

CLIMATE SMART COMMUNITY-BASED DISASTER RISK MANAGEMENT

TRAINING MANUAL

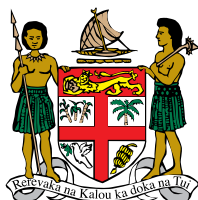
GUIDE FOR CBDRM FACILITATORS

FEBRUARY 2022



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National Disaster Awareness Week held in Ba.

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- Fiji Disabled Peoples Federation and Affiliates,
- Fiji Red Cross Society,
- Live & Learn Environmental Education,
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- National Disaster Management Office,
- Partners in Community Development Fiji,
- Plan International Australia,
- Plan International Pacific,
- Rainbow Pride Foundation of Fiji,
- Save the Children Fiji
- Ministry of Rural and Maritime Development and National Disaster Management.

We are also grateful for the technical assistance provided by the Australia Pacific Climate Partnership Support Unit in integrating climate change into this manual.

This manual has been peer reviewed by a committee of subject matter experts in CBDRM and DRM namely

- Anthony Blake (DRM expert)
- Jeong Park (APCP)
- Peni Seru (Plan International Pacific)
- Litiana Bainimarama (NDMO)
- Taina Naivalu (PCDF)
- Nemani Susu (PCDF)

FOREWORD FROM THE HONOURABLE MINISTER



The perception of disaster risk management has undergone significant transformation; shifting from relief and response, to disaster risk reduction and community-based management.

The change in weather patterns due to climate change has seen an increase in the number, and magnitude of disasters experienced in the region. The response to Tropical Cyclone Harold in 2020 was further complicated by the global Covid-19 response efforts.

The Community Based Disaster Risk Management (CBDRM) Training Manual aims to reduce vulnerabilities at community level by strengthening capacities to cope with hazards; complementing their resilience. The planned activities in the manual are a thorough assessment of their exposure; analyzing specific vulnerabilities, and identifying capacities to reduce the risks.

The key to efficient, effective emergency preparedness and risk management is the involvement and commitment of all relevant individuals and organizations at all levels of society; ensuring all stakeholders accept clearly defined responsibilities.

Communities are at the front line of disasters. The top-down approaches to disaster risk management fails to address specific local needs of vulnerable communities, often ignoring local capacities and resources. The community based

disaster risk management has emerged as an alternative approach to developing a “culture of prevention” and creating safer communities.

The CBDRM Training Manual is aligned to the National Disaster Risk Reduction Policy (NDRRP) 2018-2030, strengthening community-focused disaster risk reduction; decentralising disaster risk management to the community level; developing cross-scale partnerships and enhancing community resilience. It promotes an approach where the communities are working together to achieve an all-hazard management goal, accepting ownership to reduce vulnerability and actively participating in risk-reduction strategies at multiple levels.

It plays a critical role in developing their adaptive capacity and resilience to disasters.

I am committed to supporting the implementation of this CBDRM Training Plan. I believe it will inspire actions from the grassroots level to build economic, social and environmental resilience, which will in turn reduce poverty; promoting sustainable development.

I would like to acknowledge all those who have contributed to the development of this Training Plan. Special mention is the Partners in Community Development Fiji (PCDF), and the AHAVA Consultancy. Your input has been invaluable in the finalization of the Community Based Disaster Risk Management Training Plan.

Honorable Minister Inia Batikoto Seruiratu

Ministry of Rural and Maritime Development and National Disaster Management.

ACRONYMS

ADRA	Adventist Development and Relief Agency
AMU	Asset Management Unit
APCP	Australia Pacific Climate Partnership
CBDRM	Community Based Disaster Risk Management
CDMC	Community Disaster Management Committee
CDP	Community Disaster Plan
CDPRP	Community Disaster Preparedness and Response Plan
CEC	Community Evacuation Centre
CSO	Civil Society Organisation
DAC	District Advisory Councillor
DDA	Detailed Damage Assessment
DDC	Divisional Disaster Coordinator
DFAT	Department of Foreign Affairs and Trade
DISMAC	Disaster Management Council
DM	Disaster Management
DO	District Officer
DRA	Disaster Risk Assessment
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EC	Evacuation Centre
EWS	Early Warning Systems
FDPF	Fiji Disabled Peoples Federation
HADR	Humanitarian Assistance and Disaster Relief
IDA	Initial Damage Assessment
ISO	Initial Situation Overview
RA	Rapid Assessments
LLEE	Live and Learn Environmental Education
LTDD	Leptospirosis Typoid Dengue Diarrhea
MEHA	Ministry of Education, Heritage and Arts
MIRA	Multi/ Sector Initial Rapid Assessment
NDMA	Natural Disaster Management Act 1998
NDMC	National Disaster Management Council
NDMO	National Disaster Management Office
NDMP	National Disaster Management Plan
NDRRP	National Disaster Risk Reduction Policy 2018-2030
NEOC	National Emergency Operation Centre
NGO	Non-Government Organisation
EOC	Emergency Operation Centre
PCDF	Partners in Community Development Fiji
PDNA	Post Disaster Needs Assessment
PPEES	People, Property, Environment, Economy, Society
PPRR	Prevention, Preparedness, Response and Recovery
PWD	Persons with Disabilities
RPF	Rainbow Pride Foundation
SAR	Search and Rescue
SCF	Save the children Fiji
SOGIESC	Sexual Orientation of Gender Identity and Expression and Sex Characteristics
TNK	Turaga ni Koro

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OVERVIEW

Purpose and Scope of the Manual

This manual is developed to assist the Government of Fiji, through the National Disaster Management Office (NDMO), in promoting and strengthening community resilience to the impacts of climate change and disasters in Fiji. The NDMO will work with partners at all levels (national, sub-national and community), non-government organisations (NGO), civil society organisations (CSO), and community development partners to operationalize this manual.

The users of this manual are expected to utilize the modules to train community facilitators, government officials, NGO/CSO members, community representatives including men, women, youth, persons with disabilities, people of diverse Sexual Orientation of Gender Identity and Expression and Sex Characteristics (SOGIESC) and minority groups. The training not only covers community led climate action/disaster risk reduction planning and implementation but also strengthens community preparedness, response and recovery efforts using local knowledge and capacity.

Disaster Risk Reduction (DRR) and Disaster Risk Management (DRM) help communities to prepare for, cope with and recover from disasters. When combined with longer-term actions designed to increase the resilience of a community, DRR and DRM is significantly more effective, even when a community suffers recurrent disaster events (OFDA, 2012).

The manual addresses the rights and needs of both the vulnerable and the affected from the impact of disasters. It offers an integrated approach to social and gender inclusiveness as one of the key components of the manual.

Target Users

This manual specifically targets the practitioners who are already knowledgeable, experienced or equipped with working in both rural and urban communities in Fiji as well as Fiji's climate change and disaster management system including policies, Natural Disaster Management Act (1998) and National Disaster Management Plan (1995).

It is designed to be a training manual that encompasses critical topics in a sample five-day-training-course at the intermediary to advanced levels. In order to implement this manual effectively, the users are highly recommended to have completed the following trainings prior to undertaking this training:

1. Certificate IV in Disaster Risk Management (Team Leadership).
2. Trainer Qualifications (eg Cert IV TAE, FNU TOT, APTC IST, etc).
3. Post Disaster Damage Assessments (eg IDA, DDA, PDNA, MIRA, etc).
4. Level 3 Skillset in Working in an Emergency Operation Center.
5. Experience in DRM and DRR.
6. Endorsement from NDMO.

Coordination

The NDMO, which is the authorized body under the Natural Disaster Management Act 1998 (Government of Fiji, 1998) to coordinate all disaster related activities, will be the custodian of this manual and provide oversight in its use including the provision of a National Accreditation Process for approved training organisations and trainers. Therefore, the users of this manual must plan and coordinate with the NDMO for site selection and community trainings. All CBDRM training certificates must be endorsed by NDMO.

Gender, Protection, Disability and Inclusion

The National Disaster Risk Reduction Policy 2018-2030 stipulates the importance of including vulnerable groups in the disaster risk reduction (DRR) process. Vulnerable groups include the disabled, women, children, youth, elderly, poor families, single parent households and the landless who are the ones severely affected because of pre-existing exclusions (Government of Fiji, 2018).

This manual encourages the participation of vulnerable groups and persons of diverse SOGIESC. Women, children and persons of disability are not only vulnerable but have a lot to contribute when allowed to participate in the DRR process.

Deliverables

Community Disaster Preparedness and Response Plan

At the completion of training or community project, a signed community disaster plans must be handed over to the local community involved as well as copies being submitted to the above-mentioned offices for follow up support and monitoring of community-led, donor funded or government supported disaster risk reduction (DRR) initiatives. A sample outline of a community disaster preparedness and response plan can be found in page 87, figure 43.

Community Disaster Response Kit

To aid in the delivery of the training, the provision of a disaster response kit should be made available by the ministry/department/ organization facilitating the training to the respective community disaster management committees (CDMC). The purpose of the response kit is to support and enhance the CDMC roles and responsibilities. A sample list of the response kit by NDMO can be found on Part 2 of Annex 2.

Community Disaster Management Committee

At the completion of training, a community-led and endorsed CDMC must be formed, either as a new committee or an added responsibility to an existing committee in the community.

STRUCTURE OF THE MANUAL

This manual is structured around a proposed five-day training program that consists of five main parts:

1. PART A: INTRODUCTION & KEY CONCEPTS

Module 1: Basics of Climate Change and Disaster Risk Management

This module introduces participants to climate and disaster-related concepts, terminologies and an overview of Fiji's Climate Policy and National Disaster Management Structure.

Module 2: Introduction to Climate-Smart Community-Based Disaster Risk Management

This module introduces the concept of Climate Smart Community-Based Disaster Risk Management (CBDRM) as well as the basics of risk management, including risks, hazards, vulnerability and capacity.

2. PART B: THE CLIMATE SMART CBDRM PROCESS

Module 3: Selecting, Rapport Building and Understanding Communities

This module introduces the community characteristics and how to approach communities in need.

Module 4: Establishing a Community Disaster Management Committee

This module introduces the Community Disaster Management Committee and explains their roles and responsibilities.

Module 5: Participatory Risk Assessment

This module introduces vulnerability and capacity assessments and practical tools. It also includes a practical exercise in overall risk identification and assessment.

Module 6: Participatory Action Planning

This module will allow the participants to put together community action plans based on the risks identified through the participatory risk assessments.

Module 7: Community Managed Implementation

This module will talk about the considerations required for implementation and further sustainability including ownership, resources (relationship with the development plans), monitoring and evaluation, etc.

3. PART C: COMMUNITY-LED DISASTER PREPAREDNESS AND RESPONSE

Module 8: Community Disaster Preparedness and Response Plan and Household Preparedness

This module introduces the steps for developing the community and household disaster preparedness and response plan.

Module 9: Community Simulation Exercise

This module will allow participants to be able to test or simulate actual events in the community using a disaster preparedness and response plan

4. PART D: COMMUNITY-LED SUPPORT SERVICES

Module 10: Initial Damage Assessment

This module will introduce community to Initial Damage Assessment for quicker reporting purposes. This is a standalone course in itself and can be facilitated either within the CBDRM process or additional to this training.

Module 11: Evacuation Centre Management (ECM)

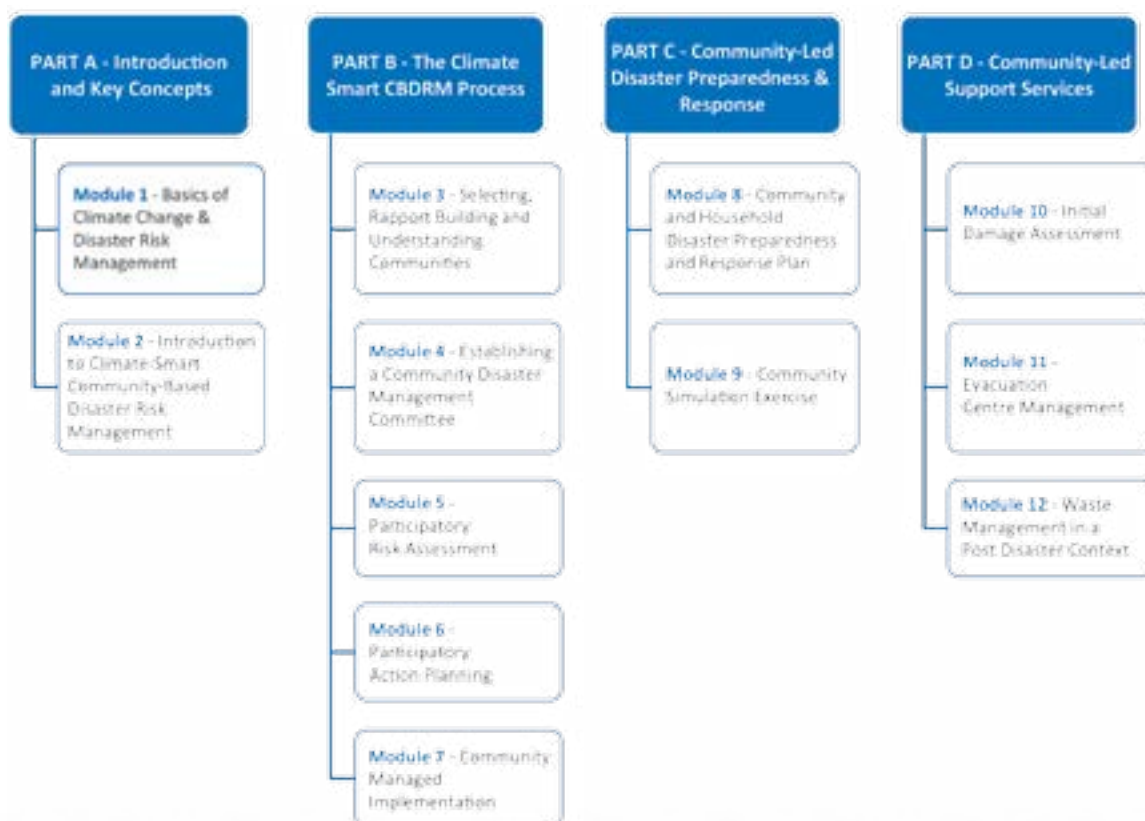
This module will introduce the management of an Evacuation Centre including aspects of protection, care and safeguarding of children and vulnerable groups and proper planning and management of welfare of evacuees. The ECM content is contextualized to the role that the CDMC will play in relation to the preparedness, activation, operation and demobilizing of the Evacuation Centre.

Module 12: Waste Management in a Post Disaster Context

This module will introduce the correct and safe management of waste materials after the impact of the disaster including during the recovery phase. This will include waste management in:

- (a) Evacuation Centers
- (b) Community Clean-up
- (c) LTDD specific context

This manual also incorporates the facilitator's guide that provide further details of each module and practical tips for running a successful training.



SAMPLE CBDRM COURSE OBJECTIVES

At the end of this five-day course, the participants should be able to:

- **Undertake a pre and post self-assessment evaluation.**
- **Explain key terms, concepts and principles in Disaster Risk Management and Climate Resilience.**
- **Understand Fiji's Disaster Risk Management and Climate Change Policy.**
- **Understand the National Disaster Management Structure.**
- **Differentiate between Disaster, Hazard, Risk, Vulnerability and Capacity.**
- **Understand the basics of climate change and the impacts**
- **Identify Hazards in the community and their impact.**
- **Apply the climate and disaster risk identification and assessment processes.**
- **Identify and plan community risk reduction action plan.**
- **Perform disaster preparedness planning at household and community level.**
- **Develop an Inclusive Community Disaster Preparedness and Response Plan and waste management.**
- **Discuss key elements and features necessary for effective emergency response.**
- **Conduct community simulation exercise.**
- **Conduct Initial Damage Assessment.**
- **Identify and plan for post disaster recovery intervention.**

SAMPLE Climate Smart CBDRM Program *(Also in Annex 6)*

TIME	DAY 01	DAY 02	DAY 03	DAY 04	DAY 05
0830 - 0900	Registration Devotion Welcome/Opening	Devotion Recap Day 01	Devotion Recap Day 02	Devotion Recap Day 03	Devotion Recap Day 04
0900 - 0930	S1 Introduction [Facilitator/ Participants] Nanamaki Tree	S4 Hazard Terminology Coconut Tree Exercise (group work) Group presentation	S7 Household preparedness	S10 Initial Damage Assessment (IDA)	S12 Simula- tion Exercise Discussions
0930 - 1030	S1 Course Introduction - Logistics - Objective	S5 Transect walk	S7 Household preparedness	S10 Initial Damage Assessment (IDA)	S12 Table- top Exercise discussions
1030 - 1100	MORNING TEA BREAK				
1100 - 1200	S2 NDMO; DIS- MAC; NDMC; Community struc- ture (to cover the role of the NDMO and how this CB- DRM Training and its objectives are aligned to the Plan and Act)	S5 Transect walk	S8 DRRAP (to action hazard findings) To correspond with VDP	S10 Initial Damage Assessment (IDA)	S13 SIMEX proper
1200 - 1300	S2 CDMC formulation - Roles & responsibilities - CDMC Directory	S5 Transect walk findings Hazard classi- fication (from transect walk findings) Community map presentation	S8 DRRAP (to action hazard findings) To correspond with VDP DRRAP Presentation	S10 Initial Damage Assessment (IDA)	S13 SIMEX proper Simulation Exercise Debrief
1300 - 1400	LUNCH				
1400 - 1430	S3 Types of Disasters: Earthquake; Tsunami; Flood; Tropical Cyclone; Landslide; Drought	S6 Response ar- rangement matrix RA group work	S9 EOC Management EC Management Protection Training	S11 Waste Management (Recommend Rural Health Inspector be the resource personnel for S12)	- Certificate Presentation - Disaster Ready Kit Presentation
1430 - 1500	S3 Group presentations: - Disaster Timeline - Seasonal Calendar	S6 Continuation: Response ar- rangement matrix RA group work	S9 Continuation: EOC Management EC Management Protection Training	S11 Waste Management	S14 Final Evaluation
1500 - 1530	Evaluation Closing Prayer End of day 01	Evaluation Closing Prayer End of day 02	Evaluation Closing Prayer End of day 03	Evaluation Closing Prayer End of day 04	END OF TRAINING PROGRAM

FACILITATOR GUIDANCE

The facilitator possesses the knowledge, skills, attitude, values and commitment in facilitating an enabling environment to empower the community in disaster preparedness, response and recovery.

AT START OF TRAINING (DAY 1)

- I. Introductions
 - Facilitator introduces self and brief outline of the training
 - Asks for a participant to conduct Devotion.
- II. Time Keeping
 - Asks for a timekeeper to be appointed and a timetable agreed upon.
- III. Ground Rules
 - Participants discuss “Ground Rules” of the training and set rules for the duration of the program.
 - Display this in a prominent place.
- IV. Considerations
 - Ensure that for group activity, there is equal distribution of male, females, persons with disabilities, youth, persons of diverse SOGIESC in group discussions and/or activities.
 - There may be activities involving focused group discussions that would benefit participants more, however consideration of time and place is important to ensure no offence is created.

PRE-PRINTED MATERIALS

The following pre-printed materials also need to be prepared in advance;

- I. Attendance List
- II. Consent forms
- III. Sample of Training program (*page 13, annex 6*)
- IV. “Expectations Tree” (*page 15, figure 1*)
 - a tree pre-drawn with branches and without leaves on newsprint/ A4 for the participants to place sticky notes with their “expectations and learning outcomes”
- V. Community Disaster Management Committee Directory Template (*page 60, figure 28*)
- VI. Hazard Identification Template printed on A4 (*page 70, figure 34*)
- VII. Hazard Ranking Template printed on A4. (*page 74, figure 40*)
- VIII. Community Risk Reduction Action template printed on A3 (*page 78, figure 41*)

Materials needed during the course:

- Name Tags,
- Pen/Pencil, Ruler
- Newsprint/ Flip chart paper,
- Permanent markers (chisel tip),
- Blue-tack or push pins,
- Laptop and Projector
- Participant Folders,
- Sticky notes,

Participant Expectation



Fig 1. Expectation Tree

This activity allows the facilitator to set the scene for the 5 days training. The participants are expected to list their individual expectations of what knowledge and skills they anticipate to gain from the training.

Learning Objectives:

By the end of this session, participants will be able to:

1. Introduce themselves confidently to the whole group.
2. Complete Registration
3. Understand/know expectations of the participants
4. Know each other including the facilitators

Materials Needed:

- Pen/Pencil
- Blue Tac
- Sticky Note

Allocated Time: 20-30 minutes

Methodology:

1. Ask the participants to think of the personal expectations and outcomes they expect to gain from attending the training and to write them on the sticky notes provided.
2. Ask the participants to stand and introduce themselves and their expectations and paste on the sticky note onto the "Expectation Tree" as leaves.
3. Facilitator to record the participant's expectations.

Note to Facilitator: Facilitator explains that each participant should check the "tree" each morning, see if expectations have been met, and remove if successful.

PART A:

INTRODUCTIONS AND KEY CONCEPTS

FACILITATOR GUIDANCE

PART A: KEY CONCEPTS

(a) Overview

This component of the Manual covers the discussion and dissemination of key concepts and terminology within the community disaster risk reduction scope of engagement.

Module 1 – Introduction to Climate Change and Disaster Risk Management

Participants are introduced to key concepts and terminology under Climate Change and Disaster Risk Management, including national frameworks and arrangements.

Module 2 – Introduction to Climate Smart Community-based Disaster Risk Management

Participants are introduced to the concept of the Climate Smart CBDRM and understanding Risk through the use of Risk Analysis tools

(b) Trainer Objectives

There is a lot of content and theoretical definitions that the trainer will need to review and translate to the level of understanding and application at the community level.

Key aspects that need understanding include Hazards, Vulnerability, Risk Analysis, having a climate lens, diversity and inclusivity and the key national frameworks that come to play for community focused actions.

(c) Links to Sample Program

Modules 1 and 2 link to Session 3, 4 & 6

NATIONAL DISASTER MANAGEMENT PLAN, 1995

- The major aim of the PLAN is to clearly outline arrangements for control and coordination of all disaster related activities in Fiji.
- It applies to all government activities related to disaster management including mitigation, preparedness, response & rehabilitation.
- It outlines roles and responsibilities of specific bodies, indicates the roles of Agencies and Ministries in relation to natural disasters and gives guidelines for operations and activities of all stages of disaster management.



NDMO DRR Officer Mitieli Seruiratu presents the National Disaster Management Plan at a CBDRM training.

MODULE 1

INTRODUCTION TO CLIMATE CHANGE AND DISASTER RISK MANAGEMENT

CHAPTER 1. BASIC FRAMEWORK

MODULE 1. BASICS OF CLIMATE CHANGE AND DISASTER RISK MANAGEMENT

In this Module, the participants will be introduced to the basic concepts of climate change and DRM, especially terminologies and concepts. The participants will go through an activity where they are to identify and match the terminology with the definition written in their participants' vernacular. The other activities that will follow the matching activity is for the participants to fully understand the terms used with every action required for an efficient and effective arrangement.

FACILITATOR'S GUIDE

LEARNING OBJECTIVES

By the end of this module, participants will be able to:

1. Understand Climate Change and Disaster Risk Management terminologies.
2. Apply the Climate Change and Disaster Risk Management terminologies.
3. Understand when to use the terms with every action required.

Materials Needed:

- Newsprint
- Pencil/ Ball Pen
- Permanent Marker
- Translated disaster terminologies.
- Blank A4 Paper

Allocated Time: 1 Hour

Methodology:

1. Introduce to the participants the following terminology:
 - Disaster, Preparedness, Response, Mitigation, Recovery, etc.
2. Matching Activity
 - Prepare and pin on the board an A4 sized paper with the climate and disaster risk terminology written on it.
 - Prepare the definition of each climate change and DRM terminology in the participants' vernacular written on an A4 sized paper.
 - Divide the participants into three groups and equally handout the prepared definitions of DRM and Climate Change terminology.
 - Ask participants to pin the definition next to the terminology already on the board.
 - Facilitator to lead the participants in general discussion to verify and confirm that the definition in the participants' vernacular rightly meets the terminology on the board.
3. Participants to take written notes of the terminologies and their respective definitions in the participants' vernacular into their respective note books.
4. Make sure the note taker/facilitator records all comments of the participants.

Note to Facilitator

- Prepare ready-made climate change and DRM terminologies and definitions in the participants' vernacular each on A4 sized papers. This will be used for a matching exercise.
- Facilitator to introduce all the Disaster Risk Management terminologies, their application within the Disaster Cycles Phases, provide examples when to use them and the actions required for their applications.

1.1. Key Concepts and Terminologies

What is a Disaster?

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

Fiji has an inherently high potential of exposure to a considerable array of disasters. The probability of catastrophic damage and loss of life from hazards such as cyclone and tropical storm, storm surge, flooding and landslide, earthquake and tsunami, is assessed as very high (Government of Fiji, 2018).



Fig 2. Major landslide in the Northern Division.



Fig 3. Flooding in Central Division during TC Cody.



Fig 4. Impact of TC Yasa in the Northern Division



Fig 5. Debris brought in by coastal surge in Lau.

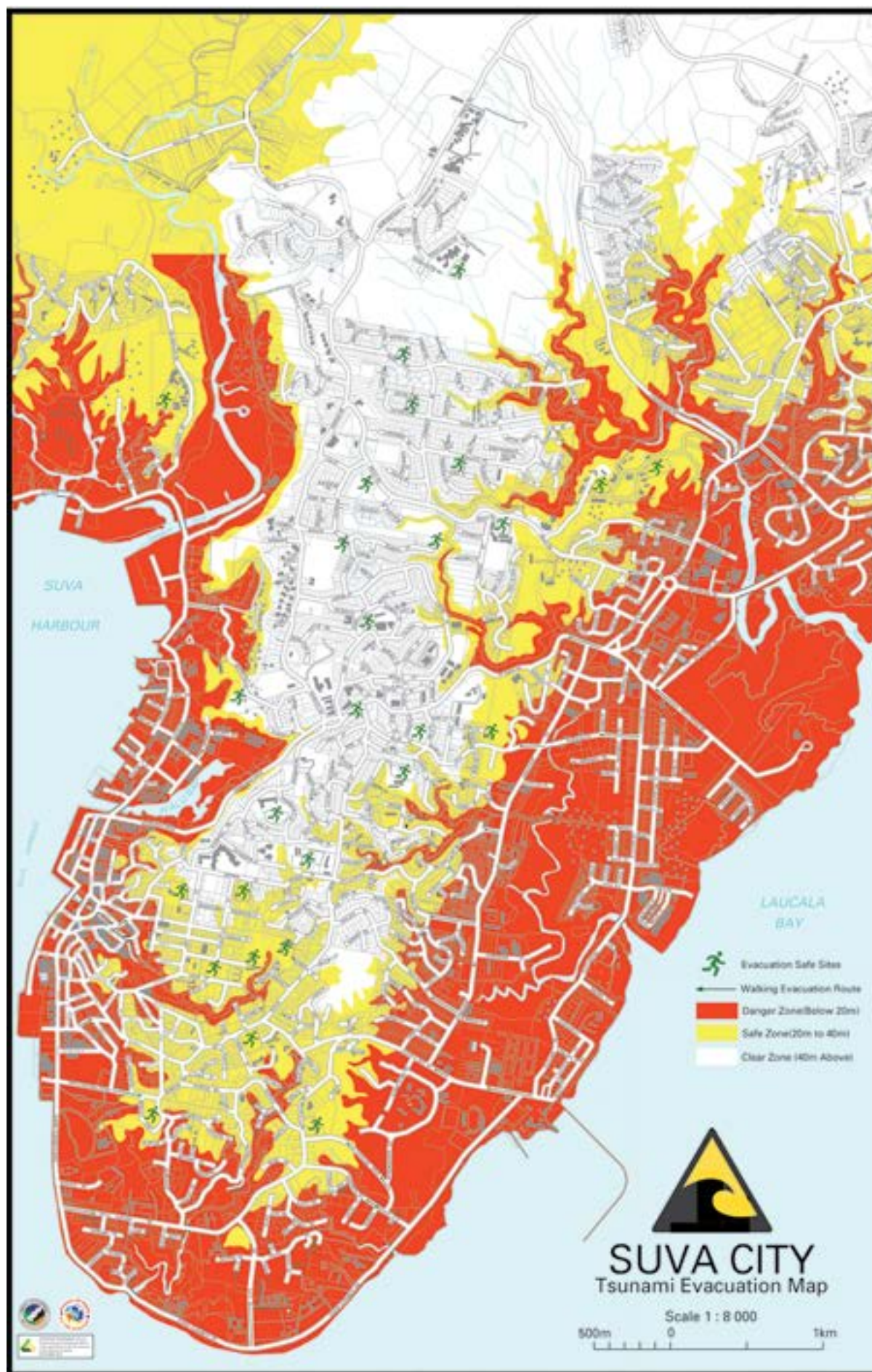


Fig 6. Suva City Tsunami Safe Zone Map

What is Climate Change and Climate Variability?

"Climate change will amplify existing risks and create new risks for natural and human systems."

Climate change refers to changes in climate over an extended period of time. Climate is the weather that characterizes a region over a period of many years. Weather refers to daily or short-term changes in local conditions (i.e. temperature, precipitation, and wind). Weather determines how you dress for the day. Climate determines the clothes you own and can choose from to wear on a given day.

Every region has an expected range of climate conditions. Due to phenomena that affect atmospheric and ocean conditions i.e. El Niño Southern Oscillation (ENSO), some seasons or years may have stronger or weaker winds, intense or mild storms, higher or lower average temperatures, and more or less rain (IPCC, 2014; Zhao et al., 2005). These normal year-to-year changes are called climate variability. The Fiji Meteorological Service (FMS) tracks these natural phenomena, providing information to the public that can help guide agricultural decisions, water management, and disaster risk reduction activities (Fiji Meteorological Service, 2018).



Fig 7. Effects of Climate Change in Ra

Climate change, caused by a long-term increase in global average temperatures, is intensifying climate variability. Since 1880, averaged global land and ocean surface temperatures have increased by approximately 0.85 degrees Celsius (IPCC, 2014). This slight increase in temperature, known as global warming, affects ocean and atmospheric currents changing evaporation rates and precipitation patterns (IPCC, 2014). The observed and projected impacts of climate change include modifications in the frequency and intensity of some types

of sudden disasters including cyclones, storm surge, heavy rains, flooding, landslides, and heat waves. Climate change can also cause slow onset impacts including drought, reduced quality of drinking water resources, and changes in flowering and pollination times, reduced agricultural production, coral bleaching, and shifts in the availability of forest and marine resources, and impacts on human health (IPCC, 2014).

What is causing Climate Change?

Since the Industrial Revolution in the late 1700s, there has been a significant increase in the presence of heat-trapping gases - called greenhouse gases (GHG) - in the atmosphere. Energy produced through fossil fuels (i.e. gas, oil, and coal) is now extensively used to manufacture and transport goods, to fuel cars, planes, and boats, and to produce electricity to heat, cool, and power homes and businesses. The burning of these fossil fuels releases carbon dioxide (CO₂) and methane into the earth's atmosphere (IPCC, 2014). CO₂ stored in soils is released into the atmosphere through deforestation, forest fires, and land-use change (IPCC, 2014). Industrialized agriculture - which produces food in large factory farm monocultures - produces methane and releases nitrous oxide from chemical fertilizers (Mosier et al., 1998; Reay et al., 2002). To address climate

change, we need to reduce greenhouse gas emissions by reducing energy consumption and using renewable sources of energy instead of fossil fuels.

The earth's atmosphere is similar to a blanket. Naturally occurring greenhouse gases in the atmosphere trap some of the warmth of the sun, maintaining the temperature of the planet and regulating the climate system. Without these gases, the planet would be too cold for humans to survive. Human activities are increasing the concentration of greenhouse gases in the atmosphere, essentially adding to this natural "blanket." More heat from the sun is trapped, increasing global temperatures and changing the balance of the climate system.

How can we reduce GHG emissions? There are different ways, including:

- Use energy that comes from the sun, wind, or ocean instead of burning coal or oil.
- Purchase locally produced products.
- Develop/support agricultural systems that minimize chemical inputs and instead use diversified production systems, climate smart agriculture, and agro ecological practices.
- Sustainably manage forests and reforest with native tree species.

Key current and projected climate impacts in Fiji

- **Extreme storm events:** Storms and tropical cyclones may become more frequent and/or extreme (*Kumar et al. 2020*). Early warning systems can help communities prepare for storms and reduce risk. Healthy reefs and mangroves can reduce storm surge and protect coastal communities. Protecting the vegetative zones along rivers can help reduce flood risk. Landslide risk can be reduced through the sustainable management of forests and sloped areas. Risk can further be reduced by removing buildings and key infrastructure from low-lying areas and near rivers, protecting water resources from storm surge, and using climate-smart agricultural practices based in agro ecology (*Altieri et al, 2015*).
- **Extreme temperatures:** There has been an increase in the number of hot days and a decrease in the number of cool nights in Fiji (*Kumar et al., 2013*). Changing temperatures may affect water supplies, food production, infrastructure, and human health (*Zhao et al., 2005*). Possible actions include improved water management and planning, climate smart agriculture drawing on agro ecological principles, and community planning for temperature extremes.
- **Changing precipitation patterns:** Precipitation patterns may change with rain falling out of season, heavy rains, and/or droughts (*Nurse et al. 2014*). Changing precipitation patterns may increase the risk of landslides, floods, drought, soil erosion, sedimentation of reefs, etc. while also impacting water resources, agricultural production, fisheries, and other key resources. Possible actions include protecting slopes with native forests, use of climate-smart agricultural techniques based in agro ecological principles, protecting the vegetative zones along rivers, community-based marine resource management, and managing water resource supplies.

- Sea level rise:** Sea level rise is largely a result of higher temperatures causing sea water to expand as well as melting arctic ice sheets. Even a small increase in sea levels increases storm surge and can cause flooding farther into coastal communities (*Kumar et al., 2020; McLeod et al., 2010*). Risk can be reduced by removing or elevating key buildings and infrastructure in low-lying areas and relocating key resources to higher elevations. To protect mangroves and to continue to benefit from mangroves serving as a natural barrier to protect communities, leave an inland margin behind mangroves to allow them to grow inward as sea levels rise.
- Coral bleaching:** Climate change is increasing the average ocean surface temperature. When temperatures rise beyond levels that corals can tolerate, corals will turn white. This is called coral bleaching. Reefs can often recover from coral bleaching events if the event does not last too many days and if the reef has healthy populations of herbivorous fish i.e. parrotfish (*Chung et al., 2019*). When corals bleach, algae will start to grow on the corals. Herbivorous fish will eat the algae, allowing the coral to recover. If a reef has been over-fished and there are insufficient fish to eat the algae, the algae will suffocate and kill the corals, having long-term negative consequences for the reef and the productivity of local fisheries. Risk can be reduced through sustainable fisheries management (*Hauer et al., 2020*) and protecting reefs from agricultural chemical runoff (*Burger et al., 2020*).
- Ocean acidification:** Approximately 50% of CO₂ emissions remain in the atmosphere, while approximately 25% are absorbed by plants and forests on land. The remaining 25% is absorbed by the world's oceans (*NOAA, 2020; Burger et al., 2020*). Rising CO₂ concentrations is increasing the acidity of ocean water and negatively impacting marine life (*Kumar et al., 2020*). Marine life that has a hard shell i.e. crustaceans, corals, and plankton, is especially susceptible (*Borges et al., 2018; Burger et al., 2020*). Risk can be reduced through sustainable fisheries management and the creation of marine protected areas. Risk can further be reduced by minimizing agricultural chemical runoff by using agro ecological farming practices.
- Human health risks:** In addition to the physical risks posed by natural disasters, climate impacts may also increase the incidence and transmission of human illnesses (*Nurse et al., 2014*). Prevention measures to address this risk include good hygiene practices, nutritious diets, protection of water sources, and disaster preparedness.

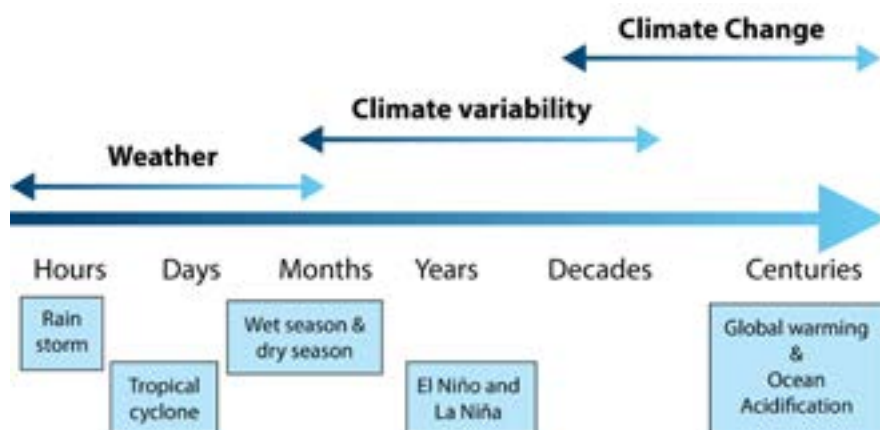


Fig 8. Climate Change and Climate Variability

What is Disaster Risk Management (DRM)?

Disaster risk management is defined as the processes for designing, implementing, and evaluating strategies, policies, and measures to improve the understanding of disaster risk, foster disaster risk reduction and transfer, and promote continuous improvement in disaster preparedness, response, and recovery practices, with the explicit purpose of increasing human security, well-being, quality of life, and sustainable development (Lavell et al, 2012).

Disaster risk management is concerned with both disaster impacts and disaster risk of differing levels and intensities. Hence, it can be divided to comprise two related but discrete subareas or components: disaster risk reduction and disaster management (Lavell et al, 2012).



Fig 9. Disaster Risk Management

What is Disaster Management (DM)?

Disaster management can be defined as the organization, planning and application of measures preparing for, responding to and recovering from disasters. Emergency management is also used, sometimes interchangeably, with the term disaster management, particularly in the context of biological and technological hazards and for health emergencies (UNDRR, n.d.)

Disaster management processes are enacted once the immediacy of the disaster event has become evident and resources and capacities are put in place with which to respond prior to and following impact. These include the activation of early warning systems, contingency planning, emergency response (immediate post-impact support to satisfy critical human needs under conditions of severe stress) and, eventually recovery (Lavell et al, 2012)

Disaster Management focuses on the management of the threat and its impacts as well as the consequences of a disaster. This includes preparing for, responding to and recovering from a disaster.

What is Disaster Risk Reduction (DRR)?

Disaster risk reduction is aimed at preventing new, and reducing existing, disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development. (UNDRR, n.d.)

Disaster risk reduction denotes both a policy goal or objective, and the strategic and instrumental measures employed for anticipating future disaster risk, reducing existing exposure, hazard, or vulnerability, and improving resilience. This includes lessening the vulnerability of people, livelihoods, and assets and ensuring the appropriate sustainable

management of land, water, and other components of the environment (Lavell et al, 2012).

Disaster risk reduction is also a climate action. The Sustainable Development Goal No 13 promotes the development and implementation of national and local disaster risk reduction strategies as a key component of Climate Action (UNSD, n.d.)

DRR supports the strengthening of coping capacities in the interest of strengthened resilience.

What is Resilience?

Resilience is the ability of a system, community or society exposed to hazards, and/or climate change, to resist, absorb, accommodate, recover and transfer the consequences of a hazard event or of climate change in a timely and efficient manner. This includes through the preservation and restoration of its essential basic structures and functions (SPC et al, 2016).

Rationale for an Integrated Approach

Adaptation to climate change and disaster risk management both seek to reduce factors and modify environmental and human contexts that contribute to climate-related risk, thus supporting and promoting (Lavell et al, 2012). The Pacific Community's Framework for Resilient Development in the Pacific (FRDP), the high-level strategic guidance for enhancing resilience to climate change and disasters in the Pacific, also notes there are clear overlaps between climate change adaptation and disaster risk management with similar tools and resources required to monitor, analyse and address climate and disaster risks (SPC et al, 2016).

Benefits of a more systematic and integrated approach to reducing the consequences of climate change and natural hazards include rationalising, where appropriate, multiple funding sources and multiple projects that are addressing similar needs. An integrated approach can reduce duplication and optimise use of limited resources and sharing of technical expertise (SPC et al, 2016).

Disaster risk management and adaptation to climate change both emphasize the value of a more holistic, integrated, trans-disciplinary approach to risk management (Lavell et al, 2012). As such, many Pacific island countries have started taking concrete steps to manage these risks in a more integrated manner. For example, many have developed Joint National Action Plans for disaster risk management and climate change (JNAPs), have joined up their national institutional arrangements for climate change and disaster risk management and/or have adopted integrated measures at programmatic level (SPC et al, 2016).

1.2. The Disaster Management Cycle



Fig 10. Disaster Management Cycle

Disaster management aims to reduce, or avoid the potential losses from dangers, assure prompt and appropriate assistance to victims of disaster, and achieve rapid and effective recovery.

For the context of this Manual and CBDRM, we will use the PPRR model i.e.;

- a) **Prevention (includes Mitigation)**
- b) **Preparedness**
- c) **Response**
- d) **Recovery (includes Rehabilitation & Reconstruction)**

a) The Disaster Prevention (Mitigation) Phase

In normal practices of disaster risk management, mitigation means the lessening or minimizing of the adverse impacts of a hazardous event (*UNDRR, n.d.*). The adverse impacts of hazards often cannot be prevented fully, but their scale or severity can be substantially lessened by various strategies and actions.

Mitigation measures encompass engineering techniques and hazard-resistant construction as well as improved environmental policies and public awareness.



Fig 11. Flood Retention Dam on the Nadi River to regulate water flow. Fig 12. The Floodgate at Sabeto

Examples of Mitigation measures include the building of floodgates to stop the inflow and saltwater intrusion into farmland and controls the outflow of flood water. Also, the building of Flood Retention Dams along the major rivers to catch surface runoff and stream water flow to regulate the water flow in low-lying areas.

Mitigation measures should not solely focus on engineered solutions as these may not be effective, create secondary risks, or have negative impacts. Instead measures should focus on a) protecting key infrastructure, homes, food storage, and water supplies, b) improved environmental policies that improve watershed management and protect key ecosystems, and c) increasing public awareness (*OFDA, 2012*).

It should be noted that in climate change policy, mitigation refers to the reduction of the rate of climate change via the management of its causal factors such as the emission of greenhouse gases from fossil fuel combustion, agriculture, land use changes, cement production, etc. (*IPCC, 2007*).

Rezoning to ensure structures are not within the 100-year flood plain or within 30m of rivers (against tsunamis, for instance); reforestation efforts on slopes and along rivers (to prevent landslides or other land movements including erosion); use of climate-smart agriculture including saline-resistant crop varieties; protecting and diversifying water sources; and protecting mangroves and sustainable fisheries are all good examples of disaster mitigation. They are often categorized as climate actions under climate change adaptation, not climate change mitigation.

b) The Disaster Preparedness Phase



Fig 13. An example of a Go Bag

The knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from the impacts of likely, imminent or current disasters. Preparedness action is carried out within the context of disaster risk management and aims to build the capacities needed to efficiently manage all types of emergencies and achieve orderly transitions from response to sustained recovery (UNDRR, n.d.).

Preparedness is based on a sound analysis of disaster risks and good linkages with early warning systems, and includes such activities as contingency planning, stockpiling of equipment and supplies, the development of arrangements for coordination, evacuation of plans including the prevention of family separation, community awareness (i.e. disaster protocols, post-disaster hygiene, protection of crops against damage and post-disaster pests), protection of water resources and food reserves, establishment protocols to protect the safety of women and girls, and associated training and field exercises. These must be supported by formal institutional, legal and budgetary capacities. The related term “readiness” describes the ability to quickly and appropriately respond when required (UNDRR, n.d.).



Fig 14. Trained Community Disaster Management Committee of Nasautoka village, Wainibuka, Tailevu

c) The Disaster Response Phase



Fig 15. Rescue effort by Fiji Police Force and Royal Fiji Military Force officers during the TC Cody flooding.

The provision of emergency services and public assistance during and/or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Disaster response is predominantly focused on immediate and short-term needs and is sometimes called disaster relief. Effective, efficient and timely response relies on disaster risk-informed preparedness measures, including the development of the response capacities of individuals, communities, organizations, countries and the international community (UNDRR, n.d.)

The division between this response stage and the subsequent recovery stage is not clear-cut. Some response actions, such as the supply of temporary housing and water supplies, may extend well into the recovery stage. (UNDRR, n.d.)



Fig 16. Schools participating in an evacuation exercise

Background

Fiji is currently ranked 15th in the world as high risk to natural disasters – one of several Pacific island countries in the top 20 (BEH and IFHV, 2020). Over the past ten years Fiji has had no fewer than ten natural disasters including a major fast-onset event like a flood or tropical cyclone every four years. This means that during non-crisis times Fiji is predominantly in a state of recovery from natural disasters.

Hazards common to Fiji include tropical storms/cyclones (annual), floods (annual localized occurrences and every 2-3 years major occurrences) and droughts (coincide with El Nino and La Nina events). More information about how each of these hazards affects Fiji, and how they are commonly dealt with, is outlined in the Disaster History section below.

Fiji has established a DRM framework but currently under revision –the Natural Disaster Management Act 1998 and National Disaster Management Plan 1995 are the key pillars of Fiji's Disaster Risk Management. Both documents are currently being reviewed.

Recently, Fiji has been taking steps to improving the national DRM system further with the development of National Humanitarian Policy 2017 and National Disaster Risk Reduction Policy 2018-2030. Other additional national policies concerning climate change and disaster risk management include Environmental Management Act 2005, Human Rights and Anti-Discrimination Act 2009, Land Use Act 2010, Roadmap for Sustainable and Economic Development 2010, National Climate Change Policy 2012 and 5-year and 20-year National Development Plan 2017 (Government of Fiji, 2018).

Fiji's ratification of international treaties pertaining to women, children and disabilities [CEDAW, CRC and CRPD**]; Family Law Act [2003] relating to child protection and spouse maintenance; National Gender Policy; national policy for CRPD [under review]; Pacific Gender Declaration; Pacific Framework on the Rights of Persons with Disability; and Fiji's green growth agenda also address climate change and disaster risk management.

Fiji has a number of key regional and national DRM actors – At the national level, National Disaster Management Council (NDMC); National Disaster Management Office (NDMO); government line ministries who are national humanitarian cluster leads (e.g. Ministry of Social Welfare, Women and Poverty Alleviation is the Safety Protection Cluster lead, etc.); sub-national government administration; community administration; and civil society organizations (CSOs) including Fiji Council of Social Services (FCOSS). At the regional level, UN agencies; inter-governmental organisations like the Pacific Community (SPC); and international NGOs. Other regional bodies like the Pacific Disability Forum are also based in Fiji.

** Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), Convention on the Rights of the Child (CRC) and Convention on the Rights of Persons with Disabilities (CRPD)

National Disaster Management Council

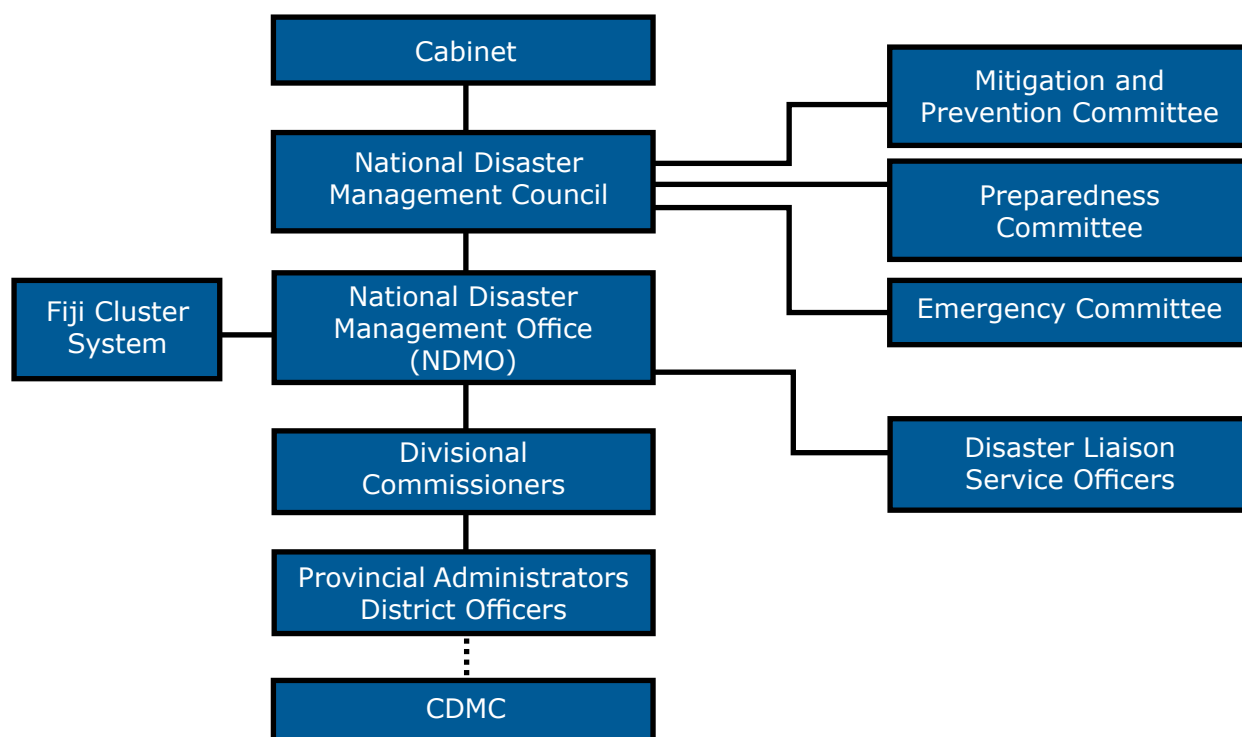


Fig 20. Fiji Government Disaster Management Structure

The NDMC is chaired by the Minister responsible for Disaster Risk Management and comprised of heads of government agencies, FCOSS and the Fiji Red Cross Society. The primary role of NDMC is to provide high level DRM policy advice to Cabinet (Government of Fiji, 1998). Recent inclusions to the NDMC have been the Fiji Business Disaster Resilience Council (est. 2016) and the United Nations Resident Coordinator (UNRC).

The specific functions of the Council are to:

1. Have overall responsibility for disaster management irrespective of whether there is a disaster or not;
2. Develop suitable strategies and policies for disaster mitigation and preparedness and for training,
3. Management and public education in disaster management;
4. Prepare and implement adequate rehabilitation programmes following any disasters;
5. Recommend policies, strategies and alternatives to Cabinet;
6. Form sub-committees to execute specific tasks within their specific fields of competence in addition to those mentioned in other sections of the Act.
7. All administrative and secretariat support for NDMC is provided by NDMO.

Committees within NDMC

1. Mitigation & Prevention Committee
2. Preparedness Committee
3. Emergency Committee

National Disaster Management Office

NDMO is the secretariat/working arm of the NDMC. NDMO is currently (2021) under the Ministry of Rural and Maritime Development and Disaster Management (Government of Fiji, 2020).

The primary responsibility of the NDMO is to coordinate, and to a lesser extent implement, DRR activities, advocacy & facilitating policy development and implementation. During non-crisis times, NDMO reports to the Permanent Secretary of the Ministry. During crisis/emergency response, the Permanent Secretary takes up a role of National Disaster Controller and the Director of the NDMO takes the role of National Disaster Coordinator. NDMO supports the National Disaster Controller through the management of National Emergency Operations Centre (NEOC). During crisis and non-crisis times the Controller (Permanent Secretary) reports to the chair of NDMC. (Government of Fiji, 1998).

Units within NDMO

1. Emergency Planning & Coordination Unit (EPC Unit)
2. Risk Management & Research Unit (RMR Unit)

In terms of DRR programming the NDMO manages several activities, the majority of which are donor funded, with technical input from various government line agencies and/or CSOs. This approach is articulated in the National Disaster Management Plan as committees within the NDMC.

NDMO manages disaster activities at these levels through:

1. Disaster Preparedness Programs
2. Conduct Disaster Management Trainings
3. Conduct Community Awareness Programs
4. National Disaster Awareness Week.

Sub-National Coordination

Each Divisional Commissioner and their staff are responsible for the Divisional EOCs (Div EOCs). There are also District level EOCs (Dist EOC) that may be activated upon the instruction of the Divisional Commissioner. Each District EOC is operated by the District Officer and his/her staff. Government line agencies have recently established their own agency level EOC as part of their internal DRM arrangements. The EOCs are the central point of coordinating disaster response and relief operations at various levels i.e. national, divisional, district, agencies.

During emergency operations, at the Division and District levels, the Commissioner and Provincial Administrator/District Officer respectively are responsible for the emergency operation in their areas of operation in close cooperation with their respective Disaster Management Committees.

At the national level, coordination and control are provided by the Emergency Committee of the NDMC, which includes the Permanent Secretaries and CEOs of key departments and agencies.

Fiji Climate Change Policies and Actions

The Fiji's National Climate Change Policy 2018-2030 recognizes that climate change poses a significant threat to Fiji's national security, current and future development ambitions, economics and environmental stability, cultural practices, livelihoods, and human well-being (Government of Fiji, 2019)

Fiji has taken significant action, since the inception of the first National Climate Change Policy in 2012 to reduce the impacts of climate change through actions to build resilience and mainstream climate and disaster risk considerations and requirements into development planning and implementation. To further Fiji's climate commitments, Fiji has revised and finalized the National Climate Change Policy 2018-2030, addressing the scale of climate induced risks and implications (Government of Fiji, 2019).

The Policy outlines a plan toward resilient development, based on the three Pillars of being Human Rights- Based, Gender-Responsive, and Evidence-Based. The pathway to resilient development accounts for Climate Change Adaptation, Disaster Risk Reduction, Economic and Social Development, Greenhouse Gas (GHG) Mitigation and Net-Zero Transition, and Environmental Protection (Government of Fiji, 2019).



Figure 21: The five components of a resilient development pathway (Government of Fiji, 2019)

The National Adaptation Plan (NAP) was presented in 2018 and outlines priority actions for adaptation over a 5-year period. The vision of the NAP is to develop “a climate-resilient development pathway which enables Fiji to anticipate, reduce, and manage environmental and climate risks caused by climate variability and change to support a vibrant society and prosperous economy” (Government of Fiji, 2018a).

The NAP outlines 160 actions divided into 5 system components and 5 sectoral components:

1. Systems components

- a. Climate information services and management
- b. Horizontal integration
- c. Vertical integration
- d. Climate change awareness and knowledge
- e. Resource mobilization

2. Sectoral Components

- a. Food and nutrition security
- b. Health
- c. Human settlements
- d. Infrastructure
- e. Biodiversity and the natural environment

The NAP states: "Integrating disaster risk reduction with climate adaptation supports the NAP process to be consistent with calls for their integration under the UNFCCC, SDGs, and the Sendai Framework for Disaster Risk Reduction." (Government of Fiji, 2018a)

3. National Climate Change Coordination Committee (NCCC)

In Fiji, the National Climate Change Coordination Committee (NCCC) oversees government policy on climate change and disaster management. The NCCC is responsible for coordinating activities relating to the national climate policies across government Ministries and Departments including the National Disaster Management Council (Government of Fiji, 2019).

4. Climate Change and International Cooperation Division (CCICD)

The NCCC guides the Climate Change and International Cooperation Division (CCICD) of the Ministry of Economy, which is responsible for addressing climate issues in Fiji. The governance structure for climate change policy and the relationship with disaster management governance is shown below. Government at the district and provincial levels play a key role in meeting NCCC objectives at the local level while addressing the diverse needs across various parts of the country (Government of Fiji, 2019).

5. Fiji Climate Change Portal

The CCICD manages the Fiji Climate Change Portal, a hub for information and resources related to climate change in Fiji:
<http://fijiclimatechangeportal.gov.fj/>



Figure 22: The Republic of Fiji Climate Change Policy 2018-2030 presents a non-exhaustive diagram illustrating the linkages and relationships between climate legislature and governance bodies



Community presentation of Disaster History.

MODULE 2

INTRODUCTION TO CLIMATE SMART COMMUNITY BASED DISASTER RISK MANAGEMENT

FACILITATOR'S GUIDE

LEARNING OBJECTIVES

By the end of this module, participants will be able to:

1. Understand the term hazard, risk, capacity and vulnerability.
2. Understand the relationship between the terms hazard, risk, vulnerability and capacity.
3. Conduct hazard, risk and vulnerability assessment and map out risk areas of the community.

Materials Needed:

- Newsprint
- Permanent Marker
- Blank A4 Paper
- Pencil/ Ball Pen

Allocated Time: 40 minutes

Methodology:

1. Facilitator to introduce to the participants the list of terminologies; Hazard, Risk, Vulnerability and Capacity.
2. Facilitator to explain the relationship between Risk, Vulnerability, Hazard and Capacity using the formula provided
3. Make sure the note taker/facilitator records all comments of the participants.
4. Divide them into groups and learners to come up with their own understanding of the terminology
5. Show pictures, videos, cartoon to enable them understand the meaning of the words better.
6. Give two or three terminology to a group to work and present on.

Note to Facilitator:

- Facilitator to prepare assessment forms for hazard assessment, risk assessment, vulnerable assessment and capacity assessment.
- Facilitator to guide and assist participants to conduct of the assessment and the drawing of the community map identifying all the hazard, risk, vulnerable areas and the lists of capacities available in the community.

MODULE 2. INTRODUCTION TO CLIMATE SMART COMMUNITY-BASED DISASTER RISK MANAGEMENT

In this module, the participants will be able to understand the basics of the climate smart CBDRM, and be introduced to hazards, risk, and vulnerability and capacity terminology.

In a climate smart CBDRM arrangement, it is very important for participants to take note and understand the following terminologies; Hazards, Risks, Vulnerabilities and Capacities.

2.1. What is Climate Smart CBDRM?

Community Based Disaster Risk Management (CBDRM) is a process of disaster risk management in which at risk communities (people) are actively engaged in the identification, analysis, treatment, monitoring and evaluation of disaster risks in order to reduce their vulnerabilities and enhance capacities (Abarquez and Murshed, 2004). As such, CBDRM leads to a locally appropriate and locally 'owned' strategy for disaster preparedness and risk reduction.

The aim of CBDRM is to reduce vulnerabilities and to strengthen people's capacities to cope with the disaster risks they face. The Climate Smart CBDRM is with the added element on climate related risks – basically building community resilience to cope with the impacts of both climate change and disasters.

A typical community development process would normally involve such processes although not linear, which are introduced in Part B:

1. Selecting, Rapport Building and Understanding Communities
2. Establishing a Climate-Smart Community Disaster Management Committee
3. Participatory Risk Assessment
4. Community Participatory Action Planning
5. Community Managed Implementation

It promotes the involvement of potentially affected communities in disaster risk management at the local level. This includes community assessments of hazards, vulnerabilities and capacities, and their involvement in planning, implementation, monitoring and evaluation of local action for disaster risk reduction (Abarquez and Murshed, 2004).

2.2. Why Climate Smart CBDRM?

While previous paradigms have focused on post-disaster response, Climate Smart CBDRM pre-emptively reduces the possible consequences of disasters through prevention, preparedness, mitigation, and response. Disasters, however, are becoming more intense because of climate change.

A climate smart CBDRM approach is a resilience approach: communities are empowered to make local systems more resilient to the increased severity of disasters while protecting and enhancing the resources the community depends on.

2.3. Understanding Risks

What is Disaster Risk?

The concept of disaster risk has evolved over the years. Initially “risk” was defined as the combination of the probability of an event and its negative consequences. (UNISDR, 2009). It was the probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions (UNISDR, 2004).

The word “risk” has two distinctive connotations: in popular usage the emphasis is usually placed on the concept of chance or possibility, such as in “the risk of an accident”; whereas in technical settings the emphasis is usually placed on the consequences, in terms of “potential losses” for some particular cause, place and period. It can be noted that people do not necessarily share the same perceptions of the significance and underlying causes of different risks. (UNISDR, 2009)

Conventionally the following notation expresses risk:

$$\text{Risk} = \frac{\text{Vulnerability} \times \text{Hazard}}{\text{Capacity}} \quad (\text{source: UNISDR, 2002})$$

Some disciplines also include the concept of exposure to refer particularly to the physical aspects of vulnerability. Beyond expressing a possibility of physical harm, it is crucial to recognize that risks are inherent or can be created or exist within social systems. It is important to consider the social contexts in which risks occur and that people therefore do not necessarily share the same perceptions of risk and their underlying causes.

The latest definition by UNDRR indicates that disaster risk is the potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity. (UNDRR, n.d.)

What is Risk Assessment?

A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend (UNISDR, 2004).

It is also defined as a qualitative or quantitative approach to determine the nature and extent of disaster risk by analysing potential hazards and evaluating existing conditions of exposure and vulnerability that together could harm people, property, services, livelihoods and the environment on which they depend. (UNDRR, n.d.)

Disaster risk assessments include: the identification of hazards; a review of the technical characteristics of hazards such as their location, intensity, frequency and probability; the analysis of exposure and vulnerability, including the physical, social, health, environmental and economic dimensions; and the evaluation of the effectiveness of prevailing and alternative coping capacities with respect to likely risk scenarios. (UNDRR, n.d.)

What is a Hazard?

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

Hazards may be natural, anthropogenic or socionatural in origin. Natural hazards are predominantly associated with natural processes and phenomena. Anthropogenic hazards, or human-induced hazards, are induced entirely or predominantly by human activities and choices. This term does not include the occurrence or risk of armed conflicts and other situations of social instability or tension which are subject to international humanitarian law and national legislation. Several hazards are socionatural, in that they are associated with a combination of natural and anthropogenic factors, including environmental degradation and climate change. Hazards may be single, sequential or combined in their origin and effects. Each hazard is characterized by its location, intensity or magnitude, frequency and probability. Biological hazards are also defined by their infectiousness or toxicity, or other characteristics of the pathogen such as dose-response, incubation period, case fatality rate and estimation of the pathogen for transmission. (UNDRR, n.d.)

Fiji is a country vulnerable to a number of natural hazards such as cyclones, floods, earthquakes, fires, landslides and droughts. Of these, cyclones, with their accompanying strong winds, flood and storm surge, are the most frequent and have one of the most damaging effects and, on a less frequent basis, earthquakes and tsunamis.

The National Disaster Risk Reduction Policy (2018-2030) group hazards into the following (Government of Fiji, 2018):

HAZARD GROUPING		HAZARD ITEM	REMARK
Natural Hazard	Climatological Hazard (Climate Change)	Rising temperature; changing frequency and intensity of tropical cyclones; floods and drought; sea level rise; coastal erosion and accelerated ecosystem degradation (bleached coral reefs, salted water intrusion, etc).	Included in the NDRRP
	Hydro Meteorological Hazard	Cyclone, storm wind, heavy rain, flood (including flash flood and inland flood), storm surge, landslide.	
	Geological/ Geophysical Hazard	Earthquake, tsunami, volcanic eruption, landslide	
	Biological Hazard	Epidemic and/or widespread outbreak of contagious disease, unknown disease outbreak, epidemic	
Non-Natural Hazard	Human Induced/ Technological Hazard	Environmental Contamination by rubbish/ polluted water, oil spill, chemical leak, big industrial fire, major traffic accident, cruise ship accident, carbon dioxide emission, electrical shock, forest fire	Excluded from the NDRRP
	Political Hazard	Civil unrest, terrorism, war	

What is Vulnerability?

The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards (UNISDR, 2004).

Vulnerability describes the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard. There are many aspects of vulnerability, arising from various physical, social, economic, and environmental factors. Examples may include poor design and construction of buildings, inadequate protection of assets, lack of public information and awareness, limited official recognition of risks and preparedness measures, and disregard for wise environmental management, societal stigma and discrimination of marginalized and vulnerable groups, people of diverse SOGIESC and persons with disability.

The Types of Vulnerability

Physical Vulnerability may be determined by aspects such as population density levels, remoteness of a settlement, the site, design and materials used for critical infrastructure and for housing (UNISDR, 2004).



Fig 23. Nayavutoka Village, before (left) and after (right) TC Winston

Example: Structural damages and collapse to building in remote and coastal communities in Fiji as the result of strong severe damaging force winds brought about by the Category Five Tropical Cyclone Winston in 2016.

Social Vulnerability refers to the inability of people, organizations and societies to withstand adverse impacts to hazards due to characteristics inherent in social interactions, institutions and systems of cultural values. It is linked to the level of safety and well-being of individuals, communities and society. It includes aspects related to levels of literacy and education, the existence of peace and security, access to basic human rights, systems of good governance, social equity, positive traditional values, customs and ideological beliefs and overall collective organizational systems (UNISDR, 2004).

Example: When flooding occurs especially in the Nadi, Ba and Rewa Deltas, some communities, such as children, elderly and persons with disabilities, person with diverse SOGIESC may be unable to protect themselves, evacuate if necessary due to stigma and discrimination.



Fig 24 - 26. Individuals in Kadavu Island receive relief assistance following the aftermath of TC Harold.

Economic Vulnerability: The level of vulnerability is highly dependent upon the economic status of individuals, communities and nations. The poor, a disproportionately female and elderly group in most regions, are usually more vulnerable to disasters because they lack the resources to build sturdy structures and put other engineering measures in place to protect themselves from being negatively impacted by disasters. This relates both to the possibility of higher proportional losses among the poor when a disaster strikes, and to their generally more limited capacity to recover from disasters (UNISDR, 2004).

Example: Poorer families may live in squatter settlements because they cannot afford to live in safer (more expensive) areas.

Environmental Vulnerability: Key aspects of environmental vulnerability include the extent of natural resource depletion and the state of resource degradation. In the same vein, a lack of resilience within ecological systems and exposure to toxic and hazardous pollutants are important elements that shape environmental vulnerability. A reduced access to clean air, safe water and sanitation and inappropriate forms of waste management, especially in densely populated and urban environments can deepen levels of socio-economic vulnerability. Increasingly vulnerable environmental conditions such as diminished biodiversity, soil degradation or growing water scarcity can easily threaten food security for people dependent on the products of the land, forests, pastures, and marine environments for their livelihoods. A polluted environment also increases people's exposure to health risks (UNISDR, 2004).

Example: Wetlands, such as the lowlands of Rewa, Labasa, Ba, Nadi and Navua are sensitive to increasing salinity from sea water, and pollution from storm water run-off containing agricultural chemicals, eroded soils, etc.



Fig 27. Environmental damages as the result of flooding and stagnant water in low lying areas.

Physical, economic, social and political factors determine people's level of vulnerability and the extent of their capacity to resist, cope with and recover from hazards. Clearly, poverty is a major contributor to vulnerability.

What is Capacity?

The combination of all the strengths, attributes and resources available within an organization, community or society to manage and reduce disaster risks and strengthen resilience. Capacity may include infrastructure, institutions, human knowledge and skills, and collective attributes such as social relationships, leadership and management. (UNDRR, n.d.)



Figure 28. Boatmaster Training for Divisional and NDMO Staff

Understanding climate risk

The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (AR5) (2014) introduced a new approach to understanding vulnerability and risk to climate impacts and related hazards. This approach draws on the understanding of risk used in disaster risk reduction and integrates climate change adaptation and DRR concepts and approaches (GIZ & Eurac, 2017).

Similar to the definition in disaster risks, risk is defined as the potential for consequences [= impacts] where something of value i.e. people, cultures, natural resources and local economies, is at stake and where the outcome is uncertain. Risk results from the interaction of vulnerability, exposure, and hazard (GIZ & Eurac, 2017).

Hazards can either be events i.e. sudden disasters or trends i.e. slow onset impacts. Climate-Smart CBDRM addresses the hazard events while also addressing hazard trends that result from climate impacts i.e. increased average ocean surface temperatures generating more extreme storm events that cause increased intensity of storm surge. As such, climate smart CBDRM planning can also address some climate impact trends, for example, increased average temperatures allowing new pests to attack agricultural crops, decreasing agricultural production and threatening food security.

Exposure is the presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected (GIZ & Eurac, 2017) For example, if storm surge (a hazard event) happens where there are no-lying areas, but instead the ocean is washing against cliffs, there is no exposure to the event. If storm surge happens on an atoll with where a community is located, the community will be highly exposed to the hazard.

Vulnerability determines how an exposed community will be impacted by a hazard. Vulnerability is made up of sensitivity and capacity. Sensitivity is determined by the physical, social, economic, and cultural characteristics of a community. Communities will be affected differently by a similar hazard depending on the specific characteristics of each community. Capacity refers to the ability of the people within a community to cope with a hazard and adapt to the consequences of the hazard. (GIZ & Eurac, 2017)

Climate risk is the possible consequences a community faces depending on climate impacts and related hazards, the community's characteristics, and the exposure of the community to the hazard.

Climate-Smart Disaster Risk Management:

1. Assesses possible climate impacts and other hazards.
2. Evaluates whether a community is exposed to these hazards.
3. Identifies what is at risk from hazards.
4. Reduces community vulnerability to hazards by addressing community characteristics that increase sensitivity.
5. Reduces community vulnerability to hazards by increasing the capacity of a community to prepare for and manage hazards.

(Source: Adapted from GIZ & Eurac, 2017)

2.4. Risk Reduction

Once identifying disaster risks through a climate smart CBDRM process, it is critical for communities to come up with solutions to address the risks that have been identified. The solutions will be developed as community plans, but there are four risk counter measures or treatment options that can be considered, which are:

- Risk Avoidance - example relocation of villages
- Risk Transfer - example- business/ homes/properties insured
- Risk Reduction/ Mitigation - seawall, flood gates, mangrove planting, retrofitting, awareness and training
- Risk Retention / Acceptance - example- homes built on stilts in low lying and flood prone area. Communities accepting the risk of flooding

Source: (adapted from ISO, n.d.)

PART B:

CLIMATE SMART CBDRM PROCESS

FACILITATOR GUIDANCE

PART A: Climate Smart CBDRM

(a) Overview

This component of the Manual covers the process and tools of the Climate Smart CBDRM Process

Module 3 – Selecting, Rapport Building & Understanding Communities

Participants are taken through key aspects of community engagement from selecting the community, building a rapport with the community and understanding their needs and expectations.

Module 4 – Establishing the Community Disaster Management Committee (CDMC)

Participants are taken through the need for and roles of the CDMC and key aspects of its role through the PPRR cycle.

Module 5 Participatory Risk Assessment

Participants are familiarized with the Risk Analysis process and how to make this community-led. Community participation is key to ownership and engagement

Module 6 – Community Participatory Action Planning

Participants are familiarized with the key tools in DRR Action Planning and ensuring that Actions are effective, sustainable and measurable.

Module 7 – Community-led Implementation

Participants are made aware of aspects of community-led implementation that ensures that the DRR Action Plan is managed and led by the community for the community.

(b) Trainer Objectives

Part 2 is the primary elements of CBDRM and covers the development of the CDMC and the Community DRR Action Plan. Focus of this part is passing on the use of key tools and analysis of the results to ensure the risk is understood and actions can be clearly developed to mitigate or prepared for these risks.

(c) Links to Sample Program

Modules link to Session 6, 8 & 11



Community representatives collating community mapping profiles.

MODULE 3

SELECTING, RAPPORT BUILDING AND UNDERSTANDING COMMUNITIES

MODULE 3. SELECTING, RAPPORT BUILDING AND UNDERSTANDING COMMUNITIES

LEARNING OBJECTIVES

By the end of this module, participants will be able to:

1. Conduct community profiling.
2. Understand the demographic composition of a community
3. Know more about their community history
4. Identify community resource and capacity
5. Identify local government agencies/ services in the area.

A community can be defined as a group that may share one or more things in common such as living in the same environment, similar disaster risk exposure, or having been affected by a disaster. Common problems, concerns and hopes regarding disaster risks may also be shared (Abarquez and Murshed, 2004)

Community participation and engagements are essential for addressing climate and disaster risks. The Climate Smart CBDRM approach seeks to get communities actively engaged in all disaster phases including mitigation, preparedness, response, and recovery.

Through the training of Climate Smart CBDRM, communities are empowered and community members are able to cope with adverse effects of disaster events, including climate impacts.

3.1. Criteria for Selecting a Community

The NDMO must be consulted and shall provide the list of communities to be targeted for CBDRM. The NDMO will use its existing DRM machinery to identify and select CBDRM communities.

To make an informed judgment about where to work or which community to choose, a set of criteria should be developed for the selection process based on the examples below:

- Historical severity of community's exposure to risk (most vulnerable community)
- Readiness and acceptance of community to engage in DRM
- Security of staff

(Source: Adapted from Abarquez and Murshed, 2004; PCDF, n.d.)

3.2. Rapport Building

After selection of the community the next step is to build rapport and trust. A relationship of trust, friendship and rapport is the key to facilitation of appropriate participation. If community members have trust in the external partners and facilitators who are engaging with them, then open sharing about issues, problems, concerns and solutions can take place. In addition to gaining the trust of local people, rapport building will also lead to a greater understanding of the local culture, another essential component of the climate smart CBDRM process (Abarquez and Murshed, 2004).

The local authorities and NGOs who support the community in disaster risk reduction need to build a picture of their context, needs and resources of the community. This step usually involves interacting and integrating with the community and gathering basic information to have a general description of the community.

Community facilitators can take a number of actions in order to build trust with the selected community. These can include the following:

- co-locating in the community
- Being transparent and open about who they are and what is being done
- Participating in daily life in the community, as well as community activities and cultural events
- Listening to local people about their life, issues and problems
- Learning new skills from local people
- Observing protocols and cultural norms

(Source: Adapted from Abarquez and Murshed, 2004; PCDF, n.d.)

3.3. Understanding the Community

This involves information gathering to understand the community's needs and resources. A framework for understanding the community's development position (i.e. the level of development) and the context in which disasters could impact includes the following basic elements:

Social groups

- What are the main ethnic groups, religions and dialects in the community?
- Who is in the majority, who is in the minority, what is the nature of their relationships?
- Who are the people with disabilities in the community?
- Who are the elderly in the community?

Cultural arrangements

- How are the family and community level structures organized?
- What hierarchies exist?
- What are the common ways of behaving, celebrating, and expressing?

Economic activities

- What are the major livelihood sources and what are the associated activities that people carry out?
- What is the division of labour?
- What is the relationship between livelihood activities and seasonality?
- How is income distributed within the community?
- Who makes the decision on the use of the income?

Spatial characteristics

- What are the locations of housing areas, public service facilities (e.g. schools, temples, health clinics, and
- evacuation centers), agricultural land etc.?
- Access for wash facilities for women and girls
- What are identified areas of risks in terms of natural and human induced disasters?
- Vulnerable households and groups: Who might be the most vulnerable groups or households, (gender, age, persons with disability) given the locations of their houses, sources of livelihoods, ethnic and cultural positions, etc.?
- Geographical isolation
- Access to services

(Source: Adapted from Abarquez and Murshed, 2004; PCDF, n.d.)

Community Profiling (Activity)

FACILITATOR'S GUIDE

Materials Needed:

- Print out of Community Profile Template
- Blank A4 Paper, • Pencil/ Ball Pen.

Allocated Time: 1hr

Methodology:

1. Facilitator to handout the pre-printed community profiling template (Annex 3) to all participants.
2. Facilitator to go through the community profiling template with the participants.
3. Divide the participants into small working groups and allow the participants to discuss and fill the template provided. Ensure that there is equal distribution of males and females and persons with disability in the group.

Note to Facilitator:

- Facilitator to distribute community baseline forms. Divide the participants into small working groups for group discussions on compiling the community profile.
- Facilitator to allow group presentation from working groups and then compile with participants the final community baseline profile for the community.

A community profile is a way of gathering and recording information on a broad range of factors such as environmental/ natural features and management, socio demographic characteristics, economic activities, livelihoods, basic household and community facilities (PCDF, n.d.).

The purpose of developing community profile is to collect baseline data for understanding Disaster Management (disaster preparedness and disaster response) in the community. Baseline data is collected at the start of any programme or intervention that can later be used for comparison to assess what has changed, capturing information on inclusivity and resilience. The baseline data will help community members in the planning, implementation, evaluation and decision making for the resilience of a community (PCDF, n.d.).

Demographic characteristics of the community includes the population and growth trend. Sex, age, disability disaggregated data, elderly population, women, children, average household size, average household income, religious groups, ethnic groups, demographic and economic data are often readily available from other government agencies or from the community.

Social Inclusion Walk (Activity)

The Social Inclusion walk raises awareness of the different experiences of people in disasters and in DRR activities.

FACILITATOR'S GUIDE

Materials Needed:

- Print out of the character roles (page 56)
- Space in a room or open area

Allocated Time: 30 minutes

Methodology:

1. Invite 8 people to volunteer and hand them a random character card.
2. Ask them to read their card and imagine that they are that person.
3. Ask them to line up in the middle of the room / space with the rest of the group observing. The observers are to remain quiet during the activity but will be able to participate in the debrief
4. Explain that you are going to ask a series of questions. If they think their character would answer yes they should step forward, and if not they should step backwards.
5. Once they are lined up (in any order) across the room / space ask them to read their character so each person knows the range of characters in the group.
6. Read out each question and let the group step forwards or backwards with no commentary from yourself
7. Half way through ask them to look around and see where they are in relation to the others in the group so far, then continue with no discussion.
8. When all the statements are completed, ask for volunteers to reveal their character/identity and discuss:
 - Why are they at the front/back or middle?
 - What particular identities seem more powerful in this context?
 - Are they mostly men or women? Why are they more powerful?
 - To what extent do they exert power over the others? How?
9. Ask the observers: how did you feel as the activity progressed? What would you have liked to do to help?

Note to Facilitator:

- Discuss the concept of POWER and its link to diversity and difference; specifically, that society assigns certain groups more power and privileges than others and that leads to more ability to control or manage their lives.
- Discuss who can participate and influence decisions, what prevents/holds back these groups
- Make sure to link it to previous discussions about stereotypes, limits and privileges
- Link people's individual reflections to their own stories of difference and diversity
- Then explain that power in itself is a neutral term, which is neither good nor bad, right nor wrong. Actually, power itself could be used positively and constructively. However, potential for abuse is there.

Character Roles

1. Male village chief. He is 55 and lives with his wife and two adult children, their partners, and six grandchildren. Strong house with its own water supply.
2. Adult female, 37 years old. Widow, who cannot read and write very well. She lives in a small weak house. Four children under 15 years old (2 boys, 2 girls). Water supply is a 40-minute walk away. She manages her garden produce for sale at the market.
3. Boy. Enjoys school and does well. He is 7 and lives in a good house with his parents and two older sisters. Has a water tank.
4. Elderly woman. Finds it increasingly difficult to walk. Three of her grandchildren, under 10 years old, live with her whilst their parents work in the city. Strong house with a water tank.
5. Girl. Enjoys school and does well. She is 8 and lives in a good house with her parents and 3 younger brothers. Their water supply that is a 50 minute walk away.
6. Literate, adult, male. Has a strong house with a good water tank. Lives with his wife and infant child. He runs the local store.
7. Literate, adult, male. Has a strong house with a good water tank. Lives with his wife, one of their sons and his wife, and their two children under 5 years old. He has lost a leg due to diabetes and cannot work anymore. He has a wheelchair and is active in the community.
8. Young woman, 17. Left school at 15 as she felt worried about fitting in with his peers. She stays around the house and is often angry and arguing with people in the village.

Questions

- Are you able to provide for your family?
- Are you able to have a say in family decisions?
- Are you respected in the community?
- Quick! There is a flash flood!! It is during school and work hours. Can you get to safety in time?
- There is a cyclone warning on the radio – do you hear it?
- There is a cyclone warning on the radio – do you know what to do?
- There is a long dry spell – can you find clean water easily?
- There is a long dry spell – do you make sure the children and adults wash their hands before they eat so that they stay healthy?
- There is a community meeting to decide on what to do to prepare for a coming cyclone – do you attend?
- There is a community meeting to decide on what to do to prepare for a coming cyclone – do you have your views listened to and included?
- There is a general community wide training on DRR. Do you participate?
- There is a DRR training that takes a participatory approach to hear from women, young people and children. Do you participate?
- I can influence decisions made at community level.
- I get to meet visiting government officials.
- I can speak in extended family meetings.
- I can speak at a village meeting.
- I have access to health services when I need it
- I am treated well if I need to go to the police station or a government office
- I am not afraid of walking on my own at night.

(source: adapted from Fiji Women's Fund, 2019)



Wainibokasi community representatives upon completion of their CBDRM training.

MODULE 4

ESTABLISHING THE COMMUNITY DISASTER MANAGEMENT COMMITTEE (CDMC)

FACILITATOR'S GUIDE

LEARNING OBJECTIVES

By the end of this module, participants will be able to:

1. Select CDMC members
2. Understand the roles of the CDMC.
3. Understand Reporting Mechanisms

Materials Needed:

- Newsprint, permanent markers, printed CDMC Directory

Allocated Time: 20 minutes

Methodology:

- Facilitator to use the table (figure 28) to guide the participants to select their committee members. The committee members will include the following: Chairman/ TNK; Community Health Worker, Youth Leader, Men's Leader, Women's Leader, Protection officers, Church rep, School representative.
- Facilitator to keep a record of the selected committee members.

Note to Facilitator:

- This module only covers the selection of committee members and their general roles. Module 8 focuses on the development of community disaster response plan which details the committee's roles according to the Alert, Warning, Response and Stand Down phase.

MODULE 4. ESTABLISHING THE COMMUNITY DISASTER MANAGEMENT COMMITTEE

4.1. Community Disaster Management Committee.

To enable the community to undertake disaster risk reduction measures on a sustainable basis, it is essential to form/ establish a CDMC or strengthen an existing committee to plan and implement DM and DRR activities in the community. A CDMC is a committee that can plan, recruit, mobilize, implement and supervise activities to minimize the negative impacts of disaster events on their community. The NDMO, together with partners, strives to support the establishment of CDMC in all communities.

The steps in establishing a CDMC may differ in various community settings, for i-taukei villages, such committees are selected at village council meeting while for informal settlements, the setup of such committee needs to be explored and agreed to by the community and the relevant authorities.

4.2. General Roles and Responsibilities of the CDMC

The general roles of the CDMC are as follows:

1. Organize and mobilize the community regarding what to do; before, during and after a disaster.
2. Plan and implement disaster risk reduction and resilience measures in their community.
3. Organizing community drills and awareness sessions.
4. Issue alerts and warnings to all in the community.
5. Facilitate the Initial Damage Assessment in their community.
6. Support the distribution of relief supplies among affected people and equally according to need.
7. Monitor the allocations of relief to affected people, record and report relief items to local District or Provincial Administrator.

(Source: adapted from PCDF, n.d.)

Fill in the following table with team member details.

Name	Designation	Contact details
Ajit Prasad	Chairman/TnK/DAC	99xxxxx
Vito Black	Men's Leader	23xxxxx
Sera Brown	Women's leader	77xxxxx
	Youth Rep	1234567
	Religious Group Rep	
	Community Health Worker	
	School Rep	
	Protection Officer	

Fig 29. Community Disaster Management Committee Directory Template.



Hazard Assessment exercise at Nalalawa Village, Ra.

MODULE 5

PARTICIPATORY RISK ASSESSMENT

LEARNING OBJECTIVES:

By the end of this module, participants will be able to:

1. Understand the adverse impacts of hazards in the community.
2. Acquire the skills and knowledge to identify hazards, risks and vulnerabilities perceived by different groups in relation to feature or areas in the community.
3. Draw and understand more about their community layout and identify significant landmarks, new and past developments, resources, capacity and safe places.
4. Know the different types of phenomena including hazards that persistently occurs over a period of time and its impact to the community.
5. Identify the time or part of the year these phenomena occur and how it affects the community.
6. Formulate and develop actions and measures to minimize and mitigate hazards, risks and vulnerabilities.
7. Use some of the events and activities in the calendar to address negative effects of natural events (hazards).
8. Understand and link the different events and activities within the seasonal calendar to improve community resilience.
9. Understand the traditional seasonal calendar Eg: iTaukei Seasonal Calendar.
10. Understand the Seasonal Calendar.
11. Interpret past events for future disaster preparedness planning.
12. Identify coping strategies for community based DRR activities.
13. Support site selection

Participants will be introduced to different tools to strengthen their understanding in assessing Hazards, Risks and Vulnerabilities.

MODULE 5. PARTICIPATORY RISK ASSESSMENT

5.1. What is Participatory Risk Assessment?

Participatory Risk Assessment is a diagnostic process to identify the risks that the community faces and how people overcome those risks (Abarquez and Murshed, 2004). The process involves understanding of hazard, vulnerability, exposure and capacity.

It uses various participatory tools to gauge people's exposure to and capacity to resist natural hazards and identify risk-reduction activities to prevent or lessen the effects of expected hazards, risks and vulnerabilities.

5.2. Participatory Risk Assessment Tools

I. Community Mapping (Activity)

Mapping is a very useful tool in gathering information about a community. Community mapping involves the creation of maps and the visual representation of the physical/geographical layout of the community.

A community map highlights resources, houses, church, shops, trees, drains, water tanks, community hall, pathways, and other significant landmarks in the community.

It is a participatory tool in creating a picture of what it is like to live in your community. The exercise is a valuable and effective method of community engagement simply because maps are visual and easy to relate to; like photos and videos.

(Abarquez and Murshed, 2004; Chambers, 1994; FAO, 2013; Geilfus, 2008; IFRC, 2007 & PCDF, n.d.)



Fig 30. An example of a tsunami hazard map.

II. Seasonal Calendar (Activity)

FACILITATORS GUIDE

Materials Needed:

- Newsprint
- Colored Permanent markers

Allocated Time: 35minutes

Methodology:

1. Divide participants into groups and ensure inclusivity of gender and disability.
2. Ensure that the elderly participants are represented in each group. This is to allow for transfer of institutional knowledge (experience, expertise, processes, values and information).
3. Provide each group with permanent markers and sheets of newsprint.
4. Distribute the elderly amongst the group because of their experience and knowledge on the past phenomena in the community and the traditional Fijian Calendar
5. Groups are to discuss the different types of phenomena/occurrences that affects the community and the period in which they are likely to take place.
6. Groups are to discuss how other events can inform remedial actions for hazards, for example the traditional Fijian calendar to address food shortage after a disaster.
7. Guide the discussion to bring out the most precise information possible.
8. Questions from other groups are allowed at the end of group presentation.

Seasonal Calendar is a visual method of showing the distribution of seasonally varying phenomena (such as weather, economic activity, resources production, communal activities, and illness / disease, migration and natural events/ phenomena) over a period of time.

It can inform communities the seasonal variations in weakness, risk and access to the available assets and resources. Seasonal Calendar can be used for the following:

- Understand the time of the year when different social groups are more or less vulnerable;
- Identify some of the mitigating, and coping strategies people uses to manage risk;
- Identifying periods when specific groups of people usually suffer particular hardship so that appropriate “safety nets” can be set in place or other remedial actions taken.

(Abarquez and Murshed, 2004; Chambers, 1994; FAO, 2013; Geilfus, 2008; IFRC, 2007 & PCDF, n.d.)

The cyclone season in Fiji is from November to April and this event will allow the local communities to put in place mitigation plans to prepare them for the season.

Fijians residing in rural communities can use the Traditional Fijian Calendar as a coping strategy for shortage of food after a disaster.

PHENOMENA/OCCURRENCE/EVENTS													
EVENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	REMEDIAL ACTIONS
Cyclone Season													
Rain season													
Dry season													
Abundance of Fruits													
Spawning season													
Planting season													

Fig 31. Seasonal Calendar (Source: Adapted from PCDF, n.d.)

The Traditional I-taukei Calendar: (Time & Season)

Fijians in the old days were able to use signs from nature to successfully manage resources and risks instead of clocks, watches and calendar, for example the time to plant, the time to harvest and the time to plant certain crops during the year. They followed their own calendar for the year which dictates to them the different activities and time they are supposed to be carried out.

The Fijian calendar is based on planting and fishing seasons. Unlike the ordinary calendar year which is divided into 12 months, the Fijian calendar is divided into 11 months. The months are named for the different planting and fishing seasons. The Fijian calendar year began in June/July and not in January as in the normal calendar.

III. Community Disaster History (Activity)

FACILITATOR'S GUIDE

Materials Needed:

- Newsprint
- Permanent markers
- Laptop (if available)
- Projector
- Blank A4 paper

Allocated time: 35minutes

Methodology:

1. Divide participants into groups and ensure inclusivity of gender and disability.
2. Ensure that the elderly participants are represented in each group. This is to allow for transfer of institutional knowledge (experience, expertise, processes, values and information).
3. Provide each group with sheets of newsprint and permanent markers, red, blue, and black.
4. Ask participants to discuss the disasters/events that has impacted the community the community during last 30 years if possible. Beginning with the most recent event.
5. The groups are to select two group members to present the results of their discussion.
6. Questions from other groups are allowed at the end of each group presentation.

Note to Facilitator:

1. Allow participants to think, reflect debate, discuss and evaluate the past. Ask probing questions – how do communities inform persons with disabilities of impending disasters, coping mechanisms?
2. Ensure you obtain a copy of the Disaster Timeline of the community. To be included in their Community Disaster Plan.
3. Floods: Flooding is a very common occurrence in Fiji with at least 3 or more areas severely affected in an average year.
4. Cyclones: Tropical cyclones occur in the South Pacific from November to April (cyclone season) with an average of at least two impacting the Fiji group.

In recent decades climate change has caused negative impacts to the environment across the globe and at the same time directly causes disturbance to people living in different communities. In Fiji, communities are affected by catastrophe like rise in sea level, coastal erosion, landslide, tropical cyclone, floods, storm surge and earthquake.

The community disaster history exercise establishes the different types of changes caused by disasters and seasonal changes that a community had gone through after a period of time. It involves physical, social, economic and environmental changes and impacts to the community. Therefore, the exercise helps the people in the community to review and discuss the significance of the past events and how they have been affected.

More importantly, the exercise should provide a platform for the affected people to register strategies to cope with the negative changes and impact of disaster they have experienced over the years.

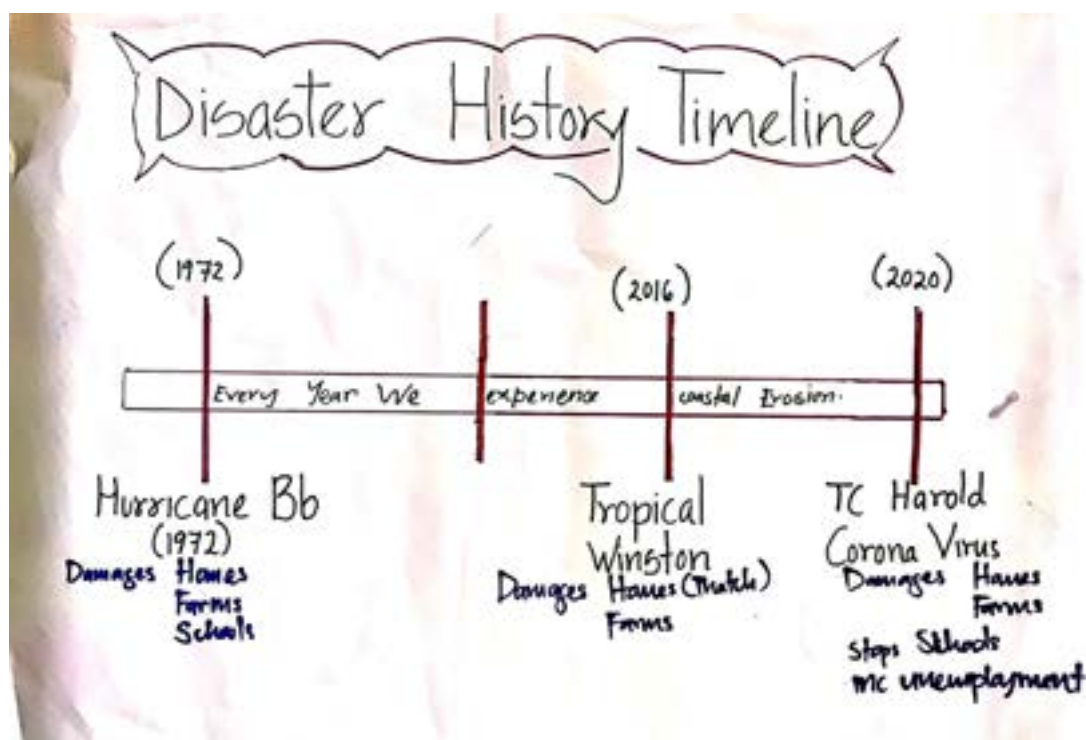


Fig 32. Disaster History Timeline sample

Disaster History Table (Activity)

The participants are to fill in the table with the relevant local information based on their community.

Type of disaster or Hazard	Year	Frequency	Impact (specify Economics, Social, Infrastructures, Environment, People)	Coping Mechanism/Way Forward
E.g. Flooding	2016	Every 2 years	Closure of businesses & schools, Temporary relocation, Roads washed away Food shortage Diseases, etc.	Drainage improvements, Waste managements, Raised platforms for storage, Identification of safe evacuation areas, etc.

Fig 33. Disaster History Table

(Abarquez and Murshed, 2004; Chambers, 1994; FAO, 2013; Geilfus, 2008; IFRC, 2007 & PCDF, n.d.)

IV. Coconut Tree Activity (Annex 4)

FACILITATOR' S GUIDE

Materials Needed:

- "Jone's Coconut Tree" Worksheet,
- permanent marker.
- newsprint,

Allocated time: 30minutes

Methodology:

1. Facilitator explains that "Jone's Coconut Tree" is an exercise that introduces the participants to "Hazard; Risk; Vulnerability."
2. Participants are to work in groups discussing and identifying how these terms affect Jone, his car and his children while playing in his compound.
3. Participants are to discuss and decide on the actions that Jone should take to reduce the hazard, risk and vulnerability in his compound.
4. Each group is to use newsprints for Group Presentations during the exercise.

(Source: Adapted from PCDF, n.d. & OFDA et al, 2013)

V. The Transect Walk (Activity)

What is a transect walk? It is a method that uses controlled "walks" in the community and collects special information which may include geographical features, information of land use, information of vegetation strips, social aspects etc.

This participatory method will allow participants walk through the random or predetermined routes or areas in the community, discuss and write down what they see around them. Besides the narrative section, transect walk allow participants to identify gaps and opportunities in different areas or zones. The information collected after the walk is used to draw diagrams and maps based on which discussions are held amongst the participants and the community members.

The transect walk can create some interesting observations and discussions on identified risk such as soil erosion with relevant and possible solutions like relocation of community and land use.

FACILITATOR' S GUIDE

Materials Needed:

- Pen
- Blank A4 paper

Allocated time: 40minutes

Methodology:

1. Equally divide the participants into small groups (at least 5 per groups). Ensure that each group is inclusive of gender and disability.
2. Discuss the purpose of the walk with the participants.
3. Plot a path through the community from one end to the other on a map. The path should ideally cover the full variation in the area. Ideally, as a true cross section, it should be a straight line.
4. Decide with the participants which parameters should be used for recording observations. Local definition of these parameters should be explored.
5. Agree on a number of specific observation points along the transect walk at which everyone stops to record all parameters. Depending on the focus of the walk, these might include the drainage, trees, soil, slopes, altitude, animals, settlements, public services, roads, water source, impact of climate change such as coastal erosion, salt water intrusion etc., landslide, river bank erosion and other risks and opportunities for change.
6. Take a walk around the community and note down the houses, pathways, water tanks, church, community hall, shops or canteens and other significant landmarks.
7. Depending on the focus of discussions, if there is time, the group might wish to draw a series of diagrams to illustrate changes over time.
8. Keep a clear record of the route and observation that was taken and present it back to the whole group. For monitoring and evaluation purposes, it's important that the route of the transect walk can be easily found again and again, possibly after substantial period of time.

Note to facilitator:

This activity will only be carried out if weather permits. Participants are to undertake this exercise indoors using google map of the community or use the community map earlier drawn if the weather is unfavorable.

Source: Abarquez and Murshed, 2004; Chambers, 1994; FAO, 2013; Geilfus, 2008; IFRC, 2007 & PCDF, n.d.)

TRANSECT WALK - OBSERVATION FORM

Name of Village/Settlement: _____ Name of Tikina: _____

Name of Province: _____ Division: _____

Name of Group/Observer: _____

List and describe the observations made in the transect walk, e.g. at every 5-10 meters interval depending on size of the community.

Fig 34. Transect Walk tool

VI. Hazard Identification (Activity)

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Materials Needed:

- Newsprint
- Permanent markers

Allocated time: 20 - 35 minutes

Methodology:

1. Bring out the Community Map that was developed earlier and an empty flipchart and then stick it on the wall or place it on the floor where all participants can see it.
2. Review the definition of Hazards, Risks and Vulnerability that was discussed in the earlier session. This can be done by asking the participants to share what they remember from the previous session.
3. Ask participants to mark on the map or write down one hazard in the community/ settlement that they identify in the transect walk.
4. Ask the participants to fill in the table below using the hazards identified in the exercise above and present back to the bigger group.

Note for Facilitator:

Hazard identification exercise will not only be limited to those hazards classified in the National Disaster Risk Reduction, e.g. access to safe drinking water, proper sanitation and hygiene facilities, etc.

From the Community Map and Transect Walk, the participants should have a good idea of the resources, hazards, vulnerable areas, and other areas of interest. Participants will now identify the hazards in their community. Ensure there is equal participation inclusive of gender and persons with disabilities.

(Abarquez and Murshed, 2004; Chambers, 1994; FAO, 2013; Geilfus, 2008; IFRC, 2007 & PCDF, n.d.)

Hazard Identification Table

Ref No.	HAZARD	VULNERABILITY ELEMENTS AT RISK	RISK RATING (High, Medium, Low)
1.	Sea level Rise	Houses near coast line	High
2.	Blocked Drain	Children from drowning, all community members from water borne diseases	High

Fig 35. Hazard Identification Table

VII. Hazard Ranking (Activity)

Hazard ranking is listing the hazards in accordance to their threat to the community whether high or low, the community's capacity to mitigate, frequency and other rankings that the participants may include.

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Materials Needed:

- Newsprint
- Permanent markers

Allocated time: 20 - 35 minutes

Methodology:

1. Divide the participants into two groups.
2. Draw the table (figure 40) in a large flip chart and list the hazards identified from the previous session in the first column.
3. Ask the participants to fill in the rest of the table and rank the hazards listed based on its impact, frequency and current capacity or current actions implemented.
4. Ask participants to present their ranking to the group.
5. Make sure the note taker/facilitator records all comments of the participants.

Note to Facilitator:

Use ranking tool that facilitator is familiar with.

Before attempting this activity, participants through the transect walk, community mapping and hazard identification exercise would have gathered information of the community set up and have also identified the hazards that exist in the community that needs to be addressed.

(Abarquez and Murshed, 2004; Chambers, 1994; FAO, 2013; Geilfus, 2008; IFRC, 2007 & PCDF, n.d.)

Risk Assessment Process

The risk assessment process involves the identification, analysis and evaluation of risk. This is an iterative (repeated) process that involves a number of steps. Each of these steps will form the focus of the remaining topics in this guide.

The table below provides an overall summary of the risk assessment process.






	1. Understand the context, consult and gather data	What is the context? Who are the stakeholders? Historically what has happened? What is planned for the future? What traditional knowledge and practices exist? What current plans/actions are already in place?
	2. Identify hazards and vulnerabilities	What hazards could affect this community/location? (Any new hazards?) Do any hazards cause secondary hazards? What people and assets might be harmed?
	3. Analyse risks - assess consequences and likelihood	If it occurs, how bad are the consequences for the people/assets? What capacity exists for the people/assets to manage in the situation? What is the likelihood of the hazard occurring? What is the risk level? (using risk matrix)
	4. Evaluate risks – work out strategies and create risk reduction plan	Which risk reduction strategies will be best suited to eliminate/control the risks identified? What is residual level of risk? Is remaining level of risk acceptable?
	5. Monitor and review risk reduction plan	Adjust risk reduction strategies as things change: Are things changing for the better – as capacity and resilience grows? Are things worsening/influencing effects of hazards? (climate/development)

Fig 36. Risk Assessment Process (source – SPC USP Certificate IV in DRM – CED 41 DRR)

Using A Risk Matrix

A common way to determine a level of risk is by using a matrix that considers the combination of consequence and likelihood. The higher the consequence and likelihood, the higher the level of risk.

LIKELIHOOD	CONSEQUENCE				
	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
ALMOST CERTAIN	Medium	Medium	High	Extreme	Extreme
LIKELY	Low	Medium	High	Extreme	Extreme
UNLIKELY	Low	Low	Medium	High	Extreme
RARE	Very low	Low	Medium	High	High
VERY RARE	Very low	Very low	Low	Medium	High

Fig 37. Risk Matrix

There are five levels of risk included in this matrix, from extreme to very low.

Risk Level	Evaluation Criteria
Extreme	Almost certain to cause harm. Consequence may result in death, injury or destruction (threat to survival)
High	Likely to cause harm. Likely to threaten ongoing functioning or security of society, economy, government, environment
Medium	Unlikely to happen or cause harm. May cause some threat to functioning or security of society, economy, government, environment
Low	Unlikely to threaten functioning or security
Very low	Negligible impact or very unlikely to occur

Fig 38. Five levels of Risk

To determine the level of risk, you must find the intersecting box between your consequence and likelihood level. This gives you an intersecting box with a level of risk. The assigned levels can then be used to prioritise risks, in the next step of the risk assessment process.

(source – SPC USP Certificate IV in DRM – CED 41 DRR)

The following table provides a guide on the level of action likely required. Note that only very low risks would not require some level of action to be taken.

Risk Level	Risk Reduction Actions Required
Extreme	Immediate action required Involvement of senior management of stakeholder organisation Eliminate/reduce risk or stop activity
High	Must put plan in place and assign responsibility Involvement of senior management of stakeholder organisation Risk must be reduced or activity modified
Medium	Manage by specific monitoring and response to risk Risk should be reduced as far as possible
Low	Monitor and manage as part of routine procedures Reduce risk if possible
Very low	Accept risk

Fig 39. Risk Reduction Actions required. (source – SPC USP Certificate IV in DRM – CED 41 DRR)

Risk Ranking

After risk evaluation, risks should be ranked. This prioritises risks for risk treatment or further assessment.

The process recommended for ranking all risks is as follows:

1. List all risks in order from Extreme to Very Low risk.
2. Rank the risks within each category, i.e. Rank all the Extreme risks from first to last for treatment or assessment. Repeat for each lower category. This allows for ranking of certain risks above others, e.g. people over property.

This will provide a guide for then prioritising actions.

An example of how to rank risks is shown below, using an extract from a risk register.

Risk no.	Consequence	Likelihood	Risk Rating	Risk no.	Recommendations And Notes
1	Major	Unlikely	High	2	MUST take action
2	Moderate	Unlikely	Medium	4	
3	Minor	Rare	Low	5	
4	Minor	Very Rare	Very low	6	Stakeholders willing to accept risk as per existing mitigation measures
5	Minor	Likely	Medium	3	Affects more people, stakeholder consultation prioritises this
6	Major	Likely	EXTREME	1	MUST take action immediately

Fig 40. Risk Ranking. (source – SPC USP Certificate IV in DRM – CED 41 DRR)

Hazard Ranking Table

HAZARD	IMPACT	FREQUENCY/ WHEN DOES IT OCCUR	EXISTING CAPACITY or Current action implemented to address the hazard	HAZARD RANK (#1 = highest priority)
Example 1 Sea level rise	e.g. Flooding of low-lying areas	At least twice a year	Seawalls and mangroves	4
Example 2 Contaminated water supply	Water borne diseases across the community e.g. typhoid	During periods of heavy rain	<ul style="list-style-type: none"> Water committee Secondary water source 	1
Example 3 Landslide	<ul style="list-style-type: none"> Destruction of infrastructures (homes, roads, water systems) Injury, loss of life 	During Heavy rain	<ul style="list-style-type: none"> Vetiver grass planted Retaining wall 	2
Example 4 Flash flooding	Destruction of crops, houses, livestock	During heavy rains	None	3

Fig 41. Hazard Ranking Table



Community representatives in Kadavu participate in the Community Action Planning exercise.

MODULE 6

COMMUNITY PARTICIPATORY ACTION PLANNING

MODULE 6. COMMUNITY PARTICIPATORY ACTION PLANNING

LEARNING OBJECTIVES:

By the end of this module, participants will be able to:

1. Know the list of risk in the community according to the ranking that they have agreed and given to each one of them.
2. Distinguish the different activities that needs to be undertaken to overcome or mitigate the risks within an agreed time frame.
3. Understand and complete the Community Action Plan template.

Note To Facilitator:

Prior to this activity, the following activities are to be completed:

1. Community Profiling
2. Community Mapping and Transect Walk
3. Hazard, Risk, Vulnerability Assessment.

The community action plan template attached serves as a guide only.

6.1 What is Disaster Action Planning?

The concept of disaster risk action planning covers all the activities aimed at increasing resilience of a community. In other words, Action Planning at the community level is a process of designing plans or activities aimed at reducing vulnerability and risk levels derived from the potential hazards to the community. (Abarquez and Murshed, 2004; Chambers, 1994; Geilfus, 2008 & PCDF, n.d.)

6.2 Developing an Action Plan

In designing an action plan, the CDMC must work with all relevant stakeholders. It is vital that all community members actively participate in the planning and designing phases of the action plan. The full participation of the community determines their level of ownership of the plan. (Abarquez and Murshed, 2004; Geilfus, 2008 & PCDF, n.d.)

6.3 Understanding an Objective

Objectives are the solutions of the risk assessment. An objective is a statement that is specific, measurable, achievable, and realistic and time bound. An objective always starts with statements such as:

1. To improve...
2. To upgrade...
3. To test...
4. To establish...
5. To provide...etc.

(source: Adapted from Abarquez and Murshed, 2004; Geilfus, 2008 & PCDF, n.d.)

6.4 Identifying Possible Partners

Note that there are activities that can be done by the communities themselves while other activities require outside assistance. Partner organizations such as NGOs working in collaboration with government are committed to support communities in developing their action plans and programs. Community action plans and programs will strengthen local capacity and reduce vulnerabilities.

Developing the Community Risk Reduction Action Plan (Activity)

Developing a community action plan is when the community understands the risks they have identified and put in place measures or actions to reduce it to an acceptable level. This community action plan will assist the community in planning and implementing both community and government led risk reduction initiative. It will generally include steps, milestones, and measures of progress, as well as responsibilities, specific assignments, and a time line.

(Abarquez and Murshed, 2004; Geilfus, 2008 & PCDF, n.d.)

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Materials Needed:

- Community Action Template
- Newsprint
- Permanent marker
- Blue tac
- Ball pen
- Pencils

Allocated time: 90 minutes

Methodology:

Facilitator explains the processes in relation to developing an Action Plan

1. Group reviews the previous lessons and discuss ways to reduce the risks on known hazards as indicated in the hazard ranking table.
2. Facilitator to provide a community action plan template to the participants and discuss how the template is filled.
3. Participants are to identify at least 3-5 hazards (in order of priority) from the previous activity and tabulate in the community action plan template.
4. The Community Action Plans are to be presented to the training participants for consensus and later during the next community meeting.

RISK STATE-MENT	OBJEC-TIVES / Targets (What do we want to achieve, specifically)	ACTION (What do we need to do to achieve this?)	TIME PERIOD (When will this happen?)	WHO WILL LEAD? (Focal Point, Contact Details)	WHAT DO WE HAVE? (existing capacities and local contributions)	STAKE-HOLDERS (Who needs to be involved?)	RESOURCES NEEDED (What resources do we need?)	INDICATORS/ signs of success	BUDGET
Contami-nation of drinking water	To have clean, safe drinking water	Alert community to boil drinking water	Immediately and issue reminders at every village meeting.	Water committee; TNK and Community Health Worker				Recorded in village minutes that an announcement has been made	
		Survey of Water system	ASAP – no later than 31 December, 2017	Water Committee; TNK, Village plumber	Labour	Water Committee Department of Water and Sewerage DO; PA; Provincial Office	Trained water committee members or TNK	Water survey report shows that survey has been completed by relevant authority and sanitary surveys by water committee	
		Consult relevant au-thorities on system defects and survey results	Immediately and soon after survey	TNK and Water committee		NGOs; government		Relevant authorities have provided feedback	\$100
		WASH awareness with community	Before April 2018	Health committee; water committee; district nurse; Health officer	WASH committee	Ministry of Health; NGOs	Facilitators (technical experts) for training	Training completed and reported in village meeting minutes	
		Request to village meeting for fund raising	Next village meeting.	Water Committee	Secondary water source			Minute in village meeting minutes	
		Write letters of request for assistance to government; NGOs	Soon after survey	Water Committee and TNK				Letters submitted	\$100
		Water upgrade works – relocate water source (start end)	Dec, 2017 – Jun, 2018	Water committee; TNK; men's group; youth group; women's group	Secondary water source Labour			Water Supply Management plan approved by DWS	\$100,000

Fig 42. Sample Community Risk Reduction Action Plan template



Nasau (Ra) villagers plant mangroves as an initiative to address climate change issues.

MODULE 7

COMMUNITY MANAGED IMPLEMENTATION

MODULE 7. COMMUNITY MANAGED IMPLEMENTATION

FACILITATOR'S GUIDE

Learning Objectives:

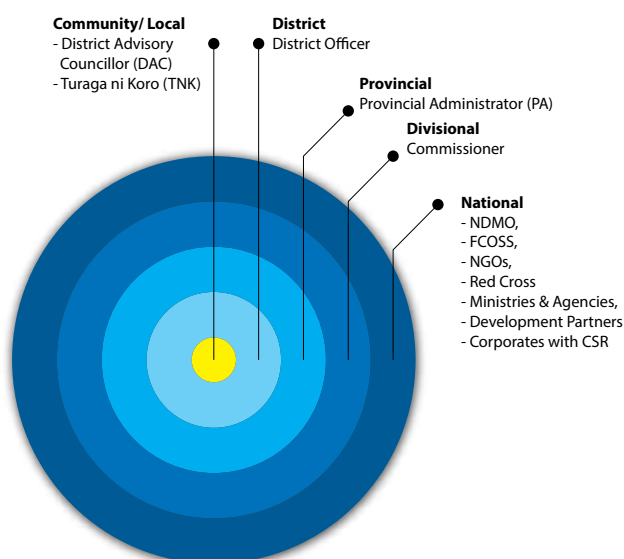
At the end of this module, participants should be able to:

1. Understand how the action plan is implemented.
2. Conduct monitoring & evaluation of community implemented activities.

7.1. Considerations for Community Managed Implementation

The Climate Smart CBDRM action plan is developed by the community under the leadership of community development committee or CDMC. The implementation of the plan should be done at community level with support from CSO's, Provincial Administrator, District Officer and technical and research institutions. The implementation process may include various structural and non-structural activities; e.g. community training, disaster response drills, community early warning systems, disaster resilient activities, construction of houses, reforestations, planting of mangroves, diversification of crops, rainwater harvesting, construction of bridges, seawall etc as part of the community risk reduction activity.

The Provincial Administrator and District Officers together with the NDMO team play a facilitating and coordinating role for the implementation of the community plan and mobilization of resources. They would also provide essential technical assistance to the communities for hazard mitigation and vulnerability reduction, since the local communities may not have the technical skills and knowledge to undertake various disaster reduction tasks; e.g. construction of seawall, or hazard assessment. Some activities in the Climate Smart CBDRM action plan - both structural and non-structural - can be adopted as the village development committee plan or actions.



7.2. Monitoring and Evaluation

Participatory monitoring and evaluation (PME) involve the local community, development agencies, government officers (NDMO) Provincial Administrators and other stakeholders in measuring the progress made, and identifying necessary follow-up actions.

There will be two levels of evaluation conducted. The first level of evaluation shall be conducted by the NGOs on their respective communities trained to gauge the impacts of the training and ascertain behavioral changes to disaster risk management. Feedback from this evaluation will be submitted to the NDMO for record and key recommendations will be considered to make amendments to the resource materials.

The second level of evaluation shall be conducted by the NDMO post disaster to also gauge the impact of the training and behavioral changes to disaster risk management where a disaster has recently struck. This is to gauge the impacts of the training and ascertain behavioral changes to disaster risk management. Feedback from this evaluation will be considered to make amendments to the resource materials and other relevant DRM documents.

There are several considerations that needs to be looked into:

- **Participation.** Multiple stakeholders participate in PME. These may include beneficiaries, project or program staff at all levels of the implementing organisation, researchers, government agencies, and donors.
- **Learning.** The emphasis is on practical, or experiential learning. Participants gain skills, which strengthen capacity for planning, problem solving, and decision making. They also gain a greater understanding of the factors or conditions that affect their project, reasons for successes or failures and why alternates may be tried.
- **Negotiation.** PME becomes a social process for negotiation between people's differing needs, expectations, aspirations, and visions.
- **Flexibility.** There is no one way to do PME. It is flexible and adaptive according to project-specific circumstances and needs.

(Source: Adapted from Abarquez and Murshed, 2004)

Monitoring & Evaluating the Community Action Plan

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Materials Needed:

- Community Action Plan
- Pen
- Blank A4 paper

Allocated Time: 1 hour

Methodology:

To monitor the progress of the community action plan, the CDMC and village development committee should refer back to the community action plan developed earlier. The following question can be used as guide for the monitoring team to ask the committee members.

1. What needs have been addressed, as listed in your plan?
2. What were some challenges experienced when trying to address those needs?
3. What are some positive changes that have come about as a result of addressing those needs?
4. What are some lessons that you have learnt, that you can work on improving your actions in the future?
5. What are the next steps for your committee regarding that need?
6. How often does the lead committee meet?
7. Do you conduct community drills? How often? If no, why?
8. Are all members of your community participating in the drill? If no, why?
9. What about the vulnerable groups- elderly, single mothers, persons with disability participation in the drills?
10. What additional support/advice/capacity would the committee need to help you address your need?

PART C:

COMMUNITY-LED DISASTER PREPAREDNESS & RESPONSE

FACILITATOR GUIDANCE

(a) OVERVIEW

This component of the Manual covers the process and tools community-led disaster preparedness & response.

Module 8 – Community & Household Disaster Preparedness & Response Plan

Participants are taken through key elements of the CDPRP and the actions needed at community level to ensure safety and effective response to any disaster threat and/or impact

Module 9 – Community Simulation (SimEx)

Participants are taken through the purpose of simulation exercises and how to plan and conduct a basic community SimEx which tests the processes and communication flows that will be utilized in a real event.

(b) Trainer Objectives

Part C is the primary elements of CBDRM and covers the role of the CDMC in a response, development of the Community Disaster Plan and the testing of the plan through the use of a SimEx. Focus of this part is highlight the importance of community-led response and how this is vital in ensuring safety during the onset of the effects of hazard.

(c) Links to Sample Program

Modules 8 & 9 link to Session 6, 7 & 13



Cyclone tracking mapping exercise conducted by community representatives from Ra.

MODULE 8

COMMUNITY AND HOUSEHOLD DISASTER PREPAREDNESS & RESPONSE PLAN

MODULE 8. COMMUNITY DISASTER PREPAREDNESS AND RESPONSE PLAN

Learning Objectives:

By the end of this module, participants will be able to:

- Understand the definition of a disaster plan.
- Identify triggers for activating the Community Disaster Preparedness and Response Plan.
- Understand the unique challenges of responding to a disaster as a responder.
- Record emergency contact details.
- Agree how the plan will be kept up to date.
- Ensure coordination between the responders and committee to include safety, security, integrity and damage prevention is not compromised during emergencies.
- Be better prepared to recover from a major natural disaster.
- Understand how the CDMC and CDPRP is linked to the national disaster management arrangement.

A disaster is an unplanned event in which the damage and needs of the affected community outweigh the available resources. To ensure that communities are resilient to the impact of the disaster, the community needs to develop a community disaster preparedness and response plan to guide them to minimize the impact of the event.

The Community Disaster Preparedness and Response plan is a systematic procedure that clearly details what needs to be done, how, when and by whom before, during and after the time an anticipated disastrous event occurs. The part dealing with the first and immediate response to the event is called disaster plan.

Developing a Community Disaster Preparedness and Response Plan will enable a community to come together, to think about what it can do to prepare for disasters and how it could assist the CDMC should any emergency or disaster occur.

Collective decision and measures taken to contain or mitigate a disastrous event to prevent any further loss of life and / or property, restore order in its immediate aftermath and re-establish normality through reconstruction and rehabilitation shortly thereafter.

8.1. Developing the Community Disaster Preparedness and Response Plan (Activity)

Materials Needed:

- Community Disaster Preparedness and Response Plan Template printed in A3
- Newsprints
- Permanent Markers
- Laptop
- Multi media

Allocated Time: 2 hours

STEPS FOR DEVELOPING COMMUNITY DISASTER PREPAREDNESS AND RESPONSE PLAN

STEP 1: Community Disaster Preparedness and Response Plan – Role Identification

1. Facilitator hands out the Community Disaster Preparedness and Response plan template to each of the participants and explains the different stages.
2. Divided into groups, Leaders, Men, Women and Youths.
3. The different groups are asked to discuss and write down what their roles are before, during and after an event.
4. Comprehensive discussion after the write up by the different groups and add on and demarcation of responsibility to be very clear.
5. Put the plan together in one Newsprint or on the Multi Media.
6. Compare it to an already prepared plan and evaluate the plan put in by the community.
7. Plan is to be discussed and endorsed by the community.

		ACTIONS (WHAT) Each level of ALERT must be activated by "Chairman" or nominated "Person Responsible" (Response arrangements)				CHAIN OF COMMAND
POSITION (WHO)	PREPAREDNESS PHASE (BLUE) No hazard detected. Preparedness is to be emphasized	ALERT (WHITE) Hazard event detected in the Region as a potential threat	WARNING (YELLOW) Hazard event poses an imminent threat within 24 hours before striking	RESPONSE (RED) Hazard event has struck and is in progress	RELIEF & RECOVERY (GREEN) Immediate after the Hazard event has passed	REPORTS TO After every task is completed the person responsible must report

Fig 43. Community Disaster Preparedness and Response Plan. Part 1 - Role Identification

STEP 2: Triggers for Activation

Community to discuss and identify triggers for activating the Community Disaster Preparedness and Response Plan. Include the following:

1. Activation as the result of a call from the District EOC.
2. Activation as the result of a decision by the community itself.
3. Disease Outbreak e.g. Leptospirosis, Dengue, Typhoid, Covid 19 etc.

Hazard/ Threat	Source of Verification	Trigger Criteria

Fig 44. Community Disaster Preparedness and Response Plan. Part 2 - Triggers for Activation

Official sources of verification:

- Fiji Meteorological Services - Cyclone, Flood and Drought
- Mineral Resources Department - Tsunami and Earthquake
- National Disaster Management Office - Dissemination of information

Decide how this plan will be activated. Consider:

1. How the CDMC will be assembled?
2. Assessment of the situation.
3. Agreement of early priorities.
4. Who else should be contacted?

STEP 3: Updating the Community Disaster Preparedness and Response Plan

Complete the following details:

Community Name:		
This Response Plan was prepared on: No:		
Name	Position	Issued on

Fig 45. Sample log form for updates made to the community disaster preparedness and response plan.

8.2 Household Preparedness

Learning Objectives:

By the end of this module, participants will be able to:

1. Consider the requirements for and develop a Family Response Plan (eg 303 Plan).
2. Develop a Family Response Plan to include an Evacuation SOP, Key Contacts List and a Communication SOP.
3. Consider the requirements for, and develop, a Family Go Bag and its basic (proposed) contents. Contents may include key personal documents (e.g. ID cards, birth and marriage certificates, academic records, etc), batteries, communication needs (transistor radio, fully charged mobile phones), basic medicines and basic items such as water, canned food or chocolate bars.
4. Consider and identify Key Preparedness Actions at the Household level to mitigate and prepare for threats and impacts from known hazards.
5. Develop a Household Action Plan to mitigate and prepare for specific threats/hazards and their impacts.

Household Preparedness in the post disaster context has increasingly become an issue for communities to understand, mitigate and safely management and dispose of without additional environmental and/or health concerns.

This module focuses on Household Preparedness in the context of;

- (a) Family Response Plan (eg 303 Plan) which includes:
 - Evacuation Procedures
 - Contact Listing for Family Members and Emergency Services
 - Communication Procedures (Chain of Command)
- (b) Family Go Bag and its basic (proposed) contents
- (c) Key Preparedness Actions at the Household level to mitigate and prepare for threats and impacts from known Hazards

Household Response Arrangements

ACTIONS (WHAT)							CHAIN OF COMMAND
Each level of ALERT must be activated by "Chairman" or nominated "Person Responsible" (Response arrangements)							
POSITION (WHO)	PREPARED-NESS PHASE (BLUE)	ALERT PHASE (WHITE) Hazard event detected in the Region as a potential threat	WARNING PHASE (YELLOW) Hazard event poses an imminent threat within 24 hours before striking	RESPONSE PHASE (RED) Hazard event has struck and is in progress	RELIEF & RECOVERY (GREEN) Immediate after the Hazard event has passed	REPORTS TO After every task is completed the person responsible must report	
HEAD OF HOUSE-HOLD	<ul style="list-style-type: none">• Ensure that the family has a preparedness and response plan in place• Ensure that the family is familiarized with the preparedness and response plan• Ensure roles are clearly identified and demarcated to all family members• Coordinate drills and evacuation procedures from time to time	<ul style="list-style-type: none">• Confirm Weather report• Relay weather report to family members at home• Call/Inform family members who are away elsewhere• Gather & prepare all communication tools (Phone, Radio, etc.)• Update family of evacuation plans.• Tie down roof and put up shutters/ barricade windows• Disconnect guttering, clear drainage and water ways around home.• Identify/ check the easiest and shortest evacuation route to the nearest Evacuation centre• Inform Men's Leader of family state of readiness.	<ul style="list-style-type: none">• Take heed of weather warning• Evacuate family to EC• Ensure all family members are present• Call/ inform family members elsewhere that family is to move to EC - keep in constant contact until they arrive• Conduct a headcount - Evacuate family to EC• Ensure all important documents are taken with belongings to the EC• Register family at the EC• Registration desk - ensure family contacts are correct• Identify a family spot(if space has not been allocated by the EC Supervisor)• Conduct a headcount - Ensure all family members are at EC– refer count to EC Supervisor when asked to do so• Inform Men's Leader of family state of readiness	<ul style="list-style-type: none">• On standby• Ensure all family members are safe at the EC – conduct a headcount - refer count to EC Supervisor when asked to do so• Re-emphasize to family members to STRICTLY adhere to the Evacuation Centre rules• Keep track of family needs at all times	<ul style="list-style-type: none">• Conduct headcount of family members – refer count to EC Supervisor when asked to do so• Await instructions from Men's Leader/ EC Supervisor of when it is safe to return home• Lead clean up at home and surroundings – clear blocked drains and discard debris• Ensure proper disposal of rubbish• Report to Men's Leader of any damages incurred that may have been overlooked by the IDA Team	Men's Leader/ EC Supervisor	

DEPUTY HEAD OF HOUSEHOLD	<ul style="list-style-type: none"> Assist Head of Household on preparatory phase 	<ul style="list-style-type: none"> Prepare cooking utensils Ensure dry food stock/ canned foods are packed (3 – 5 day ration) Ensure family members "GO BAGS" are ready Ensure family COVID 19 protocol observance – ensure face masks and hand sanitizers are on hand for individual family member Clean up home and secure all belongings that will not be taken to EC Inform Head of household on state of readiness 	<ul style="list-style-type: none"> Assist family evacuation to EC See that beddings, clean/ dry clothes & utensils are taken to EC Ensure family food ration for 3 – 5 days is taken into the EC Ensure family's needs are met at the EC e.g. living space, boiled drinking water, EC orientation etc. Ensure family maintains COVID 19 protocol observance at all times at the EC Ensure the safety & well-being of each of the family member at EC Inform Head of household on state of readiness 	<ul style="list-style-type: none"> On standby Prepare and serve food to individual family member Boil all drinking water Ensure well-being of vulnerable members of the family e.g. infant/ young children, expectant/ nursing mother, the elderly or any sick member of the family Ensure family members maintain COVID 19 protocol observance at all times at the EC 	<ul style="list-style-type: none"> Assist clean-up at EC Clean up home Sun all beddings, soiled linen and household belongings. Sanitize table tops/ furniture/ toilet Ensure well-being of all family members especially the vulnerable (if any) Prepare and serve food to individual family members Ensure family members observe COVID 19 protocols at all times 	Head of HH
FAMILY MEMBER 1	<ul style="list-style-type: none"> Identify safe areas for relocation of livestock Identify overgrown trees beside homes 	<ul style="list-style-type: none"> Relocate livestock to high and dry ground Trim overgrown trees beside homes Secure boat and outboard motor Collect firewood, root crop and water for EC 	<ul style="list-style-type: none"> Assist in family evacuation to designated EC Assist Head of household where need be 	<ul style="list-style-type: none"> On standby Assist Head of household where need be Supervise young family members 	<ul style="list-style-type: none"> Relocate livestock to their usual grazing area Return boat and outboard motor to its usual mooring dock 	Head of HH
FAMILY MEMBER 2		<ul style="list-style-type: none"> Assist Family member 1 in preparations 	<ul style="list-style-type: none"> Assist Family member 1 in family evacuation 	<ul style="list-style-type: none"> On standby Assist Family member 1 where need be 	<ul style="list-style-type: none"> Assist Family member 1 in clean-up at home and surroundings 	Head of HH
FAMILY MEMBER 3		<ul style="list-style-type: none"> Assist Deputy Head of household in preparations 	<ul style="list-style-type: none"> Assist Deputy Head of household in family evacuation 	<ul style="list-style-type: none"> On standby Assist Deputy Head of household where need be 	<ul style="list-style-type: none"> Assist Deputy Head of household in food preparation/ serving at home 	Head of HH

Fig 46. Household Disaster Response Plan PCDF December 2021

Contact Listing for Family Members and Emergency Services

FAMILY CONTACTS			
RELATIONSHIP	PRIMARY CONTACT DETAILS	SECONDARY CONTACT	EMAIL ADDRESS
Spouse			
Parent(s)			
Child			
Relative(s)			
EMERGENCY SERVICES			
AGENCY	PRIMARY CONTACT DETAILS	SECONDARY CONTACT	EMAIL ADDRESS
National Disaster Management Office			
National Fire Authority			
Fiji Police Force			
Ministry of Health and Medical Services			

Family Go Bag and its Basic (Proposed) Contents



8.3. Traditional Early Warning System And Coping Mechanisms In The Community (Activity)

FACILITATOR'S GUIDE

Materials Needed:

- Butcher Paper
- Permanent Markers

Allocated Time: 30 minutes

Methodology:

1. Divide participants into groups, ensure inclusivity of gender and disability. Provide each group with permanent markers pens and sheets of newsprint.
2. Guide the discussion to bring out the most precise information possible.
3. Ensure that older participants with local knowledge are distributed evenly amongst the group to provide traditional knowledge on early warning system.
4. The group to discuss, identify and put on a table all the traditional early warning system that they know, the associated hazard that is going to occur, the effects and the local coping strategies.
5. With the assistance of the older participants the group to discuss some traditional coping methods like maintain resilient crops and preservation of food crop and fruits to address shortage of food after cyclone.
6. Once completed, have each group discuss their findings and have the other groups comment and add onto the chart.

Over the years, people observed ways animals and plants respond to climatic changes in their environment. The observed animal and plant behavior was able to provide information and warning if there was going to be a disaster in the near future thus create local coping strategies in place to mitigate the effect of the disaster. For example, when there was abundance of fruits it was a sign of tropical cyclone, people secure their homes, properties and valuables whilst waiting for the event to occur.

Traditional early warning system or other coping mechanisms represent the knowledge and capacity developed through generation in the communities to anticipate possible extreme events or disaster like tropical cyclone, tsunami, earthquake, drought and flood and to coping with or even mitigate the effects that threat the people's lives.

These traditional coping mechanisms need to be scientifically validated because some of them are not applicable to the rapidly changing environments and climate change conditions. However, it is always useful to document and find ways to preserve the traditional coping mechanisms as part of the Community Disaster Preparedness and Response Plan.

Traditional Early Warning System Table

The participants to fill in the tables below with the relevant local information required to complete it.

	Signs (Traditional Early Warning Sys- tem)	Expected Hazard	Expected Effect
1	Abundance of fruits	Tropical Cyclone	Damage to house, food

Fig 47. Traditional Early Warning System

The picture below shows the list of identified traditional early warning system by a working group presentation during a local training in a community in Fiji.

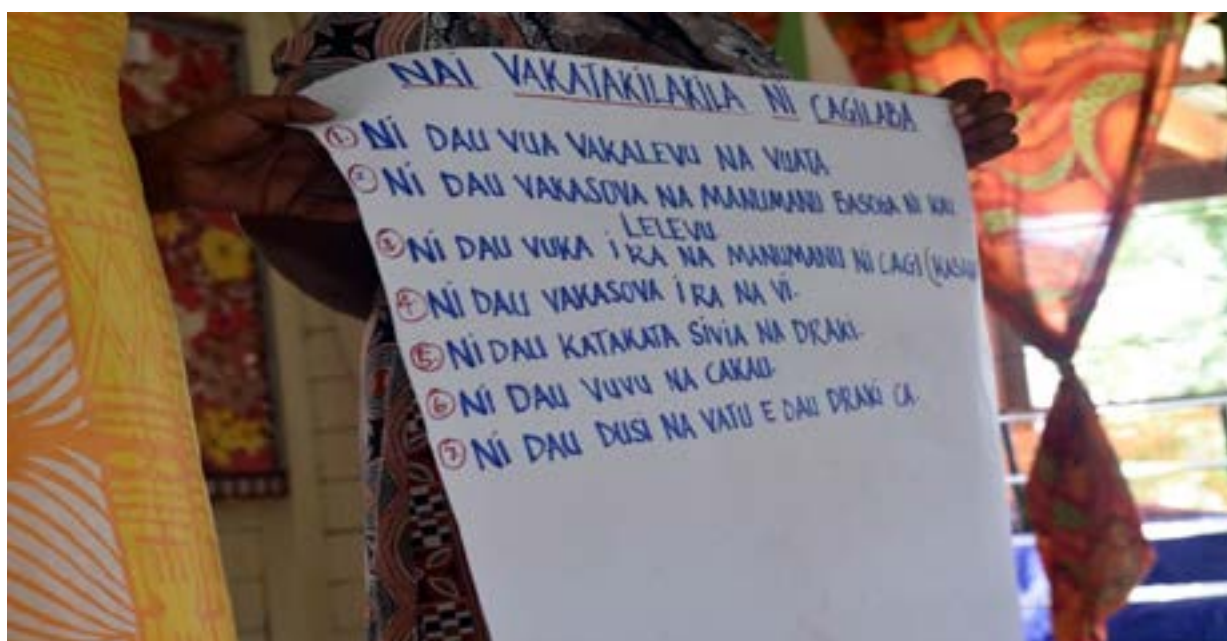


Fig 48. Example of Traditional Early Warning System

Coping Mechanism Table

Coping Strategies	Modern Method	Traditional Method

Fig 49. Coping Mechanism Table

8.4. Early Recovery Considerations (Activity)

FACILITATOR'S GUIDE

Materials Needed:

- Butcher Paper
- Permanent Markers

Allocated Time: 30 minutes

Methodology:

1. Divide participants into groups ensure inclusivity of gender and disability. Provide each group with permanent markers pens and butcher paper.
2. Using the table below as a guide, ask the participants to discuss and list key activities that the community can take lead role in soon after a disaster.
3. Ask the participants to present back to the whole group.

Early Recovery is never just a 'phase'. It is a multi-dimensional process of recovery that begins in the early days of a response. An Early Recovery approach means focusing on local ownership and strengthening capacities; basing interventions on a thorough understanding of the context to address root causes and vulnerabilities as well as immediate results of crisis; reducing risk, promoting equality and preventing discrimination through adherence to disaster principles that seeks to build on humanitarian programmes and catalyze sustainable development opportunities. It aims to generate self- sustaining, community owned, resilient processes for post crisis recovery and to put in place preparedness measures to mitigate the impact of future crises.

Early Recovery coordination seeks to improve the community response with the integration of early recovery by creating a decision-making process that is inclusive, transparent, consultative, guided by objectives, and evidence-based. A key aim is to engage other community members in the planning process in a manner that enables them to influence the direction of the response, and to negotiate priorities and resources in a rational and cooperative manner.

In recovery, the affected population is in a more stable period of transition. They have a place to get food and water and a temporary or transitional shelter that can withstand wind and rain. They can go about their daily lives, beginning to resume some kind of normal existence. Children go back to school—though their classes may be held in a church, a tent, or some other temporary accommodation. Those affected may not have yet recovered fully, but they have begun to adapt to a "new normal."

As part of participatory action planning, communities can consider including certain early recovery activities such as : clearing debris, reconnecting water, community clean up and etc.

Community Early Recovery Plan- Sample Only

Action to do	Who will Lead involved	Remarks
<p>Headcount of community members. Submit damage report to District office.</p> <p>Refer affected community members for counseling services.</p>	Community Health Worker/ Village Headmen/DAC	<p>To substantiate numbers before and after the disaster.</p> <p>First 3 days and reports of damage sustained.</p> <p>Provide summary of IDA for the whole community before onward submission to DO's Office.</p>
<p>Restoration of water supply in the community.</p> <p>General cleanup of the community and restoration of utilities.</p> <p>Rebuilding temporary homes or shelter. Repairing of minor damage to households.</p>	Men and Youth	Families are able to occupy them again.
Clean up of Households	Women and Children	Cooking for the men and youth during



Community Simulation Exercise.

MODULE 9

COMMUNITY SIMULATION EXERCISE

MODULE 9. COMMUNITY SIMULATION EXERCISE

A simulation exercise is a practical activity that places participants in a simulated situation requiring them to function in the capacity expected of them in a real event. Simulation Exercises are extremely useful tools to test the community's response to natural disasters, shock or event.

Simulation exercises are conducted to evaluate a community or organization's ability to execute one or more portions of its response. Many successful responses to emergencies are attributed to previous simulation exercises. Its purpose is to promote preparedness by testing community disaster plans, Standard Operation Procedures (SOPs), and personnel training.

FACILITATOR'S GUIDE

Learning Objectives:

By the end of this module, participants will be able to:

1. Clarify roles and responsibilities.
2. Gain recognition and support of committee members.
3. Individual Training: Allow Community Disaster Management Committee to practice their roles, gain experience in their roles before an actual event.
4. System Improvement: Improves the committee's or organization's systems for managing emergencies.
5. Communicate lesson learn from past events as part of continuous improvements to ensure that we prevent and mitigate emergency incidents
6. Test and evaluate plans, identify gaps in the plan for improvements.

Materials Needed:

- Community Disaster Plan
- Assorted Safety Equipment
- CDMC Contact List
- Situation Reporting Template

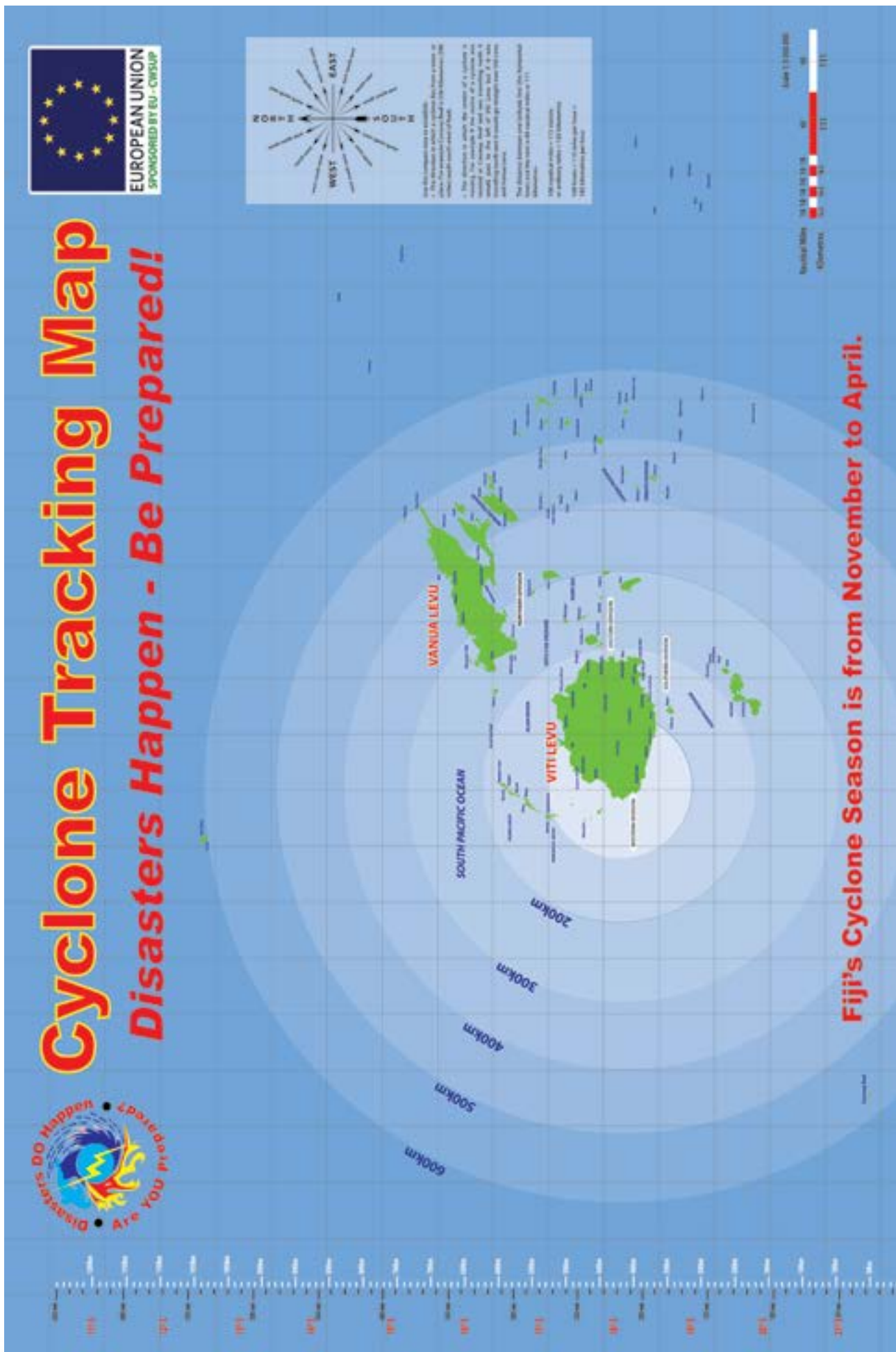
Allocated Time: 40 minutes

Methodology:

1. Bring out the community disaster response plan developed earlier. Explain to the participants that they will be testing their community disaster response plan.
2. Simulation exercise will be coordinated by CDMC with community members.
3. Allow the participants to familiarize themselves with their roles.
4. After the drill ask the participants to self-reflect on the drill and provide feedback.
5. As a whole group, discuss how to improve the drill in the next drill session.

Note to facilitator

The hazard used in the simulation exercises should be relevant to the type of hazard experienced by the community



PART D:

COMMUNITY-LED SUPPORT SERVICES

FACILITATOR GUIDANCE

(a) OVERVIEW

This component of the Manual covers additional courses or training that can be added to the CBDRM process and strengthen community resilience and preparedness for response.

Module 10– Conducting an Initial Damage Assessment

Participants are introduced to the NDMO standard IDA process and tools. The CDMC is expected to be able to form a team to undertake an IDA with 3 days of a hazard impact and report this back to their DO and/or Roko Tui. This IDA format is similar to that used by the Fiji Red Cross.

Module 11: Evacuation Centre Management

Participants are introduced to the management of an Evacuation Centre including aspects of protection, care and safeguarding of children and vulnerable groups and proper planning and management of welfare of evacuees. The ECM content is contextualized to the role that the CDMC and CERT will play in relation to the preparedness, activation, operation and demobilizing of the Evacuation Centre.

Module 12: Waste Management in a Post Disaster Context

Participants are introduced to the correct and safe management of waste materials after the impact of the disaster including during the recovery phase.

(b) Trainer Objectives

Part 4 is allocated to the inclusion of key support programs that can be delivered by the community in support of DISMAC and other allied agencies.

Delivery of these training packages requires specialized endorsement from NDMO as well as partnering with other key agencies such as NFA, Fiji Police, RFMF, RCC Fiji and other non-government agencies such as Fiji Red Cross, St John Ambulance and the Life Flight Fiji.

(c) Links to Sample Program

Modules 10 links to Session 9, 10 & 11 of the CBDRM Program



IDA conducted by PCDF Staff in Ra.

MODULE 10

CONDUCTING INITIAL DAMAGE ASSESSMENT

MODULE 10. INITIAL DAMAGE ASSESSMENT

Learning Objectives:

By the end of this module, participants will be able to:

1. Distinguish the 2 levels of structural damage to houses. I.e. Completely or partially damaged dwelling house.
2. Assess the basic damages and losses incurred in the community.
3. Identify the need for external assistance to be provided.
4. Fill in the IDA Form.

Initial Damage Assessment (IDA) is the first step in the recovery process to have a clear picture of the magnitude of damage to life, property, crops, livelihoods and infrastructure resulting from a disaster. Disaster comes as a complete surprise to the people and Government in the absence of preparedness. Different organizations including humanitarian organizations, try to take the lead in carrying out the initial assessments to retrieve information for immediate planning and relief distribution. Most of the initial assessments are done by community members resulting in generating accurate information.

The basic purpose of community conducting Initial Damage Assessment is for the affected people to identify the damages and scale of the damage that they are faced with in rebuilding their lives. This information will assist the community in deciding how to plan and act for recovery. This activity will allow the trained CDMC to report/update district or provincial administrator with in the first 48hours after the event has struck. However, final Initial Damaged Assessment will conducted by trained personnel to verify and validate information that was collected and submitted by the CDMC.

FACILITATOR'S GUIDE

Materials Needed:

- Butcher Paper
- Permanent Markers

Allocated Time: 3 Hours

Methodology:

1. Divide participants into groups ensure inclusivity of gender and disability. Provide each group with permanent markers pens and butcher paper.
2. Using the table below (page 105- 108) as a guide, ask the participants to discuss and list key activities that the community can take lead role in soon after a disaster.
3. Ask the participants to present back to the whole group.

Note to facilitator

To mention sequence of training- IDA as last activity when in reality IDA is conducted soon after the disaster.

Updated versions of IDA must be obtained from NDMO.



NATIONAL DISASTER MANAGEMENT OFFICE
INITIAL DAMAGE ASSESSMENT (IDA) FORM/NA FOMU NI VAKADIDIKE TAUMADA

**HOUSE HOLD
IDA FORM 1**

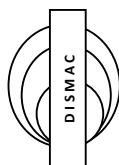
Disaster/ Leqa Tubukoso	District/ Tikina	Name of Assessor/ Yaca i koya ka vakadidike	Signature of assessor/ Saini nei koya e vakadidike	Signature of Advisory Councillor or Turaga ni koro/Saini nei Advisory Councillor se Turaga ni koro	Date/ Tiki Ni Siga																	
Village/ Settlement/ Koro/Koro Vakagalala	Province/ Yasana																					
Household/Matavuvale																						
Name of head of household/ Yaca i Liuli Ni Vuvale	Source of income/Vurevure ni lavo	Male/Tagane	Female/Valewa	TOTAL /KENA LEVU	Adult/Qase	Children/Gone	Babies/Gone	dramidrami	TOTAL /KENA LEVU	Special Needs/ Gadreva na veivuke taumada	Injured/Mavoa	Died/Mate	Missing/Vail	Dwelling house damages/ Vale Ni Moce e Vakacacani	Household items damaged/ yaya ni vale vakacacani	Health & Sanitation/ Na Tiko Bulabula (V) damaged/ vakacacani; (-) good/vinaka	Water/ Wai ni gunu	Toilet/Vale lailai	Light/ Cina	Kitchen/ Vale ni kuro	Comments/ Kena i kuri	
TOTALS/SOQONI																						

A B C D E F G H I J K L M N O P Q R S T U

EXPLANATORY NOTES:

ACRONYM	DETAILS
Disaster/Leqa tubu koso	Name of disaster event/ <i>Na yaca ni Leqa Tubukoso</i>
Village/ Settlement/ Koro/ Koro Vakagalala	Name of community (village, settlement, ward, etc)/ <i>Yaca ni Koro se Koro Vakagalala</i>
District/Tikina	Name of district/ <i>Yaca ni tikina</i>
Province/Yasana	Name of Province/ <i>Yaca ni Yasana</i>
Assessor/Yaca i koya ka vakadidike	Assessor in the case of Form N-1-A is the TNK/ <i>Na yaca nei Turaga Ni Koro se o koya ka qarava na vakadidike</i>
Signature/Saini nei koya e vakadidike	Signature of the assessor/ <i>Saini nei koya ka vakadidike</i>
Signature/Saini Advisory Councilor/Turaga ni koro	Signature Advisory Councilor/ <i>Saini Turaga ni koro</i>
Date/Tiki ni siga	Date of assessment/ <i>Tiki ni siga e vakayacori kina na vakadidike</i>
Household/ Matavuvuale	<p>Name of Household head – Can be either male or female whichever is the surviving head/ <i>rawa ni tagane se yalewa</i></p> <p>Source of income/ <i>Vurevure ni lavo</i>-businessman, permanent worker, casual, farmer, fisherman/ <i>vakabisinisi, cakacaka tudei, vakagauna, dau teitei, dau qoli</i></p> <p>Male = number of people (male)/ <i>wiliwili ni lewe ni vuvale era Tagane</i></p> <p>Female = number of people (female)/ <i>wiliwili ni lewe ni vuvale era Yalewa</i></p> <p>Total = number of male and female in the household / <i>Wiliwili ni tagane kei na yalewa lewe ni vuvale</i></p> <p>Adults = number of HH that are adults (16yrs and above)/ <i>wiliwili ni lewe ni vuvale era qase(yabaki 16 ka sivia)</i></p> <p>Children = number of HH that are children (6yrs – 15yrs)/ <i>wiliwili ni lewe ni vuvale era gone lailai (yabaki 6 – 15)</i></p> <p>Babies = number of HH that are infants (0 – 5yrs)/ <i>wiliwili ni lewe ni vuvale era gone dramidrami (se qai sucu – yabaki 5)</i></p> <p>Total = number of adults, children and babies / <i>Wiliwili ni qase, gone kei na gone dramidrami</i></p> <p>Special Needs = number of people in the house hold that have specific needs (infants, disabled) / <i>wiliwili ni lewe ni vuvale era gadreva na veivuke taumada (gone dramidrami, lokiloki)</i></p>
Casualties/Mavoa	<p>Injured = number of HH that are injured/ <i>wiliwili ni lewe ni vuvale era mavoa</i></p> <p>Dead = number of HH that are dead/ <i>wiliwili ni lewe ni vuvale era mate</i></p> <p>Missing = number of household missing/ <i>wiliwili ni vuvale era yali</i></p>
Items damaged/Yaya e vakacacacani	<p>Include furniture, beddings, utensils/ <i>Wili kina nai yaya me vaka na i davodavo, dabedabe, droa, yaya ni moce kei na i Yaya ni kana</i></p>
Dwelling House Damage/ Vale ni moce e vakacacani	<p>0 (OK)/ <i>Vale e sega ni vakacacani</i></p> <p>1 (partly damaged)/ <i>Vale e vakacacani vakalailai. Se rawa ni tawani ni oti na kena vakavinaka taki.</i></p> <p>2 (Destroyed)/ <i>Vale e vakarusai. Sa sega ni rawa ni qai tawani tale.</i></p>
Health & sanitation/ Na Tiko Bulabula	<p>Water = does the family have access to safe water/ <i>E tiko na vurevure ni wai ni qunu</i></p> <p>Toilets = status of the toilets of the house/ <i>E cava na tuvaki ni valelailai</i></p> <p>Light = status of light during night in the house (on, off, genset, mainline, etc)/ <i>E cava na tuvaki ni cina e loma ni vale</i></p> <p>Kitchen = status of the kitchen for cooking food/ <i>E cava na tuvaki vale ni kuro e dau vakabutari kina na kakana</i></p>

• IDA Form 1 is filled in b only through selected interviews and visual verification/ *Na IDA Fomu 1 ena vakaleweni ena vakatatro kwi na kena laurai vinaka na vakacacaca*



NATIONAL DISASTER MANAGEMENT OFFICE

COMMUNITY
IDA FORM 2

INITIAL DAMAGE ASSESSMENT (IDA) FORM/FOMU NI VAKADIDIKE TAUMADA

Disaster/ <i>Leqa Tubukoso</i>	District/ <i>Tikina</i>	Name of Assessor/ <i>Yaca i koya ka vakadidike</i>	Signature of Assessor/ <i>Saini nei koya e vakadidike</i>	Signature of Advisory Councillor Or <i>Turaga ni koro /Saini nei Advisory Councillor se Turaga ni koro</i>	Date/ <i>Tiki Ni Siga</i>
Village/ Settlement/ <i>Koro/Koro Vakagalala</i>	Province/ <i>Yasana</i>				
SECTOR/ WASEWASE	Status/ Kenai tuvaki (place a v where appropriate/toqa v ena vanua e veiganiti)	Comments / Kena i kuri			
Water Supply/ <i>Vurevure Ni Wai ni gunu</i>	Good/ <i>Vinaka</i>	<input type="checkbox"/>	Damage/ <i>Vakacacani</i>	<input type="checkbox"/>	
Food Supply/ Agriculture/ <i>Na Tuvaki ni teitei</i>	Not damaged/ <i>Vinaka</i>	<input type="checkbox"/>	Damaged/ <i>Vakacacani</i>	<input type="checkbox"/>	
Road Access to Community/ <i>Sala ni vei lakoyaki e vanua</i>	Accessible/ <i>Vinaka</i>	<input type="checkbox"/>	Not accessible/ <i>Vakaleqai</i>	<input type="checkbox"/>	
Sea Access to Community/ <i>Sala ni vei lakoyaki e wai</i>	Accessible/ <i>Vinaka</i>	<input type="checkbox"/>	Not accessible/ <i>Vakaleqai</i>	<input type="checkbox"/>	
Air Access to Community/ <i>Sala ni vei lakoyaki e maliwa lala</i>	Accessible/ <i>Vinaka</i>	<input type="checkbox"/>	Not accessible/ <i>Vakaleqai</i>	<input type="checkbox"/>	
Communications/ <i>Na vakau tukutuku</i>	Can communicate <i>Vinaka</i>	<input type="checkbox"/>	Cannot communicate/ <i>Cavuka</i>	<input type="checkbox"/>	
Electricity/ <i>Livaliva</i>	On/ <i>Waga</i>	<input type="checkbox"/>	Off/ <i>Boko</i>	<input type="checkbox"/>	
Health/ <i>Tiko Bulabula</i>	Healthy/ <i>Bulabula</i>	<input type="checkbox"/>	Sick people/ <i>Tauvi mate</i>	<input type="checkbox"/>	
Security/ <i>Na vei taqomaki</i>	Secure/ <i>Daumaka</i>	<input type="checkbox"/>	Insecure/ <i>Luluqa</i>	<input type="checkbox"/>	
Overall Coping/ <i>Na sala ni nodra vei vukei</i>	Strong/ <i>Maucokona</i>	<input type="checkbox"/>	Weak/ <i>Malumalumu</i>	<input type="checkbox"/>	
Classroom/ <i>Vale ni vuli</i>	Good/ <i>Vinaka</i>	<input type="checkbox"/>	Damaged/ <i>Vakacacani</i>	<input type="checkbox"/>	
Church/ <i>Vale ni lotu</i>	Good/ <i>Vinaka</i>	<input type="checkbox"/>	Damaged/ <i>Vakacacani</i>	<input type="checkbox"/>	
Community Hall/ <i>Vale ni soqo</i>	Good/ <i>Vinaka</i>	<input type="checkbox"/>	Damaged/ <i>Vakacacani</i>	<input type="checkbox"/>	
Other buildings/ <i>Vale ni soqo</i>	Good/ <i>Vinaka</i>	<input type="checkbox"/>	Damaged/ <i>Vakacacani</i>	<input type="checkbox"/>	

EXPLANATORY NOTES:

ACRONYM	DETAILS
Disaster/ <i>Leqa tubu koso</i>	Name of disaster event/ <i>Na yaca ni Leqa Tubukoso</i>
Village/ Settlement/ <i>Koro/Koro Vakagalala</i>	Name of community (village, settlement, ward, etc)/ <i>Yaca ni Koro se Koro Vakagalala</i>
District/ <i>Tikina</i>	Name of district/ <i>Yaca ni tikina</i>
Province/ <i>Yasana</i>	Name of Province/ <i>Yaca ni Yasana</i>
Assessor/ <i>Vakadidike</i>	Name of assessor/ <i>Yaca i koya e vakadidike</i>
Signature/ <i>Saini</i>	Signature of assessor/ <i>Saini nei koya e vakadidike</i>
Signature/ <i>Saini</i>	Signature of Advisory Councillor or Turaga ni Koro/ <i>Saini nei Advisory Councillor se Turaga ni koro</i>
Date/ <i>Tiki ni siga</i>	Date of assessment/ <i>Tiki ni siga ni vakadidike</i>
Water Supply/ <i>Vurevure ni wai ni gunu</i>	What is the water source? Is it drinkable? Is supply enough? How long will it last?/ <i>Na cava na vurevure ni wai? E gunu ni rawa? E vei raurau na kena levu?</i>
Food Supply/ Agriculture/ <i>Na tuvaki ni teitei</i>	What food is available? How long will it last? What other sources are available?/ <i>Na kakana cava e tu? Na dede me vakayagataki? E so na vurevure ni kakana tale e so?</i>
Access to Community/ <i>Sala ni vei lakoyaki</i>	What are the access routes to the community? What alternate transport is available? Travel times? Landing zones?/ <i>Na sala ni veilakoyaki cava e dola tu? Na sala cava tale e so e rawa ni vakayagataki? Na dede ni lako?</i>
Communications/ <i>Na vakau tukutuku</i>	What communication mediums are available? Is it working? Damaged or destroyed? How long to fix it? Alternate Comms?/ <i>Na sala ni vakau tukutuku e vaka yaga taki tiko? E vakacacani se vakarusai? E rawa ni vaka vinavinaka taki?</i>
Health/ <i>Tuvaki ni bula</i>	What is state of health? Is there any sickness? Coughing, Diarrhoea, Fever?/ <i>E cava na tuvaki ni nodra bula na lewe ni tikitiko? E so na tauvimate? Vuvu, Coka, Katakata?</i>
Security/ <i>Na vei taqomaki</i>	What is the state of security? Is the likely hood of unrest/ violence? Status of Protection? GBV?/ <i>E vaka cava tiko na vei taqomaki? E tu na kudru nil ewe ni vanua? E sa maroroi na marama kei na gone?</i>
Overall Coping/ <i>Na sala ni nodra vaka vukei ira vataki ira</i>	What is the overall coping mood? How long will they survive in status quo? What are the immediate needs?/ <i>E sa vaka cava na sala ni vei vuke vakai ira? Na cava e gadrevi vaka totolo me taqomaki na bula?</i>
Classroom/ <i>Vale ni vuli</i>	What is the status of the classrooms in the nearby school if there is a school near the village?/ <i>Cava nai tuvaki ni vale ni vuli ni koronivuli ka voleka e nomu i tikitiko ke dua na koronivuli e voleka ena koro?</i>
Church/ <i>Vale ni lotu</i>	What is the status of the church building?/ <i>Cava na i tuvaki ni vale ni lotu?</i>
Community Hall/ <i>Vale ni sogo</i>	What is the status of the community hall?/ <i>Cava na i tuvaki ni vale ni sogo?</i>
Other buildings/ <i>Veivale tale e so</i>	What is the status of other buildings in the community like shops, tourist accommodation, storage sheds etc?/ <i>Cava na i tuvaki ni veivale tale e so me vaka na sitoa, kei na nodra vale na sara vanua, vale e maroroi i yaya?</i>

- IDA Form 2 is filled in through selected interviews and visual verification/ *Na fomu qo mera vakalena na Turaga Ni Koro kei na CDMC ni oti na nodra vakadidike*

Fig 50. Initial Damage Assessment Form



Simulation exercise in an evacuation centre.

MODULE 11

EVACUATION CENTRE MANAGEMENT

MODULE 12. EVACUATION CENTRE MANAGEMENT

Learning Objectives:

By the end of this module, participants will be able to:

1. Identify the immediate preparedness needs for an Evacuation Centre for the purpose of housing disaster evacuees in reference to the NDMO Emergency Evacuation Centre SOPs.
2. Clearly demarcate when to and when not to activate the evacuation centre and the implications of such an activation.
3. Establish an EC Management Team to maintain order, welfare, safety and professional conduct in the EC at all times including management of lights out, scheduling of activities/ meals, registration, and return to residences when safe to do so.
4. Maintain appropriate documentation and registers of persons entering, staying and leaving the EC in coordination with the EOC and Police.
5. Facilitate Psychological First Aid as appropriate and provide referrals where necessary.
6. Understand and apply in the appropriate context the use of the SPHERE Standards
7. Understand Protection and Security in the Humanitarian context and apply appropriately.
8. Understand the NDMO Volunteer Policy.

The Evacuation Centre Management (ECM) course provides the core skills and knowledge for the safe and appropriate management of community evacuation centres such as schools, halls and churches. It does not cover residences which have opened their doors to families who have evacuated their homes.

The ECM Course is usually 2 days in duration at the community level where focus is made on the preparedness, activation, management and demobilization of the centre and safe return to their homes of the evacuees.

The Evacuation Center Management Standard Operating Procedures (SOP) forms the bases for this module. A copy of the aforementioned SOP is available at the National Disaster Management Office.

General Requirements for Evacuation Centres



General Requirement

- All evacuees are required to bring their necessities whilst moving in the EC. This should include bringing their own food rations & drinking water to cater for their stay until Government assistance is established.
- The building authority/owner should provide the necessary common areas such as cooking areas, dining areas and rest rooms to the evacuees.
- The EC Supervisor should be responsible to ensure that the evacuees have rosters in using these facilities as to adhere to COVID guidelines/protocols





DO'S AND DON'T'S IN AN EVACUATION CENTER



Take a sufficient amount of food and water to the Evacuation Centre



Take a first-aid kit with you



Try to maintain safe physical distancing



Respect the privacy of other evacuees



Look out for members of vulnerable groups



Supervise children at all times



Follow instructions and advice given by Evacuation Centre staff and managers



Wear a mask at all times



Wash your hands with soap and water regularly and where possible, use a sanitizer



Isolate yourself if you feel unwell



Lodge a report to authorities if you feel unsafe



Report all incidents and threats of harassment and assault including sexual harassment and sexual assault occurring in the evacuation centre

Encourage good personal hygiene practices including the following:

- Cover your mouth with your hand or tissue when you cough, and dispose tissues safely after use
- Wash hands before preparing food and keep food always covered.



Don't drink yagana or alcohol in the Evacuation Centre or in surrounding areas



Don't drink contaminated water



Don't share eating utensils or drinking containers Harass other evacuees



Don't share personal care items such as combs, razors and or towels



Don't take matters into your own hands while in an evacuation centre



Don't be selfish, help others especially women, children, elderly, and people living with disabilities



Don't panic – this makes the situation worse



A MESSAGE FROM
THE NATIONAL
DISASTER
MANAGEMENT
OFFICE

District: Centre:
Centre Manager: Page Number:[illegible]

114

[illegible]

Identification of Evacuation Centre Checklist

Inspection	Yes	No	Comment
Is the building Structurally sound			
Is the facility clean and orderly? Are the kitchen and the bathrooms sanitary?			
Are the building systems in appropriate working order (power, water, sewage)			
Is there adequate internal lighting?			
Is there a backup generator? Is it in working order? Is there sufficient fuel for the generator?			
Is there a sufficient supply of water?			
Is the water running in the showers and hand washing facilities?			
What facilities are available for the collection and management of waste? How many bins are available?			
Does the kitchen have enough area for hygienic food preparation?			
Are the emergency exits clearly identified and unobstructed?			
Is the facility accessible to children and adults who may use mobility devices such as, strollers, wheelchairs, or canes? Does access to and within the facility require climbing stairs?			

Sample (above) of evacuation centre ID checklist. Refer to Evacuation Centre SOP (available with NDMO) for more information.



Aftermath of Tropical Cyclone Winston in Ra.

MODULE 12

WASTE MANAGEMENT IN THE POST DISASTER CONTEXT

MODULE 12. WASTE MANAGEMENT IN THE POST DISASTER CONTEXT

Learning Objectives:

By the end of this module, participants will be able to:

1. Understand the concept of waste management in a post disaster context.
2. Identify waste as a result of hazards.
3. Identify the management options available for waste in a post disaster context.
4. Introduce the correct and safe management of waste materials during the rebuilding and recovery phase.
5. Waste management in Evacuation Centres and sanitation facilities.
6. Waste management considerations in community clean up campaigns to reduce LTDD.
7. Environmental and WASH considerations for waste management in the community.

Waste Management in the post disaster context has increasingly become an issue for communities to understand, mitigate and safely management and dispose of without additional environmental and/or health concerns.

This module focuses on Waste Management in the context of;

- (a) Evacuation Centres.
- (b) Community Clean up campaigns post disaster.
- (c) Authority led campaigns against LTDD.



Mangrove planting initiative in Ra to address climate change issues.

REFERENCES

REFERENCES

1. Government of Fiji, National Disaster Management Plan, 1995.
2. Government of Fiji, Natural Disaster Management Act, 1998.
3. Government of Fiji, National Disaster Risk Reduction Policy 2018-2030.
4. 2013. Introduction to Disaster Management.
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6. UNDP Global Cluster for Early Recovery, April 2007. OCHA.
7. United Methodist On Relief, April 2013.
8. Reflect Mother Manual Action Aid International 1996, 88/52.
9. Methodology for Transect Walk World Bank Washington for DC.
10. Community Based Disaster Preparedness Training Guide PCDF.
11. Community Disaster Plan, Fiji Red Cross.
12. Child Centred DRR Toolkit 2010, Plan International.
13. Your Emergency Essentials, NZ Red Cross Redcross.org.nz.
14. Disaster Do Helper. Are you prepared Fiji Red Cross Society.
15. An Integrated Approach to Address Climate Change and Disaster Risk Management FRAMEWORK FOR RESILIENT DEVELOPMENT in the Pacific – 2007-2030.
16. Proposal Updated Terminology on Disaster Risk Reduction. A Technical Review Facilitated By United Nations Office for Disaster Risk Reduction, August 2015.
17. Community Based Disaster Risk Management Training Package, National Disaster Management Office, 2014.
18. School Disaster Risk, Reduction and Resilience Building. District Level Training for Fiji Handouts. AMU, MOE Fiji.
19. Fiji meteorological Service. List of Tropical Cyclones Affecting Fiji between 1969/1970 to 2012/2013 season. www.met.gov.fj Information Sheet 123, 2013.



Impact of climate change experienced in Ra.

ANNEXES

ANNEX 1. USEFUL MATERIALS AND REFERENCES

1. ADPC CBDRM Field Practitioner's Handbook

<https://www.adpc.net/igo/category/ID428/doc/2014-xCSf7I-ADPC-12handbk.pdf>

2. ADPC CBDRM for Local Authorities

https://www.unisdr.org/files/3366_3366CBDRMShesh.pdf

3. IFRC How to do a VCA

<https://www.ifrc.org/Global/Publications/disasters/vca/how-to-do-vca-en.pdf>

4. IFRC VCA Toolbox

<https://www.ifrc.org/Global/Publications/disasters/vca/vca-toolbox-en.pdf>

5. UNDRR Terminology

<https://www.undrr.org/terminology>

6. Introduction to Disaster Risk Reduction

https://www.preventionweb.net/files/26081_kp1concepdisasterrisk1.pdf

7. Fiji Climate Portal

<http://fijiclimatechangeportal.gov.fj/>

8. The Fiji Meteorological Service

<https://www.met.gov.fj/>

9. Pacific Climate Change Portal

<https://www.pacificclimatechange.net/country/fiji>

10. Intergovernmental Panel on Climate Change

<https://www.ipcc.ch/>

11. Evacuation Centre Standard Operation Procedure (available with NDMO)

12. Initial Damage Assessment Standard Operation Procedure (available with NDMO)

ANNEX 2.

PART 1. Sample Content of the Community Disaster Preparedness and Response Plan

- Cover Page
- Acknowledgement
- Community Profile
- Community map
- Disaster History
- List/Table of Hazards identified in the community
- Community Risk reduction Action Plan
- Community Disaster Response Arrangements
- Names and Contact of Community Committee

PART 2. Sample Content of Community Disaster Response Kit

1. Storage Container: 1
2. Safety Helmet: 10- 15 pieces
3. Reflector vests: 10- 15 pieces
4. First Aid Kit (Industrial)
5. Safety Glass: 10- 15 pieces
6. Large Hailer: 1
7. Water proof Torch: 3- 5
8. Transistor radio; battery operated: 1
9. Batteries (for hailer, torch and transistor radio (AM/ FM frequency))

(Source: Fiji Government's National Disaster Management Office)

ANNEX 3. SAMPLE COMMUNITY PROFILE QUESTIONNAIRE

Name of village:	District:	Province:	Division:
Location:			
Lat:			
Long:			

COMMUNITY DEMOGRAPHY							
Total number of households in the community							
Total number of families in the community							
Population Breakdown (include people living in the community but temporary away for a certain period of time for a particular purpose eg. studies)							
Age Groups	Males	Females	Others	People with Disability (use Washington Group of Questions)			Total
0-5 years							
6-17 years							
18-35 years							
36-65 years							
66 years & above							
TOTAL							

TYPES OF DISABILITY BY IMPAIREMENT	MALE	FEMALE	I TAUKEI	INDO - FIJIAN	PART EUROPEAN	OTHERS
Hearing Problem						
Psychosocial Disorder						
Vision Problem						
Physical Disability						
Intellectual Disability						
Acquired Brain						
Injury						
Autism Spectrum						
Disorder						
Others (Specify)						

Note: The table above is aligned to the Washington Group of Questions.

Ethnicity	I-Taukei	Fijian of Indian descent	Fijian of Rotuman descent	Fijian of Asian descent	Others Specify
Total Number					

List down the common water source in your community

Income. List the main source of income in the community.

Housing. List the types of houses in the community (i.e. Number (#) of traditional, lean-to (i.e. corrugated iron walls and roofing), wooden, wooden with cement base, cement/block house)?

Concrete	Wooden	Tin Structure	Bure	Other	TOTAL
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Toilets. List the types of toilets that exist in your community

Toilet Type	Flush	Pit	Water sealed	Others	
Total number					

Rubbish Disposal. Please indicate the types of rubbish disposal used in your community

Type of disposal	Rubbish Pit	Natural Compose	Soak Pit	Rubbish collection	Other
Total number					

Energy. List all sources of energy used for lighting in the community (ranking from most used to least used) (Eg. Electricity, Solar, Kerosene, Generator, etc)

List the communication technology the community have access to/uses? (Mobile, Internet, Television, Radio, Social Media (Facebook, etc)

How many committees are there and what are these?

What common modes of transportations that is used in the community?

Is there a regular transport service to and from the community to the nearest town/city/shopping centre?

[] Yes [] No

[] Sometimes [] Not Sure

List schools that the school age students from the community attend.			
School Type	Name of School	Distance (km) from the Community	Number of students from community attending.
Day Care			
Pre-school/ Kindergarten			
Primary School			
Secondary School			
Vocational			
Institution of higher education (Universities)			

Local Skills and Resources Assessment. Complete the following table with details of resources that could be called upon to facilitate the community response activities. Consider venues, items of equipment, supplies and ex-pertise.		
Skill/Resource	Provider contact details	Limits on availability / operation e.g. special license

Places of Safety. Complete the following table with details of any local amenities that could be used to accommodate residents requiring accommodation and care.			
Venue	Facilities	Key holder details / instructions for access	Limitation on use

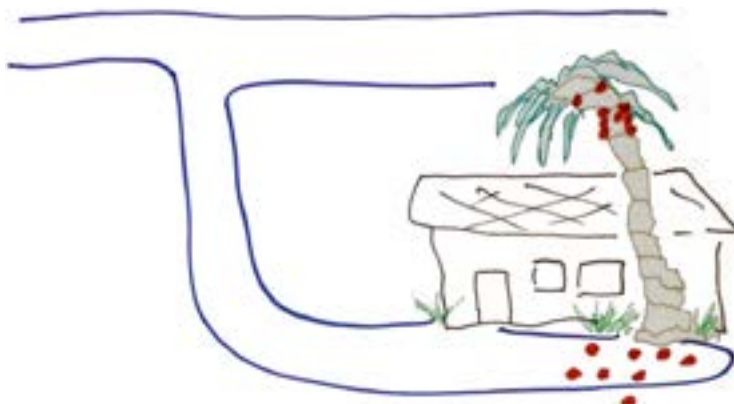
Access to Government Services. List the following services in/near your community		
Type of Service(s)	Name(s)	Estimated distance(km) or time taken from the community
Medical Services (Health Centre, Hospitals, Clinics, etc)		
Police Station/Police Post		
Banks		
Postal Office		
Government offices (district office, provincial office, agriculture of-fice, cooperative)		
Services for People With a Disability (please specify)		
Others (specify)		

ANNEX 4. COCONUT TREE EXERCISE

The Coconut Tree/Na Vuniniu

A Hazard-Risk Exercise

Jone has a coconut tree in the yard of his new home, he has become aware of a problem with the tree and wants to analyze the situation. The tree is located next to the parking area. He has prepared a drawing of the area to help him solve his problem.



As a result of his study, Jone has learned the following:

- The coconut tree bears fruit once a year.
- When the coconuts are ripe, they fall off the tree.
- The previous owner's car was damaged 2 times by falling coconuts.
- No one has been hit yet by a falling coconut, but some have fallen close to people.

HAZARD ASSESSMENT

- What is the hazard?
- When does it occur?
- Where is the affected area? (use the drawing)

Jone's three children like to play in the yard and when he parks the car, the passengers exit under the tree. Jone is worried that someone might get hurt from a falling coconut.

VULNERABILITY ASSESSMENT

- Who or what is vulnerable?
- When are they vulnerable?

Jone is thinking about doing something, remove the coconut tree? move his parking place? Restrict his children's playing area? Any other ideas?

RISK ANALYSIS

- What would you tell Jone the risk is?
- Would you advise him to accept the risk?
- Or advise him to do something to reduce the risk?

Jone has decided to reduce his risk and has asked you for advice.

WHAT CAN HE DO?

RISK REDUCTION MEASURES

- PREVENTION
- MITIGATION
- PREPAREDNESS

(Source: Adapted from PCDF, n.d. & OFDA et al, 2013)

ANNEX 5. SAMPLE COMMUNITY DISASTER PREPAREDNESS AND RESPONSE PLAN

POSITION (WHO)	ACTIONS (WHAT) Each level of ALERT must be activated by “Chairman” or nominated “Person Responsible” (Response arrangements)					CHAIN OF COMMAND
	PREPAREDNESS PHASE (BLUE)	ALERT PHASE (WHITE) Hazard event detected in the Region as a potential threat	WARNING PHASE (YELLOW) Hazard event poses an imminent threat within 24 hours before striking	RESPONSE PHASE (RED) Hazard event has struck and is in progress	RELIEF & RECOVERY (GREEN) Immediate after the Hazard event has passed	
Chairperson (TNK or DAC)	Identification of suitable ECs - Common areas - Washrooms, safe space, cooking areas - Water, power Inclusion/GESI and disability accessibility. Identification of security and health committee for ECs. Identification of hazard specific evacuation routes and safe areas for evacuation. Ensure all reporting templates are available and conduct awareness to designated people to conduct IDA. Ensure Emergency response kit is fully stocked and accessible Ensure all households have their household response plans Coordinate the conduct of simulation exercise, at least once in every 3 months	Initiate Early Warning System by the use of Davui/ hailers Call meeting of the CDMC Ensure everyone know what will happen and what to do – mindful people are not misinformed as they may panic	Coordinate evacuation of people – the most vulnerable to be given priority. Those most vulnerable are; elderly, pregnant mothers, children, and the disabled.	Ensure all people are in the evacuation centre – could use church buildings, classrooms, or other buildings as an evacuation centre	Coordinate Initial Damage Assessment (IDA) and liaise with PA-Ra	Reports to nearest District Office/ Provincial office/ Divisional Com- missioners Office/ DISMAC

Leader Men's Group	<p>Coordinate food security initiatives (planting of resilient crops)</p> <p>Identify weak structures and suitable mitigation measures (eg houses to tie down).</p> <p>Provide list of men to conduct IDA to TNK/DAC</p> <p>Provide updates to TNK/DAC on the level of preparedness every 3 months</p>	<p>Check houses for defects in fittings. Throw sandbags on top of roofs to strengthen them. Cut up tree branches. Put up shutters. Save boats. Re-divert gutters from water tanks</p>	<p>Help with evacuation of the most vulnerable.</p> <p>Check all doors to ensure they're locked from looting</p>	<p>Secure Emergency Centre or other buildings used for evacuation centre</p>	<p>Participate in Initial Damage Assessment as required by Assist with emergency shelter</p>	<p>Reports to Chairman CDMC/TNK/DAC</p>
Leader Women's Group	<p>Ensure Evacuation Centers are ready at all times (Basic amenities)</p> <p>Identify households/families that will need assistance during evacuation with focus on persons living with disability, elderly, single mothers, pregnant women and nursing mothers</p> <p>Provide updates to TNK/DAC on the level of preparedness every 3 months</p>	<p>Preparing of evacuation centre (cleaning, arrangements, food, water etc...)</p> <p>Prepare to mobilise teams to support welfare</p> <p>Care for Vulnerable groups.</p> <p>Advise their children about the event that's coming.</p> <p>Safe-keep all household items. Pack for family items and children play toys for evacuation if necessary.</p>	<p>Ensure clean drinking water and food is available for more than 96 hours.</p> <p>Ensure non-food items such as blankets, mat, etc are available for use in the evacuation centre.</p> <p>Ensure all family items ready for evacuation in necessary</p> <p>Ensure family space is enough for all members of her family at the evacuation centre.</p>	<p>Coordinate catering for evacuation centre</p> <p>Prioritise needs of lactating mothers and infants</p> <p>priority. Make sure the children are safe at all times.</p> <p>Make sure children are playing with their toys in the evacuation centre at all times during this period of disaster, and continue to assure them of their safety.</p>	<p>Ensure care for most vulnerable</p> <p>Managing of evacuation centre</p> <p>Check nearby gardens for available foods.</p> <p>Continue serving those in the evacuation centre till all clear is given.</p>	<p>Report to chairman of CDMC/TNK/DAC</p>

Leader Youth	<p>Ensure route to evacuation centers and evacuation areas are maintained at all times (route cleared, footpath, grass cut, signages etc.)</p> <p>Provide list for youth to conduct IDA TO TNK/DAC</p> <p>Provide updates to TNK/DAC on the level of preparedness every 3 months</p>	<p>Check garden and bring food to the EC</p> <p>Safe keep livestock to higher grounds, Fill containers of water at least 10 containers to 1 family</p> <p>Safe keep the boats to higher grounds, Help the men.</p>	<p>Help evacuate the most vulnerable.</p> <p>Assist with carrying of water to the evacuation centre</p> <p>Organise groups of Search & Rescue team ready and put under the supervision of Chairman.</p>	<p>Conduct Search And Rescue (SAR) Secure evacuation centre</p> <p>Assist women in catering for the evacuees at the ECs.</p>	<p>Assist with conduction of Initial Damage Assessment</p> <p>Relief assistance</p>	Report to chairman of CDMC/TNK/DAC
Community Health Worker	<p>Familiarization of filling of Evacuation Centers reporting template</p> <p>Conduct awareness for health committee and women group on roles and functions for the Evacuation Centers</p> <p>Identify pregnant women, elderly, sick persons and people living with disabilities that will need assistance during evacuation.</p> <p>Provide updates to TNK/DAC on the level of preparedness every 3 months</p>	<p>Ensure there are enough medicine and first aid kits in the FIRST-AID box.</p> <p>Advice Chairman to contact DO for pregnant mothers and sick people to be transport to the hospital for safety before the hazard event takes place</p>	<p>Ensure required medication is available at Evacuation Centre</p>	<p>Care for the sick and injured people</p>	<p>Referral of the most serious cases to hospital</p> <p>Communication link to NDMO</p>	Report to chairman of CDMC/TNK/DAC
Religious Leader	<p>Liaise with TNK/DAC for preparatory works for evacuation centers</p> <p>Provide updates to TNK/DAC on the level of preparedness every 3 months</p>	<p>Ensure Church building is ready to host the people</p>	<p>Secure church items when people use the building</p> <p>Present at evacuation centre at all times</p>	<p>Spiritual leadership, counselling for traumatized members</p>	<p>Liaise with Vakatawa</p>	Report to chairman of CDMC/TNK/DAC

Protection officers	<ul style="list-style-type: none"> - Identification of safe space in the evacuation centers - Provide updates to TNK/DAC on the level of preparedness every 3 months 	<p>Prepare village evacuation centres</p> <p>Liaise with village chief and chairman CDMC</p>	<p>Ensure evacuation centre is ready to cater the evacuees.</p> <p>Ready to show evacuees their spaces in the EC</p> <p>Do a head count of all evacuees.</p>	<p>Provide safety of evacuees at all time.</p> <p>Assist with children, elderly, others they may need assistance at EC</p>	<p>Continue to provide protection until all clear is given by the Chairman & Turaga ni Koro.</p> <p>Assist in returning the evacuees to their homes.</p>	<p>Report to chairman of CDMC/TNK/DAC</p>
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Community Disaster Preparedness and Response Plan *PCDF December 2021*

ANNEX 6. SAMPLE CLIMATE SMART CBDRM TRAINING PROGRAM

TIME	DAY 01	DAY 02	DAY 03	DAY 04	DAY 05
0830 - 0900	Registration Devotion Welcome/Opening	Devotion Recap Day 01	Devotion Recap Day 02	Devotion Recap Day 03	Devotion Recap Day 04
0900 - 0930	S1 Introduction [Facilitator/ Participants] Nanamaki Tree	S4 Hazard Terminology Coconut Tree Exercise (group work) Group presentation	S7 Household preparedness	S10 Initial Damage Assessment (IDA)	S13 Simula- tion Exercise Discussions
0930 - 1030	S1 Course Introduction - Logistics - Objective	S5 Transect walk	S7 Household preparedness	S10 Initial Damage Assessment (IDA)	S13 Table- top Exercise discussions
1030 - 1100	MORNING TEA BREAK				
1100 - 1200	S2 NDMO; DIS- MAC; NDMC; Community struc- ture (to cover the role of the NDMO and how this CB- DRM Training and its objectives are aligned to the Plan and Act)	S5 Transect walk	S8 DRRAP (to action hazard findings) To correspond with VDP	S11 EOC Management EC Management Protection Training	S13 SIMEX proper
1200 - 1300	S2 CDMC formulation - Roles & responsibilities - CDMC Directory	S5 Transect walk findings Hazard classi- fication (from transect walk findings) Community map presentation	S8 DRRAP (to action hazard findings) To correspond with VDP	S11 Continuation: EOC Management EC Management Protection Training	S13 SIMEX proper Simulation Exercise Debrief
1300 - 1400	LUNCH				
1400 - 1430	S3 Types of Disasters: Earthquake; Tsunami; Flood; Tropical Cyclone; Landslide; Drought	S6 Response ar- rangement matrix RA group work	S8 DRRAP (to action hazard findings) To correspond with VDP	S12 Waste Management (Recommend Rural Health Inspector be the resource personnel for S12)	- Certificate Presentation - Disaster Ready Kit Presentation
1430 - 1500	S3 Group presentations: - Disaster Timeline - Seasonal Calendar	S6 Continuation: Response ar- rangement matrix RA group work	S9 DRRAP Presentation	S12 Waste Management	S14 Final Evaluation
1500 - 1530	Evaluation	Evaluation	Evaluation	Evaluation	END OF TRAINING PROGRAM
	Closing Prayer End of day 01	Closing Prayer End of day 02	Closing Prayer End of day 03	Closing Prayer End of day 04	

ANNEX 7. LIST OF DISASTERS 1970 TO 2020

Year of Event	Name and Type of Disaster	Affected Pop.	No. of deaths	Estimated Damage USD \$
Oct 1970	Nora	Gale Force Wind affected Kia, Eastern Vitilevu, Rabi and Taveuni		
Dec 1970	Hurricane Priscilla	Gale Force Wind affected Yasawa, Mamanuca group, Vitilevu, Lomaiviti and Southern Lau		
Oct 1973	Hurricane Bebe	Whole of Fiji	12	\$20m
Feb 1973	Hurricane Henriette	Affected Eastern Vanualevu and Lau Group		
April 1973	Hurricane Juliette	No Major Impact		
Dec 1973	Hurricane Lottie	70 people killed, Two vessels sank, Makogai and Uluilakeba, affected Kadavu and Lau		
Feb 1974	Hurricane Pam	Gale Force wind affected Rotuma		
April 1974	Hurricane Tina	Gale Force Wind affected Eastern Vanualevu, Taveuni, Cikobia and Naitaba		
Jan 1975	Hurricane Val	Hurricane affected Lau, Kadavu and Vatulele- One death		
April 1975	Cyclone Betty	Affected parts of Fiji		
Nov 1977	Cyclone Steve	Affected Rotuma and Main islands of Fiji		
Dec 1977	Cyclone Anne	Northern and Central Lau Group		
Jan 1978	Cyclone Bob	Affected Rotuma, Yasawa and Vitilevu with no major impact		
Feb 1978	Cyclone Ernie	Affected Cikobia, Udu Point and Northern Taveuni		
Dec 1978	Cyclone Fay	Affected Rotuma, Vanua Levu and Lau – Major Flooding in Vanualevu and Taveuni.		
Mar 1979	Cyclone Meli	52 dead, 11 vessels lost, damaged, sunk or ran aground.		
Jan 1980	Cyclone Peni	Affected Western Division, Mamanuca		
Mar 1980	Cyclone Tia	4 dead, affected Lau, Savusavu.		
April 1980	Cyclone Wally	4 dead 2 missing major flooding and landslides		
Jan 1981	Cyclone Arthur	Considerable damage to infrastructure and communication by wind and flood.		
Jan 1982	Cyclone Hettie	Severe wind and flood in the Western division		
Feb 1983	Hurricane Henriette	Whole of Fiji	9	
March 1983	Hurricane Juliette	Affected Eastern Vanualevu and Lau group		
March 1984	Hurricane Lottie	Affected Western Division		
Jan 1985	Hurricane Pam	30000	30	39,712,636.00
March	Hurricane Tina	2000	7	\$27m
March	Hurricane Val	2000	3	\$3m
April 1986	Cyclone Betty	Not Specified	8	
December	Cyclone Steve	4000	1	14,000,000.00
March 1990	Cyclone Anne	0		\$26,200,000.00
November	Cyclone Bob			\$10,100,000.00
November	Cyclone Ernie	6000	0	\$18.5m
March 1992	Cyclone Fay		3	
December	Cyclone Meli	2000	1	\$1,600,000.00
Jan 93	Cyclone Peni	160000	26	\$100,000,000.00
Jan 93	Cyclone Tia	23		\$100,000,000.00
March 1994	Cyclone Wally			

1995	Cyclone Arthur	2000	25	\$18,300,000.00
May 1997	Cyclone Hettie	0	0	
September	Droughts			\$60,000,000.00
Jan 1999	TC Dani	1772	12	\$2,000,000.00
Jan 2000	TC Jo			
April 2000	TC Neil			
Dec 2000	Flooding		4	
Mar 2001	TC Paula			
May 2000-2001	(Manmade)	3		187,8567 (housing & flood relief)
Dec 2002	TC Zoe			
Jan 2003	TC Ami			
April 2007	TC Cliff			
Dec 2007	TC Daman			
Jan 2008	TC Gene			
Jan 2009	TC Mick			
March 2010	TC Thomas			\$83m
Dec 2012	TC Evans			
Dec 2016	TC Winston			
Mar 2018	TC Josie		4	
April 2018	TC Keni			
Dec 2018	TC Mona			
Apr 2020	TC Harold			

ANNEX 8. TRADITIONAL I-TAUKEI CALENDAR

Fijians in the old days were able to use sign and nature successfully instead of clocks, watches and calendar for example the time to plant, the time to harvest and the time to plant certain crops during the year. They followed their own calendar for the year which dictates to them the different activities and time they are supposed to be carried out.

The Fijian calendar is based on planting and fishing seasons. Unlike the ordinary calendar year which is divided into 12 months, the Fijian calendar is divided into 11 months.

The months are named for the different planting and fishing seasons.

The Fijian calendar year began in June/July and not in January as we have it today. *Vula* means moon and is also the Fijian word for month

Month	Traditional Fijian Month	Meaning
January	Vula Nuqa Levu	E vanua, sa lou na were, kasura na ivakada, tabu ni lakovi ni suasua de karaca na uvi. E levu tiko na vuata - matua na uto kei na vudi; via oti na maqo, ia sa dreu na dawa kei na wi; na ivi se qai se. Levu na isaluaki - se tiko ga na lagakali, bua, caucau, dreu na misimisi. Ya na lairo, vakabibi na lairo damu, me lai dere neke i wai-tui, tobotobo rawarawa ena bogi buto. Mai wai, e levu na nuqa kei na ki, katoa na kena ba. Gauna ni bulubulu (luveniqlio), rai na matadra ni vidi na sinu. Matua tiko ga na kuku, kolakola, kei na kaikoso. Yati na vivili, madrali, bosucu, tadruku. Momona na saravalivali. Ciri mai na drose (me laugunu) kei na salato (e dau veicorogi). Gaga vakalevu na ika ena kena vanua.
February	Vula I Sevu	Tu donu na iribuli - ni sa kala, sa matua na uvi. Keli na uvi taumada, sevu vakavanua. Tara na lololo (valevale). Se vula tiko ni vuata, dreu na wi kei na dawa, matua na ivi, yaca me koko se sikiviro.
March	Vula I Kelikeli	Tau bi na uca, na wainigasau. Lutu na yaseyase. Keli tiko na uvi, vakabibi na uvi balavu. Tei na kumala me vakalewe. Se qai se tiko na gasau, se bera na duruka. Matua na ivi, na vutu, e so na mataqali uto. Keli na qara ni kacau (lagio) me tavu. Era kumukumuni na dilio mera vakarau vuka. Sa tu tale na bicitoka (kawakawasā). Daba na mana, matua na kuka, qari. Drava na waitui, uro na ika, ca totolo.
April	Vula I Gasau	Tau tiko ga na uca, dua na uca bi na wainiduruka. E vanua, se keli na uvi, vakabibi na uvi balavu. Matua e so na mataqali uto, dreu na moli, bau kina na molikana. Cucula na vuata, kainaki ni cula na gasau. Matua na dilo, gauna ni veidilo. Veitauvi na cika. Era vuka na dilio mera lesu tale i nodra vanua. Lala na kai ni waidranu. Mai wai, se daba na mana, matua na qari, kuka. Drava tiko na waitui, levu ga na salala kei na tugadra (yātule).
May	Vula I Doi	Sa via oti mai na draki ca, lailai tale ga na namu kei na lago. Tau e dua na uca bi, na ivakabonaniduruka, se kina na duruka kei na vico. E vanua, se keli tiko na uvi, vakabibi na yabaki levu (uvi leka), tekivu na werewere, tei na uvi taumada. Dreu tiko ga na moli, oti na duruka. Caka na kailegaga me revereve - kakana ni yabaki. Se na senikau ni vula o Me - na vulaomē (makarita, senikālōni). Mai wai, drava tiko ga, levu ga na daniva, salala, sarā - gauna ni qoli lawa.

June	Vula I Werewere	E vanua, vula ni werewere, oti na kelikeli, tei tiko na uvi taumada. Matua na kawai, keli. Se tiko ga na duruka kei na vico. Uro na ugavule, bulubulu ena nuku me kua ni icoi ni kawai. Mai wai, qoli lawa - gauna ni daniva, sarā. Sa kune na tovuto.
July	Vula I Cukicuki	E vanua, tei tiko na uvi taumada, carubi na werewere kei na cukicuki. Keli na kumala. Tekivu sē e so na kau, mevaka na drala, vasili. Mai wai, sa gauna ni kuita, kune vakalevu na tavuto. Vakaluveni na kasala (kerakera), senikawakawa. Qolivi na daniva, ose, matu.
August	Vula I Senidrala Vula I Kawakawa	Vula draki veilecayaki. E vanua, tei na yabaki levu kei na kumala ni siganisucu. Keli na veiwa, tei. Se na drala kei na misimisi. Vua na tiri, matua na tarawau kei na ivi. Siki na kai ni waidranu. Mai wai, gauna ni kuita. Qolivi na vaya, matu. Vakaluveni na kasala (kerakera) kei na senikawakawa. Veibalati na vonu.
September	Vula I Vavakada	E vanua, tei tiko na yabaki levu, vakadataki na uvi sa kadre, ti sobu na lewena. Tei na dalo me iyavoi ni were. Tei oti ga na yabaki, tekivu na veitiqa. Tei na kawai. Levu na senikau - se na moli, maqo, drala, buaniviti, mokosoi, wadamu, sola na via. Votu na uto. Era yacoyaco tale mai na dilio kei na batikaciwa. Mai wai, vakaluveni tiko ga na kasala, kawakawa. Levu na yate ni veata. E so na vanua sa ta kina na balolo.
October	Vula I Balolo Lailai	E vanua, sa oti na tei uvi. Tei tiko na dalo, kawai, via. Matua mai na uto. Tubu na borosousou kei na cagolaya. Se tiko na buaniviti kei na mokosoi, vua na misimisi, sovusovu na tavola. Se tale ga na daiga (daga, dedega, marevo, kanikani, yabiasā). Era yaco mai vakalevu na dilio kei na batikaciwa. Vakadreti rawa na vale, ni voleka na vulaicagilaba. Tekivu na vati ba kei na tali wea. E so na vanua sa ta na balolo lailai.
November	Vula I Balolo Levu	Tau na uca ni talatalaci ni vulaisiga. E vanua, dolo tiko na uvi, vakadataki, tubu na kena icadrai. Matua na uto, maqo, kavika, dreu na vainaviu. Se na dawa kei na vutu, bobota na sinu. Dreu na misimisi. Qeu na lairo, momona na qari. Mai wai, sa tekivu na cocoka - levu na saqa, walu, ika lelevu. Toni na wea, sobu na ba, koko kina na ki, tovisi, voivoi, deu. Ta na balolo.
December	Vula I Nuqa Lailai	E vanua, bulabula tiko na were, keli na uvi taumada, vakabibi na vurai. Tei na vurai. Matua na uto. Dreu na maqo, kavika, dawa, vainaviu. Se na nuqanuqa, sinukakala, sekoula - senikau ni siganisucu. Dreu na misimisi. Mai baravi, se na sinu, sucu na bulubulu (luveniqio), kata na qio. Kata tale ga na namu. Sa ya na lairo me lai dere neke, vakabibi na lairo vula. Vakasucu na gogo (tokō), laukana na kena yaloka. Mai wai, toni na wea, koko ena ba na ki, nuqa, cucu, tanabe, cebe (kaikai). Vakaluveni na keteleka, saqa, walu, ika lelevu. E so na vanua sa ta tale kina na balolo.

Source: Kesa Vatanitawake. Tabna ni Vosa kei na i Tovo, I-Taukei Affairs.

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