

# TRAINING AND DIALOGUE PROGRAMS

#### **GENERAL INFORMATION ON**

INFORMATION MANAGEMENT TECHNOLOGY FOR LAND USE AND NATURAL RESOURCES ANALYSIS

集団研修「土地利用と自然資源分析の情報管理技術」 JFY 2012

<Type: Trainers Training / 類型:人材育成普及型>
NO. J1200859/ ID. 1280987
From July 2012 to December 2012

Phase in Japan: From August 21, 2012 to September 22, 2012

This information pertains to one of the Training and Dialogue Programs 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.

# I. Concept

#### **Background**

In developing countries, environmental degradation in rural area is a serious problem. It is occurred by the increased needs in food production owing to the rapid population growth, and/or unstable agricultural production due to the climate change.

To tackle with this challenge to the environmental degradation, it is necessary to evaluate distribution and stockpile of natural resources, like land or forest, and to manage them in a sustainable manner, and it is very important to monitor the current situation of land use and natural resources all the time. For this purpose, GIS (Geographic Information Systems) technology is highly useful because it allows to process and analyze satellite data and other data like, geography, map, climate, ...etc., at the same time, and it contributes to the rapid and high-accurate monitoring of wide area.

Free and Open Source Software GIS (FOSS-GIS) is well-known as highly useful software especially for the use in developing countries, because anyone can download it from internet and introduce it, without any initial cost.

JICA Chubu has conducted a technical training for past 10 years, to promote the introduction and distribution of FOSS-GIS technology for the sustainable management of natural resources and food production in the developing counties. Through this 10-years' experience, it is found that this technology is highly useful for the solution of global issues like food crisis and/or environmental problems, if the application area of this technology would be extended.

Considering such a background, JICA Chubu revised the course, and added the perspective of land use to its scope. The renewed course starts from JFY 2010.

#### For what?

This program aims to contribute to the improvement of quality and technology related with management of land use and natural resources in developing countries. In particular, it aims to introduce FOSS-GIS (Free and Open Source Software – Geographic Information Systems) to the management of land use and natural resources for reducing its managing cost.

#### For whom?

This program is offered to university staffs or institute researchers in the field of agricultural and/or environmental sciences who are engaged in teaching or research on sustainable management of land use and/or natural resources, or officials who are engaged in policy-making for sustainable management and/or use of natural resources at the central or local governments.

#### How?

Participants shall have opportunities to learn basic theory, techniques and knowledge of GIS through lectures and practices. Participants will also have opportunity to visit many sites where GIS technology is practically used for the management of land use and/or natural resources. After these lectures, practices, observation trips, and discussions, participants will formulate an action plan describing what the participant will do after they go back to home countries putting the knowledge and ideas acquired and discussed in Japan among others into their on-going activities.

# II. Description

# 1. Title (J-No.): Information Management Technology for Land Use and Natural Resources Analysis (J1200859)

#### 2. Period of program

[Duration of the whole program: July 2012 to December 2012]

• Preliminary Phase: July 21, 2012 to August 20, 2012

(in a participant's home country)

•Core Phase in Japan: August 21 to September 22, 2012

• **Finalization Phase:** September 23, 2012 to December 22, 2012 (in a participant's home country)

#### 3. Target Regions or Countries

Argentina, Burkina Faso, Cambodia, Kenya, Malawi, Myanmar, India

#### 4. Eligible / Target Organization

This program is designed for universities, research institutions and central and/or local governments in the fields of land use and/or sustainable management of natural resources.

#### 5. Total Number of Participants

7 (seven)

6. Language to be used in this program: English

#### 7. Program Objective:

Participants will become to be able to utilize Free and Open-Source Software GIS (FOSS-GIS), GRASS, Q-GIS, Web Mapping, etc. in their work and the technology will be shared in their institutions

#### 8. Overall Goal:

FOSS-GIS, GRASS, Q-GIS, Web Mapping, etc. will be used for land use and natural resources monitoring and for estimation of distribution and/or the volume of land, water and forest resources, etc.

#### 9. Expected Module Output and Contents:

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

#### (1) Preliminary Phase in a participant's home country

(July 21, 2012 to August 20, 2012)

Participating organizations make required preparation for the Program in the respective country.

Expected Module Output	Activities
Present status of land use and natural resources of his/her country will be clarified by pre-training activity and his/her subject for case study in Japan will be decided.	<ul> <li>Formulation and submission of Inception Report (or job and country report)</li> <li>Search/Study: Job and country report</li> <li>Reading the specified papers and documents on FOSS4G the materials of which will be provided with the participants.</li> </ul>

#### (2) Core Phase in Japan

(August 21 to September 22, 2012)

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

Expected Module Output	Subjects/Agendas	Methodology
Module 1: Basic theory and techniques of FOSS -GIS technology and remote sensing will be acquired by using GRASS.	<ul> <li>Lecture: Basic theory and techniques of FOSS-GIS technology and Remote Sensing</li> <li>Practice: Install and use of GRASS, analysis of satellite data and graphic display by GRASS</li> <li>Windows7+ GRASS install</li> <li>Remote Sensing</li> <li>Web Mapping</li> </ul>	Lecture and Practice
Module 2: Global positioning figures by GPS will be displayed on the map and analyzed by GRASS, then, techniques for data sharing through internet will be acquired by using Mapserver technology.	<ul> <li>Lecture: Basic theory and use of GPS and techniques of Mapserver</li> <li>Practice: Use of GPS and analysis by GRASS. Obtaining data set and data sharing through internet</li> <li>Google earth and GPS</li> <li>Case studies</li> </ul>	Lecture and Practice

Module 3: GIS-applied studies in Japan will be taught and participants will work on their own projects as a case study to share the results among participants.	<ul> <li>Study: Good practices regarding to land use and natural resources management of Japan</li> <li>Practice: Case study by each participant and data sharing of the results among participants</li> <li>Others: Preparation of action plan</li> <li>Map information-related business</li> <li>GIS in agricultural land management in developing countries</li> <li>Remote sensing in agriculture in Japan</li> <li>GIS in environmental conservation</li> <li>Construction of forest GIS and its application</li> <li>Research on GIS use in natural resource management</li> </ul>	Lecture Field Visit
Action plan (interim report) is formulated.	Presentation of action plan	Presentation Discussion

# (3) Finalization Phase in a participant's home country (September 23, 2012 to December 22, 2012)

Participating organizations produce final outputs by making use of results brought back by participants. This phase marks the end of the Program.

Expected Module Output	Activities
Action plan will be realized through his/her own use in work and dissemination to colleagues of his/her institutions and its results will be reported to JICA.	Application and implementation of the action plan (interim report) after going back to the participant's country and submission of the Progress Report (see ANNEX IV) by December 2011. Please submit the Completion Report form (sample in the Annex V on page 17) together with your final product to JICA overseas office in your country.

#### <Structure of the program>

- (1) Preliminary phase (activities in home country)
  Preparation for the country and job report presentation (please refer (2)-2) below).
- (2) Core Phase (activities in Japan)
- 1) Course Orientation

  Before the start of training, a course orientation will be held to provide a general explanation of the course.

#### 2) Country and Job Report Presentation

Country and Job Report Presentation is scheduled at the beginning of the course, which will be attended by lecturers and people concerned with this course. Time allocation for each presentation will be about 20 minutes, followed by a 10-minute question and answer session. To make presentations more understandable and attractive, the participants are advised to make effective use of visual references such as PowerPoint, photos, brochures and others.

#### 3) Technical Training

- Introduction to GIS for land use and natural resources analysis
- Basic Theory of GIS (I)
   Concept of GIS (Data Structure, How to generate GIS Data)
- How to manipulate the Windows-GRASS
   Construction of GIS system (GRASS-GUI and Commands operation)
- Basic theory of GIS (II)
   Generation of evaluation maps for land utilization by GRASS
- Basic theory of Remote Sensing and its application
   Data processing technology of Remote Sensing Data
- Spatial data sharing using Free and Open Source Software (FOSS)
- Case study
- Application of GPS to GIS GPS with GRASS
- Application of GIS to land use and natural resources analysis
- Field visit

#### 4) Action Plan Presentation

The participants are required to prepare the Action Plan and present it at the Action Plan presentation meeting scheduled at the end of the program in Japan. The purpose of this presentation is to show what the participants find most interesting concerning this field in Japan and what can be possibly applied in participants' home countries. See ANNEX III for details.

#### (3) Finalization Phase (activities in home country)

Participants are expected to implement the action plan (interim report) and report on its progress within three (3) months after the end of the core phase in Japan. <u>See ANNEX</u> IV for details.

#### **Reference (Training Schedule in 2012)**

		JICA-GIS 2012 Training Schedule (tentative)	
		Activity (9:30-12:00, 13:00-16:30)	Location
Aug. 21	Tue	Arrival to Nagoya (JICA Chubu)	JICA Chubu
Aug. 22	Wed	AM: Briefing PM: Orientation on Living in Nagoya Inception Report Presentation	JICA Chubu
Aug. 23	Thu	AM: Introduction to FOSS-GIS PM: Windows7-GRASS	JICA Chubu
Aug. 24	Fri	Windows7-GRASS	JICA Chubu
Aug. 25	Sat	Windows7-GRASS	JICA Chubu
Aug. 26	Sun		JICA Chubu
Aug. 27	Mon	Remote Sensing	JICA Chubu
Aug. 28	Tue	Remote Sensing	JICA Chubu
Aug. 29	Wed	Remote Sensing	JICA Chubu
Aug. 30	Thu	Remote Sensing (Move to Tokyo, stay at JICA Tokyo)	JICA Chubu
Aug. 31	Fri	Study tour in Tsukuba National Institute for Rural Engineering (NIRE) Japan International Research Center for Agricultural Sciences (JIRCAS)	(Tsukuba)
Sept. 1	Sat		
Sept. 2	Sun		
Sept. 3	Mon	Case Study (Instructor's topic)	JICA Chubu
Sept. 4	Tue	Case Study (Instructor's topic)	JICA Chubu
Sept. 5	Wed	Case Study (Instructor's topic)	JICA Chubu
Sept. 6	Thu	Case Study (Instructor's topic) (Move to Osaka, stay at JICA Osaka)	JICA Chubu
Sept. 7	Fri	Study tour in Sanda, Hyogo Museum of Nature and Human Activities, Hyogo (Sanda)	
Sept. 8	Sat	Study tour in Kyoto Kyoto Prefectural University	(Kyoto)
Sept. 9	Sun		
Sept. 10	Mon	Case Study (Participants' topics)	JICA Chubu
Sept. 11	Tue	Case Study (Participants' topics)	JICA Chubu
Sept. 12	Wed	Case Study (Participants' topics)	JICA Chubu
Sept. 13	Thu	Web Mapping	JICA Chubu
Sept. 14	Fri	Web Mapping	JICA Chubu
Sept. 15	Sat		
Sept. 16	Sun		
Sept. 17	Mon	OSGEOLIVE	JICA Chubu
Sept. 18	Tue	OSGEOLIVE	JICA Chubu
Sept. 19	Wed	AM: Lecture: Remote sensing in Agriculture and Environment PM: <b>Study tour in Nagoya</b> Falcon Corporation (14:00-16:00)	JICA Chubu (Nagoya)
Sept. 20	Thu	AM: GIS research in forestry PM: Preparation of Action Plan	JICA Chubu
Sept. 21	Fri	AM: Presentation of Action Plans PM: Evaluation Meeting (1), Evaluation Meeting (2), Closing Ceremony	JICA Chubu

#### 10. Follow-up Cooperation by JICA:

In this program, JICA might extend follow-up support to participating organizations that intend to develop the result of the project further. Please note that the support shall be extended selectively based on proposals from the participating organizations.

# 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 use the project 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 project to meet specific requirements of applying organizations and effectively facilitate them toward solutions for the issues and problems.
- (3) As this program is designed to facilitate organizations to come up with concrete solutions for their issues, participating organizations are expected to make due preparation before dispatching their participants to Japan by carrying out the activities of the Preliminary Phase described in section II -9.
- (4) Participating organizations are also expected to make the best use of the results achieved by their participants in Japan by carrying out the activities of the Finalization Phase described in section II -9.

#### 2. Nominee Qualifications:

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

#### (1) Essential Qualifications

- 1) Nominees should be nominated by their Government in accordance with procedures mentioned in the III-4 below.
- 2) They should belong to one of the following target groups with over 5 years of experience;
  - a) University staff or institute researcher in the field of agricultural and/or environmental sciences who is engaged in teaching or research on information management technology for land use and natural resources analysis or
  - b) Officials who are engaged in policy-making for information management technology for land use and natural resources analysis at the central or local governments.
- 3) They are required to;
  - 1) have experiences of using at least proprietary GIS software,
  - 2) but not necessarily well-experienced experts of GIS, and
  - 3) be in a position to disseminate GIS technology at/in their respective offices/countries.
- 4) Educational Background: be a graduate of university
- 5) Language: have a sufficient command of spoken and written English. Please

- attach an official certificate for English ability such as TOEFL, TOEIC etc, if available.
- 6) Health: must be in good health, both physically and mentally, to participate in the Program in Japan.

\*Pregnancy: Pregnant participants are strictly requested to complete the required procedures before departure in order to minimize the risk for their health. The procedures include ①letter of the participant's consent to bear economic and physical risks ②letter of consent from the participant's supervisor ③letter of consent from your Embassy in Japan, ④medical certificate.

Please ask National Staffs in JICA office for the details.

- 7) Must not be serving any form of military service.
- 8) Age: be under forty (40) years of age

#### 3. Required Documents for Application

- (1) **Application Form**: The Application Form is available at the respective country's JICA Office or the Embassy of Japan.
- (2) Nominee's English Score Sheet: to be submitted with the application form. If you have any official documentation of English ability (e.g., TOEFL, TOEIC, IELTS), please attach it (or a copy) to the application form.
- (3) Country and Job Report and Questionnaire: to be submitted with the application form. Fill in Annex I and II of this General Information, and submit it along with the Nomination Form.

#### 4. Procedure for Application and Selection:

(1) Submitting the Application Documents:

Closing date for application to the JICA Center in JAPAN: <u>June 14, 2012</u>

Note: Please confirm the closing date set by the respective country's <u>JICA</u>

Office or Embassy of Japan of your country to meet the final date in

<u>Japan.</u>

#### (2) Selection:

After receiving the document(s) through due administrative procedures in the respective government, the respective country's JICA Office (or Japanese Embassy) shall conduct screenings, and send the documents to the JICA Center in charge in Japan, which organizes this project. Selection shall be made by the JICA Center in consultation with the organizations concerned in Japan based on submitted documents according to qualifications. *The organization with intention to utilize the opportunity of this program will be highly valued in the selection.* 

#### (3) Notice of Acceptance

Notification of results shall be made by the respective country's JICA Office (or Embassy of Japan) to the respective Government by **not later than <u>July 21</u>**, **2012**.

#### 5. Document(s) to be submitted by accepted participants:

Inception Report -- to be submitted by August 3, 2012:

Before coming to Japan, only accepted participants are given the following preliminary tasks;

- 1) report-making on the current work (research) including own topic for case study, and the GIS related issues and the solutions by the use of GIS.
- 2) Voluntary pre-departure study; to read papers and documents relating to FOSS 4G the materials of which will be provided with the participants.

Detailed information about the Inception Report will be provided in the **Message Sheet** to be given with the notice of acceptance. The Inception Report should be sent to JICA Chubu preferably by e-mail to <a href="mailto:cbictp1@jica.go.jp">cbictp1@jica.go.jp</a>

#### 6. Conditions for Attendance:

- (1) to observe the schedule of the program,
- (2) not to change the program subjects or extend the period of stay in Japan,
- (3) not to bring any members of their family,
- (4) to return to their home countries at the end of the program in Japan according to the travel schedule designated by JICA,
- (5) to refrain from engaging in political activities, or any form of employment for profit or gain,
- (6) 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.
- (7) to observe the rules and regulations of their place of accommodation and not to change the accommodation designated by JICA, and
- (8) to participate the whole program including a preparatory phase prior to the program in Japan. Applying organizations, after receiving notice of acceptance for their nominees, are expected to carry out the actions described in section II -9 and section III-5.

# IV. Administrative Arrangements

#### 1. Organizer:

(1) Name: JICA Chubu

(2) Contact: Mr. KUWAHARA Naoya (cbictp1@jica.go.jp)

#### 2. Implementing Partner:

(1) Name: International Cooperation Center for Agricultural Education (ICCAE), Nagoya University

- (2) Contact: Prof. ASANUMA Shuichi, Ph. D. (iccae@agr.nagoya-u.ac.jp)
- (3) URL: <a href="http://iccae.agr.nagoya-u.ac.jp/index.html">http://iccae.agr.nagoya-u.ac.jp/index.html</a>
- (4) Remark: The International Cooperation Center for Agricultural Education (ICCAE) is a research institute mandated to function as a leading center for international cooperation in agricultural education. It was established in April, 1999, at Nagoya University, under the initiative of the Ministry of Education, Science Sports and Culture of Japan. ICCAE has been engaged in the many undertakings, in collaboration with several domestic and overseas universities, international cooperation agencies and educational/research institutions. Through these activities, ICCAE has been strengthening the educational and research capacities of agricultural universities in developing countries, evaluating projects implemented by various international cooperation agencies, undertaking research related to agricultural and rural development in developing countries, and capacity building for researchers and technicians from developing countries and Japan.

#### 3. Travel to Japan:

- (1) Air Ticket: The cost of a round-trip ticket between an international airport designated by JICA and Japan will be borne by JICA.
- **(2) Travel Insurance**: Term of Insurance: From arrival to departure in Japan. The traveling time outside Japan shall not be covered.

#### 4. Accommodation in Japan:

JICA will arrange the following accommodations for the participants in Japan:

JICA Chubu International Center (JICA Chubu)

Address: 4-60-7 Hiraikecho, Nakamura-ku, Nagoya 453-0872, Japan

TEL: 81-52-533-0220 FAX: 81-52-564-3751

(where "81" is the country code for Japan, and "52" is the local area code)

If there is no vacancy at <u>JICA Chubu</u>, JICA will arrange alternative accommodations for the participants.

#### 5. Expenses:

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

(1) Allowances for accommodation, 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, or dental treatment are <u>not</u> included.)
- (4) Expenses for program implementation, including materials
  For more details, please see p. 9-16 of the brochure for participants titled
  "KENSHU-IN GUIDE BOOK," which will be given to the selected participants
  before (or at the time of) the pre-departure orientation.

#### 6. Pre-departure Orientation:

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

# V. Other Information

1. Development Education Program

For the promotion of mutual friendship, JICA Chubu 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 may be asked to make presentations on the society, economy and culture of their home countries.



#### **ANNEX I**

### **Country and Job Report**

Please use other papers, if it is necessary.

2 Name of Nominee		
3 Name of Country		
4 Name of Organization		
Address		
Phone & Fax Number		
Your E-mail Address		
5 Your Post and Duty		
6 Your experience using GIS		
(1) How many years of experience using GIS do		
you have?		
(2) Describe concretely your experience using GIS (eg. mapping, remote sensing, etc.).		
(3) GIS software you have ever used		
7 General information related to sustainable management of land use and natural resource		
respectively	,	
(1) Managerial system in your country (including		
organizational chart)		
(2) Characteristics of your country's land use and		
natural resources, respectively		
(3) Current situation regarding land use and		
natural resources, respectively, in your country		
(4) Current situation regarding GIS technology		
used for management of land use and/or natural		
resources  (5) Major problems to be solved by using CIS		
(5) Major problems to be solved by using GIS technology in order to develop better		
managerial systems for land use and natural		
resources in your country and their particular		
problems to be solved immediately and used as		
own case study in this Program.		
(6) Please describe the training systems of GIS		
technology in your country		

#### **ANNEX II**

#### **Questionnaire**

Please describe applicant's position and organization and working environment.

Your occupational background	
(1) Your previous and present positions (posts) with years of experience	
(2) Your functions and duties	
Detailed description of the work of your organization *Please attach a chart of your organization (with number of staff members and mark your position).	
Please answer the following qu	estions concerning your working environment.
(1) Number of personal computers in your office	
(2) Type or specifications of the computer equipment.	
(3) Type, specification, or number of equipments related to GIS and/or remote sensing	
(4) GIS software used in your office	
Expectations from the project in connection with your plan for the future development of management systems for land use and/or natural resources in your country (Please refer the statement in (5) of Country and Job	
	(1) Your previous and present positions (posts) with years of experience (2) Your functions and duties Detailed description of the work of your organization *Please attach a chart of your organization (with number of staff members and mark your position).  Please answer the following question (1) Number of personal computers in your office (2) Type or specifications of the computer equipment. (3) Type, specification, or number of equipments related to GIS and/or remote sensing (4) GIS software used in your office  Expectations from the project in connection with your plan for the future development of management systems for land use and/or natural resources in your country (Please refer the statement

#### **ANNEX III**

Action Plan (no page limit)

		\ 1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
1	Your Name		
2	Affiliation (Position), Country		
3	What learned during the progra	ım?	
	(1) Introduction		
	(2) First week		
	(3) Second week		
	(4) Third week		
	(5) Fourth week		
4	Problems in sustainable		
	management of land use		
	and natural resources in		
	your country and your work		
	plan to solve them with GIS		
	technology		
5	Your future plan for FOSS utilization (You are expected not only to use FOSS by		
	yourself but also to extend its u	se in your country.)	
	(1) Short-term (within one		
	year after training)		
	(2) Long-term (beyond one		
	year, if possible, yearly plan		
	or time schedule up to 5		
	years)		
6	Other remarks		

<sup>\*</sup>Each participant is expected to prepare an Action Plan and make a presentation on it at the end of the training program in Japan.

#### **ANNEX IV**

Progress Report (no page limit)

1	Your Name		
2	Affiliation (Position), Country		
3	Report on the Presentation concerning the participant's Action Plan in his/her own o		
	related organizations.		
	(1) Date of the presentation		
	(2) Venue		
	(3) List of audience		
	(4) Contents		
	(5) Questions from audience and participant's answers to them		
	(6) Any comments from participant's own and related organizations		
4	Progress of the Action Plan (esp	pecially short-term future plan)	
	(1) Present situation of the		
	Action Plan implementation		
	(2) Difficulties and/or problems		
	in realizing Action Plan.		
	(3) Countermeasures and		
	visions of future		
	implementation		
5	Technical inquiries (if any)		

Each participant is expected to submit a Progress Report three months after the completion of the training program in Japan.

#### **ANNEX V**

Sample

#### -Completion Report-

April 1, 2008

To Resident Representative of JICA Bangladesh

# Completion Report of Group Training Program "School Health" in JFY2008\*

On behalf of the Health Office of Padma District, I, the undersigned, hereby report that we have completed Group Training Program "School Health" which was implemented from June to August 2008. Please kindly find the followings for what we have achieved in the program.

#### 1. Achievement of the program objective

(sample): We have achieved the program objective. The plan of the pilot project on prevention of youth's smoking has been authorized by our director general as attached.

#### 2. Description of finalization phase

(sample): With the officials concerned and the principals of 10 primary schools in our district, we had series of meetings to elaborate the draft plan of the pilot project. Then its draft final was submitted to our director general for her authorization.

#### 3. Future actions

(sample): The project is supposed to start in the next two month with two of the target schools and complete by December 2008.

# 4. Comments on this program, if any Best regards, Signature: Name: Ms. XXXX. XXXX Title and Organization Managing Director, School Health Promotion Wing, Health Office of Padma District

#### 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 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. Further, address correspondence to:

JICA Chubu International Center (JICA Chubu)
Address: 4-60-7 Hiraikecho, Nakamura-ku, Nagoya 453-0872, Japan

TEL: +81-52-533-0220 FAX: +81-52-564-3751