

Facilitator Guide

Certificate I in Climate Change and Disaster Risk Reduction

Unit 1: CGHR0116

Demonstrate knowledge of hazard risks



Facilitator:

Organisation:

Date:

Before you get started...

Dear Facilitator,

This Facilitator Guide (together with the relevant Learner Guide) is aimed at facilitators/trainers who will be assisting learners wishing to complete the following unit standard:

Title:	Demonstrate knowledge of hazard risks		
VQA code:	CGHR0116	VQA Level: 1	Credits: 6

This guide contains all necessary instructions to ensure that learners will attain the expected competencies required by the above-mentioned unit standard. This guide is designed to be used during the presentation of learning sessions in this unit standard. Learners are advised to read the unit of competency outline in their own time.

Please discuss the unit of competency outline with the learners to ensure that they understand what they must do to achieve the required outcomes of this unit.

There are three guides, namely the Learner Guide, the Learner Workbook and the Facilitator Guide. These guides have been developed to address specific aspects of the learning experience. Each of the guides complements the others.

Make this an enjoyable learning experience!

Context of learning

Nowadays everyone is talking about climate change. A lot of information is available but is not always easy to obtain for people living in rural areas of Vanuatu. Some of us do not pay attention to the topic of climate change and some don't even believe that it is happening.

But we are all aware of natural hazards that destroy our lives and our property - cyclones, earthquakes, volcanic eruptions, long periods of drought, floods, landslides, fires, etc. When the effects of a natural hazard become so great that the community cannot handle them by itself, and needs help from outside, we call the hazard a “disaster”.

This is the first unit in a course of eleven units entitled “Climate Change and Disaster Risk Reduction”. The whole course will help us to understand more about climatic changes and disasters that have affected us in the past and at present, and are likely to affect us in the future. Many people say that we cannot do much about these changes and disasters, but this is not true. We can do a great deal to reduce the impacts of climate change and natural hazards, both as individuals and in our local communities, and to adapt to these changes in the future. In fact our communities already have a lot of traditional knowledge that can help in reducing the risks and adapting to change. You will learn more about this as we proceed through the course.

This first unit helps us to understand more about some of the natural hazards that we face in Vanuatu. It will also help us to start thinking about what kind of actions we can take to reduce their harmful effects.

You, as the facilitator, have the challenge to ensure that the learning materials can be applied to the learners' own context, in other words, to their own situations, their own communities and their own islands. As much as possible, you must help them to refer to local examples of everything that is in the course.

The contextualization of the learning material is a very important step in facilitating the learning experience. You must ensure that enough time and effort is put into this.

How to use this guide...

Throughout the guide information is given specifically aimed at you, the facilitator, to **assist** in the actual presentation of the learning material and/or facilitation of the learning process. Although this guide contains all the information required for attaining competency in this unit standard, references to additional resources, both printed and electronic, are provided for additional reference by the facilitator and further study by the learner.

Please note that the purpose of this information is merely to **guide** you, the facilitator, and is provided as a suggestion of possibilities. It remains the responsibility of every facilitator to re-assess the learner/s in each learning situation throughout the learning process in order to stay in touch with his or her specific learning needs. The needs of each learner must come first!

As you go through this guide, you will come across certain code words and boxes that will help you to facilitate learning more clearly. They are as follows:



Instructions regarding **activities**, whether to be done in a group or individually, will be provided in this type of box.



Facilitator's 'tip' to give you additional information or to help you and the learners with the answer.

My Notes...

(You can use this box for your own notes/comments.)

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What will you be facilitating, and how will you do it?

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The learning experience...

On completion of this unit, the learner will be able to:

- describe and give examples of common natural hazards found in Vanuatu;
- explain how and why a hazard can become a disaster;
- distinguish between hydro-meteorological, geological, biological, other natural and human-made hazards;
- take responsibility for the reduction of risks from disasters and climate change;
- identify hazard risks in a local community.

Before starting this unit, the learner is expected to have:

- some knowledge and experience of natural hazards in Vanuatu;
- first-hand knowledge of a local village or community;
- basic mapping skills - scale, direction, use of key, etc.;

In general, upon completion of a unit at Certificate I level, the learner will be able to:

- perform a defined range of routine activities, usually under supervision;
- demonstrate basic practical skills;
- apply thinking skills such as induction and evaluation;
- participate in a team or working group;
- communicate effectively and convey information and ideas.

My notes:

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Time frame


Section of Unit	Hours allocated for tutorials (theoretical learning)	Hours allocated for practical activities and personal study	Hours allocated for field work	Total hours
Orientation	1	1	-	2
Introduction to Learner Guide	3	-	-	3
Section 1	2	4	-	6
Section 2	2	2	-	4
Section 3	7	14	2	23
Section 4	2	6	2	10
Section 5	1	2	10	13
Preparation for test	-	2	-	2
Summative test	-	1	-	1
Whole unit	18	32	14	64

Facilitator's checklist

Use this checklist to ensure that you are properly prepared and have all the materials needed for the facilitation of successful learning:

Tick this box when you are ready

PREPARATION

Knowledge of the qualification	I have familiarized myself with the qualification that the learners are aiming to obtain	
Knowledge of the unit standard	I have familiarized myself with the required level of this unit standard	
Knowledge of the unit content	I have sufficient knowledge of the unit content to enable me to facilitate with ease	
Application	I have done enough preparation to be able to deliver the programme	
Contextualization	I am ready to include information that is specific to the local community and to Vanuatu	

ABILITY TO RESPOND TO LEARNERS' BACKGROUND AND EXPERIENCE

Understanding of learners	I know something about my learners' gender, age, background and experience and am ready to deliver the programme accordingly	
Enthusiasm and commitment	I am enthusiastic about this subject and am committed to creating an environment that motivates learning	

MATERIALS AND EQUIPMENT

Learner guides	One for each learner	
Learner workbook	One for each learner	
Facilitator guide	One	
Copy of <i>Learning about climate change the Pacific way</i>	One Visual Guide (set of "toolkit" pictures) One Teacher's Guide	
Writing materials	Notebook, pen, pencil and rubber for each learner	
Other materials	Clipboard for recording information during fieldwork	
Butcher paper	One roll. Alternatively, large sheets of flip chart paper.	
Whiteboard & pens	One whiteboard & set of coloured whiteboard markers	
Blackboard & chalk	One blackboard and coloured chalk	
Data projector	Optional. To be used for power point presentations	
Laptop	Optional. To be used for power point presentations and internet connection. USB flash drive useful.	
Internet connection	Desirable but not always possible	
Attendance register	One	
Course evaluation	One sheet for each learner (copied from Learner workbook)	
Portfolio of evidence	One portfolio holder for each learner	
Summative test	One copy for each learner	

Contextualization of content

At this stage, it will be useful for you to go through this Unit and think about the specific information and local examples that should be included in the learning.

Section	Specific examples from the local area, Vanuatu or the Pacific region
1	
2	
3	
4	
5	

Section 1 Identify the most common hazards found in Vanuatu

Learner

Guide:

Page 13

After completing this section, the learner should be able to:

- 1.1 give an actual example (date, name, location) of at least five disaster events in the local area or in Vanuatu;
- 1.2 for each hazard or disaster listed, explain some of its effects (long and short-term impacts);
- 1.3 describe the response to the event by individuals, communities and the government.

Concepts 1.1, 1.2 and 1.3	Time frame	Activities related to the concepts
Examples of 5 disaster events in the local area or Vanuatu	6 hours	Activities 1.1 & 1.2
Short-term and long-term effects of these disaster events		
Responses to these events by individuals, communities and the government		

Please allow learners to complete activities 1.1 and 1.2 in their workbooks:



Type of activity	Resources
1.1 Pair work	Learner guide
Instructions to give to the learners	
Activity 1.1: Study the information on the landslide and flooding in Puarante village, South Santo, then work with a friend to complete the table on page 3 of the Learner Workbook.	

1.2 Research work in small groups.	Learner guide, local knowledge and internet sources if available.
Instructions to give to the learners	
Activity 1.2: In small groups of 3-4 trainees, complete the table to show actual examples of five recent disaster events in the local area of other islands of Vanuatu. For each disaster, explain some of its immediate or short-term effects, as well as longer-term effects that lasted for several months or years. Comment on any preparations that were made before the disaster happened. Finally, indicate what happened after the event, and state any actions taken by individuals, communities or provincial/national governments to help people to recover.	



Activity 1.1

Type(s) of hazard	Date of disaster	Effects of the disaster	How people prepared for the disaster before it happened	What happened after the disaster?
Flooding Landslide	11 th March 2014	4 deaths 2 missing 6 injured Complete destruction of village – 19 houses, 1 Aid Post, 2 hot-air driers, 1 nakamal, all livestock.	1. Nine households responded to the call to evacuate the village 2. Four households did not respond and stayed in the village.	Team of officers from police, VMF, Save the Children, World Vision, Environment Unit and Sanma Province moved to the area to help locate and bury bodies.

Could the loss of life have been avoided? Probably yes, if everyone had followed the call to evacuate and move to higher ground.

Possible reasons why four households remained in the village:

- They did not believe that the flooding would be so severe, or that there would be a landslide.
- They wanted to look after their homes and their livestock.
- The mothers were worried about their children and did not want to go out into the stormy weather (strong wind and rain).

(Other answers are possible)



Activity 1.2

Carefully go over the instructions for this activity with your learners. They can choose any 5 disasters of which they have some first-hand knowledge. When dealing with the effects, explain the difference between “short-term” and “long-term”. Then say that the effects can be different for different groups of people, e.g. women, men, children, elderly, disabled, wealthy, poor. Explain that “infrastructures” refers to roads, buildings, bridges, wharves, etc. “Livelihoods” covers ways in which people make their living (e.g. gardening, fishing, taxi driving). “Environment” refers to natural ecosystems such as forests, bush, reefs, rivers, etc.

Here is an example of just one disaster:

Type of disaster	Date	Location	Effects of the disaster on people, infrastructures, livelihoods and the environment		How people prepared for the disaster before it happened	What actions were taken during and after the disaster?
			Short-term	Long-term		
Cyclone Uma	6 Feb. 1987	Efate	Deaths Injuries Destruction of homes Loss of 3 ships Destruction of trees No electricity 2 weeks No water 1 week No school 2 weeks	Reduction in tourism. No locally grown food for 3 months. People living in tents. Poor roads. Damaged offices.	Warnings on Radio Vanuatu. Some people moved to safe buildings	People moved to safe buildings. Relief supplies flown in and distributed

My notes:

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Section 2 Illustrate how a hazard can become a disaster

Learner

Guide:

Page 15

After completing this section, the learner should be able to:

- 2.1 define natural hazard, emergency, and disaster;
- 2.2 give examples to explain how a natural hazard can become a disaster.

Concepts 2.1 and 2.2	Time frame	Activities related to the concepts
Natural hazards, emergencies and disasters	4 hours	Activities 2.1 & 2.2
How a natural hazard becomes a disaster		
Three factors affecting the magnitude of a disaster		

Please allow learners to complete activities 2.1 and 2.2 in their workbooks:



Type of activity	Resources
2.1 Individual exercise	Learner guide
Instructions to give to the learners	
Activity 2.1: Write your own definitions of “natural hazard”, “emergency” and “disaster”.	

2.2 Individual exercise	Learner guide and own ideas
Instructions to give to the learners	
Activity 2.2: Explain in your own words how a natural hazard can become a disaster, with some actual examples. For example, why can we say that the natural hazard affecting Puarante village became a disaster? Why was cyclone Lusi a disaster for some islands in Vanuatu, but not for others?	



Activity 2.1

Encourage trainees to refer to the definitions in the Learner Guide (p. 17 and in the Glossary), then to write their own explanations of the three terms.

Activity 2.2

A natural hazard becomes a disaster when the community does not have enough resources to cope with the natural hazard that has arrived and needs help from outside agencies.

The flooding and landslides affecting Puarante village became a disaster because the villagers could not cope with the deaths and the loss of all their houses. Help came from the VMF, Luganville police, Sanma Province and some NGOs.

Cyclone Lusi was a disaster in those islands close to the cyclone track where people were more vulnerable because the strong winds and heavy rain destroyed their food gardens and their houses made of wood and thatch.

My notes:

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Section 3 Distinguish between different types of hazard

Learner

Guide:

Page 20

After completing this session, the learner should be able to:

- 3.1: state how hazards can be either natural or human-made;
- 3.2: define and give examples of hydro-meteorological hazards in Vanuatu;
- 3.3: define and give examples of geological hazards in Vanuatu;
- 3.4: define and give examples of biological and other natural hazards in the Pacific;
- 3.5: give some examples of human-made hazards in the Pacific.

Concepts		Time frame	Activities related to the concepts
3.1	Natural and human-made hazards	1 hour	3.1
3.2	Hydro-meteorological hazards in Vanuatu – river flooding, coastal flooding, coastal erosion, tropical cyclones, drought	6 hours	3.2a, 3.2b
3.3	Geological hazards along the Ring of Fire and in Vanuatu - volcanic eruptions, earthquakes, tsunamis	8 hours	3.3a, 3.3b, 3.3c
3.4	Biological hazards and other natural hazards	4 hours	3.4
3.5	Human-made hazards	4 hours	3.5
Total		23 hours	

First allow learners to complete activity 3.1 in their workbooks:



Type of activity	Resources
3.1 Paired discussion	Learner guide and own knowledge
Instructions to give to the learners	
Activity 3.1: Work in pairs to give two recent examples of human-made hazards or disasters from your local area or from another island in Vanuatu.	

**Activity 3.1**

You can ask the learners to think about examples of fires deliberately started in their village or island, or about accidents on the road, at sea, or in the air.

Now allow learners to complete activity 3.2a and 3.2b in their workbooks:



Type of activity	Resources
3.2a Completing a diagram	Learner guide
Instructions to give to the learners	
Answer the questions below the diagram for activity 3.2a	

Type of activity	Resources
3.2b Paired discussion about photos	Learner guide
Instructions to give to the learners	
1. For each of the photos, work in pairs to a) state the type of hydro-meteorological hazard shown; b) give an actual example; c) suggest reasons why the hazard has occurred. 2..State whether each statement is TRUE or FALSE	

**Activity 3.2a**

“P” means Precipitation, or rainfall. “ET” means Evapotranspiration, or water that evaporates from the ground and is given off by plants through transpiration.

Three results of the deforestation:

- Less evapotranspiration
- Greater run-off (“R”)
- Less underground flow (“U”)
- The river has more discharge, or a greater volume

Activity 3.2b

1. A - coastal erosion; B - drought; C - tropical cyclone; D - river flooding
2. a) F b) T c) T d) F e) T f) T g) F

My notes:

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Now allow learners to complete activity 3.3a, 3.3b and 3.3c in their workbooks:



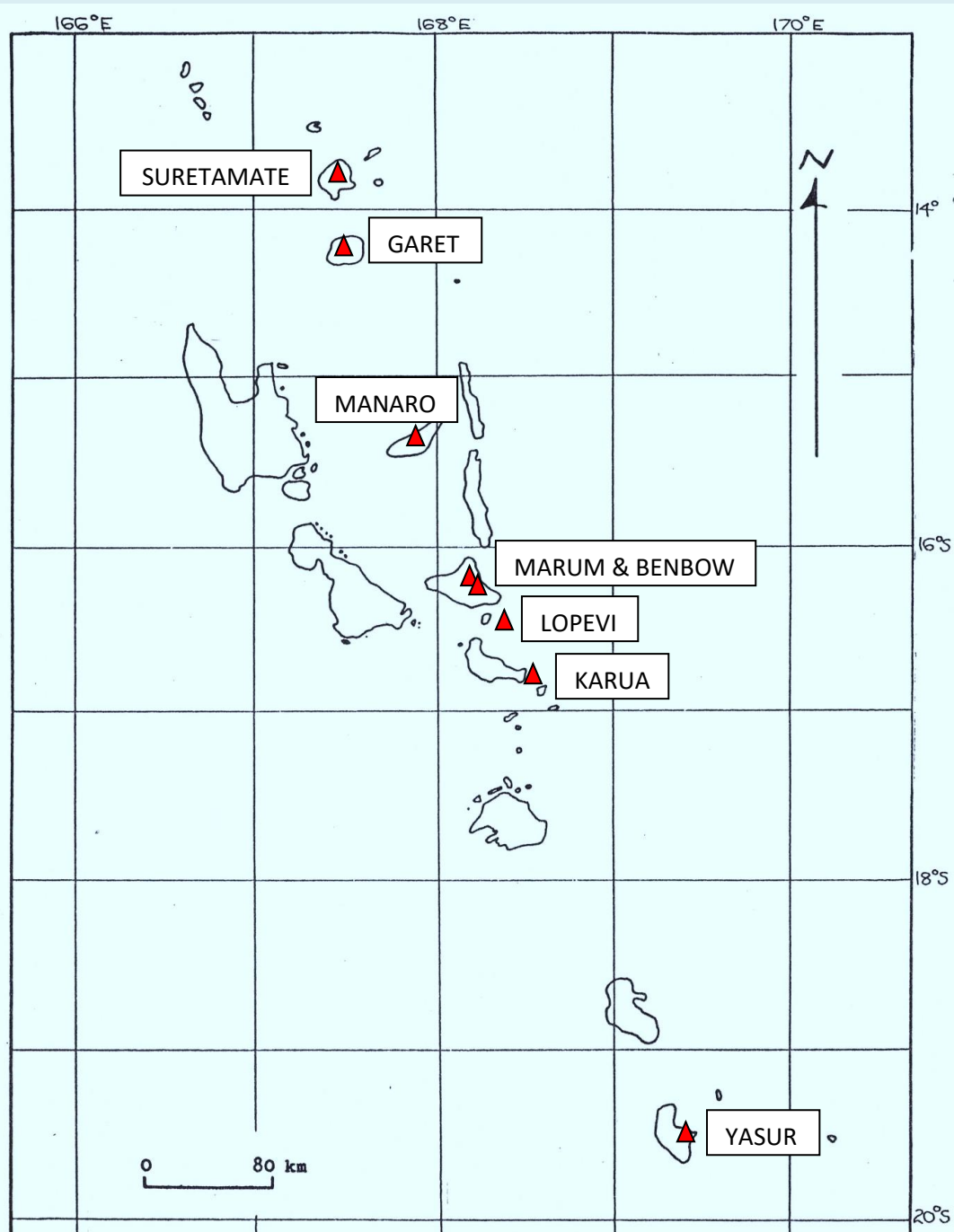
Type of activity	Resources
3.3a Mapping Vanuatu's active volcanoes	Learner guide, map of Vanuatu
Instructions to give to the learners	
On the map: a) print the names of all islands; b) name the following volcanoes: SURETAMATE, GARET, MANARO, MARUM, BENBOW, LOPEVI, KARUA, YASUR	

Type of activity	Resources
3.3b Questions on volcanoes about photos	Learner guide and own ideas
Instructions to give to the learners	
Answer questions 1,2,3,4 and 5 on volcanoes	

Type of activity	Resources
3.3c Paired discussion on earthquakes and tsunamis	Learner guide & own knowledge
Instructions to give to the learners	
Answer question 1 (True or False) and question 2 (examples and effects of earthquakes and volcanoes)	

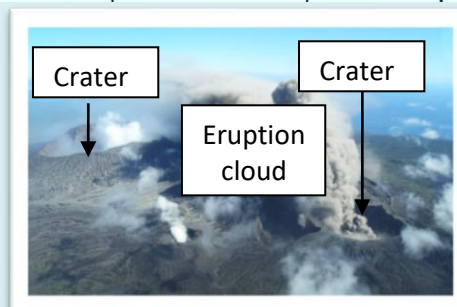


Activity 3.3a



Activity 3.3b

1. Craters and eruption cloud
2. Carbon dioxide, water vapour, sulphur dioxide
3. They are dangerous because of:
 - Poisonous gases
 - Lava of temperatures over 1000°C
 - Ash falls (spoiling gardens, etc.)



Pierce, C., 2014 (map) and VMGD, 2012 (photo)



Activity 3.3b continued

4.
 - a) kills garden crops, breaks roofs and walls, makes breathing difficult
 - b) kills garden crops, makes breathing dangerous and difficult
5. The hot gases and magma could cause an explosion when they interact with the water in the two lakes. Also, the water would combine with volcanic dust and magma to create dangerous mudflows that would run down the sides of the volcano very quickly and destroy everything in their path.

Activity 3.3c

1. a) F b) T c) F d) F e) F
2. Examples are those given in the photos.

Effects of earthquakes: loss of life, tsunamis, destruction of buildings, destruction of roads and bridges, landslides, liquefaction of sandy soils causing buildings and vehicles to sink, migration to safe areas, etc.

Effects of tsunamis: loss of life, destruction of buildings, destruction of roads and bridges, loss of income from tourism, migration of people to safe areas, etc.

Note: To help you give the learners a better understanding of some of these hazards, you can show them some of the large photographs given on pages 19 to 23 of this Facilitator's Guide.

My notes:

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Landslide along the river Tepwukoa, near Mele village, Efate, after the January 2002 earthquake



Department of Geology and Mines, 2002

Landslide along the Wharf Road, Port Vila, after the January 2002 earthquake



Tony Deamer, 2002

Village of Baie Martelli, South Pentecost, after the tsunami of 26th November 1999



American Geophysical Union, 2000

Tsunami waves affect the coastline of Miagi Province, Japan, in March 2011



Virtuasoft Corp., 2011

Liquefaction after the Christchurch earthquake of 22nd February 2011



Fairfax NZ / The Press, 2011

Ash fall on Gaua after the eruption of Mt Garet, 2005



VMGD, 2005

Crater lakes on Manaro, Ambae



Douglas Charley / VMGD, 2005

Now allow learners to complete activity 3.4 in their workbooks:



Type of activity	Resources
3.4 Fieldwork in pairs or groups of three	Learner guide, local community
Instructions to give to the learners	
Form small groups of two or three trainees. Then go out of your training institution and walk around your community. Complete the questionnaire given.	



Activity 3.4

Allow plenty of time for this activity. Make sure that the trainees leave the training institution and walk around a local community to record their observations.

My notes:

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Finally in this section, allow learners to complete activity 3.5 in their workbooks:



Type of activity	Resources
3.5 Paragraph writing	Learner guide, newspapers and magazines
Instructions to give to the learners	
Think about recent events described in the newspapers or on the radio, especially those that have taken place in Vanuatu or in the Pacific region. Then write a paragraph on each of the following. Each example should give names of real places, people or events:	
<ol style="list-style-type: none"> 1. An example of how a person or people can deliberately cause a hazard or disaster. 2. An example of how a disaster can be caused when someone makes a mistake. 3. An example of a disaster caused by the failure of a human-made system or infrastructure 	

**Activity 3.5**

Make sure you have some back copies of “Trading Post” or “The Independent” available, and encourage your trainees to listen to the radio.

Examples:

1. Burning down of the Vanuatu Court House on 27th June 2007.
2. Sinking of ferry in South Korea on 16th April 2014.
3. Crash of Air Vanuatu plane near Olpoi airport, West Santo, on 19th December 2008

My notes:

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Section 4 Identify community responsibility for reducing disaster risks

Learner

Guide:

Page 34

After completing this session, the learner should be able to:

- 4.1: explain the natural causes and human actions that may have led to some recent disaster events;**
- 4.2: explain how the reduction of disaster risks often depends on whether the hazards are slow-onset or fast-onset;**
- 4.3: explain the need for communities and individuals to take responsibility for trying to reduce disaster risks and increase community resilience.**

Concepts 4.1, 4.2 and 4.3	Time frame	Activities related to the concepts
Disasters are usually the result of both natural causes and human actions	10 hours	Activities 4.1a, 4.1b, 4.2 and 4.3
Fast-onset and slow-onset hazards and the reduction of disaster risks		
Our responsibility to try to reduce disaster risks and increase community resilience		

Please allow learners to complete activities 4.1a, 4.1b in their workbooks:



Type of activity	Resources
4.1a Individual research	Learner guide, local community
Instructions to give to the learners	
For each of the hazards shown in the table, find out whether or not they have been experienced in your community. If you tick “yes”, please indicate the date or year when the last one was experienced: earthquake, tsunami, tropical cyclone, flooding, drought, very high temperatures, coastal erosion, landslides, volcanic eruption, ash fall, acid rain, fire, outbreak of pests/diseases, pollution, other.	

Type of activity	Resources
4.1b Paired discussion and reporting	Learner guide, answers to 4.1, own ideas
Instructions to give to the learners	
Look back to your answers for 4.1a. For all the hazard events that you ticked, discuss with a friend the causes of each. Think of the natural causes and the human actions that led to the hazard or disaster. An example is provided for you.	



Activity 4.1b

- The information given on drought is only an example. If it is not relevant to the trainees’ own area or community, it can be disregarded.
- Most are caused by humans. For example, it is believed that the fire ant was brought from the Solomons to the Banks islands in Vanuatu on a mission boat carrying a cargo of timber. Mile-a-minute was introduced into Vanuatu by the US armed forces in World War II.
 - Heavy rain during cyclones and storms. Earthquakes. Yes, human actions can help to cause landslides, for example by clearing forest on steep slopes, or by building roads up mountain sides.

Now please allow learners to complete activity 4.2 in their workbooks:

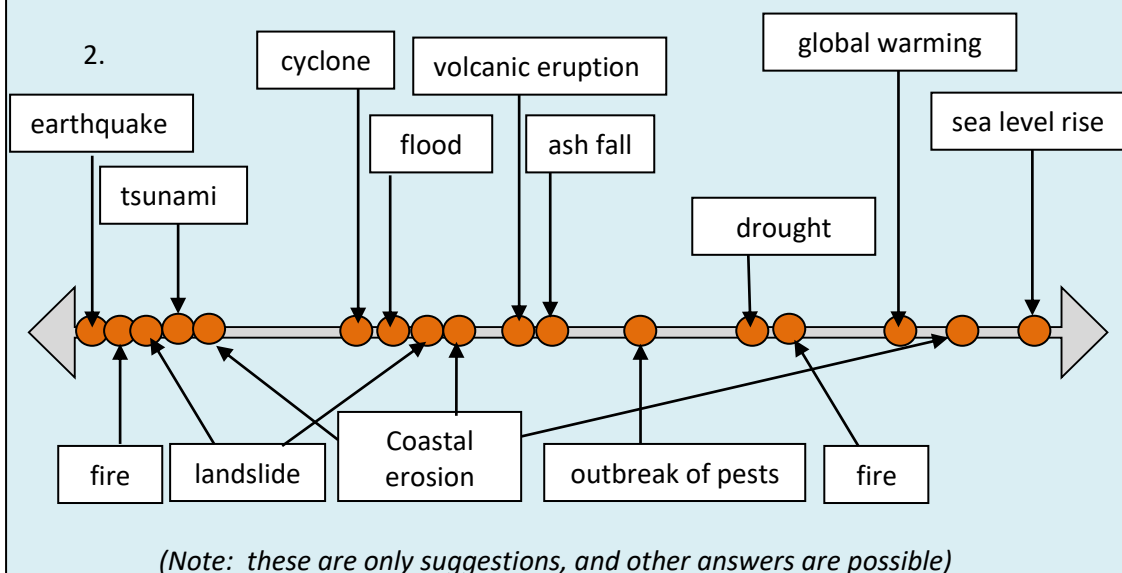


Type of activity	Resources
4.2 Short answers, including completion of a diagram	Learner guide, own ideas
Instructions to give to the learners	
Answer the three questions on fast-onset and slow-onset hazards provided in your Learner workbook.	



Activity 4.2

1. A fast-onset hazard arrives quickly, e.g. earthquake and tsunami (if the epicentre is very close). A slow-onset hazard may take several minutes, hours, days or years to arrive, and there is plenty of warning, e.g. cyclone, drought, increasing temperatures (global warming), sea level rise, fire.



My notes:

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Now please allow learners to complete activity 4.3 in their workbooks:



Type of activity	Resources
4.3 Prepared talk	Learner guide, own ideas
Instructions to give to the learners	
Read 4.3 again in your Learner Workbook. Then prepare a short talk (3-5 minutes) to explain why all of us need to take responsibility to try to reduce disaster risks and increase community resilience. Later on, present your talk in front of a group of people, either in your classroom or in the local community.	

Section 5 Identify hazard risks in a local community

**Learner
Guide:
Page 37**

After completing this session, the learner should be able to:

- 5.1: identify the areas in the community that are at risk from natural and human-made hazards;
- 5.2: explain the areas, assets and people in a local community that are at risk from natural and human-made hazards.

Concepts 5.1 and 5.2	Time frame	Activities related to the concepts
Map and description of a local community	13 hours	Activities 5.1 and 5.2
Areas, assets and people in the local community at risk from natural hazards		

Please allow learners to complete activities 5.1 and 5.2 in their workbooks:



Type of activity	Resources
5.1 Group work: Describing and mapping your local community	Learner guide, local community
Instructions to give to the learners	
<p>Form groups of 3-4 trainees, select a local village or neighbourhood, then carry out these tasks:</p> <ol style="list-style-type: none"> 1. Describe your selected community, using the questionnaire provided. 2. On a large sheet of butcher paper, draw a large map of your community, showing all its features, a key, a north point and an approximate scale. Use the two examples given in your Learner Guide and Learner Workbook to give you some ideas. 3. Complete a table to show existing and past hazards in the community. 4. On the map, show the areas that are at risk from different natural hazards such as tsunamis, floods, landslides, ash falls, earthquakes and cyclones. 	

Type of activity	Resources
5.2 Group work: Report on areas, assets and people in your selected community that are a risk from hazards and disasters	Answers to 5.1 and own ideas
Instructions to give to the learners	
<p>In your group, discuss your findings about the impacts of hazards and disasters in your chosen community. Then prepare and deliver a short report to your fellow trainees. Your report should cover the following aspects:</p> <ol style="list-style-type: none"> 1. Short description of your community. 2. Areas on the map that are at risk from different types of hazards, and why. 3. Community assets that are at risk (i.e. special buildings, areas or infrastructures; “tabu sites”, projects of economic significance, etc.) 4. People in your community who are especially at risk when a natural hazard arrives. Think about babies and children, nursing or pregnant mothers, elderly people, the disabled, poor people. 	



Activities 5.1 and 5.2

If possible, each group should survey a different village or neighbourhood. Remind groups that they should show steep slopes, gentle slopes and flat land on their maps.

Encourage each team to ask questions in the village to find out the people who would be most vulnerable during a hazard.

When you assess the trainees, you will be assessing each group as a whole on both 5.1 and 5.2.

My notes:

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Illustrations

Illustration and page number	Source
Map of Vanuatu (p. 17)	Pierce, C., 2014, <i>Map of Vanuatu showing active volcanoes</i>
Photo and captions (p. 17)	Vanuatu Meteorology and Geohazards Department (photo); Pierce, C., 2014 (captions)
Photo of landslide along R. Tepwukoa (p. 19)	Department of Geology and Mines, Government of Vanuatu, 2002, <i>Landslide along the river Tepwukoa, near Mele village, Efate, after the January 2002 earthquake.</i>
Photo of landslide on Wharf Road (p. 20)	Deamer, T., 2002, <i>Landslide along the Wharf Road, Port Vila, after the January 2002 earthquake.</i>
Photo of Baie Martelli (p. 21)	Caminade, P., Charlie, D., Kanoglu, U., Koshimura, S-I, Matsutomi, H., Moore, A., Ruscher, C., Synolakis, C., and Takahashi, T., <i>Vanuatu earthquake and tsunami cause much damage, few casualties</i> , Eos Trans. American Geophysical Union (AGU), 81(52), 641–647, doi:10.1029/EO081i052p00641-02), 2000, <i>Village of Baie Martelli, South Pentecost, after the tsunami of 26 November 1999</i> , accessed on 1 January 2015 at http://www.personal.kent.edu/~amoore5/Vanuatu_Eos.pdf
Photo of tsunami waves affect Miagi Province, Japan, March 2011 (p. 22)	Virtuasoft Corp, 2011, <i>Tsunami waves affect the coastline of Miagi Province, Japan, in March 2011</i> . Copyright © 2011-2015 SMS-Tsunami-Warning.com. Accessed on 8 January 2015 at http://www.sms-tsunami-warning.com/pages/tsunami-definition#.VKz7jCuUc_h
Photo of liquefaction after Christchurch earthquake (p. 23)	Fairfax Multimedia New Zealand Limited, 2011, <i>Liquefaction after the Christchurch earthquake of 22 February 2011</i> , accessed on 2 January 2015 at www.stuff.co.nz/%2Fnational/%2Fchristchurch-
Photo of ashfall on Gaua (p. 24)	Vanuatu Meteorology and Geohazards Department, 2005, <i>Ash fall on GAua after the eruption of Mt Garet, 2005.</i>
Photo of crater lakes on Manaro, Ambae (p. 24)	Douglas Charley / Department of Geology and Mines, 2005, <i>Crater lakes on Manaro, Ambae.</i>
Onset diagram (p. 29)	Pierce, C., 2014, <i>Completed diagram of fast- and slow-onsets.</i>

What will I do differently next time?

Take some time to **reflect** on your own activities as facilitator of this Unit Standard.

Then write down five of the most important lessons you have learned:

What will I do differently next time?
1.
2.
3.
4.
5.

As a facilitator, you have gained hands-on experience in the application of the Unit standard. You may have experienced difficulties that the developers did not anticipate.

So it will be very helpful if you could give your comments below. They will contribute towards the future revision of this Unit, and should be brought to the attention of the Training Manager of your institution.

Difficulties I had with this Unit	Recommended changes to address the difficulties
1.	
2.	
3.	
4.	
5.	