Knowledge Co-Creation Program
(Group & Region Focus)

GENERAL INFORMATION ON
Regional Industry Cluster Development through University-Industry-Government (U-I-G) Cooperation
課題別研修「産学官連携による地域産業クラスター振興」
JFY 2015

NO. J1504070 / ID. 1584621
Course Period in Japan: From 30th September to 31st October, 2015

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

‘JICA Knowledge Co-Creation (KCC) Program’ as a New Start

In the Development Cooperation Charter which was released from the Japanese Cabinet on February 2015, it is clearly pointed out that “In its development cooperation, Japan has maintained the spirit of jointly creating things that suit partner countries while respecting ownership, intentions and intrinsic characteristics of the country concerned based on a field-oriented approach through dialogue and collaboration. It has also maintained the approach of building reciprocal relationships with developing countries in which both sides learn from each other and grow and develop together.” We believe that this ‘Knowledge Co-Creation Program’ will serve as a center of mutual learning process.
I. Concept

Background and Outline

In recent decades, industry cluster approach has been gaining much attention as an effective means to develop regional economy around the world, regardless of “developed” or “developing” countries. The approach is widely acknowledged to facilitate and accelerate various improvement and innovation by strategic and substantial collaboration among various stakeholders such as private businesses, universities/research institutes, governments, business associations and so on. Therefore, creating and activating cluster as an environment conducive to innovation is a key in this ever increasing global and competitive world.

*In this program, the term "innovation" is defined as “an activity and its results to create new value for those who are concerned, and absolute magnitude of impact out of it does not define whether it is an innovation or not”. Thus, the definition takes a wider perspective than just a revolutionary creation.

However, many have encountered challenges in cluster development as there is no one set of policies nor strategies that will make all clusters successful. And, it is essential to develop tailored policies, strategies, and activities for each regional cluster.

In addition to policies and strategies, the implementation aspects should be high-lightened because no single cluster could be successful without good mutual interaction among stakeholders. In this regard, it is important to clarify how to make clusters move forward, how to involve various stakeholders and strive toward common directions, and what kind of mechanism should be established.

For what?

This program will offer opportunities to analyze and discuss various clusters and its efforts in Japan and abroad in terms of national/regional government policy and plan on industrial cluster development, actors/stakeholders in a cluster, activities/projects management.

As a result of the participant’s active participation in the program, he/she will understand the concept of cluster development or promotion, acquire methodology for the effective linkage among key actors within the regional cluster, and also gain useful perspectives by sharing the knowledge of current issues and challenges of the participant’s and other countries. The participants are expected to play a significant role in nurturing regional industry and economy by an appropriate cluster approach.
II. Description

1. Title (J-No.):
   Regional Industry Cluster Development through University-Industry-Government (U-I-G) Cooperation (J1504070)

2. Course Period in JAPAN
   30th September to 31st October, 2015

3. Target Regions or Countries
   Malaysia, Myanmar, India, Mexico, Brazil, Tunisia, Kenya, Kazakhstan, Indonesia, Egypt, Viet Nam, the Philippines, Pakistan

4. Eligible / Target Organization
   Those who belong to national or regional government/ government-affiliated associations or organizations / business associations such as chamber of commerce or industry, and universities which facilitate, initiate or manage industrial clusters and for socio-economic development in a region

   ● The participant, who are assigned with a clear mission in above mentioned organizations, is preferred. The organization with the specific and strategic intention to utilize the opportunity of this program will be highly valued.

   ● Counterparts or relating personnel, working in the JICA project in this field and whose role of the project is clear, are highly prioritized.

5. Course Capacity (Upper limit of Participants)
   16 participants

6. Language to be used in this program
   English

7. Course Objective
   Participants will acquire knowledge of relevant and effective cluster approach for a target region’s industrial development through multi-national interaction.

8. Overall Goal
   Regional economy will be vitalized by creating and strengthening industry through cluster approach.
9. Expected Module Output and Contents:

<Structure of the program>

<table>
<thead>
<tr>
<th>General frameworks such as concepts, definitions, etc. to understand, design, and drive cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Government Policy in Japan</td>
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<tr>
<td>Regional Government Policy in Toyohashi</td>
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<tr>
<td>Cluster Background: Key Characteristics in Toyohashi</td>
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<tr>
<td>Regional Cluster Supporting/Management Organization</td>
</tr>
<tr>
<td>Clustering Activities: U-I-G* projects, Technical knowledge</td>
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<tr>
<td>Case Studies: Cluster Development in other regions of Japan</td>
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<tr>
<td>Case Studies: Cluster Development in developing nations</td>
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<tr>
<td>Case Studies: Cluster Development in EU, Taiwan, etc.</td>
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<tr>
<td>Action Plan Development</td>
</tr>
</tbody>
</table>

“How to design and drive a cluster for your situation”

* Abbreviation of University-Industry-Government

(Module and Contents >)

This program consists of the following components.

*The contents, duration and order are subject to change.*

<table>
<thead>
<tr>
<th>Module</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To share and confirm current situation of the participant’s country, region and his/her duties relating to cluster development</td>
<td></td>
</tr>
<tr>
<td>Inception report</td>
<td>Inception Report Preparation/Analysis Presentation</td>
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<tr>
<td></td>
<td>• Current Situation and structure of regional industry</td>
</tr>
<tr>
<td></td>
<td>• Measures of regional industrial development</td>
</tr>
<tr>
<td></td>
<td>• Current situation of a cluster (stakeholders, size, University-Industry-Government (U-I-G) linkage, related projects/activities, etc.)</td>
</tr>
<tr>
<td></td>
<td>• The participant’s background, assigned duties and positions</td>
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</tbody>
</table>
### 2. To acquire fundamental knowledge of cluster development

#### 2-1. To understand the basic concepts of cluster for your application

| Basic Concept | ■ General concept of Regional Cluster  
- Definition, stakeholders of clusters, re-analysis of participant’s cluster  
■ Resource in Regional Cluster  
- Implication of Technology and R&D, Roles of Private Firms and University, Human Capitals, etc. |

#### 2-2. To understand cluster activities in Japan and others from various aspects, for application in your situation

| Various Aspects/Analysis | ■ National Government policy of Industrial Clusters in Japan  
(Ministry of Economy, Trade and Industry)  
■ Regional Industry Cluster Development in Toyohashi-region in Japan  
(1) Background and relevant measures  
(2) Regional policy  
(3) Function of local government and its approach  
(4) Case of projects in a cluster  
■ Role/Function of University, a case of Toyohashi University of Technology  
*Note: UNIVERSITY-INDUSTRY-GOVERNMENT (U-I-G) COOPERATION is regarded as one of the key elements in this program, but is not the main focus of the program.  
■ Case Studies of Regional Industry Cluster, in  
(1) JICA’s projects in the developing countries  
(2) European Countries, Taiwan and others |

#### 2-3. To understand the dynamics of cluster development and management, through discussions and exercises with practical frameworks.

| Dynamics / Exercises | ■ Essential Components of Clustering Dynamic  
- Function of University-Industry-Government linkage, Role of cluster manager, what &how  
■ Field visits and discussion with actors  
Cluster initiative/managerial organization, etc.  
■ Workshop of each participant’s cluster development |
3. To confirm what you have learnt from the program

Wrap-Up & Action Plan
- Action Plan Development and Presentation
  - Confirmation and summary of knowledge obtained from the program, using module 2-3 workshop output

< Location and information about Toyohashi-city >

Demography of Toyohashi-city
- Population: approx. 382,000
- Area: 261.35 km²
- Main Industry: Agriculture, Manufacturing (Automobiles)

Source: www.city.toyohashi.lg.jp/en/

< Image of Training program: photos from previous >
<Reference: Previous Program Schedule>
*The schedule and contents of 2015 is now under review and planning.*

<table>
<thead>
<tr>
<th>Day</th>
<th>Training contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Wed</td>
<td>Arrival at Central Japan International Airport</td>
</tr>
<tr>
<td>2 Thu</td>
<td>JICA Orientation</td>
</tr>
<tr>
<td>3 Fri</td>
<td>General Orientation (Title: Manufacturing in Japan)</td>
</tr>
<tr>
<td>4 Sat</td>
<td>Day-off</td>
</tr>
<tr>
<td>5 Sun</td>
<td>Move to Toyohashi</td>
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<tr>
<td>6 Mon</td>
<td>Country Report Presentation</td>
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<tr>
<td>7 Tue</td>
<td>Common Concept of Cluster I &amp; II (Basic Understanding for Cluster)</td>
</tr>
<tr>
<td>8 Wed</td>
<td>Resources for Cluster I &amp; II (Basic Understanding for Cluster)</td>
</tr>
<tr>
<td>9 Thu</td>
<td>Japanese Government policy for Industrial Cluster Case Study: Regional Clusters in Higashi Mikawa Region &amp; Toyohashi</td>
</tr>
<tr>
<td>10 Fri</td>
<td>Case Study: &quot;Regional Development Plan in Higashi Mikawa Region&quot; (Cases of Clusters in Toyohashi) Case Study: &quot;Vision &amp; Progress by Municipal Government of Toyohashi&quot;</td>
</tr>
<tr>
<td>11 Sat</td>
<td>Day-off</td>
</tr>
<tr>
<td>12 Sun</td>
<td>Day-off</td>
</tr>
<tr>
<td>13 Mon</td>
<td>Day-off</td>
</tr>
<tr>
<td>14 Tue</td>
<td>Activities and Roles of Regional Cluster Management Organization &quot;Science Create Co., Ltd.&quot;</td>
</tr>
<tr>
<td>15 Wed</td>
<td>Regional Collaboration I(Roles and Functions of University)</td>
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<td>16 Thu</td>
<td>Cluster Situations in Developing Countries (Participating Countries)</td>
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<tr>
<td>17 Fri</td>
<td>Cluster Development in Other Countries (Poland and others from EU, Taiwan and participating countries)</td>
</tr>
<tr>
<td>18 Sat</td>
<td>Technical Knowledge: Intellectual Property</td>
</tr>
<tr>
<td>19 Sun</td>
<td>Day-off</td>
</tr>
<tr>
<td>20 Mon</td>
<td>Day-off</td>
</tr>
<tr>
<td>21 Tue</td>
<td>Technical Knowledge: Intellectual Property</td>
</tr>
<tr>
<td>22 Wed</td>
<td>Technical Knowledge: Intellectual Property</td>
</tr>
<tr>
<td>23 Thu</td>
<td>Toyota Factory Visit</td>
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<td>24 Fri</td>
<td>Basic Factors of Dynamics in Regional Cluster-UIG Collaborations, What &amp; How for Managers</td>
</tr>
<tr>
<td>25 Sat</td>
<td>Day-off</td>
</tr>
<tr>
<td>26 Sun</td>
<td>Day-off, Move to Osaka</td>
</tr>
<tr>
<td>27 Mon</td>
<td>Environmental Cluster in Kansai Region (Building Dynamics in Regional Clusters)</td>
</tr>
<tr>
<td>28 Tue</td>
<td>Protonics Clusters in Hamamatsu City</td>
</tr>
<tr>
<td>29 Wed</td>
<td>Promotion Scheme Building I (Developing Regional Cluster Dynamics)</td>
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<td>30 Thu</td>
<td>Action Plan Presentation</td>
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<td>31 Fri</td>
<td>Course Evaluation Meeting, Closing Ceremony</td>
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<tr>
<td>32 Sat</td>
<td>Return to Each Country</td>
</tr>
</tbody>
</table>
III. Conditions and Procedures for Application

1. Expectations from the Participating Organizations:
   (1) This program is designed primarily for organizations that intend to address specific issues or problems identified in their operation. Applying organizations are expected to use this 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 this program to meet specific requirements of the 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: policy-making, program/project planning and implementing, or researching/evaluating cluster development/industrial development by cluster approach.
      - Nominees may belong to national or regional government/government-affiliated associations or organizations/business associations such as chamber of commerce or industry, and universities
      - The applying organizations should be engaged in initiation, facilitation and/or management of industry clusters for socio-economic development in a region
      - Nominees must be assigned with a clear mission/role of cluster development within the organization mentioned above. The organization with the specific and strategic intention to utilize the opportunity of this program will be highly valued.
   2) Experience in the relevant field: minimum of 5 years in the relevant field
   3) Educational Background: should have a bachelor’s or a higher degree.
   4) Language: have a competent command of spoken and written English which is equal to TOEFL iBT 100 or more (Active participation in discussions and workshops require high competence of English ability.)
Please attach an official certificate for English ability such as TOEFL, TOEIC etc., if possible

5) **Health**: be in good health, both physically and mentally, to participate in the Program in Japan

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

**(2) Recommendable Qualifications**

1) **Age**: over the age of thirty (30) and have appropriate professional experiences in related fields of cluster development.

2) Those who have been devoting and who will continue to devote themselves to the activities of the JICA project concerned are highly welcome to this program.

3. **Documents for Application**

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

   *Pregnancy*
   
   Pregnant participants are strictly requested to attach the following documents in order to minimize the risk for their health.
   1. letter of the participant’s consent to bear economic and physical risks
   2. letter of consent from the participant’s supervisor
   3. doctor’s letter with permission of her participation.

   Please ask JICA Staff for the details.

   (2) **Photocopy of passport**: to 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 Expire date.

   (3) **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)

   (4) **Inception Report**: Each nominee is requested to submit an inception report for selection. The accepted nominees will then require preparation of its presentation. More precise directions will be given upon official letter of acceptance.
4. **Procedures 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 24th, 2015**.)
   
   (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 specific and strategic intention to utilize the opportunity of this program will be highly valued in the selection.**
   
   (3) **Notice of Acceptance**
   
   Notification of results will be made by the JICA office (or the Embassy of Japan) not later than **August 21st, 2015.**

5. **Document(s) to be submitted by accepted candidates:**
   
   The participants are required to make presentation material based on the report in order to share it at beginning of the program. Using Microsoft PowerPoint is preferred. More precise directions will be given upon official letter of acceptance.

6. **Conditions for Attendance:**
   
   (1) to strictly adhere to the program schedule.
   
   (2) not to change the program topics.
   
   (3) not to extend the period of stay in Japan.
   
   (4) not to be accompanied by family members during the program.
   
   (5) to return to home countries at the end of the program in accordance with the travel schedule designated by JICA.
   
   (6) to refrain from engaging in any political activities, or any form of employment for profit or gain.
   
   (7) to observe Japanese laws and ordinances. If there is any violation of said laws and ordinances, participants may be required to return part or all of the 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 CHUBU International Center (JICA Chubu)
   (2) **Contact:** Ms. Tsuruta, Azusa (cbictp1@jica.go.jp)

   ※Please insert “program course number & the title” in the subject when emailing.

   For instance, “J1504070 & Establishing Regional Industry Cluster through U-I-G Cooperation”.

2. Implementing Partners:

   ● International Cooperation Center for Engineering Education Development (ICCEED), Toyohashi University of Technology
     • **Contact:** Dr. Prof. Naohiro HOZUMI (Professor / Director of ICCEED)
       g-training@icceed.ac.jp
     • **URL:** http://icceed.tut.ac.jp
     • **Remarks:** International Cooperation Center for Engineering Education Development (ICCEED) was established at Toyohashi University of Technology (TUT) in April 2001. ICCEED has been cooperating with developing countries to enhance their engineering education since established, and has also facilitated international exchange and alliances as a part of the Organization of International Affairs (OIA) in Toyohashi University of Technology since 2010.

   ● Biztech Inc.
     • **Contact:** Ms. Chie Sato (President)
     • **URL:** http://www.biztech-inc.co.jp
     • **Remarks:** Biztech Inc was established in 1995, with its specialty of consultancy in innovation development process, focusing on technology and social context. The core of its services consists of wider perspectives and "Thinking together!" approach.

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

4. Accommodation in Japan (Subject to change without notice):

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

   Hotel Associa Toyohashi
   Address: Nishijuku, Hanada-cho, Toyohashi-shi, Aichi 440-0075, Japan
   TEL: +81-532-57-1010 FAX: +81-532-57-1033
If there is no vacancy at Hotel Associa Toyohashi, JICA will arrange alternative accommodations for participants. Please refer to facility guide of Hotel Associa at its website on http://www.associa.com/english/tyh/.

5. Expenses:
The following expenses will be provided for the participants by JICA:
(1) Allowances for accommodation, 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, or dental treatment are not included)
(4) Expenses for program implementation, including materials
   For more details, please see “III. ALLOWANCES” of the brochure for participants titled “KENSHU-IN GUIDE BOOK,” which will be given before departure for Japan.

6. Pre-departure Orientation:
A pre-departure orientation will be held at the respective country's JICA office (or Japanese Embassy), to provide participants with details on travel to Japan, conditions of the workshop, and other matters.
VI. ANNEX 1: Inception Report 2015

Each nominee is requested to submit an inception report for selection. The accepted nominees will then require preparation of its presentation. More precise directions will be given upon official letter of acceptance.

- The report should be typed and clearly summarized in maximum 6 pages.
- Although your understanding of a cluster will become clearer once attending this program, please understand that this attempt of report preparation itself is important as the first self-exercise for such an outcome.

1. Brief Overview of your country at a glance
2. Basic information of your cluster
   - Name, area, objectives, main stakeholders, size, characteristics, etc.
3. The activities of your cluster
   - (1) Political, economic, and industrial background of your cluster.
   - (2) Current situation: achievement, strength & weakness, issues of your cluster.
   - (3) Your organization and yourself in the cluster: roles, responsibilities, daily activities of your cluster.
4. Development and Management of your cluster
   Please describe your cluster in regard to the following points.
   - Who initiates the cluster development?
     - Does it national government, regional government, or private entities, etc.?
   - How is the cluster’s whole concept developed?
     - Is it developed by governmental policies, someone’s strong enthusiasm, or “naturally” evolved from the local history?
   - How is the cluster specification / targeted industry identified?
     - Is it based on well-evaluated concept via competitive analysis, existing local resources, a leader’s request or following market trend?
   - What direction/aim is the cluster heading from its current situation?
   - How are the members organized and managed?
     - How do you make the members interested in the cluster? What are conditions to call them members? How have their motivations been kept for the membership?
5. Your Intention of participating in and expectation from the program
For Your Reference

JICA and Capacity Development

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

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

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs 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.
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