In the context of the COVID-19 pandemic, please note that there is still a possibility the course period will be changed, shortened, or the course itself will be cancelled.

Knowledge Co-Creation Program (Group & Region Focus)

GENERAL INFORMATION ON

REINFORCEMENT OF METEOROLOGICAL SERVICES
課題別研修「気象業務能力向上」

JFY 2020
No. 201902295J001 / ID. 201902295

Course Period in Japan: From January 13, 2021 to March 20, 2021

This information pertains to one of the JICA Knowledge Co-Creation Program (Group & Region Focus) of the Japan International Cooperation Agency (JICA), which shall be 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)' as a New Start

In the Development Cooperation Charter which was released from the Japanese Cabinet on February 2015, it is clearly pointed out that *"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."* We believe that this 'Knowledge Co-Creation Program' will serve as a center of mutual learning process.

I. Concept

Background

A variety of natural hazards including typhoons, floods, landslides and droughts has frequently manifested themselves in recent years. In addition, global climate risks have also emerged and threatened sustainable development.

To cope with such circumstances, it has become an important challenge for the meteorological authorities of each country to compile meteorological and climatological data and provide it effectively to authorities in charge of disaster risk reduction (DRR) and communities.

However, many meteorological authorities of developing countries still have some difficulties in providing basic meteorological services including data collection, analysis, forecasting and information dissemination contributing to effective DRR activities by DRR-related organizations.

In response to these situations, JICA has implemented this Knowledge Co-Creation Program in partnership with the Japan Meteorological Agency* (JMA), which is known as one of the most advanced meteorological services in the world.

**JMA has contributed to capacity development for the authorities of National Meteorological and Hydrological Services (NMHSs) in developing countries for nearly 50 years.*

(URL: https://www.jma.go.jp/jma/indexe.html)

For what?

The program aims to provide NMHSs with the relevant knowledge and key techniques (e.g. numerical weather prediction, satellite meteorology and climate information for advanced meteorological services) to improve their operational abilities.

For whom?

The program targets promising staff members, who are expected to lead NMHSs of the World Meteorological Organization (WMO), or its equivalent.

How?

The program mainly focuses on basic knowledge and technology on meteorological services. It consists of lectures, exercises and technical tours. In addition, participants have opportunities to share their knowledge and experience with others from different countries in order to deepen their understanding of the issue.

II. Description

1. **Title (J-No.):** Reinforcement of Meteorological Services (201902295J001)

2. **Period of program**

Duration of whole program:	November 2020 to March 2021
(1) Preliminary Phase:	November 2020 to January 2021
(2) Core Phase in Japan:	January 13 to March 20, 2021

3. **Target Regions or Countries**

   Cook Islands, Fiji, Mozambique, Myanmar, Pakistan, Philippines, Samoa, Thailand and Vietnam

4. **Eligible / Target Organizations**

   The program is offered to NMHSs of the members of the WMO, or its equivalent

5. **Total Number of Participants**: 9 participants

6. **Language**: English

7. **Program Objective**

   To promote activities to reinforce the meteorological services of each country, with application of meteorological data/products such as numerical weather prediction, satellite images and climate information.

8. **Overall Goal**

   To contribute to reducing disaster risk on human society and natural ecosystem by compiling, analyzing and utilizing meteorological and climatological data effectively.

9. Expected Module Output and Contents

To achieve the Program Objective, participants are expected to;

(1) Gain an overview of fundamental components of NMHSs and its roles in the context of disaster risk reduction in their countries.

(2) Learn to use key techniques for meteorological services, such as numerical weather prediction and satellite meteorology.

(3) Learn to produce several types of meteorological information for users utilizing key techniques.

(4) Learn to produce climate information with climatology and global environmental data/products, and to brief users on such information.

(5) Develop comprehensive and concrete Action Plan to address issues of their own NMHSs.

The program consists of the components detailed below.

(1) Preliminary Phase in participant's home country

- From November 2020 to January 2021 (prior to departure)

Modules	For whom	What to do	Reference
(1) Questionnaire	All Applicants	-Complete ANNEX I and submit with Application Form	*VI. ANNEX*
(2) Country Report	Accepted Candidates only	-Write a report according to ANNEX II-I and II-II and submit to JICA.	*VI. ANNEX*
(3) Country Report Presentation		-Prepare a presentation material with MS Power Point based on your Country Report. -All participants will deliver presentation at the beginning of the Core Phase.	*VI. ANNEX*

(4) R programming language		-Read through "R programming language" on the website and exercise how to use it by yourself.	http://www.r-project.org/.

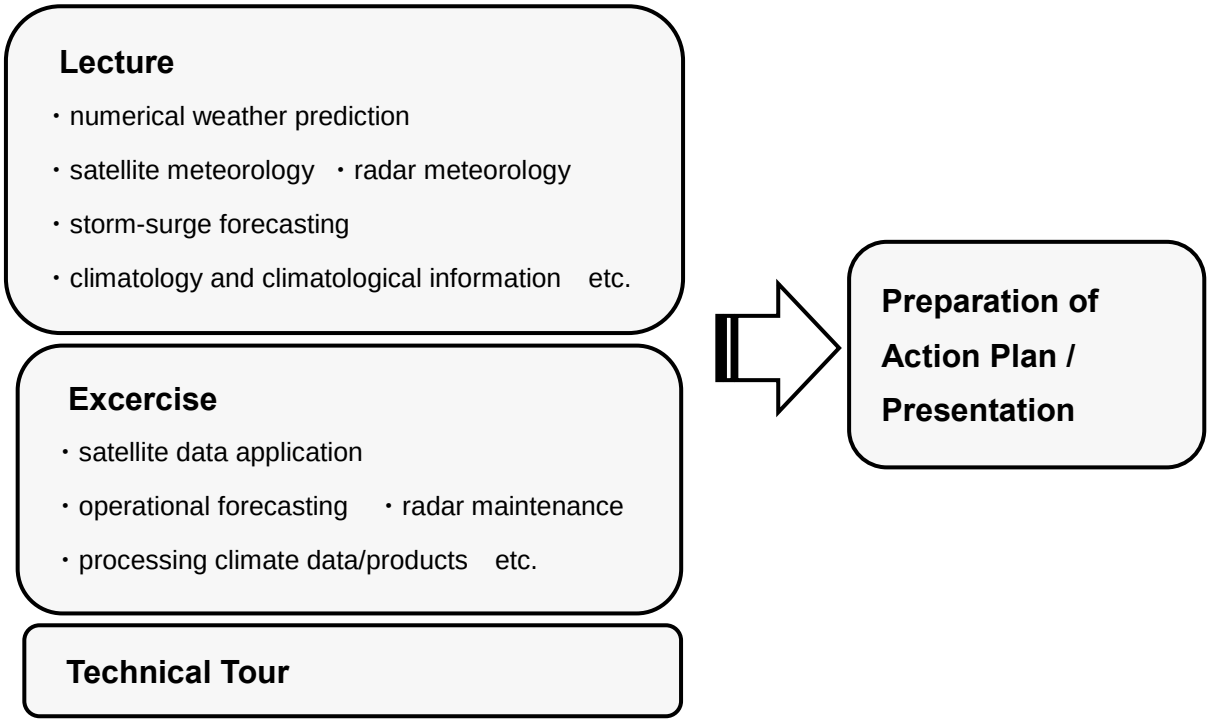
(2) Core Phase in Japan

- From January 13, 2021 to March 20, 2021
- Participants attend the program implemented in Japan.

Expected Outcome	Main Programs
(1) Gain an overview of fundamental components of NMHSs and its roles in the context of disaster management in their countries	➢ General Introduction to Meteorological Services (*2 days*) ➢ Technical Tours
(2) Learn to use key techniques for meteorological services, such as numerical weather prediction and satellite meteorology	➢ Numerical Weather Prediction (NWP) 1) Introduction to NWP (*4 days*) 2) Introduction to guidance (*1 day*) 3) Introduction to the Kalman filter method (*2 days*) 4) Guidance production exercises (*6 days*) ➢ Introduction to Satellite Meteorology (*6 days*)
(3) Learn to produce several types of meteorological information for users utilizing key techniques	➢ Weather Forecasting 1) Radar meteorology (*5 days*) 2) Exercises in satellite meteorology (*6 days*) 3) Storm-surge forecasting (*1 day*) 4) Aviation weather forecasting (*1 day*)

(4) Learn to produce climate information with climatology and global environmental data/products, and to brief users on such information	➢ Climatology 1) Climate system (*2 days*) 2) Global warming (*1 day*) 3) Climate monitoring (*1 day*) 4) Long-range forecasting (*2 days*) 5) Exercises in processing climate data (*1 day*)
(5) Develop comprehensive and concrete Action Plan to address issues of their own NMHSs	➢ Creation of Action Plan ➢ Presentation of Action Plan and discussion at the end of the Core Phase (*1 day*)

Program Structure



Note:

**The participants are highly expected to share "Action Plan" and the lessons learned through this program with their supervisors and colleagues in their organizations after return.*

**The content of the programs may be subject to change.*

**The program mainly focuses on basic knowledge and technology on meteorological services.*

III. Conditions and Procedures for Application

1. Expectations to Participating Organizations

(1) The program is designed primarily for NMHSs or its equivalent aiming to address specific issues or problems identified in their areas of coverage. Participating organizations are therefore expected to use this program fully specifically for reinforcing their meteorological services.

(2) The program is enriched with content and facilitation schemes specially developed in collaboration with the Japan Meteorological Agency (JMA). Participating organizations are expected to help their participants to make required preparation at the Preliminary Phase described in Section II-9 prior to their departure for Japan.

(3) Participating organizations are also expected to make the best use of the results achieved by their participants in Japan after their return.

2. Nominee Qualifications

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

(1) Present position:

Be meteorological officials classified as Meteorologists according to the World Meteorological Organization (WMO) personnel categories.

(2) Occupational background:

Be presently engaged in meteorological services at NMHSs or its equivalent.

Note:

**Those who belong to other meteorological organizations aside from NMHSs may not be qualified.*

(3) Work experience:

Have work experience of meteorological services for more than 3 years.

(4) Academic record:

Have a Bachelor of Science and/or an Engineering degree.

(5) Age:

Be under 40 years of age in principle.

(6) Computer skill:

Have knowledge and experience of using basic PC software (especially Word, Excel and PowerPoint).

(7) Language:

Have an excellent command of spoken and written English.

(8) Health:

Be in good health physically and mentally, to participate in the program in Japan.

Pregnant applicants are not recommended to apply due to the potential risk of health and life issues of mother and fetus.

Note:

**Gender Consideration: JICA is promoting Gender equality. Women are encouraged to apply for the program.*

3. Required Documents for Application

(1) **Application form**: The Application Form is available at **JICA office (or the Embassy of Japan)**.

** If you have any difficulties/disabilities which require assistance, please specify necessary assistances in the Medical History(1-(d)) of the Application Form. It may allow us to prepare better logistics or alternatives.*

(2) **Attachments**: to be submitted with the Application Form.

(2)-1 **Photocopy of passport**: Attach the photocopy if you possess your passport which you will carry when entering Japan for this program. If not, you are requested to submit its photocopy as soon as you obtain it.

** Photocopy should include the followings:*
Name, Date of birth, Nationality, Sex, Passport number and Expire date.

(2)-2 **Nominee's English Score Sheet**: Attach the photocopy if you have any official documentation of English ability. (e.g., TOEFL, TOEIC, IELTS)

(2)-3 **Questionnaire**: Fill in ANNEX I.

4. Procedures for Application and Selection

(1) **Submission of Application Documents**

Closing date for applications to the JICA office: Please inquire to the JICA office (or the Embassy of Japan).

After receiving applications, the JICA office (or the Embassy of Japan) will send them to **the JICA Center in Japan by November 4 (Wed), 2020.**

(2) **Selection**

After receiving the documentation through proper channels from your government, the JICA office (or the Embassy of Japan) will conduct screenings, and then forward the documents to the JICA Center in Japan.

Selections will be made by the JICA Center in consultation with the Japan Meteorological Agency (JMA) based on the submitted documents. The applying organization with the best intention to utilize the opportunity of this program will be highly valued in the selection.

Qualifications of applicants who belong to the military or other military-related organizations and/or who are enlisted in the military will be examined by the Government of Japan on a case-by-case basis, consistent with the Development Cooperation Charter of Japan, taking into consideration their duties, positions in the organization, and other relevant information in a comprehensive manner.

(3) **Notification of Acceptance**

Notification of the results will be made by the JICA office (or the Embassy of Japan) **no later than November 20 (Fri), 2020**.

5. 〈For Accepted Candidates Only〉

Accepted Candidates who receive the Notification of Acceptance are required to prepare documents and materials for the Preliminary Phase as shown below.

5-1. Documents to be submitted:

(1) **ANNEX II-I** (Country Report)

(2) **ANNEX II-II** (Functions of Your Organization)

(3) **Presentation file of Country Report** (Power Point)

-Deadline:

December 18 (Fri), 2020

-Contact Person:

Submit to Atsuko UDO (Ms.) (Udo.Atsuko@jica.go.jp / tictee@jica.go.jp).

5-2. Materials for discussion:

All the participants are also advised to bring necessary materials and data for developing Action Plans during the program. (see Annex III)

Please make sure to discuss the intended theme of Action Plan with your supervisors prior to departure.

6. Conditions for Attendance

(1) to strictly adhere to the program schedule.

(2) not to change the program topics.

(3) not to extend the period of stay in Japan.

(4) not to be accompanied by family members during the program.

(5) to return to home countries at the end of the program in accordance with the travel schedule designated by JICA.

(6) to refrain from engaging in any political activities, or any form of employment for profit or gain.

(7) to observe Japanese 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.

(8) to observe the rules and regulations of the accommodation and not to change the accommodation designated by JICA.

IV. Administrative Arrangements

1. **Organizer**

   (1) **Name:** JICA Tokyo Center

   (2) **Contact:** Atsuko UDO (Ms.) (Udo.Atsuko@jica.go.jp / tictee@jica.go.jp)

2. **Implementing Partner**

   (1) **Name**: Japan Meteorological Agency (JMA)

   (2) **URL**: https://www.jma.go.jp/jma/indexe.html

   (3) **Remark**: The Japan Meteorological Agency (JMA) is the National Meteorological Service of the Government of Japan. The ultimate goals of JMA are: (1) prevention and mitigation of natural disasters, (2) safety of transportation, (3) development and prosperity of industry, and (4) improvement of public welfare.

3. **Travel to Japan**

   (1) **Air tickets**: The cost of a round-trip ticket between an international airport designated by JICA and Japan will be borne by JICA.

   (2) **Travel insurance**: Coverage is from time of arrival up to departure in Japan. Thus traveling time outside Japan will not be covered.

4. **Accommodation in Japan**

   JICA will arrange accommodation for the participants in Japan:

JICA Tokyo Center (JICA Tokyo)
Address: 2-49-5 Nishihara, Shibuya-ku, Tokyo 151-0066, Japan
Tel.: +81-3-3485-7051 Fax: +81-3-3485-9655
(“81” is the country code for Japan, and “3” is the local area code)

   If there is no vacancy at JICA Tokyo, JICA will arrange alternative accommodation. Please refer to facility guide and service guide of JICA Tokyo at its URL and Movie.

5. Expenses

The following will be provided for the participants by JICA:

(1) Allowances for accommodation, living expenses, outfits and shipping

(2) Expenses for study tours (basically in the form of train tickets)

(3) Free medical care for participants who become ill after arriving in Japan (costs related to pre-existing illness, pregnancy, or dental treatment are not included)

(4) Expenses for program implementation, including materials

For more details, please see “III. ALLOWANCES” of the brochure for participants titled “KENSHU-IN GUIDE BOOK,” which will be given before departure for Japan.

6. Pre-departure Orientation

A pre-departure orientation will be held at the respective country’s JICA office (or the Embassy of Japan), to provide participants with details on travel to Japan, conditions of the program, and other matters.

V. Other Information

Messages from the Concerned Partners for you:

Please refer the messages below for the applicants.

(1) **From Implementing Partner**

The JICA KCCP "Reinforcement of Meteorological Services" has a long history over 45 years providing comprehensive lectures in meteorology, and more than 50 instructors are waiting for you. In the past, there were totally about 350 graduates, and I find that many of them are now leading meteorological services in their own countries.

Staying in Japan for months, you will also have a lot of opportunities to experience Japanese cultures. I expect that you and us will foster and deepen friendship through this program.

I am looking forward to seeing you in Japan.

Akihiko SHIMPO,
Head of Office of International Affairs,
Japan Meteorological Agency

(2) **From Past Participant of Mozambique in 2019**

To be honest I feel that is not easy and just to choose what I would consider as best learning in this JICA's program, since all training was of great of importance to me, my country, my organization as well. Through the program, it became much clear to me that for better quality of weather forecast, it is extremely important to follow accurately all procedures without under valuing any of them.

Since my return to home, I've had the opportunity to put into practice what I learned. Following my action plan, I am currently working on the project of FAO (Food and Agriculture Organization of the United Nations) as a representative of my department. The main target of this project is to develop weather forecast bulletin for Mabalane district in order to support local farmers in their activities.

Hope this program will be able to train more meteorologists and improve their services.

Mr. Luis Adriano CHONGUE,
National Meteorology Institute, Mozambique

VI. ANNEX

Annex I **Questionnaire** (for All Applicants)

Annex II-I **Country Report** (for Accepted Candidates Only)

Annex II-II **Functions of Your Organization** (for Accepted Candidates Only)

Annex III **Action Plan** (for Reference of All Participants)

ANNEX I - All Applicants

* *Please submit this sheet **with the Application Form**.*

Questionnaire

Country	Name

1. **Tentative Theme of your Action Plan (see Annex III)**
   **Please make sure to discuss the intended theme that you would like to focus on your Action Plan with your supervisors.*

2. **Detailed Work Experience**: Please provide the following information on your work experience at NMHS.

	Period (years)	Notes (if necessary)
Administration/management		
General/personnel/finance		
Observation (management)		
Forecasting (management)		
Observation (operation/analysis)		
Surface		
Upper-air		
Radar		
Other ( )		
Weather forecasting (operation/analysis)		
Very-short-range forecasting		
Daily forecasting		
One-week forecasting		

NWP		
Use of NWP weather maps (Z500, T850, EPSgrams, etc.)		
Use of NWP guidance (bias correction, etc.)		
Use of graphical tools		
Programming of NWP guidance		
Programming of NWP models		
Climate services		
Climate monitoring		
Climate change projection		
PC experience		
Software (Word Excel PowerPoint)		
Internet/Email		
Programming		
FORTRAN		
C		
R		
Other (Indicate experience in the “Notes” column, e.g., bsh, perl, python.)		

ANNEX II-I - Accepted Candidates Only

1. Country Report

Please follow the instruction below for your **Country Report**.

1. Contents: Please cover the contents shown below.
2. Volume: within 10 pages
3. Format: Be typewritten on A4-size paper (MS Word is recommended)
4. Submission: to Atsuko UDO (Ms.) (Udo.Atsuko@jica.go.jp / tictee@jica.go.jp) by **December 18 (Fri), 2020**
5. Note: Should be submitted with *ANNEX II-II* and *a file of Country Report Presentation*.

All the accepted candidates who receive the notification of acceptance are requested to prepare and submit “Country Report”.

(1) Objective

1) To share information about your NMHS with representatives of JMA and other participants in order to enhance mutual understanding.
2) To help your identify the critical issues of your NMHS to be addressed during the program for Action Plan.

(2) Contents

1) The meteorological and climatological characteristics of your country.
2) Major severe weather phenomena and natural disasters in your country, and your organization’s activities to address such problems.
3) Your organization's position within your country’s disaster management system, including the updated information on Disaster Management Act in your country.
4) Organizations such as ministries/agencies in charge of disaster risk management, media operators and local governments that directly receive weather warnings/advisories.

5) Major problems in your country (or organization) in the field covered by this program (numerical weather prediction, radar, satellite image analysis, climate-related information, etc.).
6) Personal views on further development of your NMHS.
   Please complete the relevant parts of the Table in Annex II-II with all the necessary information regarding your organization and attach it to the report.
7) Examples of weather bulletins such as weather forecasts, warnings and advisories issued by your NMHS.
8) Flowchart showing how warnings and advisories are disseminated from your NMHS to the community.

**Please attach an organizational chart to the Country Report.*

2. Country Report Presentation

Please follow the instruction below for your **Country Report Presentation**.

1. Length: 30 minutes (20 minutes for the presentation and 10 minutes for Q and A)
2. Format: MS Power Point is recommended
3. Submission: to Atsuko UDO (Ms.) (Udo.Atsuko@jica.go.jp / tictee@jica.go.jp) by **December 18 (Fri), 2020**, together with Country Report.

At the beginning of the program, all participants are required to deliver a presentation based on their Country Reports.
Please prepare the presentation file aside from the Country Report. Visual aids (graphics, photos, etc.) are also encouraged.

ANNEX II-II - Accepted Candidates Only

** Please attach this sheet and an organizational chart to the Country Report (ANNEX II – I).*

Functions of Your Organization

Country	Name

Organization	
Office numbers	Headquarters: Local offices: Research institutes: Training institutes:
Staff numbers	Headquarters: National total:
Supervising government ministry	

Observation		
Observation station numbers	Surface	Manned: Automated:
	Upper-air	Radiosonde: Other ( ):
	Radar	Conventional: Doppler: (Dual polarization type:)
	Marine	Wave (buoys, etc.): Tide gauge:
	Environment	CO_2: O_3: Other ( ):
Numbers of stations from which	Surface	Manned: Automated:

Headquarters receives data within three hours	Upper-air	Radiosonde: Other ( ):
	Radar	Number: Are radar data composite? (Yes/No) If so, how many sites are used for such compositing? Number:
Calibration of instruments for surface observation	1. Does the NMHS calibrate observational instruments at the calibration laboratory? (Yes/No) 2. Does the calibration laboratory guarantee the traceability of measurements to international standards (e.g., System International (SI))? (Yes/No)	
Inspection and maintenance	Does the NMHS conduct regular inspections and/or maintenance of the following: 1. Surface observing stations? (Yes/No) 2. Radar stations? (Yes/No) If so, please indicate the relevant periodicity. ( )	

Telecommunications		
Domestic communications among Headquarters, local offices and observation stations (multiple answers OK)	1. Telephone 3. Dedicated line (bps) 4. Internet 6. Short-message service (SMS)	2. Radio 5. VSAT 7. Email
Circuit speed of Internet at Headquarters	( ) bps	

Use of NWP for operational forecasting (Add rows if necessary)					
In-house NWP		Model	Horizontal resolution/number of vertical layers	Daily number of runs	Usage (e.g., forecast hours/days)
	e.g.	WRF	10km/50	4	Very-short-range forecast
	1.				
	2.				
	3.				
NWP model output from other centers		Source (e.g., JMA, ECMWF, UKMO)	Route (e.g., Internet, GTS)	Data type (e.g., raw, pictures)	Usage (e.g., forecast hours/days)
	e.g.	JMA	GTS, Internet	Raw, pictures	1-3-day forecast
	1.				
	2.				
	3.				

Use of geostationary satellite data for operational forecasting (Add rows if necessary)				
	Satellite (e.g., Himawari, GOES, Meteosat)	Data collection method (e.g., Internet, GTS, satellite broadcast)	Visualization method (e.g., website, SATAID, other software)	Frequency of use in the operation (e.g., always, usually, occasionally, rarely)
e.g.	Himawari-8	Internet, satellite broadcast	Online, SATAID	usually
1				
2				
3				

Issuance of weather forecasts (Add rows if necessary)		
	Forecast ranges (e.g. hours, days)	Daily number of issuances
e.g.	3 days	3
1		
2		
3		

Computers used for forecasting operation and technical development	
Number of PCs at Headquarters used for	Operational: (e.g., observational data monitoring, NWP product display) OSs (e.g., Windows8, Linux) : ( ) Technical development: OSs (e.g., Windows8, Linux) : ( )

Issuance of warnings/advisories	
Warning/advisory names	1. Flash Flood, 2. Drought, 3. Strong Wind, 4. Tornado, 5. Hailstorm, 6. Thunderstorm, 7. Heavy Snow, 8. Freezing Rain, 9. Dense Fog, 10. Tropical Cyclone, 11. Storm Surge, 12. Heat Wave, 13. Cold Wave, 14. River Flood, 15. Sand and Dust Storm, 16. Avalanche, 17. Forest or Wild Land Fire, 18. Smoke, 19. Others (e.g., Marine warnings) ( )
Warning/advisory coverage area	National / Provincial / Municipal / Other (please specify)
Warning/advisory-issuing organization	Headquarters / Local offices / Other ( )

Climate services	
Long-range forecasting	Targets (monthly, three-month, seasonal, monsoon onset/activity, El Niño/La Niña): Sources (e.g., GPC Tokyo, RCC Tokyo, WMO El Niño Update):
Climate monitoring	Targets (monsoon, extreme events, monthly/seasonal/annual conditions): Sources (e.g., RCC Tokyo) :
Climate change projection	Targets (temperature, precipitation, monsoon, extreme events): Source (e.g., IPCC, Meteorological Research Institute (MRI)/JMA, research institute/university): ( )
Major users of climate services	agriculture and food security / disaster risk reduction / health / water / energy / others ( )

Opportunities for interaction with users	Are there any opportunities for interaction with users of climate services (Yes/No) If so, how and with whom? ( )

ANNEX III – For Reference of All Participants

Action Plan

As the outcome of the program in Japan, all the participants are required to formulate Action Plan, which will be implemented in your organization after your return utilizing your acquired knowledge and techniques.
You will be provided with opportunity to deliver a presentation on it at the end of the Core Phase.

1. Instruction

You are requested to

Prior to departure

(1) Pick several topics from the issues identified in your Country Report.
(2) Discuss the intended theme with your supervisors prior to departure for Japan.

During Core Phase

(3) Develop an effective and concrete Action Plan using knowledge and techniques acquired from the program, in consideration of existing human and financial resources in your organization.
(4) Deliver a presentation (MS Power Point) on the Action Plan at the end of the Core Phase.

After return to home country

(5) Share the Action Plan with your supervisors and colleagues in your organization for practical action after your return.

2. Contents

The Action Plan should include the contents shown below.

(1) Theme
(2) Background
(3) Objectives (goals)
(4) Direct and indirect beneficiaries
(5) Action components
(6) Implementation schedule
(7) Responsible agencies and their roles
(8) Strategies and tactics for implementation
(9) Monitoring and evaluation
(10) Budget and resources

Further guidance will be provided to participants after arrival in Japan.

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, Knowledge Co-Creation Programs, JOCV programs, etc.

Within this wide range of programs, Knowledge Co-Creation 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 and are 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. Correspondence can also be addressed to:

JICA Tokyo Center (JICA TOKYO)
Address: 2-49-5 Nishihara, Shibuya-ku, Tokyo 151-0066, Japan
TEL: +81-3-3485-7051 FAX: +81-3-3485-7904