



# TRAINING AND DIALOGUE PROGRAMS

## GENERAL INFORMATION ON

### INDUSTRIAL TECHNOLOGY EDUCATION

集團研修「産業技術教育」

**JFY 2011**

<Type: Solution Creation / 類型: 課題解決促進型>

NO. J11-00773 / ID. 1180891

From August 2011 to May 2012

Phase in Japan: From October 3, 2011 to November 19, 2011

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 Japan, industrial technology is indispensable for production of high quality goods. In comparison with developing countries, technology education at schools in Japan, where fundamental capabilities in manufacturing and production are fostered, is found to play an important role in developing human resources as well as the use of highly developed manufacturing and production equipment.

For the sake of promoting and developing industrial technology in developing countries, it is useful for the leaders of such countries to learn of the curriculum and methods of Japanese technology education and to utilize them in their own countries.

## **For what?**

This program aims to contribute to the development of human resources in the field of industrial technology education in developing countries by providing information on Japanese activities and systems for the promotion and enhancement of industrial technology education.

## **For whom?**

This program is offered to officials who are engaged in policy making for industrial technology education in the educational administration of central or local government.

## **How?**

Participants shall have opportunities to get an overview of technology education in Japan, to study the curriculum and methods in six areas (metalworking, wood working, machining, electricity, information and cultivation) of Japanese technology education and to experience Japanese industrial technology through lectures, observations and discussions. Participants will also formulate an action plan describing what they will do after going 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.): Industrial Technology Education (J11-00773)**
2. **Period of program:**

<b>Duration of whole program:</b>	August 19, 2011 to May 19, 2012
<b>Preliminary Phase:</b> (in a participant's home country)	August 19 to October 2, 2011
<b>Core Phase in Japan:</b>	October 3 to November 19, 2011
<b>Finalization Phase:</b> (in a participant's home country)	November 20, 2011 to May 19, 2012
3. **Target Regions or Countries:**

Sri Lanka, Saint Christopher and Nevis, Saint Lucia, Palestine, Turkey, Botswana, South Africa, Bosnia and Herzegovina

\*Myanmar is under consideration of being added to the list of participating countries.
4. **Eligible / Target Organization:**

This program is designed for offices/divisions/departments in charge of policy making for industrial technology education in the educational administration of central or local government.
5. **Total Number of Participants:**

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

English (with consecutive interpretation)
7. **Program Objective:**

Participants formulate action plans with a focus on teacher training curriculum and textbooks for industrial technology education and the basic direction of their action plans is organized in their participating organizations.

Note: This training program is **not** designed for acquisition of technical skills, and there is **no** hands-on technical training.
8. **Overall Goal**

The participating organizations formulate action plans regarding teacher training curriculum and textbooks for industrial technology education, and propose the plan to authority concerned.

## 9. Expected Module Output and Contents:

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

<b>(1) Preliminary Phase in a participant's home country</b> (August 19 to October 2, 2011) <i>Participating organizations make required preparation for the Program in the respective country.</i>	
Expected Module Output	Activities
To clarify current domestic educational system, contents, methods, and the evaluation of these issues through discussion	Formulation and submission of Inception Report

<b>(2) Core Phase in Japan</b> (October 3 to November 19, 2011) <i>Participants dispatched by the organizations attend the Program implemented in Japan.</i>		
Expected Module Output	Subjects/Agendas	Methodology
To explain current school education, industrial technology, industrial technology education, teacher training, and selection of teaching materials in Japan	(1) Education and Industrial Technology ➤ School Education ➤ Educational Evaluation ➤ Japanese Industry ➤ Science and Technology Society	Lecture
	(2) Industrial Technology Education ➤ Management of teacher training institutions ➤ Industrial Education ➤ Management of Industrial Education ➤ Teaching Materials ➤ Management of Industrial High School and Technical Junior College	Lecture Observation
	(3) Teacher Training and Teaching Materials ➤ Teacher Training University ➤ Teacher Training System ➤ Selection of Teaching Materials ➤ Technology Education (Metalworking, Woodworking, Electricity, Cultivation, Information)	Lecture

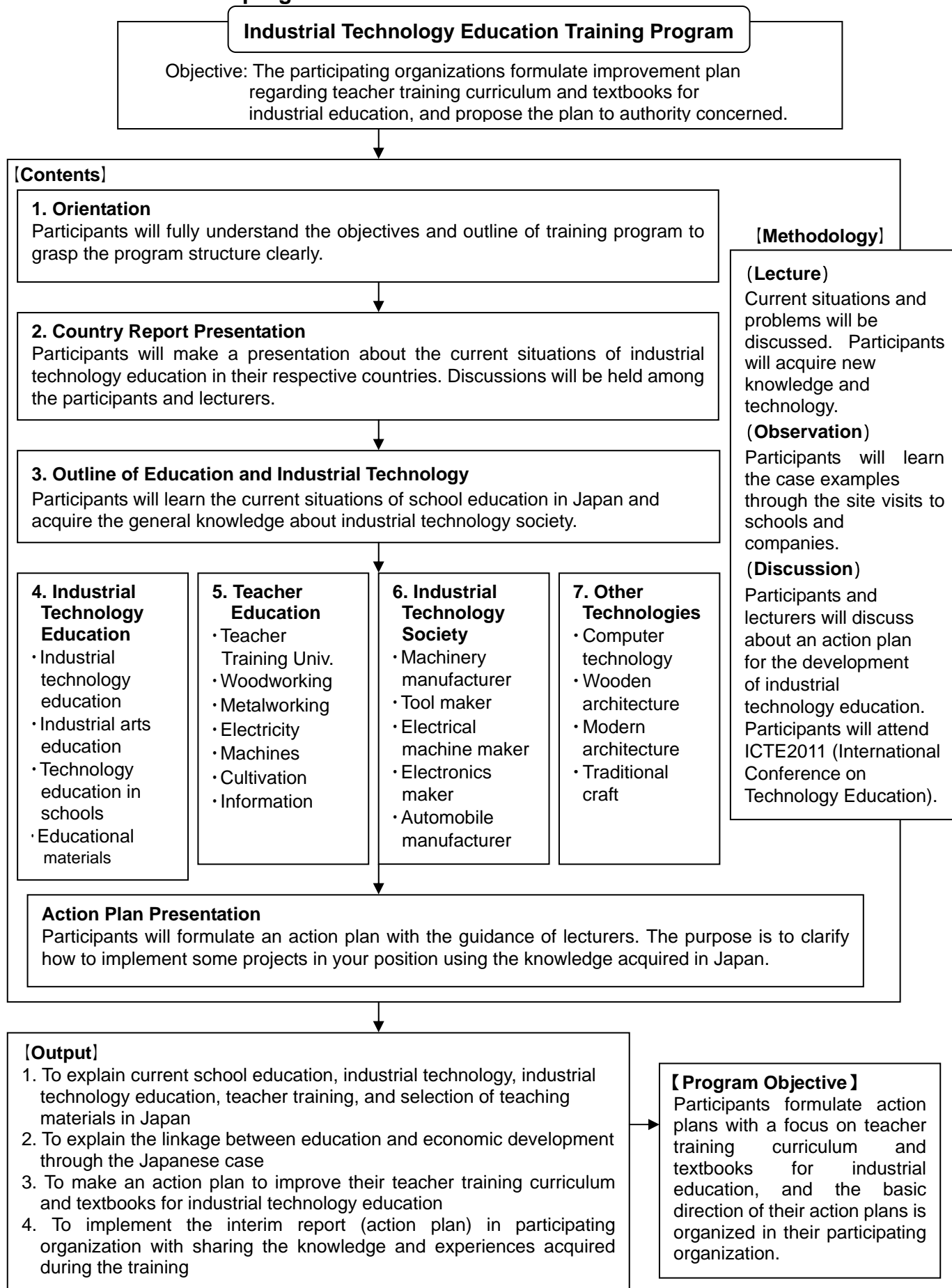
To explain the linkage between education and economic development through the Japanese case	Industrial Technology Society : Visits to various companies ➤ Machinery Manufacturer ➤ Tool Manufacturer ➤ Electrical Machine Manufacturer ➤ Electronics Manufacturer ➤ Automobile Manufacturer	Observation
To make an action plan to improve teacher training curriculum and textbooks for industrial technology education	(1) Attendance at ICTE2011(International Conference on Technology Education) (2) Action Plan guidance (3) Presentation of Action Plan	Lecture Discussion Presentation

### **(3)Finalization Phase in a participant's home country**

*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
To implement an interim report (action plan)	Application and implementation of the action plan (interim report) back in the participant's country and submission of its final report by May 19, 2012 based on the follow-up questionnaire to be provided during the Program. The sample of Completion Report is at Annex 7.

## <Structure of the program>



**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 -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 -9.

#### **2. Nominee Qualifications:**

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

##### **(1) Essential Qualifications**

- 1) Current Duties: be officials in policy making for technology education in the educational administration of central or local government
- 2) Experience in the relevant field: have more than 5 years' experience in the field of technology education in the educational administration
- 3) Educational Background: be a graduate of university
- 4) Language: have a competent command of spoken and written English  
(Experience has shown that many participants find themselves unable to make progress in their training because of inadequate knowledge of English.)
- 5) 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 letter of the participant's consent to bear economic and physical risks letter of consent from the participant's supervisor letter of consent from your Embassy in Japan, medical certificate. Please ask National Staffs in JICA office for the details.

- 6) Must not be serving any form of military service.



**(2) Recommendable Qualifications**

- 1) Age: be between the ages of twenty-five (25) and forty-five (45) years

**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) **Country, Job and Inception Report:** to be submitted with the application form. The application form without reports will not be accepted. Follow the instructions in Annex of this General Information.

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

**(1) Submitting the Application Documents:**

Closing date for application to the JICA Center in JAPAN: **August 5, 2011**

**Note: Please confirm the closing date set by the respective country's JICA office or Embassy of Japan of your country to meet the final date in Japan.**

**(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 August 19, 2011.**

**5. 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 -9 and section -4.

## IV. Administrative Arrangements

### 1. Organizer:

(1) **Name:** JICA Chubu

(2) **Contact:** Mr. SHIBUYA Akira (cbictp1@jica.go.jp)

### 2. Implementing Partner:

(1) **Name:** Aichi University of Education (AUE)

(2) **Contact:** Dr. MIYAKAWA Hidetoshi, (Professor of AUE in charge of the training),  
Director, Affiliated Schools, International Exchange Center

(3) **URL:** <http://www.aichi-edu.ac.jp/eng/index.html>

(4) **Remark:** Aichi University of Education (AUE) is one of the three prestige universities of education in Japan. AUE was established in 1873 by the previous educational institution Aichi Prefectural Academy and since then it has been responsible mainly for teacher training. AUE offers four types of teacher training programs: those for primary education, secondary education, special education and school nursing and health education. Also AUE offers four kinds of interdisciplinary programs: those for international understanding, lifelong learning, information sciences and environmental studies.

### 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 JICA Chubu, 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 not 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. For the promotion of mutual friendship, JICA Chubu encourages international exchange between the JICA participants and local communities, including school and university students as a part of development education program. The JICA participants are expected to contribute by attending such activities and will possibly be asked to make presentation on the society, economy and culture of their home country.

2. Course Leader

With a long experience in the field of technology education, Dr. MIYAKAWA Hidetoshi, Professor of Department of Technology Education, Aichi University of Education, has developed this training program.

## **VI. ANNEX:**

### **ANNEX 1**

<b>Requirement for applicants</b>
<p>Please describe the following 4 reports. These reports should be typewritten.</p> <ol style="list-style-type: none"><li>1. Basic Information on Nominee,</li><li>2. Country Report,</li><li>3. Job Report, and</li><li>4. Inception Report, according to the following items.</li></ol>
<b>Attention</b>
<ol style="list-style-type: none"><li>1. The reports are used for reference to select applicants. Application not accompanied by a completed questionnaire cannot be considered.</li><li>2. Country Report and Job Report will be a basic material to understand each country and each applicant.</li><li>3. Inception Report will be important material to make Action Plan as one of the result of the training course. That is the first step for making Action Plan. Please describe about the future vision for Industrial Technology Education based on a discussion with your superior and colleague.</li><li>4. The reports are used for comparative studies during the training course.</li><li>5. The reports presentation Purpose: Lecturers and people concerned with this training will be present at the meeting to grasp the current situation of each participant.  Attendants: The JICA participants, lecturers, JICA program officer, and other people concerned with this training course.  Time: The time allocation for each presentation is about 15 minutes followed by a 5-minute Q &amp; A period.  Presentation: Each participant is requested to give a presentation based on the presentation materials.  Reference materials: The participants are also expected to bring the PowerPoint data files, pamphlet of their organizations, photos, slides which illustrate the report, <u>to be used during the report presentation (15 minutes)</u>. PowerPoint on the personal computer is available.</li></ol>

## ANNEX 2

### Basic Information on Nominee

- Basic Information on nominee should be shown by a run of item.

1	Name of the nominee	
2	Country	
3	Your Organization and Position	

## ANNEX 3

### Country Report Format

\*Country Report should be shown by a run of item.

1	<b>Name of country</b>	
2	<b>Education system</b>	<i>Organization chart showing relationship of organizations related to education should be attached.</i>
3	<b>Contents of Industrial Technology Education</b>	Primary education:  Secondary education:  Advanced education:
4	<b>Technology Education contests or exhibitions</b>	
5	<b>Teacher training institution</b>	
6	<b>Major problems in Technology Education in your country</b>	
7	<b>Organization chart</b>	<i>Please attach organization chart showing relationship of organizations.</i>

## ANNEX 4

### Job Report Format

\*Job Report should be shown by a run of the item.

<b>1</b>	<b>Name of applicant</b>	
<b>2</b>	<b>Your organization and position</b>	
<b>3</b>	<b>Major activities of your organization and section</b>	
<b>4</b>	<b>Your duties in your section</b>	
<b>5</b>	<b>Difficulties in performing your duties</b>	
<b>6</b>	<b>Future plans</b>	<b>On-going projects:</b>  <b>Medium-term programs:</b>  <b>Long-term programs:</b>
<b>7</b>	<b>Expectation to this training course</b>	
<b>8</b>	<b>Organization chart</b>	<i>Please attach organization chart of your own organization.</i>



## ANNEX 5

### Inception Report Format

\* As a representative of education official in your organization or country, please create a vision related to future Industrial Technology Education.

<b>1</b>	<b>Name of applicant</b>	
<b>2</b>	<b>Vision in next 10 years</b>	<i>“How are you going to create the future of Industrial Technology Education in your country?”</i>
<b>3</b>	<b>Details of present problems on Industrial Technology Education</b>	
<b>4</b>	<b>Countermeasures towards the problem (past and present)</b>	
<b>5</b>	<b>Practical effort by your organization or section</b>	
<b>6</b>	<b>Expected impact after the problem solved or improved</b>	
<b>7</b>	<b>Expected obstructions to problem solving</b>	

## ANNEX 6

### Reference: Training Schedule of 2010

#### JICA Training Schedule (Tentative) Industrial Technology Education, Fiscal 2010

Date	Morning	Afternoon
Jun 1 Tue.	Arrival at Chubu International Airport	
Jun 2 Wed	Briefing	Orientation
Jun 3 Thu	Orientation	Japanese Lesson
Jun 4 Fri	Japanese Lesson	Return Flight Meeting
Jun 5 Sat		
Jun 6 Sun		
Jun 7 Mon	Interview about Presentation	AUE Course Orientation
Jun 8 Tue	University Outline, Opening Ceremony, Welcome Reception	Health Management & Health Care Center Guidance
Jun 9 Wed	L: Japanese Education System & History	L: Technology Education in Japan (1)
Jun 10 Thu	L: Occupational Safety Education in Japan	D: Preparation for Country & Job Report Presentation
Jun 11 Fri	P: Country & Job Report Presentation	P: Country & Job Report Presentation
Jun 12 Sat		
Jun 13 Sun		
Jun 14 Mon	L: Industrial Technology Education in Japan (MEXT)	L: Industrial Technology Education in Japan (MEXT)
Jun 15 Tue	V: Technical High School (Upper Secondary)	V: DENSO E&TS Training Corp.
Jun 16 Wed	D: Action Plan Documentation & Guidance (1)	V: Toyota National College of Technology
Jun 17 Thu	V: AUE attached Junior High School (Lower Secondary) · Elementary School · Kindergarten	
Jun 18 Fri	L: Japanese Industry	L: Japanese Technology
Jun 19 Sat		
Jun 20 Sun		
Jun 21 Mon	Move to Nara	V: Japanese Wooden Building
Jun 22 Tue	L: Pre-Service Teacher Training <Woodworking>	Move to Hiroshima
Jun 23 Wed	L: Industrial Arts in Junior High School	V: Hiroshima Peace Memorial Park / Back to Nagoya
Jun 24 Thu	L: Teachers College in Japan	D: Action Plan Documentation & Guidance (2)
Jun 25 Fri	L: Technology Education Policy in Japan (MEXT)	
Jun 26 Sat		
Jun 27 Sun		
Jun 28 Mon	L: Pre-Service Teacher Training <Electricity>	W: Electricity Workshop
Jun 29 Tue	L: Pre-Service Teacher Training <Machinery>	W: Machinery Workshop
Jun 30 Wed	L: Pre-Service Teacher Training <Metalworking>	W: Metalworking Workshop
Jul 1 Thu	L: Pre-Service Teacher Training <Information>	W: Information Workshop
Jul 2 Fri	L: Engineering Ethics Education in Japan	L: Pre-Service Teacher Training <Cultivation>
Jul 3 Sat	V: Commemorative Museum of Industry & Technology	W: Making Things with Children
Jul 4 Sun		
Jul 5 Mon		
Jul 6 Tue	V: Toyota Looming Corp.	L: Teaching Materials for Industrial Arts
Jul 7 Wed	Move to Tokyo	V: Textbook Research Center
Jul 8 Thu	V: TEPIA (Advanced Technology Exhibition Hall) / Uchida Yoko Co., Ltd. (Teaching Materials & Facilities) / World Bank	
Jul 9 Fri	V: Jikyo Shuppan (Textbook Publisher)	V: Workshops in Ota Ward
Jul 10 Sat	V: Japanese Traditional Technology & Culture	Back to Nagoya
Jul 11 Sun		
Jul 12 Mon	V: Toyota Motors' Plant	V: Brother Inc. Show-Room
Jul 13 Tue	L: Welfare Education in Japan	
Jul 14 Wed	V: Aisin Seiki Co., Ltd. (Auto Parts Manufacturer)	D: Action Plan Documentation & Guidance (3)
Jul 15 Thu	P: Action Plan Presentation	
Jul 16 Fri	L: Next Industrial Technology Education	Evaluation, Closing Ceremony, Farewell Party
Jul 17 Sat	Leaving Japan from Chubu International Airport	

Note 1: L: Lecture, V: Visit, P: Presentation, D: Discussion, W: Workshop, AUE: Aichi University of Education

Note 2: Schedule is subject to change

Note 3: A short meeting is set daily at the end of the day, basically between 16:30 and 17:00.

Note 4: H/N= Hotel in Nara J/H= JICA Hiroshima J/T=JICA Tokyo J/O=JICA Osaka J/C=JICA Chubu

## ANNEX 7

### **Sample** **-Completion Report-**

January 31, 2012

To Resident Representative of JICA Bangladesh

#### **Completion Report of Group Training Program “School Health” in JFY2010**

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 2010. 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 months with two of the target schools and complete by December 2008.

##### **4. Comments on this program, if any**

Best regards,

Signature:

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Name: Ms. XXXX. XXXX

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Title and Organization Managing Director, School Health Promotion Wing, Health Office of Padma District

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## *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 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**