

Learner Workbook

Certificate I in Climate Change and Disaster Risk Reduction

Unit 8: CGHV0116

Demonstrate ways in which communities are vulnerable to hazards and climate change



Learner:

Facilitator:

Date:

Before we start...

This Learner Workbook is designed to accompany the Learner Guide for the unit of competency CGHV0116. It provides learner-centred activities and assessment tools to foster learning of key concepts and skills in this unit, which forms part of Certificate I in Climate Change and Disaster Risk Reduction. The competencies developed are in line with the key competencies promoted by VQA to foster greater empowerment and success in the work place. Additionally, a Facilitator Guide for this unit provides further background knowledge and teaching notes for facilitators, trainers and teachers.

This guide was designed to be used by a trained and accredited assessor who is registered to assess this specific unit standard as per the requirements of VQA. Prior to the delivery of the program the facilitator and assessor must familiarize themselves with the content of this Learner Workbook and the accompanying Learner Guide. The assessor, facilitator and learner must plan the assessment process together, in order to offer the learner the maximum support and the opportunity to display his/her competence.

This guide provides step-by-step instructions for the assessment process of:

Title: Demonstrate ways in which communities are vulnerable to hazards and climate change

VQA Code: CGHV0116

VQA Level: 2

Credits: 6

This unit standard is one of the building blocks in the qualification listed below:

Title	Code	VQA Level	Credits
Certificate 1 in Climate Change and Disaster Risk Reduction	1 & 2	46

Activity 1.1 – Instruction to learner:

Pair work: matching exercise

After you have discussed the questions on page 13 of your Learner Guide, and have studied the pictures on pages 14-16 of the Learner Guide, work in pairs to complete this matching exercise. The aim is to find ten reasons why Pacific island countries are so exposed to hazards, climate variability and climate change. Join the key words in List A with the explanations in List B.

LIST A

- RING OF FIRE** •
- WARM POOL OF WATER IN WESTERN PACIFIC** •
- EL NIÑO AND LA NIÑA** •
- ATOLLS AND LOW, FLAT ISLANDS** •
- MOST PEOPLE LIVE ALONG THE COAST** •
- HIGH MOUNTAINOUS ISLANDS IN MELANESIA** •
- LIVELIHOODS BASED ON AGRICULTURE, FISHERIES AND TOURISM** •
- FOOD** •
- SOME ISLANDS ARE VERY ISOLATED AND REMOTE** •
- RISE IN OCEAN TEMPERATURES AND OCEAN ACIDITY** •

LIST B

1. Mostly comes from ecosystems like forests, gardens and reefs, which are exposed to hydro-meteorological and biological hazards.
2. These islands may suffer from drought and lack of fresh water, and are easily affected by rising sea levels and coastal erosion.
3. Therefore the population and infrastructures are exposed to cyclones, tsunamis, flooding, coastal erosion and rising sea levels.
4. When disasters occur, it may take a long time for help to arrive.
5. In the Western Pacific, they cause a long period of drought, which is later followed by months of heavy rain.
6. Will affect fisheries and cause degradation of reefs.
7. These islands can receive heavy rain and are exposed to flooding and landslides.
8. Many communities depend on the resources in their environment to make a living, and these resources can be affected by hazards and climate change.
9. The warm ocean provides ideal conditions for cyclones to develop.
10. Because of this, islands in the Western Pacific suffer from earthquakes, volcanic eruptions and tsunamis

Activity 1.2 – Instruction to learner:

Discussion in pairs:

In pairs, discuss these three questions. Then report back to your group:

1. Pacific islands are exposed to hydro-meteorological hazards (cyclones, storms, storm surges, droughts, bush fires, floods, landslides, erosion) and to biological hazards such as outbreaks of pests and diseases. Do you think that climate change is going make these hazards worse and more frequent? Why do you say this?

2. Look at this photograph (Fig. 1), which was taken in Kiribati. Imagine that you are in a similar situation, and your living conditions are being affected by rising sea levels. What kind of problems will you face in your daily life?

Fig. 1



Office of the President, Kiribati, 2013

(Answer to Activity 1.2 # 2 on page 4)

3. Now study this photograph (Fig. 2), which shows a village in the Maskeleyne Islands in the south-east part of Malakula, Vanuatu. Why is this village exposed to hazards and climate change? Suggest five reasons.

Fig. 2



Pierce, C., 1979

- a) _____
b) _____
c) _____
d) _____
e) _____

Activity 2.1 – Instruction to learner:

Power walk and discussion

In this activity, follow these steps:

1. All learners in your group should stand behind a line drawn on the floor of the classroom or in an open space outside the building. All of you face in the same direction and stand shoulder to shoulder.
2. Your facilitator will ask you to pick one piece of paper from a box. This paper will tell you who you are in the community - a subsistence farmer, a single mother, a chief, a blind person, etc. Do not tell anyone what your role is. Remember that your role tells you the resources available to you, how much you can contribute to decision-making in the community, and how vulnerable you are when a disaster arrives.
3. The facilitator will now read out a statement. For example, he/she may say this:

"I have land rights on three plots of ground near to my village. I can use this land for growing food crops for my family or for producing cash crops like kava and copra."
4. This statement might be true for you in the role you are playing in the community. If so, you would say "YES" to the statement and take one step forward. But the statement might not fit the role you are playing in the community. If this is the case, you would say "NO" to the statement and take one step backwards.
5. The facilitator will now read out more statements. As each one is read out, take one step forward if it is true for you, and one step backwards if it is not true for you.
6. After the last statement is read out, look at how far you have moved from the starting point. Now you can reveal your identity to the other learners.
7. At the end of the activity, discuss what you have learnt with your fellow trainees and your facilitator.
8. Write down some of your learning in the box on the next page:

My learning from the power walk

Who ended up in front?

What assets did they have?

Did this make them more resilient?

Who was at the back?

Why?

Does this mean that they are more vulnerable?

What else did you learn?

Activity 2.2 – Instruction to learner:

Definitions

Write your own simple definitions of the following terms, in words that you can understand:

Vulnerability: _____

Resilience: _____

Activity 2.3 – Instruction to learner:

Pair work - discussion and reporting

Read again through pages 21 to 23 of your Learner Guide. Then form pairs and discuss these questions. Write down your views, then share them with another pair of learners and see whether you agree with them.

1. Suggest **two** reasons why women are more vulnerable than men to the negative effects of hazards and climate change:

a) _____

b) _____

2. Suggest **one** way in which women’s roles help a community to strengthen its resilience to the effects of hazards and climate change:

3. Are there any ways in which men are more vulnerable than women to the effects of hazards and climate change?

4. Why are elderly people so vulnerable to natural hazards and to climate change?

5. Why are some elderly people more resilient than younger people to hazards and climate change?

6. Do you think that formal education can help to make people more resilient to climate change? Why?

7. In your community, are there any people who have traditional knowledge about weather, agriculture, fishing and forestry? Does this make them more resilient to the effects of natural hazards and climate change?

8. Does a person's wealth make them more resilient to natural hazards and climate change? Why/why not?

9. Why are babies and small children vulnerable to hazards and climate change?

10. Why are sick people and people living with disabilities vulnerable to natural hazards?

11. Can you think of any other people in the community who are especially at risk from hazards and future climate change? Why is this?

12. Do you think that people can control their own vulnerability to hazards and climate change? Are there any ways in which they can make themselves more resilient?

13. Do you think that everybody in this picture (Fig. 3) is equally vulnerable to future climate change? Explain your answer:

Fig. 3



SPC & GIZ CCCPIR, 2013

Activity 2.4a – Instruction to learner:

Matching exercise

Draw lines to match the assets in the boxes on the left with the correct asset (or dimension) of sustainable living shown on the right.

Fig. 4

housing, shelter, infrastructure, transport, buildings, water supply, energy supply, sanitation, communications	NATURAL
health, education, skills, awareness of hazards and climate change, knowledge, ability to work, coping with disabilities	PHYSICAL
cash, pigs, other livestock, mats, bank deposits, credit, jewellery, remittances, food crops	SOCIAL
service to others, relationships, leadership, work, status, institutions, religion, tradition, customs, membership of groups, extended family	FINANCIAL
ecosystems, biodiversity, atmosphere, trees, plants, sea, reefs, fish, land, water, minerals, wildlife, soil	HUMAN

Activity 2.4b – Instruction to learner:

Pair work

Form pairs. Each pair should choose **one** asset from **each** of the five dimensions of sustainable living. For example, a pair might choose: water supply (PHYSICAL), coping with disabilities (HUMAN), wildlife (NATURAL), bank deposits (FINANCIAL) and relationships (SOCIAL).

For each of your chosen assets, say how it will help you to be more resilient to hazards and climate change. For example, if you have good relationships with others in your community (SOCIAL), you will be more ready to help each other, give each other food, repair each other's house, etc., after a disaster.

NATURAL DIMENSION (Name of asset: _____)

PHYSICAL DIMENSION (Name of asset: _____)

HUMAN DIMENSION (Name of asset: _____)

SOCIAL DIMENSION (Name of asset: _____)

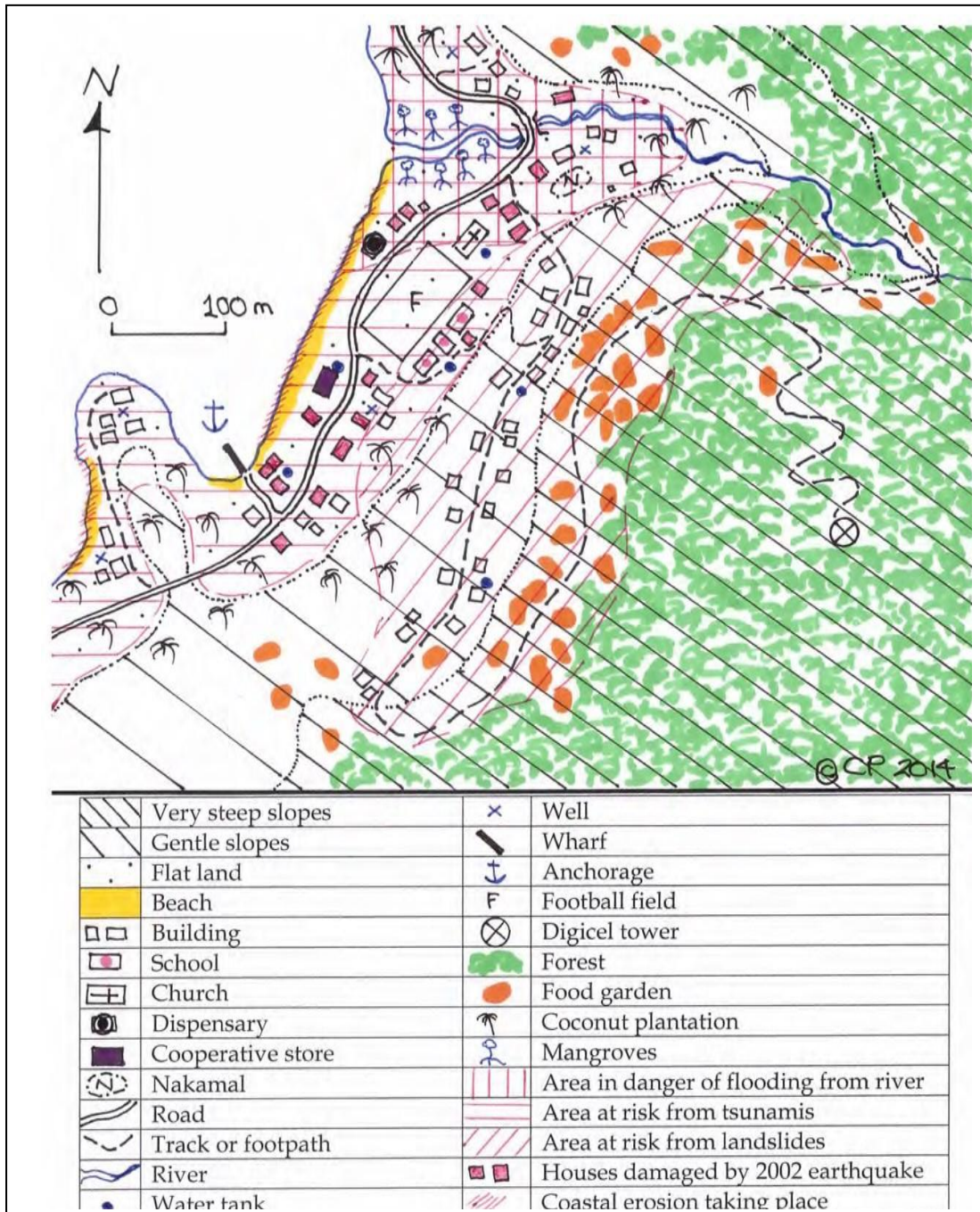
FINANCIAL DIMENSION (Name of asset: _____)

Activity 2.5 – Instruction to learner:

Individual exercise - answers to discussion questions

After discussing the questions on the map of Pinat (Fig. 5) with your facilitator and your fellow learners, please record your answers in the spaces on the next page:

Fig. 5



1. List all the community assets of Pinat in this box:

2. How many buildings in Pinat are at risk from flooding from the river? _____

3. Which part of Pinat is at risk from tsunamis? _____

4. How many buildings in Pinat are in danger of damage from landslides? _____

5. Why do you think that landslides can occur in that area? _____

6. How many metres of the shoreline are at risk of coastal erosion? _____

7. Which community assets could be at risk if sea level rises? _____

8. Which community assets could be damaged by a tsunami ? _____

9. Which community assets could be damaged by river flooding? _____

10. Which sector of Pinat is most at risk? Why do you say this? _____

11. Which hazards are likely to affect the community's water supplies? _____

12. How do you think that a severe cyclone would impact on this community? Where should people go to shelter from the cyclone? _____

13. Do you think this community is vulnerable to future climate change? Why do you say this? _____

14. What recommendations would you make to the chief of Pinat for making his village more resilient to hazards and future climate change? _____

Activity 2.6 – Instruction to learner:

Group discussion and presentation

Form small groups of 3-4 trainees. In your group, discuss the following:

1. What are **four** reasons why some rural communities in Vanuatu are more resilient to hazards and climate change than others?
 - a) _____
 - b) _____
 - c) _____
 - d) _____

2. Think about a recent emergency or disaster event on your island.
 - a) What was this emergency or disaster? _____
 - b) When did it happen? _____
 - c) Did some communities on your island suffer more than others from this disaster?

 - d) What was the name of one community or village that suffered a lot from the disaster? _____
 - e) Can you name one community or village that did not suffer much from the disaster? _____
 - f) Why did the community you named in d) suffer more than the community you named in e)? Suggest some reasons, thinking of its location and its assets.

Now present your findings to the rest of your class. You could draw a sketch map on a large piece of paper to show the location of the disaster and the villages you have mentioned.

Activity 3.1 – Instruction to learner:

Individual exercise:

1. Complete this diagram (Fig. 6) to show the relationship between exposure, vulnerability, resilience and impacts:

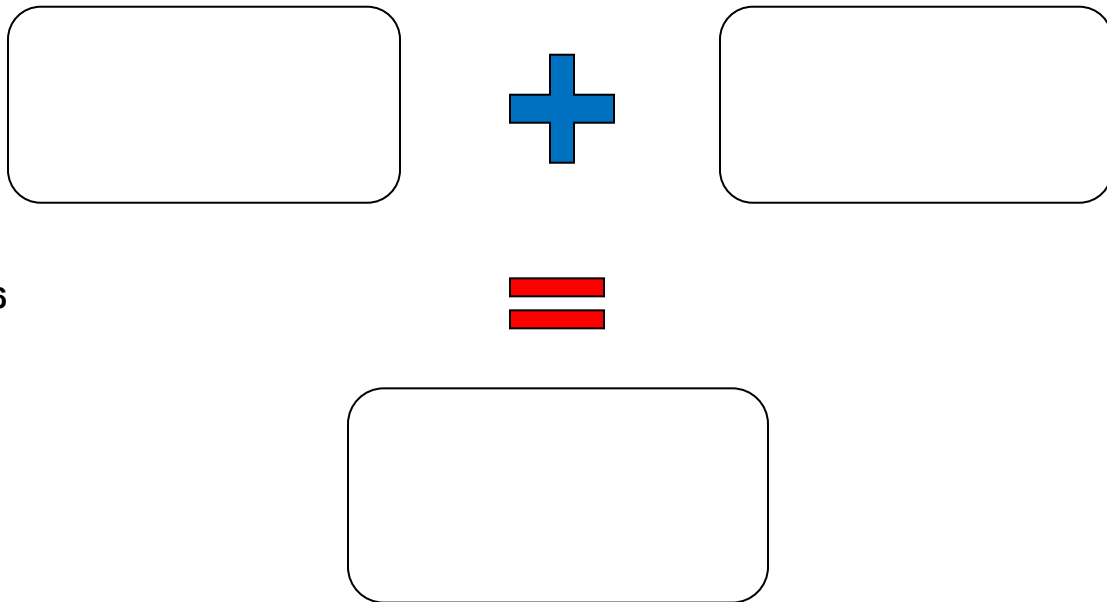


Fig. 6

2. Now explain in your own words what the diagram means:

3. What are **impacts**? Give one example:

Activity 3.2 – Instruction to learner:

Pair work: questions on physical impacts

Form pairs. Discuss each of the following questions and write down your answers.

1. Why do people living in river valleys sometimes suffer from flooding?

2. Give **four** reasons why people living close to the shoreline can be affected by coastal erosion:

- a) _____
- b) _____
- c) _____
- d) _____

3. Suggest **five** steps that people can take in order to become more resilient to flooding and erosion:

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____

4. What are **two** NATURAL causes of landslides in Vanuatu?

- a) _____
- b) _____

5. How can we become more resilient to the risk of landslides? Suggest **two** strategies:

- a) _____
- b) _____

6. Why is climate change likely to bring greater risks of flooding, erosion and landslides in Vanuatu? _____

Activity 3.3a – Instruction to learner:

Definitions:

For each of these terms, explain its meaning and give an example:

Term	Definition	Example
Ecosystem		
Terrestrial ecosystem		
Marine ecosystem		
Negative impact		
Positive or beneficial impact		
Biophysical impact		
Socio-economic impact		
Food security		
Sustainable development		

Activity 3.3b – Instruction to learner:

Pair activity - True or False

In pairs, read again pages 37-38 of your Learner Guide, then state whether these statements are TRUE or FALSE:

1. A coral reef is a terrestrial ecosystem. _____
2. Climate change is likely to reduce biodiversity. _____
3. Extreme weather events can cause birds to migrate to other areas. _____
4. Heat stress may cause some native species of plant and animal to die. _____
5. Warmer ocean waters may upset the balance of marine ecosystems. _____
6. Tsunamis are the only hazards that destroy coral reefs. _____
7. Plastic bags in the sea can damage marine ecosystems. _____
8. Bush fires and cyclones have negative long-term effects on plants. _____
9. Village people are dependent on natural ecosystems for their food, their building materials and for items important in traditional culture. _____
10. People in urban areas are not going to be affected by climate change. _____

Activity 3.4 – Instruction to learner:

Short answer questions

1. State **two** ways in which earthquakes and volcanic eruptions can affect a community's supplies of fresh water and cause risks to health.
 - a) _____

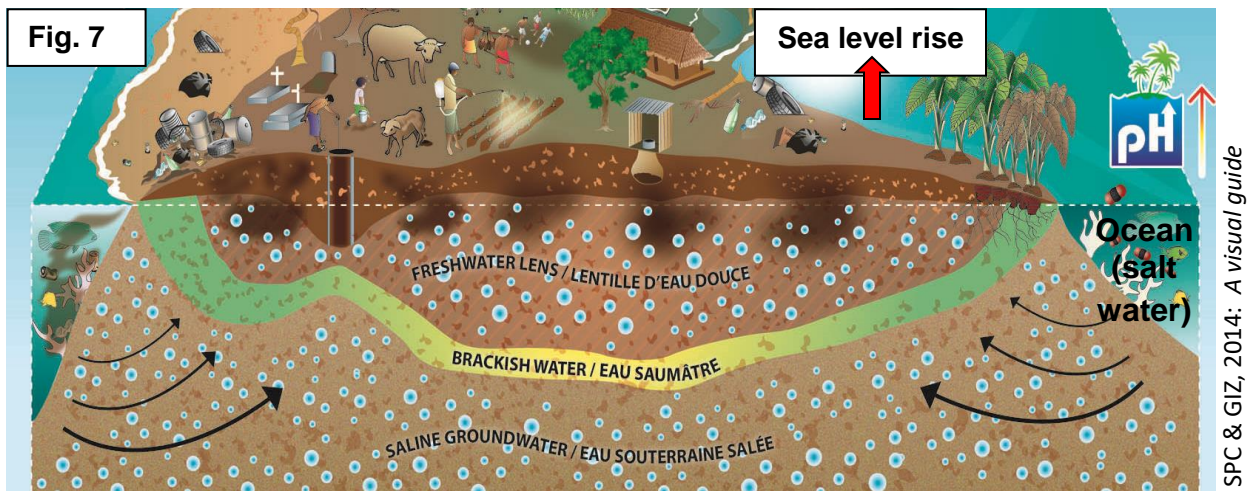
 - b) _____

2. How do extreme rainfall events and floods affect wells and other sources of fresh water? Can anything be done to reduce the impact of extreme rainfall events?

3. State **two** ways in which piped water supplies can get damaged by natural hazards:

- a) _____
- _____
- b) _____
- _____

4. Study this diagram (Fig. 7), which shows a cross section through a little island made of limestone (dead coral). The black arrows show how sea water moves into the little spaces in the limestone and fills them up with saline ground water. When it rains, the rain water drains downwards until it meets the saline ground water, and then rests on top of this in what is called a **freshwater lens**. Where the freshwater meets the salt water is a zone of brackish water. People obtain their fresh water from a well dug down to the level of the fresh water lens.



In what ways are the village people already having an impact on the fresh water resources of this island? _____

What extra difficulties will occur as climate change causes a rise in sea level and affects the freshwater lens? _____

5. Give an actual example from your local area of how a natural hazard has had a negative impact on fresh water resources: _____

Activity 3.5 – Instruction to learner:

Pair work - short answer questions

In pairs, read pages 40-43 in your Learner Guide, then answer these questions:

1. How is climate change going to affect the health of forests?

2. How are cattle, goats and pigs going to be affected by longer periods of drought and warmer temperatures? _____

3. Describe **three** ways in which climate change can have negative impacts on food gardens:

a) _____

b) _____

c) _____

4. What kind of hazards - both natural and those caused by humans - can cause severe damage to coastal fishing grounds?

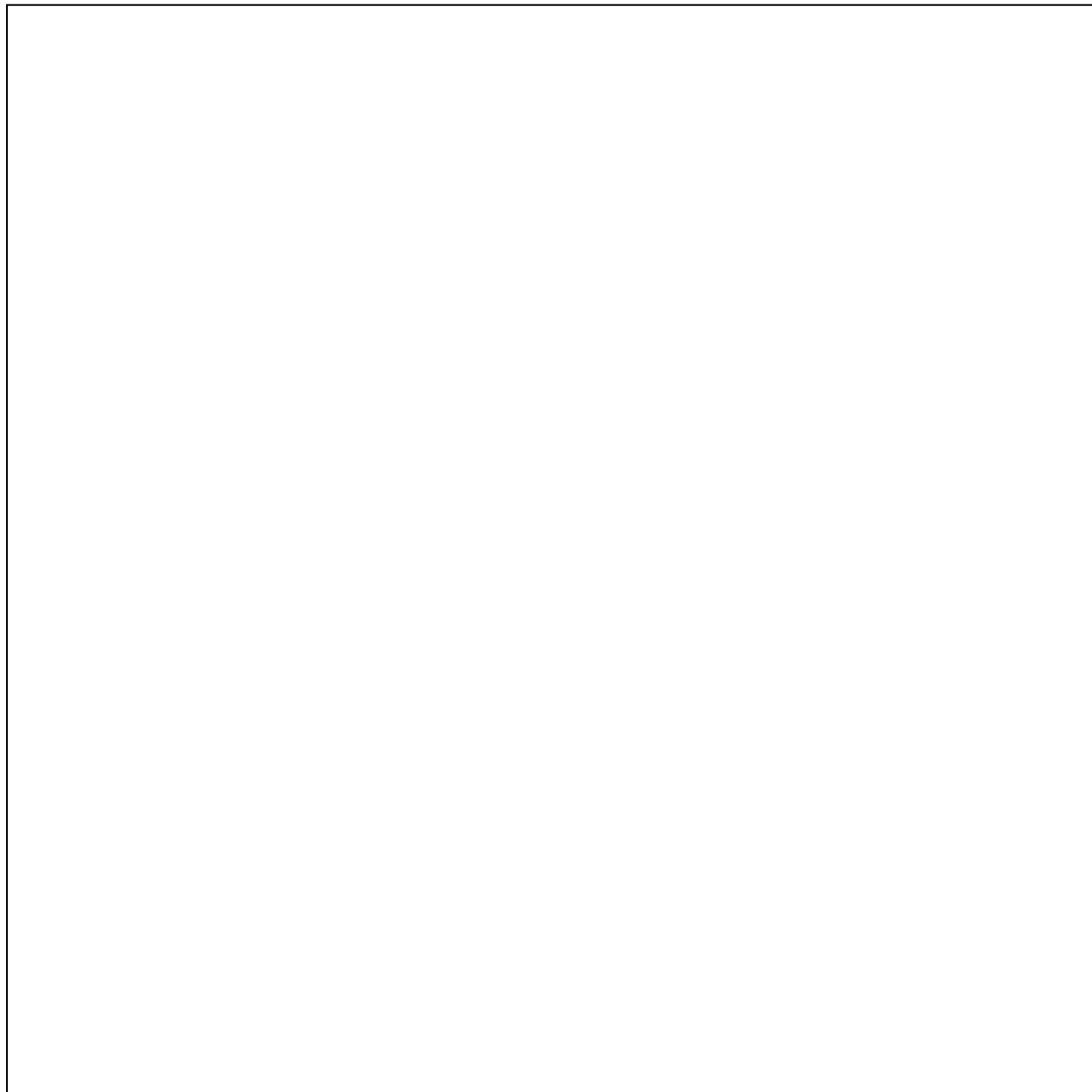
5. State **three** ways in which tourism can be affected by hazards and climate change:

a) _____
b) _____
c) _____

Activity 3.6 – Instruction to learner:

Drawing a picture:

In the box below, draw a picture of a building or an infrastructure that you think would have some resilience to risks brought by hazards and climate change. Label the features that would reduce the negative impacts of hazards and climate change. You can draw a real or an imaginary structure.



Activity 3.7 – Instruction to learner:

Pair work – short answer questions

1. Why do you think that the floods in China during 1831 resulted in so many deaths?

2. In what ways could people get injured or lose their lives during a severe cyclone?

3. In addition to death and injuries, state **five** other ways in which emergency and disaster events can affect people’s health:

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____

4. Give an example of **one** way in which climate change is likely to have a negative effect on people’s health:

5. Give an example of **one** way in which climate change is likely to have a negative effect on children’s education:

6. Can you suggest any strategies that might be adopted to reduce the negative impacts of hazards and climate change on people’s health and education?

Activity 3.8a – Instruction to learner:

Report on class discussion

After discussing the questions on page 48 of your Learner Guide, write down your own views about each of the following:

1. Do you think that hazards affect people’s ability to work? Give an example.

2. Does family life suffer if people are forced to leave their homes after a disaster? Give an example. _____

3. Will climate change cause more people to move to Port Vila and Luganville in the future? Why? _____

4. What is going to happen to sacred sites and burial grounds on the coasts of your island in the future? Why? _____

5. How will traditional knowledge and cultural practices be affected by climate change in the future? _____

6. Do you think that climate change will lead to greater conflict between people? Why or why not? _____

7. Give an example of how climate change might benefit people in the future:

Activity 3.8b – Instruction to learner:

Class discussion on a picture:

Each learner should study this picture (Fig. 8), which shows a small village on the remote island of Mota in the Banks Islands. Then please answer the questions below:

Fig. 8



Pierce, C., 2013

Think about how people live in this village.

- How do they meet their needs for food, water and shelter?
- How do they meet their social and spiritual needs?
- How will a severe cyclone affect these needs and make life difficult?
- How do you think that climate change could affect their way of life in the future?
- What steps might people take to become more resilient to the effects of hazards and climate change?

Now discuss your ideas with other learners in your group, and write down some of your thoughts:

(Answer to question in Activity 3.8b continued)

Activity 3.9 – Instruction to learner:

“Carousel” activity on examples of the impacts of hazards and climate change in Vanuatu

You are going to work in groups to find some examples of the impacts you studied in Section 3. Each group will concentrate on just one or two of the different impacts, then present its findings to the whole class.

You can do your research in several ways. You can read pages 35 to 50 of your Learner Guide again, and think of some examples of each kind of impact from your own island or from another island in Vanuatu. You can consult newspapers. You can go and interview people in your community about what they remember about various hazards that have affected them.

The class should divide into four groups, with four learners in each. Each group should select **one** of the following topics:

1. Examples of impacts of hazards and climate change on the natural landscape and on terrestrial and marine ecosystems.
2. Examples of impacts of hazards and climate change on livelihoods and economic activities.
3. Examples of impacts of hazards and climate change on fresh water resources, buildings and infrastructures
4. Examples of impacts of hazards and climate change on human life, health, education, and other human dimensions

After choosing the topic, the group should prepare a large poster with pictures and information about each topic, and each member of the group should practice talking about the poster. Remember that you must find actual examples from your own community, your own island or from other places in Vanuatu.

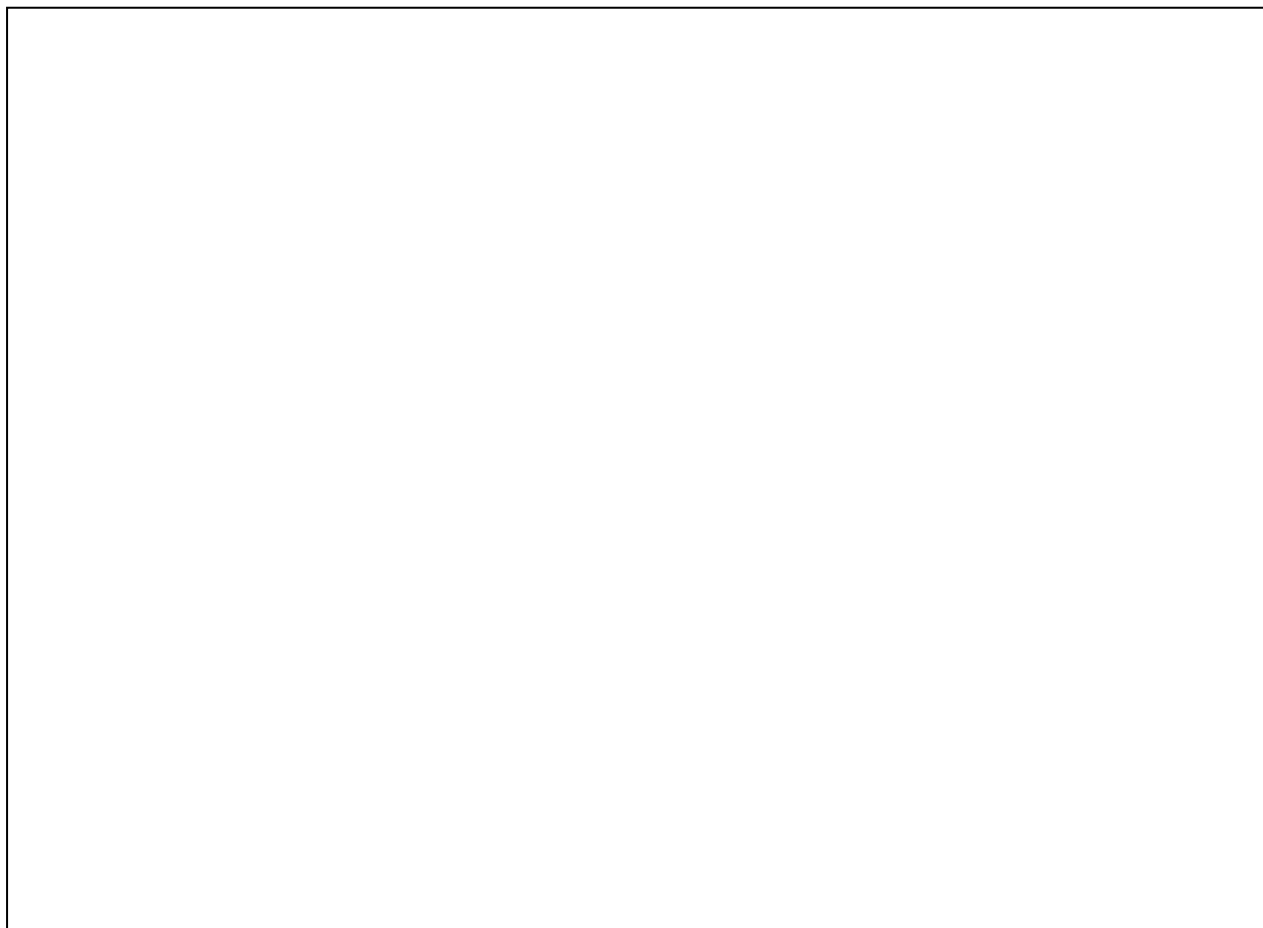
When groups are ready, they pin up their posters on the classroom wall and each group stands in front of its poster. The members of each group then give themselves a number from 1 to 4. The facilitator will now ask the number 1s from each group to leave their group and come and stand in front of the first poster, the number 2s from each group to stand in front of the second poster, all the number 3s to stand in front of the third poster and all the number 4s to stand in front of the fourth poster.

In each of the new groups, there will be one person who has prepared a talk on the poster that faces the group. He or she then talks about the poster. After 4-5 minutes, the facilitator will tell the groups to move to the next picture. Now another member of the new group will give the presentation. In this way, every person will have the chance to talk about his/her topic to a small group of fellow-trainees.

A carousel is something that goes round and round. This is a carousel activity because groups are moving around the classroom from one poster to another.

If by chance there are more than 16 persons in the class, then there can be five or more in each of the first groups that are formed. Then, instead of one person giving the talk, two people can share the presentation together. In other words, in each of the new groups that form, there might be two number 1s, two number 2s, but only one number 3 and one number 4.

When all the presentations are complete, you may wish to record some of the things you have learnt in the box below and the box on the next page:



Activity 4.1 – Instruction to learner:

Group work - SWOT analysis

Form groups of 3-4 learners - preferably the same groups that produced the risk maps of a local community in CGHR0116. If you have lost your map, or prefer to start again, then this time you could try and produce your map with the help of people from the local community.

Visit this community again, and with the help of your map and your observations, complete a SWOT analysis of the community's dimensions for sustainable living. You can complete the information for natural and physical dimensions using the information on your map. When completing the information on the human, social and financial dimensions you should talk to people in the community and distinguish between the responses for women and men. Make a large copy of the table on the next page to record all your findings.

NAME OF COMMUNITY: ISLAND:

Dimension of sustainable living	Which assets are strengths?	What are the weaknesses?	What are the opportunities for improvement or development?	What are the threats (things we feel we cannot influence)
NATURAL ecosystems, biodiversity, trees, plants, atmosphere, sea, reefs, fish, land, water, wildlife, etc.				
PHYSICAL housing, infrastructures, buildings, water supply, energy supply, sanitation, communications, transport, etc.				
HUMAN health, education, skills, knowledge, ability to work, coping with disability, etc.	<u>Community</u> <u>Men</u> <u>Women</u>	<u>Community</u> <u>Men</u> <u>Women</u>	<u>Community</u> <u>Men</u> <u>Women</u>	<u>Community</u> <u>Men</u> <u>Women</u>
SOCIAL tradition, customs, status, religion, extended family, relationships, service to others, leadership, etc.	<u>Community</u> <u>Men</u> <u>Women</u>	<u>Community</u> <u>Men</u> <u>Women</u>	<u>Community</u> <u>Men</u> <u>Women</u>	<u>Community</u> <u>Men</u> <u>Women</u>
FINANCIAL pigs, mats, other livestock, cash, credit, bank deposits, other forms of wealth	<u>Community</u> <u>Men</u> <u>Women</u>	<u>Community</u> <u>Men</u> <u>Women</u>	<u>Community</u> <u>Men</u> <u>Women</u>	<u>Community</u> <u>Men</u> <u>Women</u>

When you have completed your research, your facilitator may ask you to present your findings to the rest of the class. Alternatively, your facilitator may ask you to present your findings to the community where you have been working.

Activity 4.2a – Instruction to learner:

Definitions

Adaptive capacity: _____

Coping capacity: _____

Activity 4.2b – Instruction to learner:

Group work - evaluation of adaptive capacity

Now that you have completed the SWOT analysis of your community, try to evaluate the strength of the community according to people’s access to these assets. If you wish, you can consult with people from the community.

Assets	Tick one (v)		
	Poor	Medium	Good
Natural			
Physical			
Human			
Social			
Financial			

Next, try to indicate how confident you feel about the community’s ability to cope with climate change and reduce disaster risks. To help you make your decision on this, you could ask people from the community how they themselves feel about their ability to cope with hazards and disasters. Mark your level of confidence on a scale of 1 (very low) to 10 (very high). Be ready to explain your judgment to others.

1	2	3	4	5	6	7	8	9	10
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Finally, write down any steps that you think the community is already taking to adapt to climate change or to reduce disaster risks:

Activity 5.1 - Instruction to learner:

Group work - identification of community priorities

Remain in the same small group that has been working with a local community.

Your task is to help the community to identify its priorities for improving its way of living. You can do this yourselves, in your group. But it would be preferable to go out and consult with members of the community to do this. Your class should interview at least 10 men and boys and 10 women and girls, and, if possible, at least 5 people living with disabilities.

The question you can ask is this:

“In what ways do you think that your community’s way of life could be improved?”

(“Wanem samfala samting we yu wantem lukim long komuniti blong yu blong mekem se laef blong ol pipol i kam antap?”)

Ask men and boys to give you the three ways that they consider are the most important. These are their priorities. Then do the same for women and girls, and for people living with disabilities. Then put all the answers together and find out which are the three top priorities for the whole community. Write them here:

TOP THREE PRIORITIES

For men and boys	For women and girls	For people living with disabilities	For the whole community
1.	1.	1.	
2.	2.	2.	
3.	3.	3.	

Activity 5.2 – Instruction to learner:

Group work - impacts of hazards and climate change on community priorities

In Activity 5.1, you found out your community’s priorities for sustaining and improving livelihoods. Your group can now help people to see how hazards and climate change could impact on their hopes and their goals. Hopefully, this will enable them to consider the measures that could be taken to reduce the effects of these risks.

Here are the steps to follow as you work with your community:

1. List the hazards and the projected climate changes that would impact on the community and its environment.
2. Discuss how these hazards and changes in climate would impact on the environment. These are **biophysical impacts** (e.g. high temperatures, droughts).

3. Discuss how the biophysical impacts will affect the community’s priorities. These are the **socio-economic impacts** (e.g. decreased crop yields, fewer fish, loss of income). They may be different for men and for women, for different age groups and for those in the community who are the most vulnerable.

4. On a large piece of paper, make a copy of these four tables to show the top three priorities identified in Activity 5.1 by men in the community, by women in the community, by people living with disabilities, and by the whole community. Indicate whether the impacts are short-term (ST) or long-term (LT), and their level of risk (extreme, high, medium, low).

Priorities of men and boys	Hazards that could impact	Changes in climate that could impact	Bio-physical impacts	Socio-economic impacts	ST/ LT	Level of risk
I.						
II.						
III.						

Priorities of women and girls	Hazards that could impact	Changes in climate that could impact	Bio-physical impacts	Socio-economic impacts	ST/ LT	Level of risk
I.						
II.						
III.						

Priorities of those living with disabilities	Hazards that could impact	Changes in climate that could impact	Bio-physical impacts	Socio-economic impacts	ST/ LT	Level of risk
I.						
II.						
III.						

Priorities of the whole community	Hazards that could impact	Changes in climate that could impact	Bio-physical impacts	Socio-economic impacts	ST/LT	Level of risk
I.						
II.						
III.						

5. Share your findings with the community, or with those in the community who provided you with information.
6. Encourage the community to start thinking about steps to take to reduce the negative impacts. See Activity 5.3.

In the box below, you may wish to record some of the things you have learned by doing this exercise:

Activity 5.3 – Instruction to learner:

Group work – building adaptive and coping capacity

In Section 5.3 of the Learner Guide, there are some questions that you can ask to individuals and families in your community. The purpose is to get them to think more deeply about how they can build up their adaptive and coping capacity.

As you ask these questions, write down some of the responses you receive:

Which livelihood assets can be improved, and how? For example, could local taboos be placed on reefs to help rebuild stocks of fish and shellfish?	
Does everyone have access to livelihood assets in the community?	
Can plans be made to help those individuals who are most at risk?	
Should the village, or some buildings in the village, be relocated? If so, where?	
Should future plans be made for the development of the community that take hazards and climate change into account? Who should make these plans?	
(Other question)	

ASSESSMENT OF LEARNING

You will be given a short test to find out your learning from this Unit. Here are some of the questions that you might be asked. Before the test, carefully go through these questions and think about how you might answer them.

1. Give **three** reasons why the Pacific islands are so exposed to hazards and the effects of climate change.
2. How does location affect a community's vulnerability to the effects of hazards and climate change?
3. Name the **five** assets (dimensions) of sustainable living that must be strengthened in order to build up resilience to hazards and climate change. Give an example of each.
4. Give **two** examples to show how individuals and communities that have good access to a variety of assets will be more resilient to hazards and climate change.
5. Why can we say that the impacts of hazards and climate change depend on both exposure and vulnerability?
6. What steps can people living in coastal areas take to reduce their vulnerability to coastal flooding and erosion?
7. Describe **three** ways in which terrestrial ecosystems may be negatively affected by climate change.
8. What is salt water intrusion, and why does it occur?
9. Explain how climate change can affect the productivity of agriculture and fisheries.
10. Explain how climate change may have negative effects on tourism.
11. Explain how a natural hazard can have negative impacts on buildings and infrastructures.
12. State **three** examples of how hazards and climate change can have negative effects on people's health and education in the Pacific region.
13. Give an example of how hazards and climate change could impact on a community's priorities for development.

Illustrations

Fig. number	Source
Cover	Secretariat of the Pacific Community (SPC) and Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) CCCPIR, 2013, <i>Flooding of low-lying area in Penoru village, Santo.</i>
1.	Office of the President of Kiribati, 2013, <i>Wave surge.</i>
2.	Pierce, C., 1979, <i>A village in the Maskeleyne islands, Vanuatu.</i>
3.	Secretariat of the Pacific Community (SPC) and Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) CCCPIR, 2013, <i>Participants at a climate change awareness presentation in Port Vila.</i>
4.	Pierce, C., 2014, <i>Diagram of the five assets of sustainable living.</i>
5.	Pierce, C., 2014, <i>Map of Pinat.</i>
6.	Pierce, C., 2014, <i>Blank diagram for showing the relationship between exposure, vulnerability, resilience and impacts.</i>
7.	Secretariat of the Pacific Community (SPC) and Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), 2014, <i>Learning about Climate Change the Pacific Way: A Visual Guide – Vanuatu.</i> Accessed on 12 December 2014 at http://www.spc.int/images/climate-change/cc-project/Vanuatu-complete.pdf
8.	Pierce, C., 2013, <i>Village on Mota island, Vanuatu.</i>

Assessment Feedback Form

Comments/Remarks	
Feedback to learner on assessment and / or overall recommendations and action plan for competence:	
Feedback from learner to assessor:	
Assessment judgment You have been found: <input type="radio"/> Competent <input type="radio"/> Not yet competent in this unit standard	Action to follow: <input type="radio"/> Assessor report to VIT <input type="radio"/> Learner results and attendance certification issued
Learner's signature:	Date:
Assessor's signature:	Date:
Moderator' signature:	Date:

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