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| **Level** | I |
| **Credits** | 4 |
| **Unit Descriptor** | This unit defines the standard required to: define traditional knowledge (TK) and resilience; explain some of the challenges in gaining access to traditional knowledge and suggest how they might be overcome; describe examples of how traditional knowledge helps communities to become more resilient to natural disasters and climate change; demonstrate some traditional techniques that foster more resilience to risks from natural hazards and climate change; and promote the use of traditional knowledge in a local community.  |
| **Pre-requisites** | CCDRM01 CCDRM03 CCDRM05CCDRM02 CCDRM04 |
| **Co – requisite** |  |
| **ELEMENT**1. Define traditional knowledge (TK) and resilience.
 | **PERFORMANCE CRITERIA*** 1. Define ***“traditional knowledge”*** in the context of Vanuatu.
	2. Define ***“resilience”*** in relation to natural disasters and climate change.

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| 1. Explain some of the challenges in gaining access to traditional knowledge and suggest how they might be overcome.

   | * 1. Suggest reasons why ***traditional knowledge (TK)*** is disappearing in Vanuatu.
	2. Discuss issues relating to the ownership and sharing of TK - local taboos, transmission of secret knowledge, observing traditional protocols, policies of the Vanuatu Kaljoral Senta, etc.
	3. Suggest ways in which these issues might be overcome, e.g. explaining to an owner of TK that the resilience of the whole community could be improved if he would agree to share his knowledge.
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| 1. Describe examples of how traditional knowledge helps communities to become more resilient to natural disasters and climate change.
 | * 1. Give examples of TK that help communities in Vanuatu to become more resilient to ***geological and hydro-meteorological hazards*** (reading traditional signs of forthcoming drought / storms, using traditional calendars, traditional techniques of cultivation and animal husbandry, traditional methods of food preservation, traditional building designs, ***traditional food gardens*** (bush fallow system), etc.
	2. Produce a traditional calendar for the local community.
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| 1. Demonstrate some traditional techniques that foster more resilience to risks from natural hazards and climate change.
 | * 1. With the help of a local expert, learn how to demonstrate one or more of the following techniques: reading animal behaviour and other natural weather/climate signs, ***food preservation***, ***traditional building design*** and construction.
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| 1. Promote the use of traditional knowledge in a local community.
 | * 1. Use a simple questionnaire to find out about some of the traditional knowledge relating to climate change and natural hazards that already exists in a local community, e.g. plant indicators and animal/insect behaviour.
	2. Consult with owners of this traditional knowledge to find ways in which the TK can be used to promote greater resilience in the community to natural disasters and climate change, and help the community to become more aware of at least one of these TK measures.
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| **REQUIRED SKILLS AND KNOWLEDGE****Key competencies required for this unit**

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| **Key competency** | **Examples of application** |
| Collect, analyse and organize information | Collect, analyse and organize information on examples of how traditional knowledge can help communities in Vanuatu to become more resilient to natural disasters and climate change.  |
| Communicate ideas and information | Give talks to each other on the challenges of gaining access to TK and on examples of the use of TK in lessening vulnerability to climate change and natural disasters  |
| Plan and organize activities | Work with a local community to promote, initiate or monitor at least one traditional technique for becoming more resilient to climate change and/or natural disasters.  |
| Work with others and in teams | Work in a team to consult with owners of TK in the local community with a view to promoting a greater use of this TK in the community.  |
| Problem-solving | Devise suitable strategies for approaching owners of TK in the local community.  |
| Graphical skills | Draw diagrams and wall charts to show one or more of the following traditional adaptation techniques: ways of reading animal behaviour and other natural weather/climate signs; ***food preservation***; ***traditional building design*** and construction.  |
| Practical skills | Demonstrate at least one technique based on TK that can be used to promote greater resilience in the community.  |
| Show initiative | Work with the local community to encourage a greater use of TK in reducing vulnerability to the effects of climate change and natural disasters.  |

**Prior knowledge required*** Knowledge and experience of the impacts of climate change and of some of the measures already being taken to reduce the negative effects of these impacts.
* Knowledge of a local community, especially in terms of leadership structure, cultural and religious practices and livelihoods.
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| **EVIDENCE GUIDE****Critical aspects of evidence required to demonstrate competency in this Unit*** Correct definitions of traditional knowledge, resilience, vulnerability, geological hazards, hydro-meteorological hazards, food preservation, traditional building design, traditional food gardens.
* Meaningful explanations of difficulties in gaining access to traditional knowledge, the role of TK in helping communities to become more resilient to natural disasters and climate change, and examples of traditional techniques that can be used.
* Practical skill in demonstrating at least one of the traditional techniques for reducing vulnerability to climate change and natural disasters.
* Skill in using a questionnaire to find out about existing TK in a local community.
* Ability to consult in a team with the local community on the use of TK.
* Interpretation and construction of diagrams of reading animal behaviour and other natural weather/climate signs, ***food preservation***, or ***traditional building design*** and construction.

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| **Context of Assessment**  | * Assessment of underpinning knowledge and communication of ideas can be done in the classroom through observation and discussion.
* Assessment of practical applications of TK and of consultation with the local community regarding the use of TK should be done in the field.
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| **Resource Implications** | * Questionnaire on the use of TK in the local community
* Toolkit pictures for “Learning About Climate Change the Pacific Way” produced by GIZ-SPC
* Teachers’ Guide for the above.
* Access to owners of traditional knowledge in a local community.
* Choice of large sheets of paper and felt pens, blackboard and chalk, notebooks, etc.
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**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole.

**Traditional knowledge** refers to information, observations and understanding that has been passed orally from one generation to another for hundreds or thousands of years. It may be owned by one or more individuals, a community, a tribe, or a chief on behalf of the community or tribe. It is often secret and there are protocols involved in its transmission, e.g. the exchange of traditional items such as kava, mats and pigs.

**Resilience** means the ability of an individual, a community or a nation to cope with the negative effects of natural disasters or climate change.

**Geological hazards** include earthquakes, volcanic eruptions and tsunamis.

**Hydro-meteorological hazards** include cyclones, storms, storm surges, king tides, intense rainfall events, floods, erosion, droughts and strong winds.

**Food preservation** refers to ways of preventing food or food crops from perishing or being destroyed by bacteria or other agencies.

**Traditional building design** refers to techniques of building houses that enable them to withstand hazards such as flooding, storms and cyclones - for example, houses on stilts, sloping roofs that reach to the ground, wooded support posts that reach deep into the ground.

**Traditional food gardens** refer to the age-old method used in Vanuatu of clearing and burning the forest to establish a small plot of land where a variety of different food crops can be grown for one to five years, then abandoning this plot so that it can be left in fallow to regain soil fertility and moving on to clear and cultivate another small plot of land. In order to be able to leave the land in fallow for many years, a family must have land-use rights over a large area. In some parts of Vanuatu (Pentecost, Maewo, Santo Bush) there are also traditional water-taro gardens based on irrigation water obtained from nearby streams; here, there is no need to shift from plot to plot.