

Knowledge Co-Creation Program (Group & Region Focus)

GENERAL INFORMATION ON

Integrated Lake, River And Coastal Basin Management For Sustainable Use And Preservation Of Water Resources

課題別研修「水資源の持続可能な利用と保全のための統合的湖沼・河川・沿岸流域管理」 *JFY 2019*

NO. 201984740J002 / ID. 201984740

Course Period in Japan: From August 18, 2019 to October 18, 2019

This information pertains to one of the JICA Knowledge Co-Creation Programs (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 (KCC) Program' as a New Start

In the Development Cooperation Charter which was released from the Japanese Cabinet in 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

Lakes and other naturally impounded forms of water, such as wetlands, marshes and ponds provide for a variety of ecosystem services, and, together with inflowing and outflowing rivers and their subsurface water flows, often play a vital role as sources of drinking, agricultural and industrial waters. These natural systems are generally interlinked also by artificially impounded water systems of reservoirs and their inflowing and outflowing man-made channels. The complex combinations of these natural and artificial systems of flowing and non-flowing waters constitute a basin system extending up toward the upper watershed areas of forested lands, occupying the croplands and other vegetated lands, the densely populated urban and industrial regions, and then the coastal region where there may also be brackish as well as saline lagoons and intertidal deltas that often serve as the cradles of ecosystem habitats providing for fishery resources and for recreational activities.

In recent years, however, there is a growing concern especially in developing countries about the degradation of basin environments due to a variety of resource use stresses. They are caused by reduction of buffering self-purification capacities, climate mediation, habitat protection, etc. Technical officers and policy makers in charge of managing such complex basin systems, particularly with lakes and other impounded systems serving for critically important part, are required to have comprehensive knowledge and skill about the possible approaches for sustainable basin management. In order to meet such needs, the program titled "Integrated Basin Management for Lake Environment" was conducted for the past 11 years. Following that, this program has launched to meet such needs, while taking into account the importance of lakes and other impounded forms of water closely linked to the upstream and downstream rivers as well as to the coastal waters.

For what?

This program is designed to strengthen the participants' capacity to apply the concept of Integrated Lake Basin Management (ILBM) for meeting the challenges in basin management consisting of lakes, rivers and coastal waters (hereinafter we call it as "basin management") of natural as well as man-made origins.

For whom?

Mid-career government officials, senior researchers and related stakeholders responsible for the management of lakes, rivers and coastal basins for sustainable use.

This course treats rivers (basically lotic waters) with lakes and coastal waters (basically lentic waters) integrally as forming lentic-lotic basin systems. Hence, even if participants may be responsible exclusively for river water resource management, for example, they should be sufficiently prepared to relate to the lake and/or coastal water management issues and challenges in their basin systems.

How?

This program is composed of 3 stages with 11 topics according to the various ILBM (Integrated Lake Basin Management) resource materials. ILBM is an approach for achieving sustainable management of lakes and reservoirs through gradual, continuous and holistic improvement of basin governance, including sustained efforts for integration of institutional responsibilities, policy directions, stakeholder participation, scientific and traditional knowledge, technological possibilities, and funding prospects and constraints. As implied above, though the terminology implies "lake" as a central theme, the ILBM concept itself is applicable to a basin system consisting of lakes, rivers as well as coastal waters.

In the first stage, the participants will review the biophysical characteristics of lakes, rivers and coastal waters and their resource use features. In the second stage, the participants will learn how to address the governance challenges in basin management, focusing on the concept of ILBM. And finally, the participants will learn how to integrate all the major components of basin management in the form of ILBM Platform Process.

The program will be implemented through lectures, field visits and interactive sessions. The participants will work closely together with those from other countries having different technical and disciplinary backgrounds, in recognition that basin management generally involves various sector organizations and stakeholders having different sector interests and priorities.

* The GEF-LBMI Report, "Managing Lakes and their Basins for Sustainable Use" can be downloaded from the following page.

https://www.ilec.or.jp/en/pubs

Sustainable Development Goals (SDGs)

The United Nations Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development were adopted by world leaders in September 2015 and the Agenda call for action by all countries. As a development cooperation agency, JICA is committed to achieving the SDGs. This course aims to promote basin management of lakes, rivers or coastal waters in participating countries, which contributes to realize the goal 6, 13, 14, 15 to ensure natural environmental conservation.











II. Description

1. Title (No.): Integrated Lake, River And Coastal Basin Management For Sustainable Use And Preservation Of Water Resources (201984740J002)

2. Course Period in JAPAN

August 18, 2019 to October 18, 2019

3. Target Regions or Countries

Indonesia, Panama, Bangladesh, Brazil and Myanmar

4. Eligible/Target Organization and Participants:

Division in national/local government, which is in charge of basin management of lakes, rivers or coastal waters.

* Basin Management of lakes, rivers or coastal waters requires close cooperation among different sectoral organizations. This program offers some clues as to how such cooperation may be pursued. Representatives from sectoral organizations willing to explore ways to achieve sustainable basin management are welcome to send a participant to this program.

5. Course Capacity (Upper limit of Participants):

10 participants

6. Language to be used in this program:

English (including English translated from Japanese through interpreters)

7. Course Objective:

For the participants to become adequately knowledgeable about the fundamental of lake-river-coastal basin management, and to become able to play a major catalytic role in developing the needed governance framework.

The Course will guide the development of a suitable Action Plan for individual participants.

8. Overall Goal:

The lake-river-coastal basin management plans and programs are implemented gradually, incrementally and for a long period of time so as to be able to achieve sustainable resource development, use and conservation for all of the stakeholders within the basin. The plans and programs are implemented in close cooperation with relevant governmental and non-governmental organizations.

9. Expected Module Output and Contents:

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

(1) Preliminary Phase in Participant's Home Country

Participating organizations make required preparation for the Program in their respective countries.

[Output 1] Prelin	【Output 1】Preliminary Basin Report (BR) and Basin Questionnaire (BQ) are completed.							
Modules	Activities							
Report Preparation	 Formulation of Preliminary Basin Report and Basin Questionnaire Participants are required to prepare 1) Preliminary Basin Report (BR) and 2) Basin Questionnaire (BQ), according to the instructions in <i>VI. ANNEX 1</i> and <i>VII. ANNEX 2</i>. Participants will be required to give a short presentation on their Basin Report (BR), using Power Point slides at the beginning of the program after arriving in Japan. Basin Report (BR) & Basin Questionnaire (BQ) should be typewritten single-spaced in English (about 15 pages, A-4 size). Please submit BR together with your application form. As for BQ, please submit it to JICA GIGAPOD by August 2, 2019 (http://jica.gigapod.jp/g2ff7c0b9bf220478995f456da108e4a11e452073) ID and PW information will be informed after selection of participant is completed. Participants are recommended to bring supplementary materials, such as photos and maps, which show typical environmental status of the target lake-river-costal basin systems of their countries. 							



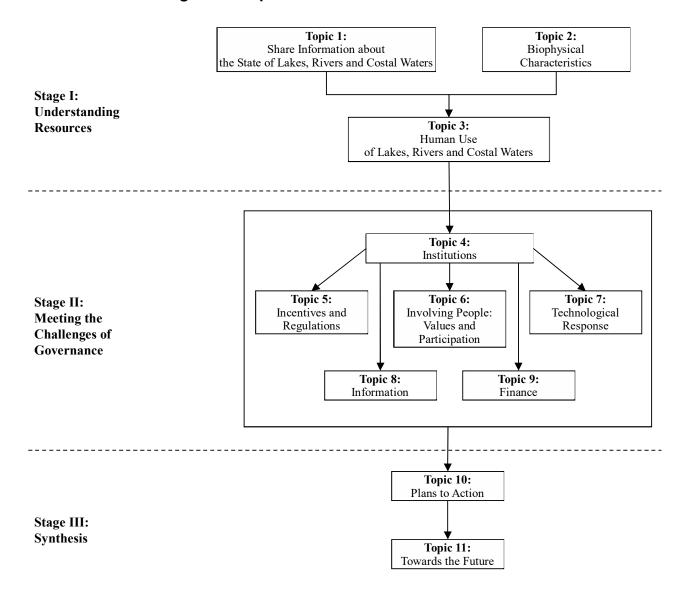
(2) Core Phase in Japan (August 18, 2019 to October 18, 2019)

Participants dispatched by the organizations attend the Program implemented in Japan.

[Introduction]				
Modules	Subjects/Agendas/Methodology			
	Course Orientation			
	♣ Presentation of BRs			
Introduction	 Each participant will make a presentation on BR. 			
madadaan	 Sharing the <u>difficulties or challenges which participants</u> organizations are 			
	facing and confirming what should be learned during the course.			
	rticipants are able to explain the resources of lakes, rivers and coastal			
waters and their u	utilization.			
Modules	Subjects/Agendas/Methodology			
Stage I:	Topic 1: Share Information about the State of Lakes, Rivers and Coastal Waters			
Understanding	Topic 2: Biophysical Characteristics			
Resources	Topic 3: Human Use of Lakes, Rivers and Coastal Waters			
[Output 3] Participants are able to explain the challenges of governance in the field of basin management in general and in their respective countries.				
Modules	Subjects/Agendas/ Methodology			
Stage II: Meeting	Topic 4: Institutions			
the Challenges of	Topic 5: Incentives and Regulations			

Governance	Topic 6: Involving People: Values and Participation					
	Topic 7: Technological Response					
	opic 8: Information					
	Topic 9: Finance					
	cipants are able to propose their draft Action Plans, to solve the					
-	es which participants' organizations are facing, by properly					
	ponents of the governance framework involving institutions, policies,					
<u> </u>	pation, technological investments, information, financing and other					
considerations.						
Modules	Subjects/Agendas/Methodology					
Stage III: Synthesis	Topic 10: Plans to Action					
	Topic 11: Towards the future					
Draft Action Plan	Interview with Course Leader to receive guidance on making Draft Action Plan					
Preparation	(Participants will have several opportunities to have consultation during the					
•	program)					
	Preparation of Draft Action Plan					
	Presentation and Discussion of Draft Action Plan					

*Flowchart of the Program in Japan



(3) Finalization Phase in Participant's Home Country

[Output 5] organizations.	Draft Action Plans are shared and discussed by the participating			
Discussion and	Sharing and discussing of draft Action Plan in the participating organization			
Finalization of	♣ Finalization of draft Action Plan for implementation			
Action Plan				



[Program Objective] For the participants to become adequately knowledgeable about the fundamental of basin management, and to become able to play a major catalytic role in developing the needed governance framework.

* Please refer to Annex 3 & 4 for you to grasp the aims of the program.

For your reference: Program Schedule in 2018

L: Lecture, O: Observation, P: Practice, D: Discussion, E: Exchange, N: No official program

Date		Time	Туре	Subject
10/22	MON			Arrival in Japan
10/23	TUE	10:00 - 11:00	L	Briefing
		11:00 - 12:30	L	Program Orientation
				Explanation on Health Management
		18:00 - 19:30	Р	Japanese Language Class (1)
10/24	WED	By 9:45	L	Gather at Briefing Room by 9:45
		9:45 - 12:00		General Orientation Lectures:
				Japanese History and Culture
		13:15 - 15:15		Japanese Economy
		15:30 - 17:30		Education in Japan
		18:00 - 19:30	Р	Japanese Language Class (2)
10/25	THU	9:00 - 12:30		By 9:00 Finish Check out
	AM			Load all luggage on bus
				Dpt. JICA → Move to Kusatsu
				11:00 - 12:30
				Quick Walk Around Kusatsu Station
				- SMBC ATM - Local bus stop
				- Buy lunch and food at
				Al Plaza (Supermarket)
				, a committee (conference of
				12:30 - Dpt. Al Plaza → ILEC
10/25	THU	13:00 - 15:00		Check in, Lunch
	PM	4		ILEC Facility Orientation
		15:00 - 15:30	L	Opening Ceremony
		15:30 - 16:00		Course Orientation
		16:00 - 17:00	L	Introduction of ILEC Activities
10/26	FRI	9:30 - 16:30	L	Integrated Lentic and Lotic Water Basin
				Management (ILLBM) (1)
10/27	SAT		N	Holiday (No Official Programme)

10/28	SUN		N	Holiday (No Official Programme)
10/29	MON	9:30 - 16:30	D	Report Presentation by the Participants
10/30	TUE	10:00 - 12:00	L	Comprehensive Conservation of Lake Biwa
		13:00 - 15:00	L	Regulatory Measures Imposed on the Lake Biwa Basin Industrial Wastewater
		15:15 - 16:45	L	ILBM and the Forestry Policy
10/31	WED	9:00 - 10:00	L	Lake Biwa Environmental Research Institute (LBERI)Overview of LBERI
		10:00 - 11:30	0	Water Quality Changes in Lake Biwa and Conservation Countermeasures
		13:30 - 16:30	0	Konan-Chubu Sewage Treatment Plant
			0	Yamadera River Urban Drainage Treatment System Project Site
11/1	THU	9:30 - 10:30	L	Environmental Education Program at Lake Biwa Museum
		10:30 -12:00	Р	Lake Biwa Plankton Studies
		13:30 - 16:00	0	Observation of the Museum
		16:15 - 17:45	Р	Japanese Language Class (3)
11/2	FRI	9:00 - 12:30	P	Sampling and Analysis of Lake Biwa Water
		14:00 - 16:30	0	Fisheries in Lake Biwa
11/3	SAT			Holiday
11/4	SUN			Holiday
11/5	MON	10:15 - 15:45	L	Basic Limnology and Ecology of Lake Eutrophication
11/6	TUE	9:30 - 16:30	L	Fundamentals of Geospatial Technology (1)
11/7	WED	9:30 - 16:30	L	Fundamentals of Geospatial Technology (2)
		17:00 - 18:30	Р	Japanese Language Class (4)

11/8	THU	9:30 - 16:30	L	Fundamentals of Geospatial Technology (3)
		16:40 - 17:10	L	Video-learning: Minamata Disease Caused by Mercury Pollution
11/9	FRI	9:30 - 16:30	L	Integrated Lentic and Lotic Water Basin Management (ILLBM) (2)
11/10	SAT	10:00 - 11:30	L	Presentation on Rekishi Kaido Program (Historic Destination Routes) Rekishi Kaido, Japanese Essence
		11:30 - 12:35		Move (walk) and Lunch
		13:00 - 17:00	0	Visits in Kyoto City: - Fukujuen (Experience
11/11	SUN		N	Holiday
11/12	MON	9:30 - 15:30	L	Organic Farming / Toxic Substance Management in Lake Basin Area
		16:00 - 17:00	E	Exchange Meeting with Moriyama Super Global High School (SGH)
11/13	TUE	9:30 - 12:30	L	Overview of the Osaka Sewerage Systems for the Conservation of Osaka Bay and the Inflowing River Water Quality
		13:30 - 16:30	L	Integrated Lentic and Lotic Water Basin Management (ILLBM) (3) General Guidelines on Preparation of Action Plans (1)
11/14	WED	9:30 - 11:30	0	Kitayamada Slow Sand Filter Water Purification Plant
		14:00 - 16:30	E	Exchange with Junior High School Attached to Faculty of Education, Shiga University

11/15	THU	10:15 - 17:00	L	 - Lake Basin Management Policies and Institutions - Options for Lake Management Policies - Short Presentation by the Participants
11/16	FRI	9:30 - 12:30	L	Environmental Conservation and Citizens' Participation
		13:30 - 16:30	L	- Water Use in the Lake Biwa and Yodo River Region - Introduction of Water Purification Technologies
11/17	SAT	9:30 - 16:30	L	Fundamentals of Geospatial Technology (4) Optional
11/18	SUN		N	Holiday
11/19	MON	9:30 - 12:30	L	Development and Management of Water Resources
		14:00 - 16:00	0	- Biwako Office
				- Seta River Weir
11/20	TUE	10:00 - 12:00	0	- Outline of Yodo River - Yodo River Museum
		13:30 - 15:30	0	- Integrated Management of Yodo River Dams - Yodogawa Dam Integrated Management Office
		15:30 - 17:30		SMBC Hirakata Branch Office (Withdraw all the allowance.)
				Move to JICA Kansai
11/21	WED	9:30 - 11:30	L	Integrated Coastal Zone Management (ICZM) (1)
		11:30 - 12:30	L	Integrated Coastal Zone Management (ICZM) (2)

		13:30 - 15:30	L	Integrated Coastal Zone Management (ICZM) (3)
		15:45 - 17:00	0	Disaster Reduction and Human Renovation Institution
11/22	THU	10:30 - 11:30	0	Integrated Coastal Zone Management (ICZM) Field Trip (1)Amagasaki Lock
		13:00 - 15:00	0	Integrated Coastal Zone Management (ICZM) Field Trip (2) Kitabori Canal Base
11/23	FRI			Holiday
11/24	SAT	AM - PM	E	Home Visit
11/25	SUN	AM - PM		Holiday
				Check out JICA
				Return to ILEC by JR trains and bus
11/26	MON	9:30 - 12:30	L	Application of GIS: Towards the Integrated Management of Catchment of Lake Biwa, Yodo River and Osaka Bay
		13:30 - 15:00	L	What is Jichikai ? (Neighbourhood Association) - The Case of My Town
		15:15 - 16:45	D	Mid-term Evaluation Meeting
11/27	TUE	9:30 - 12:30	L	Integrated Lentic and Lotic Water Basin Management (ILLBM) (4)General Guidelines on Preparation of Action Plans (2)
		13:30 - 17:00	0	Environmental NGO Activities: Friends of Lake Biwa (FLB)

11/28	WED	9:30 - 12:30 13:30 - 16:30	0	- Environmental Conservation Initiatives by Private Company (Hiyoshi Corporation) - Combined Septic Tank - Wastewater Management System in Rural Area Combined Septic Tank: Itoki Kansai Plant Rural Wastewater Management System:
				Sabae Area
11/29	THU	10:00 - 16:00	L	Assessing Lake basin Management Program from an ILBM Perspective
		16:15 - 17:30	D	Group Discussion
11/30	FRI	9:30 - 16:30	L	Introduction to Lake Modeling
12/1	SAT			Holiday
12/2	SUN			Holiday
12/3	MON	9:00 - 18:00	N	Individual Discussion on Preparation of Action Plan (1)(Approx. 40 min. / participant)
12/4	TUE	9:30 - 12:30	L	Lake Basin Management and Environmental Education
		13:30 - 16:30	L	Sustainable Ground Water Use and Conservation
12/5	WED	9:30 - 16:30	L O	Research Center for Environmental Quality Management, Kyoto University - Overview of Water Quality Monitoring - Observation of Research Center
12/6	THU	9:30 - 12:30	L	Role of Irrigation and Agriculture in Lake Basin Management
		13:30 - 15:00	L	Waste Management in Shiga (Japan)
		15:00 - 17:00	D	Opinion Exchange with Japanese Private Companies

12/7	FRI	10:00 - 12:30	0	- Yasu River Dam
				- Ishibe Headwork
		13:30 - 15:30	0	Lower Yasu River and Land Improvement District (LID)
		15:30 - 17:00	0	Paddy Fields Maintained as Fish Cradles
12/8	SAT			Holiday
12/9	SUN			Holiday
12/10	MON	9:30 - 16:00	L	Economic Analysis of Lake Basin Management
12/11	TUE	9:00 - 11:30	0	Incineration Plant and Final Disposal: Otsu Northern Clean Center
		13:00 - 17:00	0	Yoshitome Reed Processing Factory (Utilization of Reed)
12/12	WED	9:30 - 12:30	0	- Ecological Sanitation - Effluent Treatment Facility
		13:30 - 15:00	P	Practical Training on Water Quality Inspection
		15:15 - 16:45	Р	Introduction of Water Quality Inspection Devices
12/13	THU	9:30 - 16:30	L	Environmental Education and Education for Sustainable Development (ESD)
12/14	FRI	10:30 - 12:00	L	Effective Use of Water in Harie Area, Takashima City
		12:45 - 15:15	0	Kabata System in Harie
		15:30 - 17:00	E	Exchange with Takashima International Friendship Association
12/15	SAT	By 21:00		Holiday / By 21:00 Submission of JICA Questionnaire
12/16	SUN			Holiday

12/17	MON	9:30 - 16:30	L	Integrated Lentic and Lotic Water Basin Management (ILLBM) (5): - with Specific Reference to Financing and Funding Aspects of Lake Basin Management - Payment for Ecosystem Service(PES)
12/18	TUE	9:30 - 16:30	D	Individual Discussion on Preparation of Action Plan (2)
12/19	WED	9:30 - 16:30	Р	Preparation of Action Plan Presentation (Self Study)
12/20	THU	9:30 - 16:30	D	Action Plan Presentations by the Participants
12/21	FRI	10:00 - 10:50	D	Evaluation Meeting
		11:00 - 11:30		Closing Ceremony
		By 12:15 12:30 - 15:00		ILEC Check out Procedure / Luggage Move ILEC → JICA Kansai
12/22	SAT			Departure from Japan

III. Conditions and Procedures for Application

1. Expectations for the Participating Organizations:

- (1) This program is designed primarily for organizations that intend to address specific issues or problems identified in their operation. Participating organizations are expected to utilize the program for those specific purposes.
- (2) This program is enriched with contents and facilitation schemes specially developed in collaboration with relevant prominent organizations in Japan. These special features enable the program 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) Current Duties

Applicants should be either technical officers in charge of lakes/rivers/coastal waters management (including management of rivers flowing into such water bodies) who are expected to assume executive administrative posts in that field or researchers / stakeholders in water quality and ecosystem management who are expected to take leading roles in guiding the lake-river-coastal basin management programs in their countries.

2) <u>Work Experiences</u>: With more than three (3) years' occupational experience in the field.

3) Educational Background:

Applicants should be university graduates or equivalent in the area of Environmental Management.

4) English Language Qualification:

Applicants should have a competent command of English which is equal to TOEFL 90 (iBT) or more (This program includes active participation in discussions, Action Plan development. Please attach official certificate for English ability such as TOEFL, TOEIC etc., if possible.)

5) Health:

Applicants must be in good health, both 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.

(2) Recommendable Qualifications:

1) Age: be between twenty-five (25) and forty (40) years of age

- 2) Computer skill: have a basic knowledge of computer operation such as Microsoft Word, Excel and Power Point. Formulation of action plan, which is an output of the program, requires PC operation skills. Moreover, it is preferable to have basic knowledge of GIS (Geographic
- 3) Gender Consideration: JICA is promoting Gender equality. Women are encouraged to apply for the program.

3. Required Documents for Application:

Information System)

(1) Application Form:

The Application Form is available at the 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 forms. It may allow us (people concerned in this course) to prepare better logistics or alternatives.

Applicants are strongly encouraged to choose one or two of the following "Six Pillars of Governance" which best match their interests, and to describe them in "Area of Interest" in the Application Form – Part B, 6. 3).

Six Pillars of Governance

- (1) Institutions to manage lakes, rivers and coastal basins for the benefit of all basin resource users
- (2) Policies to govern people's use of resources, and its impacts on lakes, rivers and coastal waters.
- (3) Involvement of people to facilitate all aspects of basin management
- (4) Technological possibilities and limitations that often dictate long-term decisions
- (5) Knowledge of both traditional and modern scientific origins as the basis for informed decisions
- (6) Sustainable finances to support implementation of all of the above-noted activities

(2) Preliminary Basin Report

Each participants is required to submit a Preliminary Basin Report with Application Form. Preliminary Basin Report will be used for screening of applicants, and applications without completed Preliminary Basin Report will not be considered as duly qualified.

(3) Photocopy of passport:

Photocopy of passport should be submitted with the Application Form, 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 Expiry date.

(4) Nominee's English Score Sheet (photocopy):

Nominee's English Score Sheet (copy) should be submitted with the Application Form, if you have any official documentation of English ability (e.g., TOEFL, TOEIC, IELTS).

(5) Organization Chart: Please describe correlation charts of organizations which involved in lake-river-coastal basin management, and indicate your organization in it.

Note: Applications not accompanied by Organization Chart, Preliminary Basin Report cannot be duly considered.

Attention!: All documents should be in English and typewritten by PC.

4. Procedure for Application and Selection:

(1) Submission of the Application Documents:

Closing date for applications: 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 **July 8, 2019**)

(2) Selection:

After receiving the documents 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. Selection will be made by the JICA Center in consultation with concerned organizations in Japan. 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) Notice of Acceptance:

Notification of results will be made by the JICA office (or the Embassy of Japan) **not later than** <u>July 19, 2019</u>.

* All the accepted participants are expected to upload a **Basin Questionnaire** to JICA GIGAPOD by **August 2, 2019**.

5. 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 program 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 Kansai Center (JICA Kansai)

(2) Contact: Ms. Eriko MIYASHITA

(Miyashita.Eriko@jica.go.jp, jicaksic-unit@jica.go.jp)

2. Implementing Partners:

(1) Name: International Lake Environment Committee Foundation: ILEC

(2) Contact: Ms. Nobuko YAMAZAKI (nyamazaki@ilec.or.jp)

(3) URL: https://www.ilec.or.jp/en/

(4) Remark: The International Lake Environment Committee Foundation (ILEC), formed in 1986, is an international non-governmental organization (NGO), and obtained legal status in 1987.

ILEC aims for promoting environmentally sound management of natural and man-made lakes and their environments consistent with sustainable development policies by promoting international research and investigation, and by facilitating the exchange of findings and knowledge among the experts throughout the world.

Its building is located on the shore of Lake Biwa in Shiga Prefecture, Japan.

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 the following accommodations for the participants in Japan:

(1) JICA Kansai Center (JICA Kansai)

Address: 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo 651-0073, Japan

TEL: 81-78-261-0383 FAX: 81-78-261-0465

(where "81" is the country code for Japan, and "78" is the local area code)

(2) International Lake Environment Committee Foundation (ILEC)

Address: 1091 Oroshimo-cho, Kusatsu-shi, Shiga 525-0001, Japan

TEL: 81-77-568-4567 FAX: 81-77-568-4568

(where "81" is the country code for Japan, and "77" is the local area code)

Note: Please refer to "V. Other Information" for the stay in ILEC.

If there is no vacancy at <u>JICA Kansai or ILEC</u>, JICA will arrange alternative accommodations for the participants. Please refer to facility guide of JICA Kansai at its URL, https://www.jica.go.jp/kansai/english/office/index.html

5. Expenses:

The following expenses will be provided for the participants by JICA:

- (1) Allowances for meals, living expenses, outfit, 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, and dental treatment are <u>not</u> 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 Embassy of Japan), to provide participants with details on travel to Japan, conditions of the participation in the program, and other matters.

V. Other Information

- Participants who have successfully completed the program will be awarded certificates by JICA.
- 2. For the promotion of mutual friendship, JICA Kansai encourages international exchange between JICA participants and local communities, including school and university students as a part of development education program. JICA participants are expected to contribute by attending such activities and will possibly be asked to make presentations on the society, economy and culture of their home countries.
- Participants are strongly advised to bring their own personal computers for their convenience. Through the program, participants are required to work on computers intensively for various assignments including GIS lecture, preparation of Action Plans, etc. Desk top computers are available in JICA Kansai, however, not in ILEC and other facilities.
- 4. Allowances, such as for living, outfit, and shipping, will be deposited to your temporary bank account (opened by JICA) 2 to 5 days after your arrival in Japan. It is highly advised to bring some cash in order to cover necessary expense for this period.
- 5. It is very important that some of your currency must be exchanged to Japanese Yen at any transit airport or Kansai International Airport (KIX) in Osaka, Japan soon after your arrival. It is quite difficult to exchange money after that, due to limited availability of facility or time during the program.
- 6. Stay in ILEC (Cooking)

<u>Participants are kindly requested to cook for themselves at ILEC</u>, because ILEC has no restaurant. ILEC's accommodation has a kitchen in each room and is equipped with all the kitchen utensils and tableware. Please be ready to cook for yourself at ILEC, where you will spend most of the days in Japan.

Available kitchen utensils:

Dishware: plates, glasses, tea cups, coffee cups, chopsticks, forks, spoons, knives, etc.

Cooking utensils: knives, cutting board, pot and pan for IH cooker, rice scoop, ladle, spatula, bowls, etc.

Cooking devices: microwave, refrigerator, rice cooker, IH cooker, electric kettle

Others: dish soap, sponge, kitchen paper towel, wine opener with bottle opener, garbage can, etc.

VI. ANNEX 1 Preliminary Basin Report

Please complete the Preliminary Basin Report according to the instructions below.

Please submit your Preliminary Basin Report together with Application Form.

Applications not accompanied by Preliminary Basin Report cannot be considered as duly qualified.

It is also recommended to bring the photos and maps which show typical environmental status of the target lake-river-coastal basin system of their choice.

If you need former participants' Action Plans for your reference, please contact Ms. Nobuko YAMAZAKI of ILEC at nyamazaki@ilec.or.jp

Preliminary Basin Report

Please follow the proposed outline below for your Preliminary Basin Report.

- 1. Introduction
- 2. The Lake, River or Coastal zone
- 3. Management of the Basin
- 4. Key Challenges
- 5. References
- 1. Introduction. (based on the part on Basin Questionnaire items, 10 and 11, 14 and 15)

This section should describe the socio-economic context (people, livelihood, economy, institutions, political structure, etc.) of the region, country, or the basin. It should summarize the overall importance of the basin, from the perspective of its significance as a natural habitat and its social, economic, political, cultural and recreational importance to the human population in the region, and for globally-important lakes, rivers or coastal zone of the world.

2. The Lake, River or Coastal zone (based in part on Basin Questionnaire items, 1 through 9)

2.1 Overview

This section should provide information on the biophysical feature of the basin. It should also present basic physical characteristics including the water surface and drainage areas, depth and volume of the lake, etc. The landscape of the drainage basin as well as the past and current land use patterns should also be mentioned. It should also summarize the environmental state of the basin.

List the human and environmental benefits derived from the basin.

2.2 State of the Lake, River or Coastal zone

To be included here is the past and present states of the water environment of lake, river or coastal zone, including water quantity and quality, and aquatic biota (flora and fauna). Any regionally or globally important aspects of the environment of lake, river or coastal zone should be identified.

3. Basin Management of the Lake, River and Coastal zone (based on the part on Basin Questionnaire items, 10 through 14)

3.1 Overview of Management Needs

- What is the importance of the lake, river or coastal zone to the population of its drainage basin? What are the major socio-economic-political characteristics of the basin?
- What is the importance of the lake, river or coastal zone for the economy of the region? Describe a brief history of the resource degradation and environmental problems that the basin has experienced over past decades (e.g., the impacts of industrial, urban, and agricultural development).
- Provide an overview of resource development, use and conservation conflicts within the basin resulting in significant environmental threats to the sustainable use of the lake, river or coastal water resources (resource exploitation, watershed degradation, declining fishery, biodiversity losses, etc.).

3.2 Management Programs and Processes

- To what extent have land-based and water-based activities occurring in and around the basin been reduced (by, for example, control of domestic, industrial and other pollution loads, control of urban and agricultural run-offs, including that resulting from watershed degradation, excessive flow control and water withdrawal, overfishing, loss of wetlands and riparian zones)?
- Are there any formal plans or policies for management of the basin or, in the absence of formal plans and policies, the existing legal and policy basis for lake, river and coastal zone management? Describe the major water pollution control programs, management of water abstraction from the lake and its inflowing rivers, legal framework for the prevention of lake, river or coastal water and its environment quality degradation, including land-use control, environmental and ecosystem management and restoration, as well as specific instruments for financing lake, river or coastal zone management including user fees, taxes, fish levies, zoning charges, tradable permit systems, etc.). This section also should identify important gaps, issues and challenges.

4. Key Challenges (based largely on your insights and impressions)

This section should identify key challenges with regard to such issues as policy development, institutional and management frameworks, capacity building efforts, financing mechanisms, stakeholder involvement, scientific research and community-based knowledge-base development, sharing, transfer and dissemination of information, etc., as well as the corresponding investment approach, considerations and priorities. The questions to ask may include;

- (a) Has there been an emergence of political interest and commitment to managing and using the lake, river or coastal water and its resources in a more sustainable manner, and the reasons for this emergency?
- (b) Have there been attempts to establish sustainable institutions that can adequately address multi-national, multi-sectoral issues and multi-stakeholder interests involved in managing the lake, river or coastal water for sustainable use?
- (c) Will there be efforts to develop financing subsidizing mechanisms for management

- activities focusing on sustainable lake, river or coastal water use?
- (d) Will there be attempts to establish a new legislative framework and policies for lake, river and coastal zone management?
- (e) Will there be efforts to enhance the extent of stakeholder participation in the design and implementation of the lake, river and coastal zone management program?
- (f) Will there be a plan or plans to strengthen the linkages between the lake, river and coastal zone management program and the broader national and regional water resources management efforts?
- (g) Will there be efforts to better incorporate scientific information and research in the lake, river and coastal zone management program?

5. References

List useful supplementary reading materials on the basin, and the region including your country, which complement this Report.

(For Introductory Presentation during the Program)

The accepted participants will be requested to make a short presentation on their Lake, River and Coastal Basin based on Preliminary Basin Report using Power Point slides. Each participants are allocated 30 minutes for presentation including Q & A.

Ш. ANNEX 2 Basin Questionnaire

For accepted Participants only.

Please provide as much information as possible. Information relating to items displayed in boxes below may be omitted from the questionnaire if not readily available. It may, however, be found later in the scientific literature or in the global database, or even during the program. Identify as many reference materials on the subjects as possible and be prepared to have ready access to them if and when needed for improving the Preliminary Basin Report as a Final Report.

Please upload your data to JICA GIGAPOD by August 2, 2019 (Pl. refer to Page 5).

- 1. Basic Information
 - 1.1 Name(s)
 - 1.1.1 In English (All official names, if called in more than one way.)
 - 1.1.2 In local language(s)
 - 1.2 Location
 - 1.2.1 Latitude (range from West to East)
 - 1.2.2 Longitude (range from South to North)
 - 1.2.3 Elevation at water surface from sea level
 - 1.2.4 Riparian countries and sub-national (state, province, etc.) jurisdictions
 - 1.2.5 Non-riparian basin (upstream) countries and sub-national jurisdictions
 - 1.3 Origin
 - 1.3.1 In the case of natural lakes
 - Origin of the lake (e.g., glacial, tectonic, volcanic, etc.)
 - · Estimate of the age of the lake
 - 1.3.2 In case of artificial lakes (reservoirs)
 - Describe the physical features
 - · Years of construction in phases
 - 1.4 Basin and/or Watershed, Map(s)
 - 1.4.1 Major inflowing and out-flowing rivers
 - 1.4.2 Main cities and other points of interest
 - 1.4.3 National/sub-national jurisdictional boundaries
 - 1.4.4 Etc.
 - 1.5 Basin Demography, Map(s)
 - 1.5.1 Population and density distribution
 - 1.5.2 Etc.

(The participants are requested to bring along maps and other resource materials containing geographical, demographical, land-use, geo-hydrological information for the lake, river or coastal zone and its basin and/or watershed.)

- 1.6 Landscape and waterscape
 - 1.6.1 Visual features of the lake, river or coastal basin

(The participants are requested to bring along photos of various kind including

landscape, physical facilities, water quality problems, land and water uses in the riparian as well as upstream regions, biological and ecosystem conditions including unique fauna and flora, etc., for possible use in the final report.)

2. Morphology

- 2.1 Bathymetric map, if available
- 2.2 Volume (in km³)
- 2.3 Surface Area (in km²)
- 2.4 Length and width (in km)
- 2.5 Length of shoreline (in km)
- 2.6 Maximum depth (in m)
- 2.7 Mean depth (in m)
- 2.8 Note on intra- and inter-annual changes in water level and volume, if information is available (provide a note on water level changes due to flow regulations)

3. Water Balance

- 3.1 Inflow (Annual average in m³ per year)
 - 3.1.1 Precipitation
 - 3.1.2 Rivers (Note if they are controlled.)
 - 3.1.3 Groundwater
 - 3.1.4 Diversions
- 3.2 Outflow (Annual average in m³ per year, if information is available.)
 - 3.2.1 Evaporation
 - 3.2.2 Rivers (Controlled?)
 - 3.2.3 Groundwater
 - 3.2.4 Diversions
- 3.3 Retention time (In years, if information is available.)
 - 3.3.1 Theoretical filling time (Lake or Coastal zone) volume/annual inflow)
 - 3.3.2 Theoretical flushing time (Lake or Coastal zone) volume/annual outflow)
- 3.4 Notes on any long-term changes

4. Climate

- 4.1 Average T, min monthly T, max monthly T (in centigrade)
- 4.2 Average Precipitation, min monthly precipitation, max monthly precipitation (in mm)
- 4.3 Prevailing wind directions by season, strength
- 4.4 Seasonal and inter-annual variability (Describe.)

5. State of Ecosystem

- 5.1 Description on the state of ecological health including conservation of fauna and flora
- 5.2 Description on the state of biodiversity conservation

6. Physical Data

6.1 Temperature of water

- 6.1.1 Versus time
- 6.1.2 Versus depth
- 6.2 Freezing period and extent of freezing
- 6.3 Mixing
 - 6.3.1 Vertical
 - 6.3.2 Horizontal (Note main bays, sub-basins of lake.)
- 6.4 Stratification
 - 6.4.1 Period and extent of stratification

7. Chemical Data

- 7.1 Concentrations: The state of chemical water quality in general including the states of eutrophication, i.e., oxygen demand, N and P concentration values (organic, inorganic, particulate, total, if available), salinity, organic and inorganic chemical pollution.
- 7.2 Loadings (tons/yr.) of inputs from rivers, groundwater, and the atmosphere
- 8. Biotic Data (Main species, exotics, productivity change through time)
 - 8.1 The overall state of the lake, river or coastal water ecosystem including its biodiversity
 - 8.2 Phytoplankton, Zooplankton, Fish
 - 8.3 Benthos, Avifauna
 - 8.4 Linkages (e.g., Describe briefly the ecosystem/biodiversity issues in general with regard to littoral wetlands, rivers, air (birds, etc.).

9. State of the Basin

- 9.1 Description of the catchment area including its size (in km²), general geography of the region in relation to the lake and other neighboring water bodies (other lakes connected in chain, for example), catchment (draining-in) system, catchment area of the out-flowing river (draining-out) system
- 9.2 Basin hydrology (Briefly describe basin hydrology, including active as well as non-active parts.)
- 9.3 Soil types (refer to a soil map, if available)
- 9.4 Land cover with changes through time (Briefly describe seasonal land-use changes, by referring to a land-use map.)
- 9.5 Notes on sub-surface drainage (Briefly describe underground water flows, referring to hydrographical and hydrological maps, if available.)
- 10. Uses of the Lake, River or Coastal Water and Its Resource Development Facilities
 - 10.1 Water
 - 10.1.1 Flood/drought control facilities
 - 10.1.2 Drinking water withdrawal and facilities
 - 10.1.3 Agricultural water withdrawal and facilities
 - 10.1.4 Industrial water withdrawal and facilities
 - 10.2 Fisheries and their facilities
 - 10.3 Tourism facilities

10.4 Others

11. Impairments to Uses

- 11.1 Increased algal growth
- 11.2 Increased salinity
- 11.3 Destruction of wetlands
- 11.4 Declining fish stocks
- 11.5 Other

12. Causes of Impairments

- 12.1 Upper-watershed degradation including erosion and siltation
- 12.2 Point and non-point source runoff from urban areas
- 12.3 Shoreline degradation and alterations
- 12.4 Other

13. Structural Management Response

- 13.1 Sewerage system
- 13.2 Industrial wastewater treatment system
- 13.3 Solid and hazardous waste management system
- 13.4 Other

14. Non-structural Management Response

- 14.1 Rules
 - 14.1.1. Informal (informal community rules and voluntary restrictions)
 - 14.1.2. Formal (industrial effluent regulations, protected areas (land use restrictions, ecological reserves), etc.)
- 14.2 Economic Incentives (subsidies, taxes, etc.)
- 14.3 Awareness Raising (public awareness-raising including environmental education, environmental campaigns, activities of environmental NGOs and CBOs, etc.)
- 15. Socioeconomic Information (partial duplication of 1.5)
 - 15.1 Population dynamics (numbers, distribution, main cities, percent urban/rural, etc.)
 - 15.2 Education (extent and types of education, literacy rates, etc.)
 - 15.3 Culture (languages, ethnicity, including indigenous peoples, religion, legends/beliefs about the lake, river and coastal zone)
 - 15.4 Economic sectors (major industries and their production statistics, regional economic development issues including energy, transportation, commerce sectors, livelihood issues in different parts of the lake basin, i.e., coastal regions, upland regions, upper-watershed regions, Gross National Income per capita within the basin (noting how it might differ from the national average(s))

16. Political Situation (partial duplication of 1.2)

16.1 Nations within basin

- 16.2 Sub-national boundaries
- 16.3 Describe briefly the political history of the region
- 16.4 Describe briefly the governance challenges for the people to have;
 - 16.4.1. Access to information
 - 16.4.2. Rights to participation
 - 16.4.3. Access to justice

vm. ANNEX 3 Basin Governance Challenges

<Note> The following preview gives a general description of what this program aims to address during its course, with regard to some of the important challenges that you have listed under 4. Key Challenges in the Basin Report (VI. Annex 1) to be presented at the outset of the program.

Institution

- Is there a good institutional mechanism to ensure vertical (transboundary, regional, national and local) linkages among government agencies in basin management?
- Is there a good institutional mechanism to ensure horizontal linkages between government agencies, industries, scientific institutions and citizen groups, etc., in dealing with lake, river or coastal water resource development and conservation? In particular, is there good institutional collaboration to deal with water pollution and other natural resource degradation activities such as land degradation and overfishing?

Policy

- Is there a national policy for basin management? What, if any, are the major national/regional development plans related to the basin? What, if any, are the major national/regional conservation plans related to the basin?
- What sort of policy reforms have taken place, or are being considered, to overcome
 the constraints to achieving environmentally-sound management and use of the
 resources of the basin, particularly with respect to development of sound policy,
 strengthening of institutional capacity, promotion of environmental investments, and
 development of human resources?

Legislation

- What are the major legislative provisions (laws, regulations, ordinances) pertaining to development and conservation measures for basin management? Does your lake, river or coastal zone have its-specific legislation (e.g. lake laws and ordinances)?
- What are the major regulatory measures introduced for basin management, e.g., effluent standards, ambient standards such as nutrient and chemical concentrations, source-water protection classification?
- What is the state of command-and-control measures? Have industries been well regulated?
- What is the state of voluntary compliance regarding industrial pollution? Have they been able to regulate themselves in preventing lake, river or coastal water pollution?

Stakeholder and community/citizen participation

- What are the major stakeholder groups in the management of your lake, river or coastal zone (e.g., government sectors, institutions, organizations, interest groups, private sectors, etc.)?
- How well have stakeholders been involved in the design and implementation of the lake, river and coastal zone management program(s) (e.g., identification of relevant stakeholders living on the lake shore, as well as those living upstream and

- downstream of the lake, the existing mode, if any, of stakeholder involvement, the relationship between the government and various non-governmental stakeholders)?
- How has involvement of voluntary associations, village organizations, CBOs, NGOs, etc. been promoted/assured?
- How has involvement of women as well as disadvantaged and affected members of community been promoted/assured?
- How has involvement of international/external NGOs been? What have been the benefits and disbenefits of their involvement?

Role of Science

- What is the state of lake, river or coastal water quality monitoring?
- How well have monitoring results been reflected in basin management?
- How well has scientific information been reflected in management plans for your basin?
- List the names of major scientific institutions working on your lake, river or coastal zone including universities, governmental/non-governmental research institutes, private sector laboratories, etc. This has no value unless each institution's role is critiqued.
- What has been the extent of information dissemination and sharing, and the degree of transparency and access to data and information on the lake, river or coastal zone?

Technology

- List some of the major technological interventions for lake, river or coastal water resources development, e.g., water resource development (sewerage comes here too I think), agriculture/irrigation, fisheries/navigation, tourism, etc.
- List some of the major technological interventions for lake resources conservation, e.g., sewerage, industrial pollution control, solid waste management, wetland conservation, etc.

Finance

- Describe briefly the taxation system of your country? How much tax money is retained for local use, such as for management of your basin?
- If you know, what is the general distribution of major sources of funds, for lake, river or coastal zone environment management, such as construction and operation/maintenance of sewerage, and/or other sanitation systems? For example, what portion of construction costs is being borne by the national budget, state budget, local budget, and external financial assistance? Who pays the operations and maintenance costs?
- What are some of the means for raising local funds, taxes, charges, fees, etc., used for conservation projects?
- Do you know of any innovated financial mechanisms used in your region for pollution control, such as pollution charges, tradable permits, etc.?

x. ANNEX 4 Brief Overview of the Program

What You Can Get from the Program:

INTEGRATED LAKE, RIVER AND COASTAL BASIN MANAGEMENT FOR SUSTAINABLE USE AND PRESERVATION OF WATER RESOURCES

1. Purpose

This program is designed for the participants to become adequately knowledgeable about the fundamental of basin management of lake, river and coastal water, and to become able to play a major catalytic role in developing the needed governance framework.

2. Integrated Lake Basin Management Platform Process (ILBM-PP)
In order to sustainably manage a lake basin, it would be necessary to build up a balanced framework (Fig. 1) which is consisted of 6 pillars: 1) institutional responsibilities, 2) policy directions, 3) all stakeholder participation, 4) technological possibility, 5) scientific and traditional information, and 6) funding prospects.



Fig. 1 ILBM conceptual illustration with 6 pillars

The ILBM Platform is a kind of discussion desk to improve the lake basin governance with all related stakeholders. The state of the lake basin governance will be gradually and continuously improved through this ILBM Platform Process (Fig. 2). Further information is available at https://www.ilec.or.jp/en/.

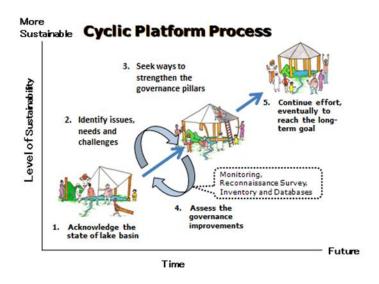


Fig. 2 Conceptual image of cyclic ILBM Platform Process

3. Lectures and Study Tours

During the 2 months program term there are many lectures and study tours in order to attain the above purpose. Lectures and study tours are properly arranged for objectives of this program.



Fig. 3 Lecture of Prof. M. Nakamura, the course leader.



Fig. 4 Plankton survey practice in Lake Biwa

4. Group Discussion

A group discussion time will be arranged during the program. The discussion will be organized and managed by participants. The purpose of the discussion is as follows:

1) to get information on some topics from other participants, 2) to discuss on urgent topics freely among the participants, and 3) to understand deeply the problems and challenges of other participants.



Fig. 5 Free discussion by participants

5. Accommodations

ILEC will provide the participants with accommodations. Please refer to GI (V. Other Information) for the stay in ILEC.



Fig. 6 Accommodations

6. Holidays:

Saturdays, Sundays and Japanese National Holidays are basically free time for the participants. Kyoto, a traditional cultural city, and Osaka, a big commercial city, are relatively close to ILEC.

National Holidays during your stay;

Sept. 16 (Respect for the Aged Day), Sept. 23 (Autumnal Equinox Day) Oct. 14 (Health-Sports Day)

7. Contact

Please contact the following person of ILEC for any questions you have.

Ms. Nobuko YAMAZAKI (<u>nyamazaki@ilec.or.jp</u>)

For Your Reference

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 (until 2015, so called "training"), 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 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 Embassy of Japan. Further, address correspondence to:

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Address: 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo 651-0073, Japan

TEL: 81-78-261-0383 FAX: 81-78-261-0465