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NATIONAL ADVISORY BOARD
on Climate Change and Disaster Risk Reduction

GOVERNMENT OF VANUATU

**NATIONAL
ADVISORY BOARD
ON CC & DRR**

2017



SANMA Provincial Disaster & Climate Change Response Plan



PLAN AUTHORIZATION

This Plan has been prepared by Provincial Government Councils in pursuance of Section 11(1) of the National Disaster Act of 2000.

ENDORSED BY:

Date: / / 2017

Mr.
Chairperson
Provincial Disaster & Climate Change Committee

This Plan is approved in accordance with Section 11(2) of the National Disaster Act 2000.

APPROVED BY:

Date: / / 2017

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Ministry Of Climate Change and Disasters

Date: / / 2017

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PREFACE

Disaster Risk Management (DRM) Provincial level is a dynamic process. In order to adequately respond to disasters, there must be a comprehensive and coordinated approach between national, provincial and community levels.

This plan has been developed to provide guidelines on how to manage different risks in the province, taking into account the effects of the climate change that increase the strength of the hazard and potential impacts of future disasters.

This Provincial Disaster Response Plan provides directive to all agencies on the conduct of Disaster Preparedness and Emergency operations. This plan has been formulated in compliance with section **9 Part 3 of National Disaster Act NO.31 of 2000 Section 11 subsection 5**. The planning approach contained within focuses on a comprehensive hazard and disaster management strategy which clearly identifies and documents the essential organizational and procedural ingredients for effective prevention of, response to, and recovery from disasters.

The effectiveness of this document will depend on the ability of organizations and departments to understand its components, and also implement actions in accordance with the procedures listed and assigned disaster roles and responsibilities within their means of resources when need be.

The affected communities are expected to produce supporting Community Disaster Plans in accordance with the Provincial Disaster Response Plan.

This document is subject to review based on experience of hazards and lessons learned from managing all hazards including Climate Change as a slow onset hazard.

Honourable Counsellor

Secretary General - Provincial Government Council

This plan is valid for 5 years from the date of approval by the Director of the National Disaster Management Office and the Vanuatu Meteorology and Geohazards Department. The documents annexed to the Provincial Disaster Response Plan (PDRP) should be updated every year.

LIST OF ABBREVIATIONS

CDCCC	Community Disaster & Climate Change Committee
CRP	Community Response Plan
DRM	Disaster Risk Management
NDMO	National Disaster Management Office
EOC	Emergency Operation Centre
PEOC	Provincial Emergency Operation Centre
PDCCC	Provincial Disaster & Climate Change Committee
PDRP	Provincial Disaster Response Plan
VHT	Vanuatu Humanitarian Team
SG	Secretary General
SOP	Standard Operating Procedure
TOR	Terms of Reference
VMGD	Vanuatu Meteorology and Geohazards Department
VRCS	Vanuatu Red Cross Society

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SECTION 1. STRATEGY & SCENERIO BUILDING

1. Introduction

1.1. Mission Statement

The Provincial Council realises the value of disaster planning in ensuring that the economic, social and cultural wellbeing of the community is provided for. As such the Council has made a commitment to increase the preparedness levels of the province to respond to natural events. This plan is a requirement of the National Disaster Act N0.31 of 2000 Section 11 subsection 1 and its development has been planned in the National Disaster Management Office (NDMO) Strategy 2016 - 2020.

This Provincial Disaster Response Plan (PDRP) fits into the strategy of the National Disaster Plan (2010) as mentioned in section 3.10. The National Disaster Plan describes the communication links between the provincial and the national levels, especially for early warning system, Emergency Operational Centre (EOC) activation, assessment reporting and distribution processes.

1.2. Purpose, Scope and Objectives

This plan has been developed to assist the Provincial Disaster and Climate Change Committees (PDCCC) to coordinate Disaster Risk Management work. As described in the National Disaster Plan, PDCCC should “[...] ensure risk reduction is part and parcel of Provincial sustainable development plans”. That means that disaster preparedness has to be mainstreamed in the 5-year provincial development plan in every sector.

The PDRP is a general document presenting a multi-hazard risk approach. When a Province has to face an exceptional risk that, though unlikely, would have catastrophic consequences, a contingency plan has to be developed in addition of the PDRP and annexed to it.

Following the recommendation of the National Disaster Plan, the PDRP is focused on response. The response phase described in the present plan covers early warning, damage assessment and reporting, response (relief distribution...), and early recovery phases. The long-term recovery plan that could be needed in case of a major disaster would have to be specific, and is not addressed here. This document will be developed when the situation requires it.

Standard Operating Procedures (SOPs) are annexes to the PDRP, to guide the PDCCC during the response. These SOPs are developed at national level to ensure the consistency of the action on the whole territory.

The Provincial Disaster Response Plan should take into account the existence and/or the development of Community Disaster Plan integrating the Community Response Plan (CRP) in the definition of the provincial response options. The CDPs are developed in the main disaster prone areas by the Community Disaster and Climate Change Committee (CDCCC) with the support of DRM stakeholders. During emergency the CRPs are activated in coordination with the PDRP.

The objectives of the Provincial Disaster Response Plan are:

- To develop disaster scenarios according to the threats existing in the province.
- To set response options according to the scenarios developed.
- To adapt and formalise at provincial level the national procedures in term of communication and coordination (Early warning system, EOC, assessment, logistic etc.).
- To plan the mobilisation of resources in preparation of disaster emergency.

1.3. Methodology

The PDRP is developed through a participatory approach by consulting the PDCCC members and the Area Council Secretaries (ACS) to ensure the ownership of the document and its consistency with the provincial capacities.

The development of the PDRP is a process supervised by NDMO, PDCCC and DRM stakeholders. It is based on an initial workshop including:

- Training: The PDCCC members are trained on their roles and responsibilities, SOPs on early warning system, coordination of the Provincial Emergency Operation Centre (PEOC), damage and need assessments etc.
- Consultation: A consultation with the PDCCC is organised to define the disaster scenarios, the response options adapted to provincial context, and develop a response preparedness plan.

Following the consultation, the PDRP is compiled, tested and evaluated through a Simulation Exercise (SimEx), to be adjusted and finalised. The final edition is endorsed by the PDCCC chairman and approved by both directors from NDMO and Vanuatu Meteorology and Geohazard Department (VMGD).

The plan has to be updated at least once a year to ensure that some annexes such the contact list, the SOPs, the communication trees are correct.

The plan has to be fully reviewed every 5 years to ensure its consistency with the provincial capacities and the national legislation. New consultation workshop and simulation exercise have to be organised in this timeframe.

2. Situational Overview

This part describes briefly the overall situation of the province in terms of geographic situation, demographics & socio-economic conditions.

Geography

SANMA Province consists of two main islands, Espiritu Santo and Malo, hence the initials giving it the name SANMA.

SANMA host the biggest island of Vanuatu, Santo, and is the second most populated province. It hosts the Second town of the country, Luganville, as well as extreme remote places such as North West Santo and Big Bay Middle bush. The province is prone to numerous hazards to droughts, tsunamis, flooding and cyclones.

Each island of SANMA Province has its own specificities and physical features which set it apart and distinguish it from the other islands.

Demography

The province has a population of 54,000 people (VNSO 2016), with detailed demographic figures in and an area of 4 248 km². There are 9 main inhabited islands.

Province head quarter situation

SANMA Provincial Government has 12 established area council. The Provincial Headquarters is located in Luganville, on Santo. SANMA Provincial Government Council currently employs 30 staffs and 18 Councillors representing the main islands of SANMA Province

Infrastructure and services

SANMA has a total of 400 km of earth roads are surfaced in:

- 53 KM Tarseal road to East Santo
- 78 Km from Luganville to Bigbay
- 68 Km From Luganville to Tassiriki
- 40 Km around Luganville town
- 6 Km road on Tutuba Island
- 28 Km road on Malo Island.
- 19 Km road on Aore Island
- Plus Feeder roads

There is an international airport (Pekoa) in service in Santo Island and Lajmoli Airport an airstrip

in the northwest that is in good condition but not in use.

There are 5 main Ports/Wharf in Luganville, good anchorage on offshore island and other parts of the island preferred for barge landing.

Radio Services – Radio Vanuatu, and FM107, reception is limited to remote areas

Presence of Digicel and TVL network but limited to some areas. Plan is in place to build towers to isolated locations that need mobile networks.

There are 100 primary school, 16 Secondary school and 158 early childhoods Education around Sanma.

Health Services available are 48 Aid Post, 19 Dispensary, 9 Health centre and 1 Hospital.

Livelihood

The people depend entirely on Farming, (Copra, Cocoa, Cattle, market).

Tourism is also a growing industry in Sanma.

2.1. SANMA Province Overview Map



3. Hazard Risk & Vulnerability Profile

This part describes the hazard, risk and vulnerability situation of the province.

3.1. Historic Disaster Timeline

It is important to understand the natural hazards the inhabitants are living with, and the potential threats they can cause to the communities, the environment, economic and social services. To achieve this, the historical data are crucial.

The table below summarizes the previous disasters that occurred in the province. The columns provide the following information's for each hazard:

- **Description of the hazard:** Describe type of hazard, intensity, date & location
- **Damage and loose:** Provide description and figures as much as possible on the following elements: population impacted damages on individual proprieties and infrastructures, impacts on livelihood and economic sectors...
- **Response:** What actions have been taken during and after the disaster?

Description of the hazard	Damage and loss	Response
Cyclone		
TC ZENA – 2016 Category 1	<ul style="list-style-type: none"> ➤ House destroyed ➤ Garden impact ➤ Tree falling down ➤ All School were close ➤ Electricity breakdown 	<ul style="list-style-type: none"> ○ Provincial disaster committee (PDC) ○ Public works department (PWD) ○ Community Disaster Committees (CDCs) ○ Non-Government organizations (NGO)
TC Pam -2015 Category 5	<ul style="list-style-type: none"> ➤ Houses were damaged ➤ Gardens ➤ Electricity ➤ Communication breakdown 	<ul style="list-style-type: none"> ○ NDMO ○ NGO ○ Police force ○ Shelter kit ○ Government ○ Agriculture
TC Lucy – 2014 Category 2	<ul style="list-style-type: none"> ➤ Flood and landslide ➤ 8 confirm Dead ➤ Minor damages to Gardens 	<ul style="list-style-type: none"> ○ NDMO ○ Non-government organizations (NGO's) ○ Vanuatu Mobile force (VMF) & Police ○ Provider Shelter kit + gender kits.
TC 2003- Seven months	<ul style="list-style-type: none"> ➤ Negative impacts to 	<ul style="list-style-type: none"> ○ Education

Drought	<ul style="list-style-type: none"> crops. ➤ Shortages of water ➤ Some Schools were closed due to shortage of water 	<ul style="list-style-type: none"> ○ Health ○ Agriculture
TC Paula - 1993	<ul style="list-style-type: none"> ➤ Flooding to low lying areas ➤ Minor damages to gardens. ➤ No casualties 	<ul style="list-style-type: none"> ○ Education ○ Health ○ Agriculture ○ Communication through VHF radio
TC Lisa May - 1991	<ul style="list-style-type: none"> ➤ Minor damages to some areas around sanma province ➤ Flooding and landslide to prone areas. ➤ Minor damages to houses 	<ul style="list-style-type: none"> ○ Health ○ Agriculture
TC Uma 1987	<ul style="list-style-type: none"> ➤ All areas around sanma province were badly damaged ➤ Flooding and landslide to prone areas. ➤ Negative impacts to people's livelihood 	<ul style="list-style-type: none"> ○ NDMO ○ Non-government organizations (NGO's) ○ Police force & VMF ○ Provider Shelter kit + gender kits ○ External support
TC Nigel 1985	<ul style="list-style-type: none"> ➤ All areas around sanma province were badly damaged ➤ Flooding and landslide to prone areas. ➤ Negative impacts to people's livelihood. 	<ul style="list-style-type: none"> ○ NDMO ○ Non-government organizations (NGO's) ○ Police force ○ Provider Shelter kit + gender kits.
Severe weather / Flooding / Landslide		
Tropical Low Cyclone Zena April 2016	<ul style="list-style-type: none"> ➤ Flooding along low plains (pepsi, Mango sarakata, Solway,Pump) ➤ Homes plus gardens 	<ul style="list-style-type: none"> ○ Community evacuation into schools ○ Activation of PDC

TC PAM March 2015 Flooding on Low Plains	<ul style="list-style-type: none"> ➤ Pepsi, sarakata solway pump homes damaged from flooding 	<ul style="list-style-type: none"> ○ Relocated to evacuation centers.
Cyclone Luci 2014	<p>Landslide/Flooding of Borande Village, South Santo:</p> <ul style="list-style-type: none"> ➤ 8 Casualties ➤ All houses destroyed ➤ Village no longer exists ➤ Badmel landslide 	<ul style="list-style-type: none"> ○ NGOs response with SPGC + communities for immediate evacuation ○ Relief supply of shelter ○ Food ,water & health supply ○ Permanent relocation Tawin
Cyclone Luci 2014	<ul style="list-style-type: none"> ➤ West coast, Vunavai, Olpoi Wunpuko & Patmel from north west Santo 	<ul style="list-style-type: none"> ○ Government response ○ Sanma PDCC Support ○ NGOs ○ Different Church denominations Support ○ Individual, Community + Business house.
Cyclone Luci 2014	<ul style="list-style-type: none"> ➤ landslide at ipayato ➤ Riverside erosion result to landslide ➤ Cash crops damaged (coconuts) 	<ul style="list-style-type: none"> ○ Community response to evacuate + relocate
Flash Flooding on Malo 2012	<ul style="list-style-type: none"> ➤ Coconut , cash and food crops damaged 	<ul style="list-style-type: none"> ○ Provincial support in terms of food distribution 1 tone rice
Flash Flooding on Ipayato S/Santo 2012	<ul style="list-style-type: none"> ➤ Coconut , cash and food crops damaged ➤ 50 graves were washed away at Ipayato community S/Santo 	<ul style="list-style-type: none"> ○ Community Support
Regular Heavy Rain (Ongoing for 3 days)	<ul style="list-style-type: none"> ➤ Pepsi, sarakata, Solway, pump homes flooded 	<ul style="list-style-type: none"> ○ Relocate to homes at higher ground.
Earthquake / Tsunami		
2016 – Sanma earthquake	<ul style="list-style-type: none"> ➤ Shop close(food Shelf down) 	<ul style="list-style-type: none"> ○ Evacuation of people to higher ground in communities

		<ul style="list-style-type: none"> ○ People from Luganville were evacuated to Sapi Area
2011 – Earthquake followed by an international Tsunami warning	<ul style="list-style-type: none"> ➤ All shop in Luganville were close 	<ul style="list-style-type: none"> ○ All People living along low land areas along sea coast of Luganville & Sanma were evacuated to higher grounds.
1992- big bay Area	<ul style="list-style-type: none"> ➤ Houses were destroying along the coast. ➤ Storage houses were destroy 	<ul style="list-style-type: none"> ○ Community
1990 - Luganville	<ul style="list-style-type: none"> ➤ Cracking of road from ANZ Bank ➤ Main wharf (cracked) ➤ CFNH demolished 	<ul style="list-style-type: none"> ○ Community
1972- Luganville West coast Santo & all around Sanma Area	<ul style="list-style-type: none"> ➤ Balan super market demolished ➤ BP wharf crack ➤ Damaged to houses and road ➤ CFNH Building demolished 	<ul style="list-style-type: none"> ○ Community
Coastal erosion		
Fire		
Aore Bush fire 2016	<ul style="list-style-type: none"> ➤ Damage coconuts plantation & vegetation 	<ul style="list-style-type: none"> ○ Community
Forestry Office	<ul style="list-style-type: none"> ➤ Damage to office 	<ul style="list-style-type: none"> ○ Fire service
Popaca	<ul style="list-style-type: none"> ➤ Damage to Building 	<ul style="list-style-type: none"> ○ Fire Service but late
Niscol Office	<ul style="list-style-type: none"> ➤ Damage to building 	<ul style="list-style-type: none"> ○ Fire service but late
Damming Store	<ul style="list-style-type: none"> ➤ Fuel office damage 	<ul style="list-style-type: none"> ○ Fire Service but late. ○ Air Vanuatu/ AVL
Matevulu Generator Shed	<ul style="list-style-type: none"> ➤ Building Destroyed 	<ul style="list-style-type: none"> ○ School Response
Bush fire 2015 close to airport	<ul style="list-style-type: none"> ➤ Garden Destroyed 	<ul style="list-style-type: none"> ○ Fire Service But late ○ AVL

Palms Estate	➤ Vegetation	○ Air Ports Vanuatu
2015	➤ 12 houses burn down	○ Red Cross respond to 9 houses
Drought		
2015 - 2016 El Nino	<ul style="list-style-type: none"> ➤ Bush fire ➤ Death animal ➤ Shortage water ➤ Dried to Crops on gardens ➤ Land slide ➤ Food shortage ➤ House burn / fire ➤ Malnutrition <p>Outbreak of disease:</p> <ul style="list-style-type: none"> ○ Skin infection ○ Diarrhea ○ Red eye ○ flu 	<ul style="list-style-type: none"> ○ 2015-16 response ○ World vision ○ Save the children ○ Red Cross ○ Health center Agriculture – Malo & west Santo ○ Water distribution in Malo ○ Distribution of 403 jerry cans in Malo communities ○ Water filter, buckets distributed in west coast ○ Awareness & IEC material to 9 community in East Malo and west coast ○ 197 to all schools, an HC in Malo ○ Water conservation, health awareness in Malo ○ 1 CDC west coast ○ Assessment on malnutrition of the children (MUACH) ○ Hygiene kit ○ Water catchment storage in 6 community in East Malo
1972- 1987 - 2003 – 2007		○ Community response
○ Accident (search and rescue)		
Ship Wrecked (Christopher Emilee 2016	➤ No Casualties	○ Communities of Hog Harbor and Port olry
1979 -Santo Rebellion	<ul style="list-style-type: none"> ➤ One death (Jimmy Stevens son) ➤ Damaged to properties ➤ Displaced of communities around Sanma Communities 	<ul style="list-style-type: none"> ○ Vanuatu government ○ PNG Force + British and French Army

Missing Boat at North west Santo	➤ No casualties	<ul style="list-style-type: none"> ○ Sanma PDC ○ NDMO ○ DR Mark Turnball ○ MV Lara Star ○ P&O Shipping services ○ Maritime College ○ Ports and Harbor
1991 - Plane crash at Olboe village (all passengers died)	➤ All passengers died	<ul style="list-style-type: none"> ○ Vanuatu government ○ Outside assistance
2008 - Second Plane crash at Vunavai village	<ul style="list-style-type: none"> ➤ Two dead ,injuries dramatized until today ➤ 	<ul style="list-style-type: none"> ○ First respond -Chief & communities respond ○ Sanma Provincial government ○ NDMO ○ Vanuatu mobile force (VMF) ○ Vanuatu police response team
Ship sink MV Tamata(Malo) MV Rotan MV Molivatu(TC Zina) MV Christili(TC PAM) MV Atchin MV Nalgutan MV Amson MV Kalili	<ul style="list-style-type: none"> ➤ No loss of life's ➤ Damage coral reef ➤ Oil spill ➤ Pollution ➤ Damage reef 	<ul style="list-style-type: none"> ○ Captain & Crews
Road Accident Mark Ati Small Kuvu Noel James Fanafo Steven Remi Joseph Riri Peter Napuat	<ul style="list-style-type: none"> ➤ One death + injuries ➤ One death + injuries ➤ Three deaths + injuries ➤ Two deaths + injuries ➤ Two deaths + injuries ➤ One death + 	<ul style="list-style-type: none"> ○ Community ○ Pro - Medics ○ Police ○ Ambulance (NDH)

	injuries	
➤ Health (Epidemic)		
Bird Flu – Global Epidemic	<ul style="list-style-type: none"> ➤ Affect lives threat to human lives ➤ High fever ➤ Cause death 	<ul style="list-style-type: none"> ○ Monitor all entry points by medical experts

Analysis:

Analysis

In Sanma the main large scale disaster that occur in the past are the tropical cyclone and the flood (slow onset and flash flood) that are often like this the cyclone. The flooding area are well known and concerning both urban area (Pepsi, Mango...) and rural area (south Santo, big bay...). Flood have in Sanma a heavy impact on the shelter, livelihood and could as well cause casualties. The drought has also a severe impact during 2015 – 16 El Niño events in some drought prone area like East Malo and west Santo. Accidents are also very common in Sanma, because of many roads and boat traffic. Even the impact of each event is geographically limited by definition; many times it is cause death.

3.2. Hazard Profiles

This subsection gives an overview of the existing hazard in the province that could be a threat for the population or the economic activities. The description is based on the scientist and social knowledge of each hazard.

Cyclone

Vanuatu is located on the South Pacific cyclone belt. Every year Vanuatu receives minor to major cyclone activity that causes a lot of damage to the communities, the environment, the economy and social services delivery. The cost of cyclone rehabilitation programs is increasing and sets back our economic growth and stability.

Our cyclone season lasts from November to April. However, cyclones can also form outside of this tropical storm-prone period.

Storm surge associated with cyclones is regarded as a threat to communities living in coastal low lying areas throughout the country.

Cyclones can also cause associated disasters such as flooding and landslip. These associated disasters affect communities and individuals who should always think about their own safety by listening to information from the Meteorological Department and the NDMO.

Some of the damages provoked by a cyclone include: Loss of basic Public Services, Damaged roads, damaged buildings and damaged root crops.

Severe weather / Flooding / Landslide

Culturally, communities are most likely located near river banks in low lying areas which are prone to flooding, as well as coastal low lying areas. These villages are vulnerable every year when there is a cyclone or heavy rainfall, because of the associated threat of flooding which might lead to Landslides and flash floods

Floods destroy gardens, houses, personal belongings, and even people as high river levels cause infrastructure damage to bridges and roads. With our current growing population and urban drift it is obvious people move to areas they can afford to live in, generally low lying areas prone to flooding.

Earthquake / Tsunami

Earthquake presents a high, but infrequent risk to SANMA Province. The main vulnerable areas are the highly populated coastal line areas where vulnerable in case of tsunami. Apart from general earthquake damage, landslides can inundate gardens, roads and bridges, as well as communities.

Volcano

Coastal erosion

Coastal erosion around Sanma Province is Slowly occurring due to the wearing a way of land and the removal of beach or dune sediments by wave action, tidal currents, wave currents, and drainage or high winds. It also *caused* by a number of factors, including natural processes such as the wind, rain and waves, as well as human activities. Additionally it can be cause by very destructive forces of storms and hurricanes.

Fire

Fire Services are based in Luganville Town and the Pekoa Airport .However a requirement of more resources is needed to be fully equipped, resourced with appropriate equipment to be prepared to fight and rescue victims from the outbreak of a fire. The need to strengthen fire service in Sanma Province is a priority.

Drought

Drought is becoming concern for the communities of the SANMA Province. This normally leads to lower production of vegetables, root crops and water shortages causing health problems due to unbalanced diet and sanitation problems. Drought can cause many schools to close as they cannot continue due to food shortages and pupils not attending class.

Departments of Agriculture, Water, and Health need to educate people who are living in these vulnerable areas to change some cultural practices or conduct technical research into what further mitigation projects can be done to minimize or reduce the risk.

Climate Change

Climate Change in Vanuatu clearly poses an acute danger to low-lying islands of SANMA Province such, whose long-term viability may be threatened. Seasonal weather is predicted to become more extreme and with a majority of the island's population living directly off their land, the most crucial question surrounding climate change in Vanuatu is its effect on food and water security. There are concerns that Climate Change could reduce agricultural yields through heat stress, changes in rainfall and greater pest activity.

Accident (search and rescue, Boat Capsizing, Air Craft Accident, Marine Oil Spill, Industrial etc.)

Search and Rescue

Search and Rescue is carried out by and within the community and is co-ordinated by the community disaster and climate change committee. However, if the CDC lacks resources further assistance from the PDC is required. Should it be necessary, teams from VMF or the Navy could

be called upon.

Boat Capsizing

With the increase of motor boat traveling to some of the remote and isolated areas in Sanma, an increased awareness on safety precautions is required. This is to minimize boat capsizing and at the same time reduce unnecessary expenses and resource wastage during an unexpected incident.

Oil Spill

Sanma has 4 domestic wharfs and one international wharf and receives many Ships and boats, around the Northern parts of Vanuatu to Sanma Province. Many cruise ships dock at Luganville main wharf and Champagne Beach, with many other international boats, ships, oil tankers and cargo ships entering SANMA's waters.

Plane Accident

The possibility of an aircraft accident at the airport, or elsewhere is high, due to conditions of the airports. Pekoa International Airport on Santo receives a great deal of plane traffic, and at the same time is a transit point for passengers travelling to the Northern Islands and abroad. In the case that an accident should happen, Airport Management has a well-established Emergency response plan in place.

Industrial Accidents

Sanma Province particularly Santo is developing at a high rate. While safety precautions are high, the eventuality of an accident involving explosive chemicals and fuel is high at this stage. The town is beginning to become more crowded, with people, buildings, and an increased number of vehicles on our road. The potential for 'man-made' industrial type accidents or disasters is increasing and as a result the risk factor is high especially in Luganville Town

Health (Epidemic)

It is important that safety is observed at all times through regulations to ensure livestock export trade is disease free. An outbreak of exotic animal disease would cripple Vanuatu's economy. Therefore, all steps must be taken to prevent this from occurring. The Agriculture Department and Live Stock Department are lead agencies in developing Animal Exotic Disaster Response Plan.

The people of Vanuatu are also exposed to modern transmitted viruses and pathogens. The Department of Health is responsible for the monitoring, detection and treatment of any outbreaks. Due to our people's high travel needs and the tourist trade, the risk of introducing diseases is high.

3.3. Disaster Scenarios

This subsection describes the disaster scenarios that could potentially occur in the province. They are established by the PDCCC according to the historical events and the hazard profile of the province.

For each hazard different kind disaster scenarios can be considered. They are defined by the strength of the hazard, the level of loss & damage and the response capacities available.

Three levels of disaster scenarios are considered:

- **BEST - CASE SCENARIO**
 - Limited impact (1 village) - few damages
 - The community can recover by itself in few weeks
- **LIKELY - CASE SCENARIO**
 - Significant impact (one island or part of it) – Impacts on several sectors like livelihood or/and infrastructures.
 - Communities require support from the province and might recover in few months
- **WORST - CASE SCENARIO**
 - Severe impact (full province) – Impacts livelihood and economic sectors, major damages and losses on infrastructure.
 - Communities require support from the national and international stakeholders and might recover in years.

For each scenario, the following information is provided:

- **Hazard strength:** Category, strength of the hazard, area of impact, timing of the hazard (quick or slow onset)
- **Damage and losses:** Damage, figure of population/ number of community / area affected
- **Sector impacted:** Example, Health, water and sanitation, livelihood, agriculture, education.

Scenario	Hazard strength	Damage and loss	Sector impacted
Cyclone			
<i>Best-case</i>	Cyclone Zena (2016) Category 1 <ul style="list-style-type: none"> ➤ Few houses destroyed ➤ Some gardens (crops destroy) ➤ Fallen trees blocking the road ➤ Some classroom have minor damage 	App 50 people affected	<ul style="list-style-type: none"> ○Agriculture ○Education ○Infrastructure

	(locally made)		
<i>Likely-case</i>	Cyclone Lucy (2013) Burante Category 2 <ul style="list-style-type: none"> ➤ Flooding ➤ Village destroy ➤ Aid post ➤ Kindergarten ➤ Classrooms damaged ➤ Gardens we damaged ➤ Poor road conditions 	Purante (South Santo) <ul style="list-style-type: none"> ○ 8 people dead ○ 32 people affected ○ 13 Household destroyed 	<ul style="list-style-type: none"> ○ Education ○ Health ○ Agriculture
<i>Worst-case</i>	Cyclone Pam 2015 Category 5 <ul style="list-style-type: none"> ➤ House ➤ Communication ➤ Water ➤ Power ➤ Business House 	Few damages all around sanma	<ul style="list-style-type: none"> ○ Agriculture ○ PWD ○ UNELCO ○ TVL/Digicel ○ Infrastructure
Earthquake / Tsunami			
<i>Best-case</i>	Regional Tsunami impact on 1990 <ul style="list-style-type: none"> ➤ Coastal houses ➤ storages houses ➤ homes destroyed ➤ Boats ➤ canoes ➤ Animals ➤ Gardens Tsunami warning (April 2016) <ul style="list-style-type: none"> ➤ All shops in Iuganville were closed 	Big bay (North east Santo) <ul style="list-style-type: none"> ○ Communities living along the coast from big bay Tsunami warning for Sanma	<ul style="list-style-type: none"> ○ Business houses ○ Coastal resources ○ Livestock ○ Agriculture No sectoral impacts

<i>Likely-case</i>	<p>Powerful earthquake (1990 or 1972)</p> <ul style="list-style-type: none"> ➤ Cracking of road ➤ Concrete building collapse 	<p>Impacted Luganville</p> <ul style="list-style-type: none"> ○ Few casualties 	<ul style="list-style-type: none"> ○ Infrastructures ○ Shelter ○ Livelihood
<i>Worst-case</i>	<p>Major Earthquake and major local tsunami</p> <ul style="list-style-type: none"> ➤ 8 + on Richter scale at less than 50 km deep.) ➤ Most of the concrete building and infrastructure get major damage. ➤ All the low lines are less than 10 meter are impacted by a major tsunami. 	<p>Severe Impact on all of Sanma Province</p> <p>Heavy humanitarian consequences</p> <ul style="list-style-type: none"> ○ 1,000 people affected ○ Many dead and injured 	<ul style="list-style-type: none"> ○ Shelter ○ Transport ○ Communication ○ Livelihood <ul style="list-style-type: none"> ○ Health ○ Wash ○ Protection
Severe weather / Flooding / Landslide			
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Relocation ➤ Shortage of food supply ➤ Erosion ➤ Impacts few households 	<p>Few households were relocated</p>	<ul style="list-style-type: none"> ○ Land ○ Shelter/ housing ○ Education/ health ○ Agriculture ○
<i>Likely-case</i>	<ul style="list-style-type: none"> ➤ Relocation ➤ Shortage of food supply ➤ Outbreak of water borne diseases ➤ River Erosion 	<p>Impacts few communities</p>	<ul style="list-style-type: none"> ○ Agriculture ○ Health ○ Education ○ Lands ○ Infrastructure
<i>Worst-case</i>	<p>Impact of flooding/ landslide risk zones/ areas</p> <ul style="list-style-type: none"> ➤ Shortage of food supply ➤ Outbreak of related diseases 	<p>All Area councils of Province</p>	<ul style="list-style-type: none"> ○ Land housing ○ Education health ○ Agriculture

Drought			
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Impact on Food crops ➤ Animals look unhealthy ➤ Drought last for 1-4 months 	Number of people affected 100 +	<ul style="list-style-type: none"> ○ Agriculture ○ Livestock ○ Health
<i>Likely-case</i>	Drought last for 5-10 months	Areas likely to be more vulnerable to drought in Sanma Province: <ul style="list-style-type: none"> ○ West coast -600 ○ Araki-150 ○ Some areas in south santo-1000 ○ South east Santo 2000 ○ Malo - 3000 	<ul style="list-style-type: none"> ○ Agriculture ○ Livestock ○ Health ○ Shelter ○ WASH ○ Education
<i>Worst-case</i>			
Fire			
<i>Best-case</i>	West Coast Santo <ul style="list-style-type: none"> ➤ Garden damaged ➤ Coconut plantation badly damaged ➤ 20 HH affected 		<ul style="list-style-type: none"> ○ Agriculture ○ Health
<i>Likely-case</i>			
<i>Worst-case</i>			
Accident (Search & Rescue, etc.)			
<i>Best-case</i>	Family Domestic violence <ul style="list-style-type: none"> ➤ Propriety damage ➤ Social issue/ dispute at household level 	Family	<ul style="list-style-type: none"> ○ Family/ Households ○ Chiefs ○ Church Leaders
<i>Likely-</i>	Community dispute		<ul style="list-style-type: none"> ○ Family

<i>case</i>	<ul style="list-style-type: none"> ➤ Case of dead ➤ Damage of propriety 		<ul style="list-style-type: none"> ○ Individual ○ Chief ○ Police
<i>Worst-case</i>	<p>Plane Crash</p> <ul style="list-style-type: none"> ➤ 50 to 300 dead or injuries ➤ Cost of plane ➤ Loss of propriety <p>Vanuatu ferry</p> <ul style="list-style-type: none"> ➤ 300-500 affected people (dead/injuries) 		<ul style="list-style-type: none"> ○ Company ○ Community ○ Individual / family ○ Company ○ Business ○ Family ○ External SAR team
Health (Epidemic)			
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Sanitation affected ➤ Water quality affected ➤ Diorehea cases ➤ Castro infection 		<ul style="list-style-type: none"> ○ Health ○ Community facilities ○ NGOS(SC ,WV)
<i>Likely-case</i>	<p>High number of mosquitoes breeding sites</p> <ul style="list-style-type: none"> ➤ Reported cases 		<ul style="list-style-type: none"> ○ Public Health ○ Malaria Program
<i>Worst-case</i>	<ul style="list-style-type: none"> ➤ High fever ➤ Flu symptoms 		<ul style="list-style-type: none"> ○ MOH /WHO ○ PHO ○ Air Vanuatu ○ Ports & harbour ○ Airports Vanuatu

3.4. Risk Matrix

The risk matrix shows how each hazard scenario sits in regards to likely impacts caused (probable damage level) against the frequency of the hazard occurring.

Below is a matrix mapping the different hazards in Sanma Province. From the matrix, we can gauge the hazard that pose an extreme risk and that we need to spend time preparing for and those that pose a very low risk, hazards that can still occur but for which we only spend minimal time and resources planning for. This gives us an idea of the hazards that potentially cause most damages and losses. Contingency plan could also be developed in case of high or exceptional hazard.

		HAZARD RISK ANALYSIS MATRIX				
PROBABLE DAMAGE resulting from the event if it occurs	CATASTROPHY		Tsunami Earthquake	Cyclone		EXTREME DISASTER RISK
	CRITICAL			Flood	HIGH DISASTER RISK	
	SEVERE			SOME DISASTER RISK		
	MODERATE		LOW DISASTER RISK	Accident		
	MINOR	VERY LOW DISASTER RISK				
LIKELIHOOD		RARE	UNLIKELY	POSSIBLE	LIKELY	IMMINENT

DEFINITION of LIKELIHOOD terms for use in this exercise.....

RARE	Very unusual event not expected to occur more frequently than once in 500 years (such as meteorite strike or massive tsunami in some areas)
UNLIKELY	Unusual event not expected to occur more frequently than once in 100 years (Massive earthquake in some areas)
POSSIBLE	Occasional event expected to occur once in every 20 years (super cyclone)
LIKELY	Regular event expected to occur at least once in every 10 years (named cyclone or flooding)
IMMINENT	Scientifically predicted or expected to occur within 1- 5 years, (dam failure) months (some landslides, volcanic eruption) or even days (named cyclone tracking warning).

DEFINITION of PROBABLE DAMAGE terms for use in this exercise.....

MINOR	No casualties, infrastructure not seriously affected, light impact on gardens, commerce and normal activities only slightly disrupted
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MODERATE	Few casualties, infrastructure slightly damaged resulting in loss of basic services for less than one week. Normal activities disrupted for less than one week.
SEVERE	Several casualties, damaged infrastructure requiring significant assistance to repair, loss of some services for up to one month.
CRITICAL	Tens of casualties, severely damaged infrastructure, and housing, major disruption of basic services for up to 6 months. Businesses, government, and community activities are seriously disrupted causing massive displacement of population.
CATASTROPHY	Hundreds of casualties, widespread destruction of housing, infrastructure, government and private business systems and services. Loss or disruption of basic services may last more than one year leading to massive displacement or even abandonment of affected areas.

3.5. Vulnerability, Multi-hazard and Disaster Risk mapping

The disaster risk mapping gives a spatial overview of the population and infrastructure exposure to a multi hazard risk indicator. The disaster risk map is built during the PDRP workshop with the knowledge of the PDCCC and not on scientific data. It is decision aid tool for PDCCC to analyse a situation during an emergency. It is empiric and should not be used for other purpose such as development of projects or activities.

The multi hazard risk indicator is based on analysis of the vulnerability and the multi- hazard exposure. This analysis is the result of the following equation:

$$\text{Disaster Risk} = \text{Vulnerability} \times \text{Exposure}$$

The variable levels are determined by spatial criteria as follow:

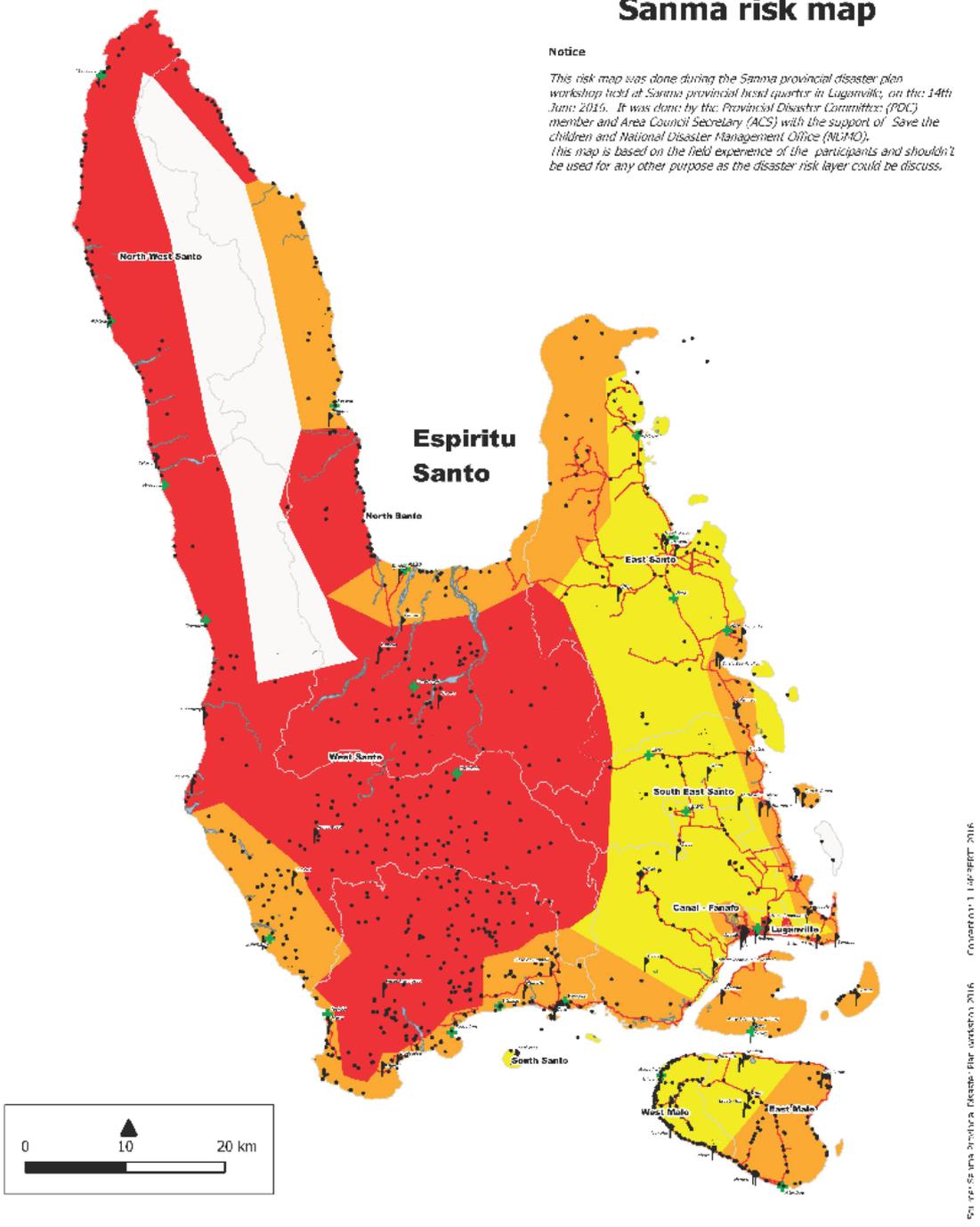
- **Vulnerability:** Access to services (education, health, shipping, etc.), infrastructure (communication, transport, etc.), density of the population (it increases the number of vulnerable people).
- **Multi-hazard exposure:** Intensity and frequency of hazard (based on historical data), number of hazard.

		Multi-hazard exposure		
		Low	Medium	High
Vulnerability	High			High risk of disaster
	Medium		Medium risk of disaster	
	Low	Low risk of disaster		

Sanma risk map

Notice

This risk map was done during the Sanma provincial disaster plan workshop held at Sanma provincial head quarter in Luganville, on the 14th June 2016. It was done by the Provincial Disaster Committee (PDC) member and Area Council Secretary (ACS) with the support of Save the Children and National Disaster Management Office (NDMO). This map is based on the field experience of the participants and shouldn't be used for any other purpose as the disaster risk layer could be discuss.



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Sanma disaster risk map

MAP KEY

Administrative

- Community
- Area council

Infrastructure

- Health services
- Schools
- Roads

Risk Level

- High
- Low
- Medium
- No man land

RISK MATRIX

	Low	Medium	High
High			High risk of disaster
Medium	Lower risk of disaster	Medium risk of disaster	
Low			

This section deals with different planning assumptions/ disaster scenarios and the associated impacts in terms of figures and caseload, taking into consideration vulnerable groups, and how they would be affected.

3.6. Disaster triggers

Natural hazards such as heavy rainfalls, seasonal periods of drought and earthquakes are common throughout Vanuatu. For thousands of years, people have learned to live with them and to cope with their impacts.

It is only when people are unable to cope with a hazard, and need outside help, that it becomes a disaster.

The magnitude, or size, of a disaster depends on three factors:

1. The strength, or intensity, of the hazard.
2. The exposure of the community to the hazard, for example, for how long the hazard occurs, or whether the community is situated close to the hazard.
3. The vulnerability of the community. This means the extent to which the community cannot cope with the impacts of the hazard.

The intensity of the disaster, the exposure and vulnerability of the communities are three factors that, together, may trigger a disaster.

The table below summarises the main trigger per hazard and indicated the linked SOP that should be activated.

Hazard	Trigger	Linked SOP
Cyclone	NDMO ALERT / Warning for the province Cyclone category (Upper Cat 2) ○Cyclone track on the tracking map (Less than 100 km)	<u>Annex 4; PEOC SOP</u> ○
Severe weather / Flooding / Landslide	METEO LA NINA / Heavy rain Warning Natural sign ○First community assessment report	<u>Annex 4; PEOC SOP</u> ○
Earthquake/ Tsunami	NDMO ALERT / Warning Natural sign ○First community assessment report	<u>Annex 4; PEOC SOP</u> ○Assessment Sop
Volcano	GEOHAZARD Warning ○Natural sign	<u>Annex 4; PEOC SOP</u> ○
Drought	METEO EL NINO Warning Natural sign ○First community assessment report	<u>Annex 4; PEOC SOP</u> ○Assessment Sop

Population at risk

Men and women work together to raise their families, produce food, generate income and shape their community. But they often perform different daily activities to meet these goals. We need to recognize the different roles and needs of men and women, as it helps us understand their vulnerability to hazards and climate change.

Babies and infants are also vulnerable to hazards and climate change. International standards consider 5 the age limit of vulnerability. Children depend on their parents to carry them to safety, and are easily affected by diseases such as diarrhoea, malaria and dengue.

School children are also vulnerable. But they can move quickly and before the arrival of a hazard they can help to promote awareness, distribute warnings, organise evacuations and prepare safe houses.

Elderly people are more likely to suffer from sicknesses and may have difficulty moving around. When an earthquake, a tsunami, a landslide, a flood or another rapid-onset hazard arrives, they cannot run to a safe place, and therefore are very vulnerable. After a cyclone, they are more vulnerable to water-borne and vector-borne diseases. If there are extreme temperatures or droughts, they often get dehydrated or suffer from heat stress.

Sick people are obviously unable to move quickly when a hazard strikes, particularly if they are weak and confined to their beds.

Those with disabilities are also more vulnerable to hazards and future climate change. They require extra time to move from place to place, and may rely on the support of another person to get to safety. Think about people who are blind, or who lack arms or legs, or who are mentally handicapped.

The table below indicates the specific **population exposed** to the hazard risk (which community, which kind of settlement) and the most **vulnerable people** (individuals) according to the types of hazards. The population of SANMA Province is approximately 54,000 according to the Vanuatu National Statistics office (2015). When information from the 2016 Mini-Census is available, this information will be updated.

Hazard	Population exposed	Vulnerable people
Cyclone	All of Sanma Province	<ul style="list-style-type: none">○ Children○ Pregnant women○ Elderly People○ Disabilities○ Weak (Sick)
Severe weather / Flooding / Landslide	Communities living along flat prone areas of, <ul style="list-style-type: none">➤ South Santo➤ West Santo➤ South of Luganville	<ul style="list-style-type: none">○ Children○ Pregnant women○ Elderly People○ Disabilities○ Weak (Sick)
Earthquake/ Tsunami	<ul style="list-style-type: none">➤ Communities living along the Sea Coast of Sanma/Luganville	<ul style="list-style-type: none">○ Children○ Pregnant women○ Elderly People○ Disabilities○ Weak (Sick)

Volcano	<ul style="list-style-type: none"> ➤ Communities living along Sea Coast of South East Santo. 	<ul style="list-style-type: none"> ○ Children ○ Pregnant women ○ Elderly People ○ Disabilities ○ Weak (Sick)
Drought	<ul style="list-style-type: none"> ➤ East ,South Malo ➤ South East Santo coastal ➤ Big bay Bush ➤ West Coast Santo 	<ul style="list-style-type: none"> ○ Children ○ Pregnant women ○ Elderly People ○ Disabilities ○ Weak (Sick)
Health Epidemic	<ul style="list-style-type: none"> ➤ All of Sanma/Luganville 	<ul style="list-style-type: none"> ○ Children ○ Pregnant women ○ Elderly People ○ Disabilities ○ Weak (Sick)
Accident	<ul style="list-style-type: none"> ➤ Luganville 	<ul style="list-style-type: none"> ○ School children

3.7. Cross-cutting issues

For each sector impacted, some other related sectors could be impacted directly or indirectly by the consequences of a disaster. The table below lists examples of the main cross-cutting issues that can appear after a disaster and that implicate different sectors.

Impacted sector	Other related sectors	Examples
Water and sanitation	Food Security	○ Not enough food
	Health	○ Water Borne diseases
	Education	○ School closed
	Communication	○ Communication breakdown
	Protection & Gender	○ Not enough safe water to drink. ○ Disputes over water sources
Health	Education	○ Children not attending school
	Protection	○ Old people don't access clinics
Education	Protection and Gender	○ Children not attending schools
	Infrastructures	○ Road blocks, houses damaged
	Shelters	○ Classroom blown off. ○ Classrooms are used as Evacuation centres. ○ If classrooms are blown away, then tent will be used as classrooms.
Food Security & Livelihoods	Health	○ People are eating unbalanced diet
	Education	○ Schools closed ○ Not enough income to pay for school fees
	Protection & Gender	○ Stealing is an issue
Shelter	Health	○ Sickness
	Protection & Gender	○ Abused ○ No privacy
	Education	○ Evacuation of schools
Communication / Infrastructure	Health	○ Epidemics ○ Poor Sanitation
	Protection & Gender	○ Hard to get people's needs in time ○ Dispute over evacuation canter
	Health	○ Health facilities damaged
	Education	○ Schools closed
Protection / gender	Shelter	○ Homes damaged
	Education	○ School damaged

3 OPERATION & RESPONSE PLANNING

The section 2 presents the strategy and the operational aspects of disaster response by defining the following elements:

- Identification of priority needs to determine the response options.
- Definition of decision making and coordination procedures, specifying the membership, the roles and the processes linked to the different coordination bodies. The communication and reporting mechanisms described provide a framework for the implementation of the operations.
- Description of procedures according to the different phases of the response: early warning system, damage and need assessment, evacuation, distribution, life line services.

4. Priority Needs & Response Options

Based on the scenarios & potential humanitarian consequences, the table below identifies by sector (e.g. WASH, health, education, etc.) what are the:

- **Priority needs** that might arise after a disaster: *items, resources that might be needed by the population.*
- **Response options** that the province will address to these needs during emergency phase: *Operational material available, prepositioned stock to be distributed, stakeholders in capacity to support the response.*

The table considers the priority needs and response options for the three kinds of scenarios defined according to the response capacity of the administrative level:

- **Best – case scenario:** isolated damages - can be managed at the community or area council level.
- **Likely – case scenario:** part of the province is affected – the disaster can be managed at the provincial level or with small support (some resources) from the national level.
- **Worst – case scenario:** the whole province is affected – the impact of the disaster requires national or international support to organise the response.

Sector of intervention	Priority Needs	Response Options
WATER HEALTH & SANITATION		
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Water Contamination ➤ Drinking water quality ➤ Diarrhoea 	<ul style="list-style-type: none"> ○ (Home treatment) boiling of water ○ Community health facilities CDCCC ○ Awareness
<i>Likely-case</i>	<ul style="list-style-type: none"> ➤ Water shortage ➤ Damage water source ➤ Poor hygiene 	<ul style="list-style-type: none"> ○ Awareness ○ Rapid assessment ○ Water quality test ○ Public health department ○ Health facilities CDCCC
<i>Worst-case</i>	<ul style="list-style-type: none"> ➤ Water shortage ➤ Bad hygiene practices ➤ Poor sanitary facilities 	<ul style="list-style-type: none"> ○ Awareness ○ Public health and water resource response team

		<ul style="list-style-type: none"> ○ Assessment detail ○ Water test NGO's ○ NDMO
HEALTH		
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Need health service for few people ➤ Minor injuries ➤ Medication 	<ul style="list-style-type: none"> ○ CDCCC and health worker or nurse make awareness on community health (use mosquito net, hand washing, basic hygiene, handling of foods) ○ Health centre ○ Aid post ○ Dispensary ○ NGO
<i>Likely-case</i>	<ul style="list-style-type: none"> ➤ Injuries people ➤ Many people are sick ➤ Technical assessment ➤ Funding for medical material 	<ul style="list-style-type: none"> ○ Awareness ○ Deployment of medical team from NPH/ SRH to give treatment ○ Doctor ○ Hospital / drugs store provide drugs ○ Detail assessment ○ Transport ○ Donor
<i>Worst-case</i>	<ul style="list-style-type: none"> ➤ Funding for medical material, transport of personnel and materiel. ➤ Extra health professional ➤ Stop outbreak ➤ Isolation centre ➤ Proper evacuation centre ➤ Cool room to keep medical supply 	<ul style="list-style-type: none"> ○ Awareness ○ Public health ○ NDMO / COM/ ○ Assurance ○ NGOs provide medical assistance
EDUCATION		
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Accessibility ➤ Clean up and maintenance ➤ Tools carpenters CDC ➤ Access to roads and other facilities (provide report assessment of damage) ➤ Teachers /health workers and Peace Corps help providing food planting materials ➤ Breeding stock to affected population ➤ Provide local food and local building materials (Trade link) ➤ Provide Assistive device (Equipment's) ➤ Evacuation centres (Chiefs/Pastors and Teachers) 	<ul style="list-style-type: none"> ○ Community labour assistance ○ School Committee ○ Church leaders to provide food to affected areas and schools ○ Lead farmer (Trade Link) ○ Wheel chair walking stick ○ Provide evacuation Building
<i>Likely-case</i>	<ul style="list-style-type: none"> ➤ Evacuation ➤ Health Issue : 	<ul style="list-style-type: none"> ○ PDC (Identify evacuation centre Transportation)

	<ul style="list-style-type: none"> ➤ Red Eye ➤ Diarrhoea ➤ Malaria ➤ Malnutrition 	<ul style="list-style-type: none"> ○ Shelter, Niscol, VMF Church classroom Nakamal ○ PDC health WASH Education ○ Schools to carry out assessment and find data + treatment
<i>Worst-case</i>	<ul style="list-style-type: none"> ➤ Search Rescue Lost Victim 	<ul style="list-style-type: none"> ○ PDC – NDMO-COM ○ Police Rescue Team ○ Health NGO (Red +) Government, UN Agency.
FOOD SECURITY AND LIVELIHOOD		
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Food need for a part of the community 	<ul style="list-style-type: none"> ○ Individual use part of their other resources ○ Individual fund resources to buy food ○ Family to family support (crops, food, cash crops) ○ CDCCC advise the non-affected members of community to help the affected one
<i>Likely-case</i>	<ul style="list-style-type: none"> ➤ Need planting materiel ➤ Need animal to restart livestock ➤ Food supply by Area council. ➤ Small business affected 	<ul style="list-style-type: none"> ○ Community to community or Area to area council support in terms of food and planting materiel and breeding stock (coordinated by province) ○ Awareness provide by PDC and Area council secretary ○ Police to Assist in terms of the Security of food distribution ○ Loan provide to small business by cooperative
<i>Worst-case</i>		
SHELTER		
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Few people need materiel to fix the local house ➤ Few people need temporary shelter (local) 	<ul style="list-style-type: none"> ○ Tool and local materiel ○ CDCCC and Chief make awareness and facilitate the temporary relocation ○ Counsellor can help with funding
<i>Likely-case</i>	<ul style="list-style-type: none"> ➤ Hundreds people need temporary shelter ➤ Many house (local and permanent) have to be rebuild ➤ Funding and materiel 	<ul style="list-style-type: none"> ○ Evacuation centres ○ NGO/ Business / Red Cross provide None food items and Shelter tools kit to affected household ○ PDC and NGO give awareness on Build back better
<i>Worst-case</i>	<ul style="list-style-type: none"> ➤ Mass and long term 	<ul style="list-style-type: none"> ○ NDMO / PDC coordinate temporary relocation in evacuation centre.

	evacuation	<ul style="list-style-type: none"> ○ NDMO/ PDC / Land department/ negotiate news settlement area with chief/ land owner ○ Donor fund recovery project ○ NGO/ PWD implement construction project
COMMUNICATION AND INFRASTRUCTURE		
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Road clearance 	<ul style="list-style-type: none"> ○ CDCCC or Chief mobilised community to make the clearance with their tools (Axe, knife, chainsaw...)
<i>Likely-case</i>	<ul style="list-style-type: none"> ➤ Fix on the network ➤ Fix and maintenance of <ul style="list-style-type: none"> ○ Road ○ Bridge ○ Warf ➤ Airport 	<ul style="list-style-type: none"> ○ Province ○ PWD ○ Ports and harbour ○ Donor ○ NGO ○ Private sector (TVL / Digicel) ○ Provide technical assistance
<i>Worst-case</i>	<ul style="list-style-type: none"> ➤ Access to communication ➤ Access to transport (road and vehicle) 	<ul style="list-style-type: none"> ○ National Government ○ Province <ul style="list-style-type: none"> ○ PWD ○ Ports and harbour ○ Donor ○ NGO provide temporary communication (Sat phone, internet...) ○ Private sector (TVL / Digicel) To Provide technical assistance
PROTECTION AND GENDER		
<i>Best-case</i>	<ul style="list-style-type: none"> ➤ Identify needs ➤ Vulnerable individuals Widow, Orphans disability - Food security - Shelter - Evacuation centre - Communication/ transport ➤ Health issues 	<ul style="list-style-type: none"> ○ Solve issue with community leaders (CDCC) ○ Awareness ○ Advise CDC/ Leaders on the best approach
<i>Likely-case</i>	<ul style="list-style-type: none"> ➤ Identify secure evacuation centre ➤ Evacuate separate EC for male/ female/children ➤ Screen for dangerous item eg: sharp knife 	<ul style="list-style-type: none"> ○ Assist PDC to evacuate to safety location as advised ○ Identify leaders on EC to assist in any issue ○ Seize such items before entering EC ○ Awareness on issues or protection gender at EC ○ NGO to provide assistance and awareness
<i>Worst-case</i>	<ul style="list-style-type: none"> ➤ Land space ➤ Shelter / EC ➤ Food and water distribution ➤ Safety and security ➤ Vulnerable People 	<ul style="list-style-type: none"> ○ Observe & Advise leading agencies on priority needs for NDMO ○ Monitor situation of distributions ○ Evaluate ○ Advise PDC for international assistance

5. Decision Making & Coordination

This part describes the decision making and coordination mechanisms to manage an emergency. It details the PDCCC and Provincial Emergency Operation Centre (PEOC) membership as well as procedure for PEOC activation and agencies functions. Standard Operating Procedures (SOPs) annexed give additional information on roles and responsibilities of each stakeholder.

5.1. PDCCC Roles and Membership

The PDCCC roles are described in the Terms of Reference (TOR) of the PDCCC (Annex 3). The PDCCC shall comprise the following province authorities and officers established in the province:

Name	Position	Organisation / department	Contact
Doriane Nailipus	Officer	Frangipani Disability	5536720
Jairus Linparus	Officer	Customs Department	7771440
Harry Nalao	Officer	Statistics Office	7774876
Shirley Johnson	Office	Red Cross	5432341
Alfred Bani	officer	DPA	7764826
Keith Jacob	officer	Sanma Provincial health	5952679
Michel Tomker	Area Secretary	Sanma Province	5473720
Lishie Rossie	officer	Live and learn	5378946
Charley Johnson	Ombudsman	Ombudsman's office	5641411
Jeffery Vutilolo	Lab Technician	Northern district hospital	5732971
Henry Wells	officer	Public works	5966070/7714398
Chief Levus Tamata	Chief	Supentavutano council	560840
Italio Bororoa	officer	DARD	italio@vanuatu .gov.vu
Andy Ilo	Doctor	NDH	77330804
Sammy Kavu	officer	Forestry	5377648

Clentin Rousa	officer	Cooperatives	5441013
Kalfao Lum	Area Secretary	Sanma Province	5546331
Harkuk Vocor	ZCA	Education	5674144
Tony. E. Antfalo	VBTC officer	VBTC	7792089
Ps Dickson Banibani	Pastor	Luganville Church Group	5348054

5.2. PEOC

The Provincial Emergency Operations Centre (PEOC) is the main body of the emergency, response and early recovery coordination system. The PEOC has a dedicated working room located in the provincial headquarter office to organise its meetings. The PEOC roles are executed by the PDCCC under direct leadership of the Secretary General of the province:

- Communication
- Controller
- Operation
- Intelligence and Planning
- Logistics
- Finance and Records
- General Support & Administration
- Working Group

PEOC roles are detailed in the PEOC SOP's. The roles are organised according to the following PEOC structure chart:

PEOC Structure

Working group



PEOC Administration



The PEOC provides centralized directions and controls for the following tasks:

- Communications and warnings
- Coordinate damage and need assessments operations
- Preparation of consolidated assessment reports and Situation Reports (SITREP)
- Maintenance of operational information and maps
- The coordination of all governmental departments, non-governmental organisations, private sectors and donors assistance.
- Logistic arrangement of relief supplies receipts and distributions as approved by National Disaster Committee.

PEOC is activated in case of emergency, once a warning or a first information report is received. Once activated, the PEOC operational manager will organise a duty roster to ensure that the PEOC is running round the clock.

The PEOC has 4 levels of activation:

- **Stage 1: Readiness**
This will initiate preparation for the PEOC after receiving information from the NDMO or other emergency services.
- **Stage 2: Standby**
This warning will initiate manning of the PEOC by skeleton staff on a part time basis.
- **Stage 3: Activation**
Issued when an emergency or disaster has occurred and full activation of the PEOC on a part time basis.
- **Stage 4: Stand down**
This will initiate termination of the PEOC and the recovery and rehabilitation activities can be implemented under normal procedures.

The PDCCC stays operational throughout the year working on extended preparedness activities such as data management, awareness and training, which is essential for the PEOC to be ready and efficient for crisis situations.

Refer to the Standard Operating Procedures PEOC SOP's (*Annex 4 PEOC SOP*) for more details.

5.3. Agencies Functions & Accountability

The agencies involved in the disaster management at the provincial level are the PDCCC and other stakeholders such as the Vanuatu Red Cross Society, Vanuatu Humanitarian Team (VHT) members and private companies. They coordinate their support at provincial level by sectorial working groups.

The working groups are the counterpart of the sectorial clusters of the national level. They have an expertise and advisory roles. The table below indicates the memberships of the provincial departments and other stakeholders organised under the sectorial working groups:

Working group	Working group membership
Water and sanitation & Health	Health department (Lead) <ul style="list-style-type: none"> ○ Public Works Department. ○ Rural water supply ○ Save the children ○ Geology and mines ○ Municipal ○ ADRA ○ World vision ○ Friend international
Education & Protection	Education Department (Lead) <ul style="list-style-type: none"> ○ Police ○ Vanuatu Mobile force (VMF) ○ Women Affair ○ Save the children ○ CRIE ○ Disability ○ Chief ○ Church leader
Food Security & Livelihoods	Livestock (Lead) <ul style="list-style-type: none"> ○ Agriculture ○ Fisheries ○ Cooperative ○ Biosecurity ○ Forestry ○ Live and learn
Shelter, NFI & Infrastructure	Public Works (Lead) <ul style="list-style-type: none"> ○ Land ○ Shelter ○ Municipal ○ Planning ○ Red Cross ○ World Vision ○ VMF

Logistics & Communication

Statistic (Lead)

- Finance
- Media
- OGCIO
- Ports and harbor
- Digicel/TVL
- Immigration
- VUI
- AVL/Air Vanuatu
- Labor
- PWD
- World Vision

The tasks of the stakeholders in disaster management at the provincial level are listed in the following table:

Stakeholders	Tasks
Provincial Secretary General/PDO PDCCC / PEOC	<p><u>EARLY WARNING SYSTEM</u></p> <p>Trigger for alert dissemination</p> <ul style="list-style-type: none"> ○ Advisory warning alert from NDMO Director. ○ NDMO Director asks the SG to activate the PEOC. ○ For slow onset hazards (Drought) the warning could come from community level <p>Consequence</p> <ul style="list-style-type: none"> ○ Activation of communication tree (see communication tree) ○ Controller (SG or deputy) call the operation manager (PDO or deputy) and the police commander north. ○ PDO call each Head of Depts. (PDC members) for a briefing meeting. ○ (If SG and PDO are not in the in the Province they still need to give the information to the depts.) ○ HF radio (north West Santo, but no HF at Province) ○ Pass on information to ACS (use mobile phones) ○ Radio Vanuatu and FM 107 to continue passing information <p>Activation of PEOC with recommendation from NDMO Operator</p> <ul style="list-style-type: none"> ○ Set up of PEOC Office ○ Briefing of the PDC member and the Working group on the current situation, and refresh on their roles. ○ Travel of SG and PDO – Town Clerk or any other PDC members appointed by the SG should automatically be activated to coordinate an EOC. ○ Advice Working group to activate their operation and disseminate information using the communication tree- activate

- Make sure that all sectors must understand their TOR
- Divide EOC members to be on standby provide list

EVACUATION

The PDC (Operation manager) coordinate shelter and logistic working group to organised the Evacuation in Luganville:

- Make available the evacuation centre
- Diffuse the list of evacuation centre per ward.
- Put in place transport means to evacuate the most vulnerable.
- Put in place a registration of the person evacuated.
- Administration section of the PEOC organised the catering for the PDC members that are participating to the operation, welfare of the PEOC.

DAMAGE ASSESSMENT

First community assessment

- PDC gathers verbal information on damage from Area Council Secretaries in the first 24 hours
- Utilize the use of sub phone and Satellite Internet to remote places
- Submission of first situation report to NDMO
- Gathering of the CDCCC
- First community assessment form through ACS and CDC within 24 to 72 hours.
- Analysis of data with support from the working group A beneficiaries database (excel sheet) should be set up at this Stage.

Submission of 2nd sit rep to NDMO

Technical assessment is requested (for provincial or national level) following the identification of affected sectors in the first community assessment analysis

Technical assessment

- PEOC calls for a meeting with working groups to prepare joint technical assessment team to be deployed in affected islands.
- In case of national or international support PDC members should take part into the technical assessment
- Debrief meeting with all working group members is organised after the field mission
- PEOC helps to facilitate the working groups in compiling reports for the Provincial sectoral assessment report.

Submission of the sectorial assessment report to NDMO

RESPONSE and EARLY RECOVERY

- PEOC organises coordination meeting with Leads of working group frequently. (according to the emergency need)
- PEOC coordinates relief distribution using the working groups and CDC's
- PEOC invites any external help through NDMO to coordinate

Area Council Secretaries (ACS) & Community Disaster Committees (CDC)

with the working group for technical support

- PEOC coordinates the logistical aspects (available transport, storage). PEOC issues Situation reports frequently (according to the emergency need)

EARLY WARNING SYSTEM

Trigger for alert dissemination

Advisory warning alert from NDMO/ VMGD (Radio, warning, Family, Internet...)

- PDO gives warning to ACDO and ACDO keeps ACS updated
- ACS keeps CDC chairman updated
- PDO contact Counsellor/CDC Chairman of the urban ward of Luganville
- The activation of plan could be triggered directly by observing natural signs (in case of earthquake, cyclonic winds...).

Consequence

- ACS contact the chief, CDC and Community leaders to disseminate information
- CDC, chief and church leaders communicate with their community members

Communication means: mobile phone call or text message (Digicel/TVL) using CDC contact list, HF radio, Shell/Tam-tam/Bell, door to door, flag, whistle

- CDC and Chief give awareness messages to community for better preparation
- CDC and Chief activate the evacuation plan if the situation requests it

EVACUATION

- ACS is advice the CDC, chief and community leader to evacuate to safe place (according to the hazard concern).
- CDC, Chief and leader make head count to make sure that everybody will be in a safe place for the emergency, especially the vulnerable people
- CDC, Chief and leader monitor the protection issue during the evacuation.

DAMAGE ASSESSMENT

First community assessment

- ACS conduct visual assessment
- Call the PDC to give a first oral report
- CDC fill the first community assessment forms by organizing a community meeting and then by visiting each affected house.

	<ul style="list-style-type: none"> ○ Submission of First assessment form to ACS ○ ACS collect the CDC assessment form ○ If there is no CDC, ACS in collaboration with the chief and community leader commits to making the first assessment ○ ACS sends the first community assessment to the province (on foot, by truck, boat or plane) or read it through the phone or HF radio. ○ <u>Technical assessment</u> ○ Focal points for the technical assessment team on the field are ACS, chiefs and CDC ○ ACS participate to the logistical arrangements for the technical assessment team <p><u>RESPONSE and EARLY RECOVERY</u></p> <ul style="list-style-type: none"> ○ CDC conducts awareness activities in the community to clean the village, build back, and replant. ○ ACS helps -coordinate the available/provided relief supply at area council level. ○ CDC help coordinate the available/provided relief supply at community level
<p>Water and sanitation & Health</p>	<p><u>EARLY WARNING SYSTEM</u></p> <p>Trigger for alert dissemination</p> <ul style="list-style-type: none"> ○ Advisory warning alert from NDMO Director. ○ PDO gives warning and keep Heads of departments updated <p>Consequence</p> <ul style="list-style-type: none"> ○ Health dept. to give information & recommendations to nurses in charge and health workers. ○ For remote areas the communication officer will pass the message through HF Radio <p><u>DAMAGE ASSESSMENT</u></p> <p>First community assessment</p> <p>Health & Wash- working group provides support in analysing information and in reporting it in the sit rep template. Based on the first assessment information the Health & WASH working group recommends to carry out a technical assessment in some specific areas if need.</p> <p>Triggers to develop a technical mission could be:</p> <ul style="list-style-type: none"> ○ Number of casualties ○ Number of people injured ○ Number of diseases arising after the disaster (e.g. diarrhoea, red eye, etc.) ○ Number of health facilities damaged ○ Lack of safe, clean drinking water (estimation of the amount of drinking water available) ○ Number of water systems damaged

- Shelter issues (water catchment, gardens damaged)

Technical assessment

Health & WASH technical assessment team is composed at least of 1 representative of Sanma province

- A questionnaire developed at the national level could be adapted by the working group according to its specific needs.
- The ACS, CDC, Chief, water committee, health workers are the focal points on the field.

Data from reports on different locations is aggregated by the working group.

- Overall report on Health & WASH is submitted to the PEOC to be included in the sectorial report.

RESPONSE and EARLY RECOVERY

Health & WASH working group commits to:

- Playing a coordination role between all partners working on these topics: upper level, lower level (area council, community) and / or higher level (national, international).
- Working on the standard of support to be provided according to the context.

Update the Provincial sitrep with descriptions of the actions carried out on the field on this topic.

Education & Protection

EARLY WARNING SYSTEM

Trigger for alert dissemination

- Advisory warning alert from NDMO Director.
- Controller inform directly the Commander North
- Operation manager (PDO or deputy) gives warning and keeps PEO, DWA & ACDO and police head informed

Consequence

- PEO give the ZCA that give it to the principles to insure the preparedness of the school.
- Police / VMF / Maritime get a specific briefing and are stand by for the response to be deployed.
- Police advise the entire leader to monitor crime and illegal action during emergency time and report it after a soon as possible.
- For schools located in remote areas the communication officer will pass the message through HF Radio or other any channel available.

EVACUATION

- PEO is coordinated with the school to organise the evacuation and the safety of the student.
- In coordination with the other working group (shelter, logistic, communication) the Education and protection working group give recommendation on evacuation centre accessibility and Facilities.
- Police / VMF and Maritime are supporting the evacuation process in term of logistic.

DAMAGE ASSESSMENT

First community assessment

- Education and Protection working group provides support in analysing information and in reporting it in the sit rep template.
- Base on the first assessment information the Education and Protection working group recommends to carry out a technical assessment in some specific areas if needed.
- Triggers to develop a technical mission could be:
- Period and number of people temporarily sleeping in schools
- High rate of social and domestic issues (eq. against children and women)
- Food shortage
- Health issues (overcrowded rooms)

Technical assessment

Education & Protection technical assessment team is composed at least of 1 representative of Sanma province.

- A questionnaire developed at the national level could be adapted by the working group according to its specific needs
- The ACS, CDC, Chief and Head Teachers are the focal point on the field.
- Data from reports on different locations is aggregated by the working group.

Overall report on education & protection is submitted to the PEOC to be included in the sectorial report.

RESPONSE and EARLY RECOVERY

Education & Protection working group commits to:

- Playing a coordination role between partners working on these topics: upper level, lower level (area council, community) and / or higher level (national, international).
- Working on the standard of support to be provided according to the context.

Update the Provincial Situational report with descriptions of the actions carried out on the field on this topic.

Food Security & Livelihoods

EARLY WARNING SYSTEM

Trigger for alert dissemination

- Advisory warning alert from NDMO Director.
- PDO gives warning and keep Head of departments updated

Consequence

- Agriculture, Life stock Dept. and NGO gives information & recommendations to the lead farmer network (semi intensive farmers, and intensive farmer) and the VRTC
- Fisheries contact the fisherman network
- Dept. of Tourism gives information & recommendations to members of the tourism industry
- Cooperatives give information & recommendations to registered

businesses

- For remote areas the communication officer will pass the message through HF Radio

DAMAGE ASSESSMENT

First community assessment

- Food security & Livelihood working group provides support in analysing information and in reporting it in the sit rep template.
- Based on the first assessment information the Food security & Livelihood working group recommends to carry out a technical assessment in some specific areas if needed.
- Triggers to develop a technical mission could be:
 - % of gardens destroyed & estimated food stocks
 - % of houses destroyed
 - % of businesses closed

Technical assessment

- Food security & Livelihood technical assessment team is composed at least of 1 representative of Sanma province
- A questionnaire developed at the national level could be adapted by the working group according to its specific needs.
- The ACS, CDC, Chief and lead farmers, tour operators, businessmen are the focal points on the field.
- Data from reports on different locations is aggregated by the working group.
- Overall report on Food security & Livelihood is submitted to the PEOC to be included in the sectorial report.

RESPONSE and EARLY RECOVERY

Food security & Livelihood working group commits to:

- Playing a coordination role between all partners working on these topics: upper level, lower level (area council, community) and / or higher level (national, international).
- Working on the standard of support to be provided according to the context.

Update the Provincial sitrep with descriptions of the actions carried out on the field on this topic.

Shelter, NFI & Infrastructure

EARLY WARNING SYSTEM

Trigger for alert dissemination

- Advisory warning alert from NDMO Director.
- PDO gives warning and keeps- Heads of departments updated.

Consequence

- Shelter working group commit to identify evacuation centre in Luganville.
- Shelter working group request the VHT member to standby with their NFI stock.
- For remote areas the communication officer will pass the message through HF Radio

EVACUATION

- In coordination with the PEOC and the other working group,

organise the evacuation of Luganville.

DAMAGE ASSESSMENT

First community assessment

- Shelter, NFI & Infrastructure working group provides support in analysing information and in reporting it in the sit rep template.
- Based on the first assessment information the Shelter, NFI & Infrastructure working group recommends to carry out a technical assessment in some specific areas if needed.

Triggers to launch a technical mission could be:

- Number of school buildings damaged
- % of houses destroyed
- Number of hospitals damaged
- Number of roads damaged
- Number of airstrips, wharves, anchorages damaged

Technical assessment

- Shelter, NFI & Infrastructure technical assessment team is composed at least of 1 representative of SANMA Province
- A questionnaire developed at the national level could be adapted by the working group according to its specific needs. .
- The ACS, CDC, Chief and agent of Air Vanuatu are the focal points on the field.
- Data from reports on different locations is aggregated by the working group. Overall report on Shelter, NFI & Infrastructure is submitted to the PEOC to be included in the sectorial report.

RESPONSE and EARLY RECOVERY

Shelter, NFI & Infrastructure working group commits to:

- Playing a coordination role between all partners working on these topics: upper level, lower level (area council, community) and / or higher level (national, international).
- Working on the standard of support to be provided according to the context.

Update the Provincial SITREP with descriptions of the actions carried out on the field on this topic.

Logistics & Communication

EARLY WARNING SYSTEM

Trigger for alert dissemination

- Advisory warning alert from NDMO Director.
- PDO gives warning and keep Heads of departments updated

Consequence

- PDO gives warning and keep ACS updated. For remote areas the
- communication officer will pass the message through HF Radio
- Send SMS to ACS to community
- Contact every department and NGO to make their transport in standby for response.

EVACUATION

The PDC (Operation manager) coordinate shelter and logistic working group to organised the Evacuation in Luganville:

- Make available the evacuation centre
- Diffuse the list of evacuation centre per ward.
- Put in place transport means to evacuate the most vulnerable.
- Put in place a registration of the person evacuated.

DAMAGE ASSESSMENT

First community assessment

- Logistics working group provides support in analysing information and in reporting it in the sit rep template. Based on the first assessment information the Logistics working group formulates recommendations on the logistics strategy in terms of transport, storage and distribution of the support provided.

Technical assessment

- Logistics organises the transport of the technical assessment teams using the available transport (identified in the first assessment)
- Logistics working group coordinates with external partners in case of major logistical issue (worst-case scenario)
- The ACS, CDC, Chief are the focal points on the field.
- Data from reports on different locations is aggregated by the working group. Overall report on logistics is submitted to the PEOC to be included in the sectorial report.

RESPONSE and EARLY RECOVERY

Logistics working group commits to:

- Playing a coordination role between all partners working on these topics: upper level, lower level (area council, community) and / or higher level (national, international).
- Organising and coordinating -transport, storage, and distribution of the support provided by the Province or by actors at an upper-level to area councils and communities.

Update the Provincial SITREP with descriptions of the actions carried out on the field on this topic.

In accordance with the policies, concept and principles set out in this plan, all stakeholders and sector agencies are required to prepare for and manage the impacts of disaster and continue to provide services during and following disasters. They are also required to address the risks they face and avoid or mitigate risk contributing activities within their sector.

6. Communication & Reporting

Disasters create special demands for communication. In case of severe or widespread incidents, usual communication systems may be of no use to meet these demands by failing completely or partially.

If there is an event that requires Emergency Management, the primary communication system will be the public telephone / fax system and internet connection. The HF radio links with the ACS or directly with Community Disaster and Climate Change Committee (CDCCC) is used for area with no network.

Public Information is the deliberate, planned and sustained effort to establish and maintain mutual understanding between those managing the disaster and the community. In the event of an imminent or declared State of Local Emergency, an immediate requirement is to establish communications with the community by using local radio stations, and maintain that contact.

Establishing immediate communications with the community depends on the post event ability of the broadcasting system equipment and operators to cope with the situation. ACS will assist in the provision of public information. Media releases relating to the Emergency Management organization need to be authorized by the Secretary General (SG) unless otherwise delegated by the SG.

The information flows between the administrative levels follow the bellow's chart:



However other communication channels could be used according to the specific need of the different emergency phase:

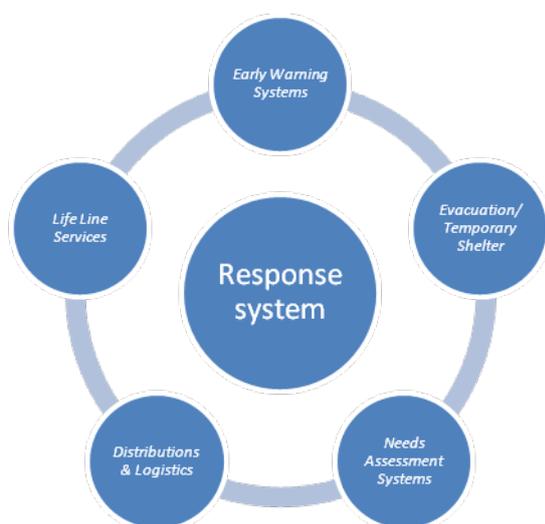
- **Early Warnings and information** from the NDMO and VMGD related to potential hazards need to be considered by PDCCC before being sent from the Province Office to Area Councils community level through all networks available. Each working group is responsible to relay the information and appropriate advice to its respective network follow the communications tree below.
- **PEOC activation:** A PDCCC internal communication tree exists (Annex) to facilitate the information flow within the PDCCC, especially for the PEOC activation.
- **First community assessment** uses the normal communication tree. The CDCCC members are responsible for collecting accurate information on hazard threats and damages in the “First community assessment form” and to share it with the Area Secretaries. Area Councils Secretaries are responsible to collect “First community assessment forms” and share them with the PDCCC. The PDCCC compiles the Provincial initial assessment information in a report addressed to NDMO.
- **Technical assessment:** During Technical assessment, the technical assessment team works directly on the field with ACS and CDCCC and reports to the PDCCC that compiles and send the Provincial technical report to NDMO.
- **Response and recovery operations:** The PDCCC collects the response operation update from the stakeholders trough a coordination meeting and is responsible for sending situation reports(SITREP) to NDMO

A contact list including the key contacts is updated on a regular basis and tested at least once a year.

7. Response Systems & Procedures

This section summarises the process and procedure to be implemented during an emergency response.

The response system includes the components described in the chart below and these procedures are detailed in the following part.



The SOPs or guidelines are annexed to the PDRP plan (when they are available) to provide detailed information's about the procedure mentioned above. The SOPs are developed at the national level and are likely to be adjusted following the lessons learned of each emergency.

The standard formats used during operation and mentioned in this section are also annexed and have to be updated following NDMO requirements.

7.1. Early Warning Systems

The hazard monitoring and early warning systems are supervised by the VMGD.

There are different levels of information communicated by the VMGD according to the hazard and the timing of the potential impact. Based on the VMGD information's, NDMO formulates recommendations for the emergency management.

The different alerts are summarised in the table below:

Hazard	Alert code	Means	Diffusion media	Responsible
Cyclone	Information	There is a cyclone or a tropical low forecast to reach Vanuatu boundary within 2 days.	Mail list, SMS, Radio, Television, Website.	VMGD
	Advisory	There is a cyclone or a tropical low forecast to reach Vanuatu boundary within 1,5 days.		
	Warning	A days before a cyclone reach Vanuatu land		
	Warning Blue alert	A days before a cyclone reach Vanuatu land Preparedness phase	SMS, Radio, Television	NDMO
	Warning Yellow alert	Half day before a cyclone reach Vanuatu land Evacuation phase		
	Warning Red alert	Cyclone is striking. Containment phase		
Heavy rain Rough sea Flood Drought Landslide	Warning	Be prepared for this hazard	Mail list, Radio, Television Website.	VMGD
Earthquake / Tsunami	Information	A earthquake happen without tsunami	SMS, Radio, Television, Website, email list	VMGD
	Advisory	A small tsunami could happen.		
	Warning	Go quickly on a high place		
Volcano	Level 0	Normal	SMS, Radio, Television, Website, email list	VMGD
	Level 1	Signs of volcanic unrest		
	Level 2	Major unrest		
	Level 3	Minor eruption		
	Level 4	Moderate eruption		
	Level 5	Very large eruption		

7.2. Damage and needs assessment systems

The damage and need assessment is operated when the scale of a disaster overwhelms the capacity of response of the affected communities. The assessment is realised to prepare the response activities. Depending on the magnitude of the disaster, two different types of assessment could be carried out:

■ **First community assessment**

It is the minimum assessment report that should be done if the community needs support. It is under the responsibility of the CDCCC (or the chief if there is no CDCCC) to do this assessment within three days after the disaster event, using the standard form developed for this purpose (Annex 7). A quick assessment report could be sent in first instance to the ACS, then to the PDCCC.

The PDCCC are responsible to compile the whole information of the province in a data base, analyse it and produce a first assessment report. This report will describe the damages existing in the province per sector and formulate recommendations. The recommendations could list some response options and/or ask from further technical assessment to address specific needs.

■ **Technical assessment**

This assessment is required if the damages and needs assessed during the first phase are too specific and have to be further completed. In this case, a team is deployed on the field to gather technical information to be able to formulate responses to the disaster impact.

The team is composed of provincial senior level officers specialized in sectors (such as health, water supply or shelter engineering, communication, etc.) according to the specific needs identified in the different areas. The team could also involve officers from national or international organisations as counterparts of the provincial officers. The ACS coordinates the technical assessment team on the field and put them in direct contact with the CDCCC (or the chief if there are no CDCCCs).

Each team will develop a technical assessment report. The general Technical assessment gathering all the information collected on the field is submitted to the NDMO. The Technical assessment report should contain the following basic elements or activities:

- Human and material damages
- Resources availability and local response capacities
- Options for relief assistance and recovery
- Needs for national / international assistance

■ **Quick response teams**

The quick response teams are specialized personnel who are sent to reduce the number of lives impacted. To ensure that the quick response to urgent needs is not delayed, a comprehensive assessment has to be completed as soon as possible. The following teams must be sent to disaster sites or disaster affected areas as early as possible:

- First Aid Team
- Search and Rescue Team

7.3. Evacuation, Temporary shelter, Long Term Displacement

For safety reasons a population could be displaced for short, mid or long term. The movement are usually recommended and supported by the authorities. The Mass evacuation guideline (Annex 8) details the standards applicable in Vanuatu. There are different kinds of displacement that could happen during and after a disaster:

- **Evacuation**

The evacuation is the action to move to a safer place during the time of the hazard striking. The need for evacuate a population to safe places will be determined after consideration by the PDCCC, using the information provided by the NDMO. For the most part, evacuations will only take place where there is a threat of volcanic eruption, tsunami or cyclone. There are facilities that have been identified for emergency accommodation, please see the resource list in List of evacuation centre/temporary shelter (Annex 9).

- **Temporary shelter**

The temporary shelters are the locations used by the people that have seen their houses destroyed during a disaster event. It is a short term solution that lasts during the reconstruction time of the houses. The temporary shelters could be organised in existing buildings (church, schools, community hall...) or supported by the distribution of shelter kits for self-constructions. The province has to support the ACS and CDCCC to ensure that a minimum of standards are provided to people living in temporary shelters (like access to water and sanitation etc.).

- **Long term displacement**

Long term displacement could happen after major disaster event when the level of risk becomes too heavy to allow the community to resettle in the same place. In this case, land conflicts could happen and the provincial authorities and the chiefs would have to work together to find solution. This kind of issues could be addressed in a specific contingency plan annexed to the PDRP.

7.4. Distributions & Logistics

Emergency procurement of essential supplies is critical when dealing with an emergency. All goods and services purchased by the province on behalf of the SG and required for emergency purposes will be managed by the province Finance Officer. The SG has limited financial authority and can delegate financial authority to PEOC personnel on an "as and when needed" basis. On reaching the financial limit a request is made to the NDMO for the handover of financial responsibility.

Suppliers of goods and services purchased or requisitioned during an emergency are entitled to have their invoices or claims paid without undue delay, provided that the claim details are correct and the costs are reasonable. It shall be the responsibility of the Provincial Council to ensure that claims formulated by suppliers are paid either directly or through arrangements with the NDMO.

Costs incurred by government departments and statutory bodies in fulfilling their normal functions are met by those organizations. Should government departments, state owned enterprises or statutory corporations be used in any way other than performing their normal functions, they may charge for this service.

Supplies borrowed or requisitioned from other persons or organizations will be returned to the respective owners. Supplies drawn from Council stocks or purchased against Council shall be returned to stores or disposed of as deemed fit. Any supplies surplus to those supplied by the National Disaster Management Office shall be deemed to be the property of the NDMO.

Should unwanted, unsolicited supplies be sent to Province, these shall, if necessary, be returned by the same means. The Provincial Council will not accept responsibility for unsolicited supplies either in the province nor while in transit to or from the province.

7.5. Life Line Services

An earthquake will severely affect life lines (e.g. telecommunications, water, power, and roads) either through damage to the systems or overload. It is likely that roads will be cut, disruption in the supply of water and power. Since it is not convenient to evacuate large portions of the population because of life line failure, people are expected to water, food and basic necessities for themselves by stockpiling supplies to go through this period.

Volcanic eruption may affect life lines depending on its nature even a moderate eruption or one occurring in another area may cause water supply pollution, damage to crops and livestock. Cyclones may severely affect life lines through damage or pollution.

Floods will only affect life line services in specific areas that have been flooded unless a major life line carrier, e.g., bridge has been damaged. Other disasters will only have an intermittent effect on life lines.

4 ADMINISTRATION & RESOURCE MOBILIZATION

This section deals with roll out process and resource mobilization plan, which are essential to carry out the tasks described in the plan and ensure its sustainability.

8. Response Preparedness

The response preparedness is crucial to ensure that the plan is updated, reviewed and utilised by the relevant PDCCC members.

8.1. Provincial Disaster Response Plan Review

The PDRP has to be tested and evaluated on a regular basis through simulation exercise. The plan has to be updated at least once a year to ensure that some element such the contact lists, the SOPs, the communication trees are still valid.

The plan has to be fully reviewed every 5 years to ensure its consistency with the provincial capacities and the national legislation. New consultation workshop and simulation exercise have to be organised in this timeframe.

Proposals for amendment or addition to the contents of this plan should be forwarded to:

■ The Secretary General

Name	Contact
Mr.Sakaraia Daniel	7346069

■ Provincial Government Council

Name	Contact
Honourable Mr.John Olo Aru	7346070

8.2. Simulation Activities

Disaster simulation exercises are an important part of assessing response capabilities and the effectiveness of existing plans. It is also an opportunity for the PDCCC members to be trained on the plan and its updates. These exercises should be organised at least every 2 years, unless specific aspects of the plan have been updated and /or there is a requirement to test the plan sooner.

8.3. Planning & Capacity Building

Disaster preparedness planning comprises all activities that can be done for risk reduction. Such activities that need to be undertaken by each department should be identified and compiled. These activities can be planned after ascertaining the condition and status of infrastructure, equipment and manpower at the disposal of each department.

The activities may include the creation of any new infrastructure facility for risk reduction, repair, retrofitting or upgrading of existing infrastructures procurement, hiring, or repairing of equipment recruitment, hiring, and training or volunteers or specialized manpower and preparation and dissemination of awareness raising and training materials focusing various target groups.

Agency	Actions
Provincial Secretary General/PDO	<p>Awareness Raising</p> <ul style="list-style-type: none"> ○ Make awareness to the Tor of working group (roles and responsibility) ○ Awareness on different Hazard <p>Training Plan</p> <ul style="list-style-type: none"> ● Development of contingency plan for Cyclone, Tsunami and other high risk hazard ● Support the development of community Response plan ● Setup CDCCCs ● Training on Assessment information management for PDC member. ● Training on EOC function ● Organised simulation exercise <p>Information management</p> <ul style="list-style-type: none"> ● Contact list ● Community profile ● Update the logistic and evacuation ● Regular coordination meeting of the working group ● Include DRM concern in the TAC agenda
Provincial Government Council	<p>Emergency fund</p> <ul style="list-style-type: none"> ● Advocate to get emergency fund at Provincial level ● Fundraising ● Public appeal
Area Council Secretaries (ACS) & Community Disaster Committees (CDC)	<p>Awareness Raising</p> <ul style="list-style-type: none"> ● Provincial disaster plan to CDC <ul style="list-style-type: none"> ○ Trigger Response ○ Scenario Response ○ option ● Food security to community ● Building location avoid to build in hazard area <p>Training Plan</p>

	<ul style="list-style-type: none"> • • • CDC and train them on roles and responsibilities • Assessment for ACS and CDCCC • Training on new technic on planting and breeding resilient to climate variability • Support CDCCC to make simulation exercise <p>Emergency fund</p> <ul style="list-style-type: none"> • • • fund • Donation management <p>Information management</p> <ul style="list-style-type: none"> • • community profile • Early warning means (Siren/ sign) • List of communication/ transport means 	<p>First aid Setting up of Training Training on Fundraising LMC disaster Update Location of</p>
<p>Water and sanitation & Health</p>	<p>Awareness Raising</p> <ul style="list-style-type: none"> • Finalized SHDR plan • Surveillance SOP • Integration and any public health awareness • Display disaster poster in all health facilities & any public health awareness <p>Training Plan</p> <ul style="list-style-type: none"> • First Aid training for all health staff • Community safety plan on water <p>Emergency fund</p> <ul style="list-style-type: none"> • Utilize allocated fund within health budget for emergency • For PDO to arrange fund raise on our behalf by 30 July 2016 @ Unity park <p>Information management</p> <ul style="list-style-type: none"> • Develop and information management and Human resource profile • Population and household update on all risk area of Sanma from reported assessment 	
<p>Education & Protection</p>	<p>Awareness Raising</p> <ul style="list-style-type: none"> • • hygiene • channel • Protection and gender <p>Training Plan</p> <ul style="list-style-type: none"> • 	<p>Health Reporting First aid (ZCA,</p>

	<p>CDC, ACS, PDC, teacher)</p> <ul style="list-style-type: none"> • Emergency <p>Plan for schools</p> <p>Emergency fund</p> <ul style="list-style-type: none"> • All schools to • have emergency funds in their budget every year • Fundraising • for funds/AID in kind <p>Information management</p> <ul style="list-style-type: none"> • Community profile (priority) Sanma province/ Municipal • Communication tree
<p>Food Security & Livelihoods</p>	<p>Awareness Raising</p> <p>Agriculture</p> <p>Information on resistant crops</p> <p>Awareness on</p> <ul style="list-style-type: none"> • Seedily conservation • Large garden planting • Food preservation • Quick growth crops <p>Setup Farmer committee</p> <p>Live stock</p> <ul style="list-style-type: none"> • Animal welfare information (example: diseases relate to hazards like El Niño...) • Setup Association and breeding stock • Encourage stock of animal feed • livestock development <p>Fisheries</p> <ul style="list-style-type: none"> • Information on roles of fisherman in disaster time • Encourage the fish farming • Encourage Fish and Aggregating Device (FAD) <p>Cooperation</p> <ul style="list-style-type: none"> • Damage inventory
<p>Shelter, NFI & Infrastructure</p>	<p>Emergency fund</p> <ul style="list-style-type: none"> • Fundraising • Department • Province to allocate budget <p>Information management</p> <ul style="list-style-type: none"> • Conduct list of PDC Members • Group conduct list • Volunteer conduct list • ACS Conduct list • Ward conduct list • NGOs Conduct list • Business houses • List of evacuation centres

	<ul style="list-style-type: none"> • MOU with EC owners or business houses • Community profile • Conduct list of EC focal point • Conduct list of BH • Review and update of disaster plan and conduct
<p>Logistics & Communication</p>	<p>Information management</p> <p>Stock take:</p> <ul style="list-style-type: none"> • Vehicles • Ships • Households/Population • Maps • Tools (chainsaw, ECT....)NFI • Evacuation centres (schools, churches) • NGOS specialists/government • Trained volunteers • Area Secretaries (locations) • Conduct Leaders of clusters • Ware houses • Health Centres • Business house conducts • Availability of resources

8.4. Humanitarian Partners & Programs

To assist the Provincial Council with activities on disaster risk reduction, climate change, food security and water security, programs that are undertaken by our humanitarian partners need to be registered with the Provincial Disaster Officer (PDO). The knowledge of coverage, capacity and activities taking place is important information for the PDO to gauge if communities have benefitted from preparedness activities and if they have, of what kind, and which communities need to be supported in future activities. (Annex 10 - VHT Program Register)

9. Resource Mobilization

Province needs money to execute the plan. This section presents how to manage the money, how to map resources (staff, asset, stock etc.) already available and management procedure if money is raised through donation/external fund.

9.1. Surge Capacity

There needs to be an inventory of the strategically placed resources stockpiled for emergencies in the province (Annex 11) List of stock materials & NFI), which would be kept by the PEOC. An updated list of all registered volunteers also needs to be kept, either for logistics, distribution, assessment, information dissemination or qualified first aiders. (Annex 12) - List of trained volunteers and their contact information)

External surge capacity for logistics, personnel, communications, supplies, emergency equipment and expertise also needs to be determined in consultation with the NDMO. (Annex 13 Logistics capacity assessment)

9.2. Emergency Funds

Any recovery of emergency costs is managed by the NDMO.

The restoration process of community functioning, the ongoing protection and continuous assessment of the recovery process is the responsibility of the PDCCC and the Provincial Government.

9.3. Donations/External Funds Management

In the event of a major disaster, the possibility of setting up a disaster relief fund would be given by the NDMO, who would administer and allocate it.

List of participant of the consultative workshop

Name	Position	Organisation / department	Contact
Doriane Nailipus	Officer	Frangipani Disability Association	5536720
Jairus Linparus	Officer	Customs Department	7771440
Harry Nalao	Officer	Statistics Office	7774876
Shirley Johnson	Office	Red Cross	5432341
Alfred Bani	officer	DPA	7764826
Keith Jacob	officer	Sanma Provincial health	5952679
Michel Tomker	Area Secretary	Sanma Province	5473720
Lishie Rossie	officer	Live and learn	5378946
Charley Johnson	Ombudsman	Ombudsman's office	5641411
Jeffery Vutilolo	Lab Technician	Northern district hospital	5732971
Henry Wells	officer	Public works	5966070/7714398
Chief Levus Tamata	Chief	Supentavutano council	560840
Italio Bororoa	officer	DARD	italio@vanuatu .gov.vu
Andy Ilo	Doctor	NDH	77330804
Sammy Kavv	officer	Forestry	5377648
Clentin Rousa	officer	Cooperatives	5441013
Kalfao Lum	Area Secretary	Sanma Province	5546331
Harkuk Vocor	ZCA	Education	5674144
Tony. E. Antfalo	VBTC officer	VBTC	7792089
Ps Dickson Banibani	Pastor	Luganville Church Group	5348054

Gaetano Abong	officer	Labour	33740/7743585
John Boar	officer	ADRA	5957328/7309957
Raupepe Alfredo	officer	Immigration	7771877
Paul Morrison	officer	PWD	7783040
Alma Wensi	officer	Tourism	7772534
Esrom Molisa	Police	Police	7771188
Paul Jamaran	Area Secretary	Sanma Province	5471685
Darryl Maseng	officer	Livestock	7760119
Alsen Obed	Manager	Fisheries	7745499
Prosper Buletare	Provincial planner	Sanma Province	7754532
Joseph Melip	officer	Ports and harbour	5694344
Jean Pierre	chief	Fanafo Area council	5668429
Benuel Tabi	officer	Lands department	5972625
Christion Tuku	Field Manager	SCA	5475724
Vomboe Molly	Manager	World vision	5551134
Willie Luen	officer	VMF	5975888
Warele Venesly	officer	Ombudsman	5331220
Simeon Molum	Officer	Land management	5430261
Philip Isom	Acting town clerk	Luganville Municipal	5369544
Kelvin Willie	DRR & CCA Officer	SCA	5907501
Sherryl Mahina	DRR & CCA Officer	SCA	7335158
Kensley Micah	PDO	PDO	7771307
Philip Meto	NDMO Provincial liaison officer	NDMO	5680710
Julienne Lamberti	Consultant	French Red Cross	

List of key documents

Document
National Disaster Act 2000 (Hyperlink)
NDMO Briefing Pack (Hyperlink)
Provincial & municipal Key Stakeholder Contact List
Lists of Volunteer / First Aiders Contacts
Provincial Disaster & Climate Change Committee Communications Tree
Provincial Disaster & Climate Change Committee Standard Operating Procedures
Post-disaster First Community Assessment form
Mass Evacuation In Natural Disasters - MEND
Draft List of Evacuation Centres
Logistics Capacity Assessment
Provincial Disaster Committee Terms of Reference
Lists of Emergency Stockpiled Materials
VHT Program Register