



# Knowledge Co-Creation Program (Group & Region Focus)

GENERAL INFORMATION ON

**Urban Railways Management**  
**課題別研修「都市鉄道の運営」**  
**JFY 2018**

NO. J18-04127/ ID. 1884561

Course Period in Japan: From November 4<sup>th</sup> to December 1<sup>st</sup> 2018

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

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

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

# ***I. Concept***

## **Background**

Social and environmental problems in urban areas, such as heavy traffic or air pollution, have been arising in developing countries with growing population. In order to tackle these emerging issues, the construction of public urban railway has been promoted in these countries to substitute automobile transportation.

Sound management of urban railways (i.e. safe and frequent operation, O&M, business administration, etc.) is necessary for sustainable development of urban transportation. In Japan, urban railway systems have been managed sustainably for decades, and accumulated vast information and experiences in urban railway management. These know-how and lessons learned from Japan's experiences will be shared to participants from developing countries to achieve sound management of urban management in their respective countries.

## **For whom?**

This program is offered to staff of urban railway companies (subways, trams, LRTs, etc.) that own urban railways, and any organizations that are planning to run urban railways.

## **How?**

This program consists of lectures, exercises and observation tours focusing on urban railway management. Participants will formulate an action plan describing what they will do after they go back to their home country, where they will put the knowledge and ideas they have acquired and discussed in Japan to good use.

## **II. Description**

**1. Title (J-No.):**

Urban Railways Management (J18-04127)

**2. Course Period in JAPAN**

November 4<sup>th</sup> to December 1<sup>st</sup> 2018

**3. Target Regions or Countries**

Argentine, Bangladesh, Cambodia, Egypt, India, Indonesia, Iran, Kazakhstan, Malaysia, Myanmar, Nigeria, Pakistan, Peru, Philippines, South Africa, Sri Lanka, Ukraine, and Viet Nam

**4. Eligible / Target Organization**

This program is designed for urban railway companies (subways, trams, LRTs, etc.), and any organizations that are planning to run urban railways.

**5. Course Capacity (Upper limit of Participants)**

20 participants

**6. Language to be used in this program:** English

**7. Course Objective:**

To understand the issues related to the operation of urban railways, and to propose an improvement plan for urban railway management system which is suitable for your country considering the current situation.

**8. Overall Goal**

To improve the capability of the urban railway management in your country.

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

**(1) Expected Module Output**

The participants are expected to:

- (a) be able to explain the importance of safe and efficient operation of urban railways.
- (b) understand the management system and organization of Japanese railway companies and to be able to consider applying that understandings to your country.
- (c) understand the operation and maintenance methods of Japanese urban railways and to be able to consider applying that understandings to your country.
- (d) propose an improvement plan for the management system of the urban railways which is suitable for your country / organization.

(2) Contents

Theme	Content
Railway company management	(a) Privatization of Japan National Railway and its impact (b) Governmental support for railway company (subsidy for construction, PPP, etc.) (c) Management planning (demand forecast and investment plan, tariff policy, fund raising) (d) Non railway income (retail business in station, town development along railway line, IC-Card business, etc.)
Safety and efficient railway operation	(e) Safety standard (by government and railway company) (f) Infrastructure for safety operation (central control center, personnel training center, safety facilities like ATS, rolling stock yard) (g) Lessons from former accidents
Extraction of problems and formulation of improvement plans	Country Report Presentation Report making of Action Plan and its presentation

Note: The above contents may be subject to change.

Please be noted that this program is designed to focus on urban railways, therefore, high-speed rail related contents are limited.

(3) Methodology

Lecture, site visit, workshop and discussion

(4) Program of last year (For your reference)

The program of this year will be designed based on the last year's program.

Detailed information is provided in **V. Other Information**.

### ***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 on urban railways service and management. Participating organizations are expected to use this program fully specifically for reinforcing their safety operational service.
- (2) This program is enriched with contents and facilitation schemes specially developed in collaboration with railways companies 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.

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

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

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

###### **(a) Current Duties:**

be senior officers of the planning department of a railway company with an urban railway line, such as commuter rail, underground railway, LRT (Light Rail Transit) and MRT (Mass Rapid Transit)

###### **(b) Experience in the relevant field:**

have more than five (5) years of experience in the field of railway business

###### **(c) Educational Background**

be a university graduate or have an equivalent educational background

###### **(d) Language:**

be proficient in spoken and written English (Please attach an official certificate for English ability such as TOEFL, TOEIC etc, if possible)

###### **(e) Health:**

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.

###### **(f) Age:**

be at the age 45 years or younger in principle

### **3. Required Documents for Application**

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

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

**(a) Photocopy of passport:** 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.

**(b) Nominee's English Score Sheet:** If you have any official documentation of English ability. (e.g., TOEFL, TOEIC, IELTS)

### **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 September 7(Friday), 2018**)

#### **(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 October 4(Thursday), 2018**.

## 5. <For Accepted Applicants Only>

### (1) Submission of documents to be submitted

#### (a) Country Report:

##### - Format:

Visual material for presentation (ex. MS Power Point)

(Detailed information is provided in **VI. Guidance of documents to be submitted.**)

##### - Font:

Please use font size 24 or more

##### - Number of Slides:

The report should not exceed 20 slides.

#### (b) Annex1 (Fact Sheet)

##### - Format:

Please fill in **Annex1 (Fact Sheet)**

### (2) Notes

#### - Way to Submit:

Please send to JICA Tokyo, preferably by e-mail [ticttee@jica.go.jp](mailto:ticttee@jica.go.jp)

(Ms.Junko Sasaki, Program Officer).

When you send e-mail, please include the course title "Urban Railways Management (J1804127)," as well as the name of your country.

#### - Deadline: October 18<sup>th</sup> (Thursday), 2018

#### - Presentation:

During the program, all participants are required to deliver a 10-15 minutes presentation on the Country Report of their respective countries at 70-seats-capacity venue.

## 6. Conditions for Attendance:

- (1) to strictly adhere to the program schedule.
- (2) not to change the program topics.
- (3) not to extend the period of stay in Japan.
- (4) not to be accompanied by family members during the program.
- (5) to return to home countries at the end of the program in accordance with the travel schedule designated by JICA.
- (6) to refrain from engaging in any political activities, or any form of employment for profit or gain.
- (7) to observe Japanese laws and ordinances. If there is any violation of said laws and ordinances, participants may be required to return part or all of the training expenditure depending on the severity of said violation.
- (8) to observe the rules and regulations of the accommodation and not to change the accommodation designated by JICA.

## ***IV. Administrative Arrangements***

### **1. Organizer:**

(1) **Name:** JICA TOKYO

(2) **Contact:** Ms. Junko Sasaki (tictee@jica.go.jp)

### **2. Implementing Partner:**

(1) **Name:** International Policy and Project Division, Railway Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

**URL:** [http://www.mlit.go.jp/index\\_e.html](http://www.mlit.go.jp/index_e.html)

(2) **Name:** Japan International Consultants for Transportation Co., Ltd.

**URL:** <http://www.jictransport.co.jp/en/>

### **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:**

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

JICA Tokyo International Center (JICA TOKYO)

Address: 2-49-5 Nishihara, Shibuya-ku, Tokyo 151-0066, Japan

TEL: 81-3-3485-7051 FAX: 81-3-3485-7904

(where "81" is the country code for Japan, and "3" is the local area code)

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

### **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 "KENSU-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.



## V. Other Information

Reference information on the Railways in Japan is shown below, which may help you to gain a general view of the Railways in Japan.

Japan Railway & Transport Review

<http://www.jrtr.net/>

### Program of Year 2017(Last year) (For your reference)

Date	Program	Place
Nov 5 Sun	Arrival	
Nov 6 Mon	Program Orientation Briefing Lec: Characteristics of Railway in Japan (* Lec=lecture)	Seminar Rm (SR) JICA Tokyo International Center (TIC)
Nov 7 Tue	Remarks by Director General of JICA Tokyo General Orientation (GO): Japanese Society and Culture GO: Japanese Economy GO: Japanese Politics and Administration Lec: JICA's Policy and Operation in Railway Sector	SR, TIC
Nov 8 Wed	Lec: Privatization of Japanese National Railways and its impact Lec: Japanese Railway Policy Lec: Technical Standards of Railways	SR, TIC
Nov 9 Thu	Country Report Presentation	SR, TIC
Nov 10 Fri	Lec: International Standardization Lec: Overview of Railway System Lec: Management Plan / Income & Expenditure Plan of Railway Business	SR, TIC
Nov 11 Sat	Free	
Nov 12 Sun	Free	
Nov 13 Mon	Lec: Railway Operation in JR East Obs: Tokyo Station & its Ekinaka (in-station) business	AM: SR, TIC PM: Tokyo Station
Nov 14 Tue	Lec: Town Development Projects of Tokyu Corporation and the Role of Station Lec: Urban Redevelopment Project Undertaken by Tokyu Corporation Obs: Redevelopment project site (*Obs=observation)	AM: SR, TIC PM: Tokyu Futakotamagawa Rise

Date	Program	Place
Nov 15 Wed	Lec: Rolling stock manufacturing in Japan Obs: Rolling stock factory	J-TREC Co., Ltd. (Head Office and Yokohama Plant )
Nov 16 Thu	Lec: Railway Personnel Management Policy & Human Resource Development Obs: Maintenance system for infrastructure (track, catenary, signal facilities)	Training Center, Seibu Railway Co.,Ltd
Nov 17 Fri	Lec: Business Overview of Tokyo Metro including through operation Obs: Tokyo Metro's General Training Center Mid-term review and discussion	AM: Tokyo Metro's General Training Center PM: SR, TIC
Nov 18 Sat	Free	
Nov 19 Sun	Visit to Peace Memorial Museum	Peace Memorial Museum,Hiroshima Prefecture
Nov 20 Mon	Lec: From Streetcar to Light Rail Transit System Obs: LRT & other rolling stock	Hiroshima Electric Railway Co.,Ltd.
Nov 21 Tue	Visit to Numaji Transportation Museum Lec: Outline of 3rd Sector, New Transit System & Obs: Depot	AM: Numaji Transportation Museum PM: Hiroshima Rapid Transit Co., Ltd.
Nov 22 Wed	Lec: Control system and Electric equipment for rolling stock Obs: MEC's Itami Works	Mitsubishi Electric Corporation, Itami Works
Nov 23 Thu	Sightseeing bus tour in Kyoto	Kyoto Prefecture
Nov 24 Fri	Lec: Safety Challenges and Lessons Learned from Experiences of Accidents Obs: General Education Center	General Education Center, JR East Personnel Service (Shinshirakawa )
Nov 25 Sat	Half-day sightseeing of Tokyo by JICA bus	
Nov 26 Sun	Free	

Date	Program	Place
Nov 27 Mon	Lec: Development and Management of Urban Railways Lec: Railway signal system (ATS, ATC etc.) Obs: Signal Museum	AM: SR , TIC PM: The Nippon Signal Co., Ltd. (Saitama)
Nov 28 Tue	Lec: Railway Construction (Subsidy System) Lec: Rolling Stock Maintenance System Obs.: Repair and Maintenance Shop	AM: SR , TIC PM: Wakabadai Rail Yard, Keio Electric Railway Co., Ltd.
Nov 29 Wed	Lec: Tokyo Monorail Obs: Showajima General Center, Tokyo Monorail Preparation of Action Plan	Tokyo Monorail Co., Ltd.
Nov 30 Thu	Presentation of Action Plan Visit to the exhibition of Mass-Trans Innovation Japan 2017	Makuhari Messe
Dec 1 Fri	Evaluation Meeting Closing Ceremony	SR, TIC
Dec 2 Sat	Departure	

**<For Accepted Applicants only>**

## ***VI. Guidance of documents to be submitted***

Both “1.Country Report” and “2. Annex 1(Fact Sheet)” are required to be submitted by all accepted participants.

**Submission:** send it to the following e-mail address

by **October 18, (Thursday) ,2018.**

e-mail address:**ticttee@jica.go.jp.**

When sending e-mail, please include the course title, “Urban Railways Management (J18-04127)” and the name of your country.

### **1. Country Report**

#### **- Objective:**

To share the situation in your country with other participants as well as Japanese experts in order to have fruitful discussion.

#### **※Remarks※**

The Country Report Presentation will be held on November 9, (Friday), 2018.

Private companies related railway industries will attend the presentation.

We will distribute the printed copies of your country reports to the audience, so please observe the deadline (Oct.,18,(Thursday)).

**- Format:** Visual material for presentation (ex. MS Power Point)

**- Font:** Please use font size 24 or more

**- Number of Slides:** The report should not exceed 20 slides.

#### **- Contents of the Country Report**

The report should include two following information.

##### **a) Organization profile**

- Organization status
- Types of train lines operating in
- Financial resources
- Annual operating income
- Number of employees
- Number of train lines
- Total length of rail network
- Number of stations and rolling stock units
- Average number of daily passenger train runs
- Average number of passenger line network
- Annual number of passengers of each line
- Annual passenger-distance of each line
- Average number of daily train

##### **b) Issues to be addressed**

- Railway management issues and problems at your organization  
(e.g.) sales, finance, human resources development, facilities maintenance

## **2. Annex1 (Fact Sheet)**

### **- Objective:**

To deepen understanding of the current situation in your country and compare to the situation in other participant's countries

### **- Format:**

Please fill in Annex1 (Fact Sheet)

# Annex 1

## Fact Sheet

Country: \_\_\_\_\_

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

※Please describe the answer succinctly.

### 1. General description of country information

1)Total land area (km <sup>2</sup> )	
2)Population	
3)Total distance of all railways lines (km)	
4)Number of the railways companies	
5)Number of national railways companies	
6)Number of private railways companies	
7)Number of subways	
8)Assistance from JICA (Dispatch of experts, ODA loans etc.)	
9)Material support or human support from overseas except Japan ※If you have it, please write down the name of the country and contents of assistance.	

### 2. Organization Profile

1)Organization Status (Public,Private or Mixed etc.) Applicable Law (if any)	
2)Types of train lines operating in (Metro, Intercity rail, High-speed rail,LRT or etc.)	
3)Financial Resources	
3)-1 Construction Fee ※Please write the financial resources.(ex:Subsidized Charge from government, Grant from other countries etc.)	
3)-2 Operation Cost ※Please write the financial resources.(ex:Subsidized Charge from government, Grant from other countries etc.)	
4)Annual Operating Income (USD)	
4)-1 Fare Revenue	
4)-2 Government Subsidy	
4)-3 Others	
5)Number of employees its structures (please, attach)	
6)Number of train lines	
7)Total Length of Rail Network ※If there are several railways, please write total distance of each railway line.	
8)Number of stations	
9)Number of rolling stock units	
10)Country of manufacture of rolling stocks	
11)Average number of daily passenger train runs	
12)Average number of passenger line network (km)	
13)Annual number of passengers of each line	
14)Annual passenger-distance of each line (passenger-km)	
15)Does your organization have freight trains?	
16)If yes, please explain the scale compare to the passenger train.	
17)Average number of daily train	
17)-1 Weekday (Peak Hour)	
17)-2 Weekday (Off Peak)	
17)-3 Weekend	
17)-4 Public Holiday	

<b>3. Long Distance (Intercity) Railway</b>	
1)Year established	
2)Track gauge (mm)	
3)Length of Railway Operating kilometers (km), (Electrified kilometers (km))	
4)Freight transportation tonnage (ton/year)	
5)Freight transportation tonnage kilometer (ton-km/year)	
6)Number of Passengers carried (passenger/year)	
7)Passenger kilometer (passenger-km/year)	
8)Number of trains operated per day	
9)Number of rolling stocks	
10)Number of cars per train set	
11)Legal speed limit (km/h)	
12)Schedule speed (km/h)	
13)Number of employees in the operating company	
14)Number of railway accidents per year	
15)Length of sections with double or more than double-track (km)	
16)Signaling system (CBTC,D-ATP,ETCS,Level2,others( ))	
17)Current Feeding Systems	
18)Number of rolling stocks delivered by manufacturer	
19)Design seismic coefficient	
<b>4. Urban (Inner-city) Railway</b>	
1)Year established	
2)Track gauge (mm)	
3)Length of Tram operating kilometers (km)	
4)Number of passengers carried by tram (passenger/year)	
5)Urban railway operating kilometers (km) & underground section (km)	
6)Urban railway passengers carried (passenger/year)	
7)Urban railway transport density (passenger/day)	
8)Number of trains operated per day	
9)Number of rolling stocks	
10)Number of cars per train set	
11)Legal speed limit (km/h)	
12)Schedule speed (km/h)	
13)Number of employees in the operational company	
14)Signaling system (CBTC,D-ATP,ETCS,Level2,others( ))	
15)Current feeding system	
16)Number of rolling stocks delivered by manufacturer	
17)Design seismic coefficient	

## *For Your Reference*

### **JICA and Capacity Development**

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

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

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs 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 Tokyo International Center (JICA TOKYO)**  
**Address: 2-49-5 Nishihara, Shibuya-ku, Tokyo 151-0066, Japan**  
**TEL: +81-3-3485-7051 FAX: +81-3-3485-7904**