Nhlambeni	752		243	752	299	277		295	572		76	197				134
Ntondozi	962	410	192	962	219	231	234	483		88	130	962	219		85	297
	18852	2444	3717	17220	17702	5069	1168	5735	4423	305	1599	3878	9231	1224	364	2866

Shiselweni				Wors	t Case						ſ	Most Lik	ely Scen	ario		
Tinkhundla	Affected HH						Affected HH									
	Drought	Floo	Stor	Ext.	Epid	Environ	Wildfir	FAW	Droug	Floo	Stor	Ext.	Epid	Enviro	Wildfir	FAW
		d	m	Tem	emic	Hazard	е		ht	d	m	Tem	emic	n	е	
				р								р		Hazard		
Gege	0	0	0	0	0	0	163	487	0	0	0	0	0	0	163	487
Hosea	3208		321	0	0		0	482	1604		97	0	0		0	482
Kubuta	0		0	0	0		0	189	0		0	0	0		0	189
Somntongo	1026		103	1026	1026		0	154	769		31	256	1026		0	154
Maseyisini	0		0	0	0		274	820	0		0	0	0		274	820
Matsanjeni South	2512		252	2512	2512		0	377	1884		76	628	2512		0	377
Mbangweni/Shise	0		0	0	0		311	932	0		0	0	0		311	932
lweni 2																
Mtsambama	0		0	0	0		0	488	0		0	0	0		0	488
Ngudzeni	1332		0	0	1332		0	200	667		0	0	1332		0	200
Nkwene	0		120	0	0		0	180	0		36	0	0		0	180
Sandleni	0		0	0	0		0	324	0		0	0	0		0	324
Shiselweni	1834		184	0	0		0	276	917		56	0	0		0	276
Sigwe	1907		0	1907	1907		0	287	1431		0	477	1907		0	287
Zombodze Emuva	0		0	0	0		124	370	0		0	0	0		124	370
	11819	0	980	5445	6777	0	872	5566	7272	0	296	1361	6777	0	872	5566

Annex – 14, Stakeholders Contact List

Government Lead & UN	Representative's	Functional Title	Organization/ Unit	Telephone/	Email Address
co-lead agencies	Name			Mobile No.	
Water, Sanitation and Hyg	iene				
Government lead agency	Makhosini Khoza	Water Systems	Department of		makhosini khoza
representative		Engineer	Water Affairs		<pre><khozamm4@gmail.com></khozamm4@gmail.com></pre>
Co-lead agency	Boniswa Dladla	WASH Programme	UNICEF	7611 8530	bdladla@unicef.org
representative		Officer			
Agriculture and Food Secu	rity				
Government lead	Bonginkhosi Ginindza	Economist	Ministry of	7647 3270	bonginkhosi@gmail.com
Ministry representative			Agriculture		
Alternate representative	Ambrose Dlamini	Agriculture Extension	Ministry of	7694 2528	ambrosedlamini@gmail.com
		officer	Agriculture		
Co-lead agency	Sibusiso Mondlane	National Facilitator	FAO	7615 2089	Sibusiso.Mondlane@fao.org
representative					
Health and Nutrition					
Government lead agency	Masitsela Mhlanga	Programme Manager	Health EPR	7606 3222	masitselamhlanga@gmail.com
Representative					
Alternate representative	Mduduzi Lokotfwako	Programme	Health EPR	7613 1306	lokotfwakomduduzi@gmail.com
		Coordinator			<pre><lokotfwakomduduzi@gmail.com></lokotfwakomduduzi@gmail.com></pre>
Co-lead agency	Dr. Kevin Makadzange	Senior Medical	WHO	78020175	makadzangek@who.int
Representative		Programme Officer			
Transport and Logistics					
Lead Agency	Phila Dlamini	Buildings Technician	Ministry of Public	7612 9673	Philasicelo01@gmail.com
Representative			Works & Transport		
Alternate representative	Richard Dludlu	Transport Manager	Ministry of Public	7677 2661	richdludlu@gmail.com
			Works and		
			Transport		
Co-lead Agency	Sandile Thwala	Programme Officer	WFP	7633 6878	sandile.thwala@wfp.org
Representative					
Social Protection					

Social Protection- Lead	Moses Dlamini	Director Social	DPMO	7606 3112	mosesdlamini541@gmail.com
Agency Representative		Welfare			
Alternate representative	Sifundzile Manana	Social welfare officer	DPMO	7622 6935	sifundzilemanana@gmail.com
UN Co-lead agency	Margareth Thwala – Tembe	Assistant	UNFPA	7802 6952	thwala-tembe@unfpa.org
		Representative			
Alternate representative	Thuli Dlamini – Teferi	Programme Analyst - Gender	UNFPA	7802 6943	dlamini-teferi@unfpa.org
Emergency ICT					
Government Lead Agency	Comfort Mhlanga	ICT officer	Ministry of ICT	7652 7861	comfortmhlanga@yahoo.com
UN Co-lead agency	Daison Ngirazi	Programme Policy Officer	WFP	7602 8873	daison.ngirazi@wfp.org
Education Sector					
Government lead agency	Stanley Maphosa	Economist	Ministry of	7657 3759	stantree50@gmail.com
			Education		
Un co-lead agencies	Victor Nkambule	Education Programme Officer	UNICEF	7608 5092	vnkambule@unicef.org
Camp Coordination					
Government lead agency	Wandile Bhembe	Senior Refugees	Ministry of Home	7628 0601	Wandile Bhembe
		Officer	Affairs		<pre><wandibhembe@gmail.com></wandibhembe@gmail.com></pre>
UN co-lead agency	Joseph Maziya	Commanding Officer	USDF	7606 2405	nixonndwandwe@gmail.com
Environment & Energy					
Government co-lead	Belusile Mhlanga	Environmentalist	Eswatini	78060233	belusile@sea.org.sz
			Environment		
			Authority		
Alternate member	Sandile Gumedze	Ecologist	SNTC	7605 3476	ecology@sntc.org.sz
UN co-lead	Sithembiso Hlatjwayo	Programme Analyst	UNDP	7602 3476	sithembiso.hlatshwako@undp.org
Coordination sector			T		
NDMA	Russell Dlamini	Chief Executive Officer	NDMA	7606 1801	russell@ndma.org.sz
DPMO	Zandile Mavuso	Disaster Manager	DPMO	7602 7337	zandilenx@gmail.com
NDMA	Sihle Mzileni	Operations Manager	NDMA	7806 4701	sihle@ndma.org.sz
NDMA	Victor Mahlalela	Technical Manager	NDMA	7806 4702	victor@ndma.org.sz
WFP	Margherita Coco	Head of Programme	WFP	7693 1637	margherita.coco@wfp.org
UNICEF	Joyce Mphaya	Programme Manager	UNICEF	7602 3095	jmphaya@unicef.org

UNDP	Sithembiso Hlatjwayo	Programme Specialist	UNDP	7602 3095	sithembiso.hlatshwako@undp.org			
Port Health (Port of Entry)								
Government co-lead	Sipho Shongwe	Environmental Health	MHO- Environmental Health Dept.	76689158	esshongwe@yahoo.com			
Alternate member	Daniel Sithole	Environmental Health	MHO- Environmental Health Dept.		Daniel Sithole <sitholedanh@gmail.com></sitholedanh@gmail.com>			

Annex 15, NGO Co-leads: Important Contact List

Areas of Responsibilities	Name	Functional Title	Organization/ Unit	Telephone/ Mobile No.	Email Address
Agriculture and Food Security	Zakhele Dlamini	Disaster Management Team Manager	World Vision Eswatini	7607 7635	Zakhele_Dlamini@wvi.org
Agriculture and Food Security	Nkosinathi Vilakati	Head of Programme	Save the Children	7604 5277	Nkosinathi.Vilakati@savethechildren.o rg
Agriculture and Food Security	Sifiso Mdluli	Livelihoods and Hunger Programme Lead	Save the Children	7608 9662	Sifiso.Mdluli@savethechildren.org
Agriculture and Food Security	Elliot Jele	Programme Manager	Red Cross	7608 8546	jele@redcross.org.sz
WASH	Sabelo Dlamini	WASH Programme Manager	Nazarene Compassionate Ministries	76054624	Sabelo michael <michaelsabelo@gmail.com></michaelsabelo@gmail.com>
Social Protection	Siphelele Mkhonta		Red Cross		
Social Protection	Nixon Ndwandwe	Platoon Commander	Umbutfo Eswatini Defense Force	7636 3044	'nixonndwandwe@gmail.com'
Camp Coordination	Pitso Ndlandla	Platoon Commander	OSSU	7636 1499	ndlandla3377@gmail.com
Camp Coordination	Dudu Ngwenya	Inspector	Royal Eswatini Police	7608 8640	dpngwenya@yahoo.com

Environment and	Msutfu Fakudze	Programme Manager	Conserve Eswatini	7611 1114	conserveenvEswatini6@gmal.com
Energy					
Environment and	Smart Dlamini	SHEQ Officer	Eswatini Electricity	7602 9352	smart.dlamini@sec.co.sz
Energy			Company		
National Fire and	Luke Lushaba	Assistant Divisional	Fire & Emergency	7604 7006	info@lushabatrans.co.sz
Emergency Services		Officer	Services		
Urban Response	Vusi Dlamini	Quality Assurance	Mbabane Municipality	7606 7880	vusidl@mbacity.org.sz
		Manager			
Urban Response	Zweli Maphanga	City Planner	Manzini Municipality	76154459	zwelim@mzcitycouncil.sz
Urban Response	Mzwandile Ndzinisa	Town Clerk	Piggs Peak Municipality	7802 2479	mndzinisa@piggspeak.org.sz
Urban Response	Tive Nxumalo	Town Planner	Matsapha Town Council	76910238	nxumalot@matsapha.co.sz
Urban Response	Apollo Maphalala	Town Clerk	Nhlangano Town	7602 7587	'ceo@ntc.co.sz'
			Council		
Urban Response	Phumzile Tshabalala	Town Clerk	Ngwenya Town Council	7802 0991	ngwenyatown@realnet.co.sz
Urban Response	Benjamin Msane	Community Development	Ngwenya Town Council	7802 0984	msanebenj@gmail.com
		Manager			
Urban Response	Dumsile Gamedze-	Municipal Aids	Piggs Peak	7645 4106	dgamedze@piggspeak.org.sz
	Mkhonta	Programme Manager			

Contact Information

For further enquiries, please contact NDMA HQs, Mbabane, Eswatini.

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