CBCRP-PCCC Training Course

GENERAL INFORMATION ON

"Hazard and Risk Assessment for Coastal Area Management by Using Remote Sensing Technology"

11-15 November 2019

This information pertains to the aforementioned PCCC training, which will be implemented as part of the project for Capacity Building on Climate Resilience in the Pacific at the Pacific Climate Change Centre (CBCRP-PCCC) based on bilateral agreement between the Government of Japan and the Government of the Independent State of Samoa in cooperation with the Secretariat of the Pacific Regional Environment Programme (SPREP).

PCCC:
The Pacific Climate Change Centre (PCCC) was pledged by the Government of Japan at the Seventh Pacific Islands Leaders Meeting (PALM 7) in 2015 to respond to a number of needs in climate change in the region. With its strategy and business plan, the PCCC will deliver four mutually reinforcing functions: knowledge brokerage; applied research; capacity building through training and learning; and supporting innovation.

CBCRP-PCCC:
The Project for Capacity Building on Climate Resilience in the Pacific (CBCRP-PCCC) by SPREP, the Government of Samoa and Japan International Cooperation Agency (JICA) aims to support operationalization of the training function of the PCCC as stated in the strategy and business plan for the PCCC. The project will play an important part of the PCCC training and learning function to contribute to the expected outcomes of the business plan.

I. Concept

Background

Coastal areas support crucial social and economic activities in the Pacific Island Countries and Territories (PICTs). The majority of the capitals and communities as well as airports, ports and other critical functions and infrastructures are located in the coastal areas, as are the roads and bridges which connect them.

Severe climate impacts on the coastal areas have been experienced throughout the PICTs. It is also projected that in the medium to long term, coastal systems and low-lying areas will increasingly experience adverse impacts such as submergence, coastal flooding, and coastal erosion (IPCC AR5).

Hazard and risk assessment are indispensable activities and produce the scientific basis to support the rationale for climate adaptation actions and projects. This scientific information supports and informs appropriate political decisions, project design and planning, and financing planning in order to support resilient and sustainable development.

The remote sensing technology (RST) is a useful tool for hazard assessment, to support PICT's management activities of coastal areas and lands by providing images and bathymetric data. The major application of the RST is mapping of areas susceptible to flooding and floodplains. It enhances communication, awareness, planning and understanding of the potential hazards, and provides critical inputs for risk assessment for policy and project development.

Purpose of the Training

This course aims to strengthen participants' technical capability to use earth observation satellite data provided by the RST and its application by GIS tool, and to conduct preliminary hazard and risk assessment for further adaptation actions.

Target participants

This course is offered to the government officials and practitioners in Pacific Islands Countries (PICs) who oversee coastal planning and management including infrastructure development and management (e.g. road, port, airport and other economic facilities in the coastal area), community management (where coastal hazard is anticipated) and climate service.

Brief overview of the Training

Participants will have opportunities to learn the principles, devices and outputs including earth observation data of the RST, and to practice interpretation of the outputs and images. They will also learn basic knowledge of hazard and risk assessment, and practice the model application to inform decision making and further activities to increase climate resilience.

II. Description

1. **Title:**

   Hazard and risk assessment for coastal area management by using remote sensing technology

2. **Course Period in the PCCC**

   11-15 November 2019

3. **Target Countries**

   Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

   The following territories are invited to attend at their own cost: American Samoa, Commonwealth of Northern Mariana Islands, French Polynesia, Guam, New Caledonia, Tokelau and Wallis and Futuna.

4. **Eligible / Target Participants**

   National ministries/departments or non-state actors which are overseeing coastal planning and management including infrastructure development and management (e.g. road, port, airport and other economic facilities in the coastal area), community management (where coastal hazard is anticipated) and climate service. Preferably, the two trainees selected are from different organizations.

5. **Course Capacity (Upper limit of Participants)**

   2 participants from each country, preferably from different organizations

   The nomination forms for 2 participants will be submitted from the Climate Change Focal Points to the JICA project team (please see section III).

6. **Language to be used in this program**:

English (No English-French translation)

7. Course Objective:

The course focuses on the RST and its application, and overview of hazard and risk assessment for further adaptation actions. The participants will learn the principles, equipment and devices, and outputs including topographic data and bathymetry information, and practice its model interpretation of the outputs. They will also learn basic knowledge of hazard and risk assessment and practice the model application to use the RST and the scope of its usage to inform decision making.

After the training course, the participants should be able to:

- understand the basic knowledge of hazard and risk assessment of the coastal area;
- understand the basic knowledge and applications of the RST for hazard assessment;
- interpret the output data and images from the sensors and relevant devices of the RST;
- identify the specific gaps and needs to implement hazard and risk assessment; and
- develop a draft action plan for effective data collection and analysis for further assessment.

8. Overall Goal:

The CBCRP-PCCC training courses will enhance capacities on climate resilience in the Pacific region.

9. Expected Module Output and Contents:

This program consists of the following components. Details on each component are given below:

(1) Preliminary phase in a participant' home country
To prepare a National Inception Report based on guidance provided, and submit by 31 October 2019. To prepare country's status of coastal area management in cooperation among participants.

Expected Module Output	Subjects/Agendas	Methodology
To understand the current status of coastal area management in the Pacific.	● presentation by each participant ● presentation of cases in Fiji and Samoa by MOEJ consultant ● discussion on the status of coastal management	Presentation and Discussion

To be able to interpret data and outputs from the RST.	● overview of technologies, data sets, communication and outcomes of the RST ● principles of RST, methodologies of measurement & data collection through RST ● sensor, equipment, platforms, data selection	Lecture
	● interpret images	Exercise
To be able to produce a hazard map.	● overview of sensors and imaginary of the Optical RST ● data selection, integration, adjustment ● GIS tools for mapping, communication of hazard and risk	Lecture
	● interpret images, optical bathymetric mapping, use of GIS tools	Exercise
To identify challenge and opportunity to enhance climate resilience through risk assessment.	● the basic knowledge of hazard and risk assessment ● standard process of the assessment ● resources and case studies	Lecture
	● risk assessment ● documentation of possible activity options including data collection, analysis for further assessment	Exercise

10. Brief Schedule:

DAY 1, November 11
- Course Overview
- Overview of RST and its application for hazard assessment
- Group work: Sharing experiences, challenges and opportunities

DAY 2, November 12
- Remote sensing technology: principles, methodologies, data and images
- Group work: interpreting data and images

DAY 3, November 13
- Optical Remote Sensing Technology and GIS tool: principles, methodologies, data and information
- Group work: interpreting images, developing optical bathymetric maps

DAY 4, November 14
- Hazard and risk assessment: process, methodologies, resources and case studies
- Group work: conducting preliminary assessment, identifying gaps/needs, and articulating possible activity options

DAY 5 (half day), November 15
- Presentation of group works
- Review of the training course

III. Procedures for Nomination

1. Expected role of the Participants:

(1) This course is designed primarily for national ministries/departments or non-state actors that involved in coastal inundation hazard. Participants are expected to use the tools and methodologies provided through the course for their current projects or future activities to enhance climate resilience of coastal areas.

(2) This program is enriched with contents and facilitation schemes developed in collaboration with relevant prominent organizations in the Pacific and Japan. The module is expected to enable participants to identify challenges and opportunities towards solutions for climate related issues and problems.

(3) As this course is designed for participants to become enable to produce and prepare evidence for decision-making, participating organizations are expected to make due preparation before dispatching their trainees by carrying out the activities of the Preliminary Phase described in the following section III-3.

(4) Participants are also expected to make the best use of the results achieved by their participants in the PCCC. The JICA project team will follow-up the activities of participants and disseminate their stories through the JICA project newsletters and the PCCC website.

(5) The Climate Change Focal Points are requested to nominate 2 trainees from relevant sectors according to the above expectations.

2. Participant Qualifications:

Participants are expected to meet the following qualifications. Please note that the participants would not necessarily be employed by the applying organizations, as long as they are selected officially by the organizations for their specific purposes. However, the participants must be either persons who are engaged in the said field or directly related to program subject.

(1) Essential Qualifications

(a) Current Duties: overseeing coastal planning and management including infrastructure development and management (e.g. road, port, airport and other economic facilities in the coastal area), community management (where coastal hazard is anticipated) and climate service.
(b) Experience in the relevant field: have more than 2 years' experience in the field

of climate change adaptation and/or coastal management

(c) Computer skills: At least high computer literacy on Microsoft Office Suits. Skills on RST or GIS are not necessary.
(d) Educational Background: Diploma (two years of tertiary education) or equivalent
(e) Language: have a competent command of spoken and written English.
(f) Health: must be in good health, both physically and mentally, to participate in the Program
(g) Age: between the ages of 24 and 45 years
(h) Must not be serving any form of military service.

(2) Recommendable Qualifications

Gender Consideration: JICA is promoting gender equality. Women are encouraged to participate in the course.

3. Required Documents for Nomination

(1) Nomination Form:

Please fill out the Nomination From (Annex 1) and submit to the JICA team through the Climate Change Focal Points by **4 October 2019**.
Pregnant participants are strictly requested to attach the following documents in order to minimize the risk for their health:

(a) letter of the participant's consent to bear economic and physical risks;
(b) letter of consent from the participant's supervisor; and
(c) doctor's letter with permission of her training participation.

(2) Photocopy of passport:

Please attach the photocopy of passport to the Nomination Form. Photocopy should include Name, Date of birth, Nationality, Sex, Passport number and Expire date.

4. Preparation by the participants:

(1) National Inception Report

The participants are required to prepare National Inception Report. The report should be in electronic form (Word or similar) in English with using the format (Annex 2) at maximum of 10 pages, and submit it to JICA team through the Climate Change Focal Points by **31 October 2019**.

(2) Talking points

Participants of each country/territory are required to collaborate and prepare a 5 mins talking points of the status of climate change adaptation and disaster risk management related activities in coastal areas for group work on Day 1.

5. Conditions for Attendance:

(1) not to utilize knowledge and skills acquired in the training for military purposes.
(2) to strictly adhere to the course schedule.
(3) not to change the course topics.
(4) not to extend the period of stay in the Independent State of Samoa.
(5) not to be accompanied by family members during the training.
(6) to return to home countries at the end of the training in accordance with the travel schedule.
(7) to refrain from engaging in any political activities, or any form of employment for profit or gain during the training.
(8) to observe the Independent State of Samoa laws and ordinances. If there is any violation of said laws and ordinances, participants may be required to return part or all of the training expenditure depending on the severity of said violation.
(9) to observe the rules and regulations of the accommodation and not to change the accommodation designated by JICA team.

IV. Administrative Arrangements

1. Organizer:

For enquiries and further information, please contact the below**.**

(1) Name: CBCRP-PCCC Project Team
(2) Email: cbcrp.pccc@gmail.com
(3) Office: c/o P.O. Box 240, Secretariat of the Pacific Regional Environment Programme (SPREP), Apia, Samoa

2. Logistics information:

Please refer the Logistics Information Note (Annex 3).

V. Other Information

1. Laptop:

Participants are strongly advised to bring their own laptops for RST and QGIS exercise. Necessary specifications of laptops are as follows:

CPU	Intel Core i5 or higher
RAM	8GB or higher
Storage	16 GB disk space or more
OS	Windows 7 or 10 only