



【Online】 Knowledge Co-Creation Program (Group & Region Focus)

General information on

**Ecosystem-based Solutions for Disaster Risk Reduction (Eco-DRR)
課題別研修「自然災害に対する森林の防災機能など生態系を活用した防災・
減災 (Eco-DRR) 機能強化のための能力向上」
JFY2020 / JFY2021**

NO. 201902163J002 / NO. 202003223J001

Online Program: From November 9th, 2021 to December 1st, 2021

This information pertains to one of the JICA Knowledge Co-Creation Programs (Group & Region Focus) of the Japan International Cooperation Agency (JICA) implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both Governments.

'JICA Knowledge Co-Creation Program (KCCP)

The Japanese Cabinet released the Development Cooperation Charter in February 2015, which stated, *"In its development cooperation, Japan has maintained the spirit of jointly creating things that suit partner countries while respecting ownership, intentions and intrinsic characteristics of the country concerned based on a field-oriented approach through dialogue and collaboration. It has also maintained the approach of building reciprocal relationships with developing countries in which both sides learn from each other and grow and develop together."* JICA believes that this 'Knowledge Co-Creation Program' will serve as a foundation of mutual learning process.

I. Concept

What is Eco-DRR?

According to the “Evaluating the Multi-functions of Agriculture and Forests Related to the Global Environment and Human Being,” forests demonstrate multiple functions such as sediment disaster prevention, soil conservation, and watershed conservation, which can prevent erosion, landslide, sediment disasters, avalanches, wind damage, snow damage, etc. and mitigate flooding. In addition, ecosystems have various functions of disaster risk reduction such as coral reefs that protect the coastline and wetlands that mitigate the flooding. For people that rely on these ecosystems for their livelihoods, additionally, the ability of acquiring materials required for maintaining or restoring their livelihoods from ecosystems in the event of disasters, including timber, firewood, food and raw materials of medicine is highly significant for recovery and reconstruction.

Furthermore, social capital is accumulated in communities that utilize ecosystems such as Satoyama/Satoumi (Socio-ecological production landscapes and seascapes) in a sustainable manner, which will demonstrate underlying strength during the emergency evacuation and reconstruction in the event of disasters. These kinds of ecosystem (including forest)-based disaster risk reduction is called Eco-DRR.

Background

Natural disasters have been increasing in frequency and severity in recent years. All actors involved in Disaster Risk Reduction (DRR) need to understand the importance of proactive/comprehensive risk reduction/preparedness initiatives besides post disaster efforts. Eco-DRR is also one of the measures, which requires a comprehensive, integrated and continuous evolution from disaster management perspectives.

JICA has supported the Ecosystem-based Disaster Risk Reduction (Eco-DRR) in developing countries around the world. In Chile, for example, a Technical Cooperation Project (TCP) “The Erosion Control and Afforestation Project in Watersheds of Semi-Arid Area in Chile” was implemented from 1993 to transfer Chisan (forest conservation) technologies as mountainous disaster counter-measures and have disseminated the technologies transferred to the country further across Latin American countries by carrying out third-country training based in Chile until now.

The Government of Japan has proactively disseminated this Eco-DRR that performs disaster management by utilizing ecosystems such as forests against natural disasters, attracting worldwide attention in recent years. During the International Seminar on Role of Forests in Natural Disasters and Revival of Forests and Forestry hosted by the Forestry Agency of Japan and co-hosted by JICA in Sendai, Japan in 2012, for example, issues such as disaster prevention function, and utilization of woody bio-mass to serve for reconstruction were discussed, and the recognition of significant roles that forests and forestry play in natural disaster management was shared. During the third World Conference on Disaster Risk Reduction held in 2015 in Sendai, Miyagi, Japan, “Sendai

Framework for Disaster Risk Reduction 2015-2030” was adopted, which stated : “Strengthen the sustainable use and management of ecosystems and implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction”.

In addition, Eco-DRR approach is recommended in most of the international environmental convention assembly, such as Paris agreement at COP 21 for United Nations Framework Convention on Climate Change: UNFCCC (2015), COP 12 for Ramsar convention (2015), COP 14 for Convention on Biological Diversity: CBD (2018)

Therefore, this program has been designed to equip participants with basic capacity to cope with natural disasters by enhancing DRR functions of ecosystems through Eco-DRR approach.

For what?

To understand Eco-DRR including DRR functions of forests and acquire necessary capabilities for establishing and strengthening DRR systems considering such functions.

For whom?

Those who are working in departments engaged in forest DRR in central / local governments or public organizations or equivalent ones to them with more than five years of work experience in related fields.

How?

Through lectures by using online platform, participants will gain a broad understanding about Eco-DRR. Key emphasis is placed on the risk reduction functions of forests against natural disasters. Participants are also encouraged to share their ideas through discussions during the program.

In addition, participants will also formulate an action plan describing implication in their work after they complete the program putting the knowledge and ideas acquired and discussed in the program among others.

II. Description

1. Title (Course No)

Ecosystem-based Solutions for Disaster Risk Reduction (Eco-DRR)
(201902163J002 / 202003223J001)

2. Online Program Period

November 9th, 2021 to December 1st, 2021

3. Target Regions or Countries

201902163J002 - India, Solomon Islands, Kenya, Zambia, Bosnia and Herzegovina, Kosovo

202003223J001 - Solomon Islands, Malawi, North Macedonia, Armenia, Kosovo, Bosnia and Herzegovina, Montenegro, Georgia

4. Eligible / Target Organization

Departments engaged in forest DRR at central/local governments or public organizations or the equivalent thereof.

5. Course Capacity (Upper limit of Participants)

201902163J002 - 12 participants

202003223J001 - 12 participants

6. Language

English

7. Objective

Understand Eco-DRR containing the roles and functions of forests in natural disaster management and acquire necessary capabilities for establishing and strengthening DRR systems utilizing the functions of forest.

8. Output and Contents

This program consists of the following components. Details on each component are given below: (subject to minor changes)

Expected Module Output	Subjects/Agendas	Methodology
<p><Module 1> Understand the roles and functions of ecosystem such as forests in natural disasters and rehabilitation (soil conservation, forest fire prevention, coastal protection).</p>	<ul style="list-style-type: none"> - Functions of natural ecosystems, including DRR; - DRR functions of forests and their roles in rehabilitation through timber supply; - Summary of forest damage and the Great East Japan Earthquake 	Lecture
<p><Module 2> Acknowledge the global trends in mainstreaming and enhancing Eco-DRR.</p>	<ul style="list-style-type: none"> - Trends of Eco-DRR in the world - Mainstreaming DRR and enhancement of Eco-DRR in it; - Strengthening Eco-DRR - Supporting Eco-DRR by JICA 	Lecture
<p><Module 3> Learn theories and techniques to enhance the function of Eco-DRR in order to consider techniques that would be applicable in participants' countries.</p>	<ul style="list-style-type: none"> - Effect of coastal protection forests against the Great East Japan Earthquake - Hillslope forest conservation - Restoration of the forest fire site 	Lecture Exercise
<p><Module 4> Consider and clarify issues and countermeasures for implementing Eco-DRR in targeted areas in their countries through discussions and case studies from the government and NGO.</p>	<ul style="list-style-type: none"> - Importance of collaboration with local communities in disaster risk assessment, land-use planning and forest conservation; - Importance of policy making based on scientific knowledge; - Introduction of substantial cases of DRR functions through video program (Sites of forest conservation works, community-based ecosystem rehabilitation, etc.) - Forest conservation Project of government 	Lecture Exercise
<p><Module 5> Prepare Action Plan to solve the issues in their countries.</p>	<ul style="list-style-type: none"> - Preparation and presentation of action plans. 	Lecture and Exercise

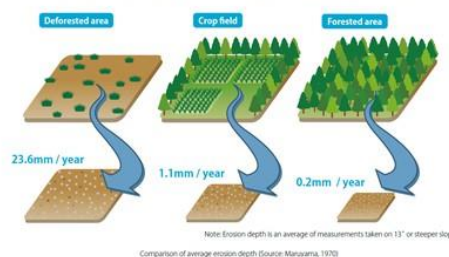
<Outline of Eco-DRR>

What is Eco-DRR?: an approach utilizing ecosystem services to prevent and mitigate natural disasters with multiple benefits

Eco-DRR (Ecosystem-based Disaster Risk Reduction): Ecosystems function in various ways to prevent and mitigate the impacts of disasters. For example, forests provide diverse services, such as preventing sediment disasters, conserving soil and recharging groundwater. In addition, forests provide forestry products, water, recreational space and various other services, underpinning sustainable socioeconomic activities of local communities. Thus, **Eco-DRR is a multiple-benefit approach for disaster risk reduction by utilizing various ecosystem services** such as DRR services, provisioning services (e.g. providing water, food, wood, fuel), regulating services (e.g. recharging watersheds, purifying water), and cultural services (e.g. religious/cultural/heritage values, ecotourism resources).

Characteristics	Infrastructure type	Ecosystem-based	Man-made
Reliability of DRR functions (Intended DRR functions and reliability of their standards)		△	◎
Multi-functionality (Utilizing many ecosystem services simultaneously)		◎	△
Adaptive response to uncertainty (Ease of response to situations unforeseen in planning)		○	×
Avoidance of environmental impact (Minimal impact on production areas & surrounding ecosystems)		◎	×
Creation of short-term employment, impact on the regional economy		△	◎
Creation of long-term employment, impact on the regional economy		○	△

Legend: ◎ Highly advantageous, ○ Advantageous, △ Slightly disadvantageous, × Disadvantageous
 Note: The comparison was made between constructing sea wall structures and conserving/restoring coastal ecosystems as buffer zones.
 Source: Created based on the Science Council of Japan Report (2014).



JICA's Technical Cooperation in Nature Conservation Sector: Eco-DRR

- **Japan's Official Development Assistance (ODA) policy: the Development Cooperation Charter**
 -Building a sustainable and resilient international community through efforts to address global challenges
- **JICA's Development Cooperation Policy: JICA's 4th Mid-term Plan (2017-2021), "Actions to address global challenges (Planet)" and SDGs**
 -Contributing to creation of a sustainable and resilient international society by supporting actions against climate change, disaster prevention mainstreaming, disaster recovery support, and conservation of the natural environment by implementing measures to conserve, manage and restore ecosystems
 -Developing comprehensive support through utilization of domestic knowledge such as Chisan (or "erosion control and watershed management") and satellite technology for attaining multiple goals of SDGs such as SDG 13 (Climate Change) and SDG 15 (Terrestrial Ecosystem)

■ Cooperation Policy in Eco-DRR sub-sector Contribute to climate change countermeasures (i.e. adaptation measures) in developing countries through the utilization of multifaceted functions of ecosystems.

1. Enhancing Eco-DRR capacities by technical cooperation projects -Formation and implementation of Eco-DRR projects -Sharing Japan's knowledge through training courses -Scientific verification and dissemination of disaster prevention and reduction effect	2. Implementation of Eco-DRR activities in various sub-sectors -Consider Eco-DRR related activities from planning stage in watershed conservation, wetland management, etc. -Collect basic data including disaster prevention and reduction effect	3. Promoting cooperation with domestic and foreign partners -cooperation with disaster prevention sector towards implementation of Sendai BOSA framework -Involvement in master plan development for emergency recovery assistance
■ Activities (on-going/plan)		
-Formulation of Eco-DRR Projects in strategic country -Sharing knowledge through co-funded training courses -Setting up new group training course	-Planning Eco-DRR activities in projects of other sub-sectors -Study on data collection method implemented sustainably in developing countries	-Sharing knowledge on project and research results through seminars -Promoting internal information sharing - Developing Eco-DRR policy paper - Listing up Japan's knowledge resources

III. Conditions and Procedures for Application

1. Expectations from the Participating Organizations:

- (1) This course is designed primarily for organizations that intend to address specific issues or problems identified in their operation. Applying organizations are expected to use the program for those specific purposes.
- (2) This course is enriched with contents and facilitation schemes specially developed in collaboration with relevant prominent organizations in Japan. These special features enable the course to meet specific requirements of applying organizations and effectively facilitate them toward solutions for the issues and problems.

2. Nominee Qualifications:

Applying organizations are expected to select nominees who meet the following qualifications.

(1) Essential Qualifications

- 1) A member of central/local government or public organization or the equivalent thereof engaged in forest DRR
- 2) Persons with more than five years of experience in the related fields
- 3) Sufficient English skills
- 4) 28 to 45 years of age is desirable.

(2) Recommended Qualifications

- 1) It is advisable that the candidate has some relation with technical cooperation of JICA or ODA.
- 2) Gender Consideration: JICA promotes Gender equality. Women are encouraged to apply for the program.

(3) Specific Qualifications for Online program participation

- 1) Have own available laptop computer (with microphone and camera)
- 2) Have access to stable internet connection (5Mbps speed)
- 3) Have basic skill on internet operation such as accessibility to Zoom etc.
- 4) Secure the date for attending all lectures of online program
- 5) Have availability for participation regardless of the normal working hours.

Note: If there are any concerns, JICA overseas offices may be able to support for setting up participants' ICT environment (ex. tablet or laptop PC lending, venue arrangement etc.) by answering Questionnaire. Please see **ANNEX-2**.

3. Required Documents for Application

(1) Application Form:

The Application Form is available at the JICA overseas office (or the Embassy of Japan).

* If you have any difficulties/disabilities which require assistance, please specify necessary assistances in the QUESTIONNAIRE ON MEDICAL STATUS RESTRICTION (1-(c)) of the application form.

(2) Photocopy of passport:

To be submitted with the application form, if you possess your passport.

*The following information should be included in the photocopy:

Name, Date of Birth, Nationality, Sex, Passport Number and Expiry Date

(3) Questionnaire: (See ANNEX-2)

To be submitted with the application form.

4. Procedures for Application and Selection

(1) Submission of the Application Documents:

Closing date for applications: Please confirm the local deadline with the JICA overseas office (or the Embassy of Japan).

(All required material must arrive at **JICA Center in Japan** by **October 15, 2021.**)

(2) Selection:

Primary screening is conducted at the JICA overseas office (or the embassy of Japan) after receiving official documents from your government. JICA Center will consult with concerned organizations in Japan in the process of final selection. Applying organizations with the best intentions to utilize the opportunity will be highly valued. The Government of Japan will examine applicants who belong to the military or other military-related organizations and/or who are enlisted in the military, taking into consideration of their duties, positions in the organization and other relevant information in a comprehensive manner to be consistent with the Development Cooperation Charter of Japan.

(3) Notice of Acceptance:

The JICA overseas office (or the Embassy of Japan) will notify the results not later than **October 22, 2021.**

5. Document(s) to be submitted by accepted candidates: (See ANNEX-1)

Inception Report -- to be submitted by **November 2, 2021**.

Only accepted candidates are required to prepare an Inception Report (Detailed information will be provided at the time of sending Notice of Acceptance.) The Inception report should be submitted by e-mail to JICA Tsukuba (tbictp@jica.go.jp).

6. Conditions for Participation

- (1) to adhere to the program schedule.
- (2) not to change the program topics.
- (3) to refrain from engaging in any political activities.
- (4) to comply with the use conditions of copyrighted works by each copyright holder, when using texts and other materials distributed for KCCP. **Especially, participants are strictly prohibited to record online lectures or use contents providing during the program without permissions.** Participants may also sign a copyright agreement.

IV. Administrative Arrangements

1. Organizer:

- (1) **Center:** JICA Tsukuba Center (JICA TSUKUBA / TBIC)
- (2) **Program Officer:** Mr. Takuya NEMOTO (tbictp@jica.go.jp)

2. Implementing Partner:

- (1) **Name:** Japan Forest Technology Association (JAFTA)

V. Other Information

1. Certificate:

Participants who have successfully completed the program will be awarded certificates by JICA.

2. More information about JICA Tsukuba:

JICA Tsukuba website [<https://www.jica.go.jp/tsukuba/english/office/index.html>]

JICA Tsukuba Facebook [<https://www.facebook.com/jicatsukuba>]

You can find posts about on-going KCCPs and stories of ex-participants on our Facebook page.



VI. ANNEX

ANNEX-1: Guidance for making Inception Report

1. Submission of Inception Report (Deadline: November 2, 2021)

Only accepted participants to this course are going to make 10-minutes presentation of Inception Report for sharing the situation and issue of each country at the beginning of the Online Program. Please prepare your presentation materials in accordance with the following guidance and submit it by e-mail to JICA Tsukuba (tbictp@jica.go.jp).

2. Contents of Inception Report Presentation

- (1) Introduction: Explain the outline of Country, Organization and Duties.
- (2) **Main Topic: Current situation and issue of promoting Eco-DRR**
 - 1) Forest management and forestry in your country
 - 2) Natural disasters (i.e. flood, torrent and forest fire) in your country
 - 3) Disaster risk reduction/management activities, especially, Ecosystem-based disaster risk reduction (Eco-DRR), in your country
 - 4) How your government and local communities, including your organization, are tackling with the abovementioned natural disasters
 - 5) Potential and needs of Eco-DRR activities in your country
 - 6) Expectation to this Eco-DRR course

3. Recommendation to use Microsoft Power Point

It is recommended to prepare the presentation materials with Microsoft Power Point. The materials, including photographs, maps and graphics, is useful to help participants understanding.

ANNEX-2: Questionnaire

【Your ICT Environment for Online Program】		
Based on your answers, JICA office will consider necessary arrangement for you to attend online program. Please note this does not affect selection of participants.		
No.	Questions	Yes or No
1	Do you have the following system to attend online program at your home (or office)?	
1-1	Desktop or Laptop PC	Desktop or Laptop or None (OS version:)
1-2	Internet environment	Yes or No
1-3	Stable internet connection at 5Mbps speed	Yes or No
1-4	PC with Microphone	Yes or No
1-5	PC with Camera	Yes or No
2	Have you ever attended online meeting?	Yes or No (When:) (Organizer :)
3	Have you ever used the following online apps?	
3-1	Zoom	Yes or No
3-2	Microsoft Teams	Yes or No
3-3	Gmail	Yes or No If yes, please write your Gmail address: ()
3-4	Google Drive or GIGAPOD	Yes or No
3-5	Google Form	Yes or No
3-6	You Tube	Yes or No
3-7	Other	Please describe:
4	Please describe if you have any concerns or questions for participating in online program.	

For Your Reference

JICA and Capacity Development

The key concept underpinning JICA operations since its establishment in 1974 has been the conviction that “capacity development” is central to the socioeconomic development of any country, regardless of the specific operational scheme one may be undertaking, i.e. expert assignments, development projects, development study projects, training programs, JOCV programs, etc.

Within this wide range of programs, Training Programs have long occupied an important place in JICA operations. Conducted in Japan, they provide partner countries with opportunities to acquire practical knowledge accumulated in Japanese society. Participants dispatched by partner countries might find useful knowledge and re-create their own knowledge for enhancement of their own capacity or that of the organization and society to which they belong.

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs is being customized to address the specific needs of different target organizations, such as policy-making organizations, service provision organizations, as well as research and academic institutions. Some programs are organized to target a certain group of countries with similar developmental challenges.

Japanese Development Experience

Japan was the first non-Western country to successfully modernize its society and industrialize its economy. At the core of this process, which started more than 140 years ago, was the “*adopt and adapt*” concept by which a wide range of appropriate skills and knowledge have been imported from developed countries; these skills and knowledge have been adapted and/or improved using local skills, knowledge and initiatives. They finally became internalized in Japanese society to suit its local needs and conditions.

From engineering technology to production management methods, most of the know-how that has enabled Japan to become what it is today has emanated from this “*adoption and adaptation*” process, which, of course, has been accompanied by countless failures and errors behind the success stories. We presume that such experiences, both successful and unsuccessful, will be useful to our partners who are trying to address the challenges currently faced by developing countries.

However, it is rather challenging to share with our partners this whole body of Japan’s developmental experience. This difficulty has to do, in part, with the challenge of explaining a body of “tacit knowledge,” a type of knowledge that cannot fully be expressed in words or numbers. Adding to this difficulty are the social and cultural systems of Japan that vastly differ from those of other Western industrialized countries, and hence still remain unfamiliar to many partner countries. Simply stated, coming to Japan might be one way of overcoming such a cultural gap.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit us, to mingle with the Japanese people, and witness the advantages as well as the disadvantages of Japanese systems, so that integration of their findings might help them reach their developmental objectives.



CORRESPONDENCE

For enquiries and further information,
please contact the JICA office or the Embassy of Japan.

Further, address correspondence to:

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