### **Regional EST Training Course on**

"Railways as the Low-Carbon and Sustainable Transport Development Solutions in Achieving Safe, Inclusive, Efficient and Resilient Communities under the 2030 Agenda for Sustainable Development"

Venue: United Nations University, Tokyo, Japan 26 February-2 March 2018

#### **Co-Organized by:**

United Nations Centre for Regional Development (UNCRD) of Division for Sustainable Development (DSD)

/ UN DESA

Ministry of the Environment of the Government of Japan (MOEJ)
United Nations University, Institute for the Advanced Study of Sustainability (UNU-IAS), Tokyo, Japan
Japan Railway Technical Service (JARTS)

#### **Supporting Organizations:**

Ministry of Land, Infrastructure, Transport and Tourism of the Government of Japan (MLIT)

Eco-Mo Foundation, Japan

United Nations Institute for Training and Research (UNITAR)

The Institute for Transportation and Development Policy (ITDP)

Curtin University Sustainability Policy Institute, Perth, Australia

Others (tbc)

#### 1. Introduction

The past decades witnessed a rapid population growth, economic expansion and unprecedented level of urbanization in Asian countries. This has led to an increase in transport demand, both for passenger and freight services. According to International Energy Agency (IEA), by 2030, annual passenger traffic will exceed 80 trillion passenger-kilometers - a 50% increase; and the global freight volumes will grow by 70 %. The safe, smart, efficient and sustainable transportation infrastructure and services are essential to fulfil this enormous demand for people's mobility and freight movement. Railways can carry a large number of passengers and cargo to long distances meeting the growth in transport demand.

The 2030 Agenda for Sustainable Development underscores the critical importance of the sustainable transport for achieving the Sustainable Development Goals (SDGs), and related targets. The railway contains strong connections directly or indirectly to the number of the goals and supporting targets of SDGs, notably; ending poverty (Goal 1), achieving food security (Goal 2), gender equality (Goal 5), access health care (Goal 3), education (Goal 4) and clean water (Goal 6), energy efficiency (Goal 7), resilient infrastructure (Goal 9), access to sustainable transport (Goal 11), resilience to climate-related hazards (Goal 13), promote environmentally sound technologies and multi-stakeholder partnerships (Goal 17). SDG 11 specifically calls for concerted actions at a local, national and international level to make cities and human settlements inclusive, safe, resilient and sustainable, which is also one of the priority themes of the 2018 High-Level Political Forum on Sustainable Development. The Paris Climate Agreement of COP 21 calls for intensify actions and investments in sustainable and low-carbon future to limit the average global temperature rise well below 1.5 degree Celsius. The Addis Ababa Action Agenda calls for a new initiative to ensure sufficient investment in sustainable and resilient infrastructure, including transport, communication, water and sanitation and energy, in all countries. Implementation of sustainable, low-carbon transport solutions mainly railways could significantly contribute to the underlined objectives of the inter-linked and mutually reinforcing the 2030 Agenda, the Paris Climate Agreement, the New Urban Agenda, the Sendai Framework for Disaster Risk Reduction, the Nairobi

Mandate and the Addis Ababa Action Agenda. The past Regional EST Forums in Asia have discussed and emphasized the importance of rail transportation and the necessity of shifting to more low-carbon and environmentally sustainable modes of transport, in particular, mass transit options like LRT and railways.

The railway is a safe, efficient, reliable, most commonly used and cost-effective transport system in various parts of the world. It is an important means to access employment, health services, education and administrative facilities, markets and other essential utilities as well as to ensure the rural-urban connectivity for trade and economic development. It could be the backbone of the city's public transport system for the efficient mobility, which allows people and goods to move fast, reliable and affordable ways. Railways further support scaling up capacity in cities for emergency response and the ability to manage and recover the urban mobility systems during and after the natural disasters. Railways as the low-carbon and sustainable transport play a significant role to meet the current challenge of climate change, and prevent traffic congestion, air and noise pollution, traffic accidents and fatalities.

As the Asian countries are progressively shifting their public transport from road to rail, and there is a need to improve railway transport policy, planning, technology, management, operation and maintenance, efficiency and the governance so that it minimizes the negative impacts and maximizes the benefits of the railways to the society, economy, and environment. It is equally important to improve the safety and security, capacity, accessibility, availability, punctuality, connectivity, seamless operations and transfer, overall quality and the sustainability of the railway sector for achieving safe, inclusive, efficient and resilient cities and communities by 2030.

#### 2. Objectives

Under the overall framework of the Regional EST Forum in Asia, the Railways Training Course will aim to address specific needs, gaps and challenges in the rail transport sector of Asia, and enhances the capacity of developing countries in making the railway transport system more safe, efficient, inclusive, resilient and sustainable.

#### Other objective includes;

- To enhance the role of railways in the context of achieving the 2030 Agenda and SDGs;
- To discuss and share various policy options, planning, institutional measures, technological interventions, financing mechanisms, and partnership arrangement in the railway transport sector for achieving the SDGs;
- To address current challenging issues such as safety, security, reliability, affordability, punctuality, connectivity, operations, management and overall quality of the railway transport infrastructures and services in Asia;
- To build the capacity of transport/railway ministries and departments in Asian countries for effective implementation of (a) policies and planning such as smart growth, transit-oriented development, transport demand management, land-use and transport planning, (b) railway management, operation and maintenance, (c) governance issues in the rail sector; and
- To disseminate the success stories, lessons, learn and know-how in the railway sector.

#### 3. Participants

The targeted participants, including central government representatives from transport and/or rail ministries of Bangladesh, Cambodia, P.R. China, India, Indonesia, Islamic Republic of Iran, Japan, Republic of Korea, Malaysia, Mongolia, Myanmar, Pakistan, the Philippines, Russian Federation, Singapore, Sri Lanka, Thailand and Viet Nam. It is expected that the training workshop will be attended by maximum 40 participants, including senior officials, experts and resource persons, and representatives from the co-organizers and supporting organizations.

#### 4. Contact for Further Information

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#### **5. Major Component of the Programme:**

1st Day	High Speed Railways / Inter City Railways
Programme	Lectures (45 min)
(9:30-17:30)	Supporting case (30 min)
	Discussions (1 hr)
2nd Day	Urban Railways (Management and Operation)
Programme	Lectures (45 min)
(9:30-17:30)	Supporting case (30 min)
	Discussions (1 hr)
3rd Day	Role of Railways on Urban Development and Regional Development
Programme	Lectures (45 min)
(9:30-17:30)	Supporting case (30 min)
	Discussions (1 hr)
4th Day	Technical Field Trip
Programme	
(9:30-17:30)	
5th Day	Technical Field Trip cont
Programme	•
(9:30-17:30)	
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### **Provisional Programme**

DAY 1: 26 February 2018 (Monday)

9:00 – 9:30	Registration
9:30 – 10:00	Official Opening
3.30 - 10.00	
	Welcome Remarks  Mr. Kornskiller Tolkomete, Director, United Notions University Institute for the
	- <b>Mr. Kazuhiko Takemoto</b> , Director, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
	Opening Address
	- Mr. Choudhury Rudra Charan Mohanty, Environment Programme Coordinator,
	United Nations Centre for Regional Development (UNCRD)
	- <b>Mr. Satoru Osanai</b> , President, Japan Railway Technical Service (JARTS)
	- Mr. Tetsuya Takazawa, Director, Environmental Transport Policy Division,
	Environmental Management Bureau, Ministry of the Environment of the
	Government of Japan (MOEJ)
10:00 – 10:15	Group Photo Session
10:15 – 10:45	Break
10:45- 11:00	Introductory Session:
	The Objectives of the Regional EST/Railways Training Course and its Relevance to SDGs
	– by <i>Mr. Choudhury Rudra Charan Mohanty</i> , Environment Programme Coordinator,
	UNCRD (15 min.)
	High Speed Railways / Inter City Railways
11:00-12:30	Lecture 1: Development History of High-speed Railways in Japan and World Wide
	Prospects—by <b>Prof. Hitoshi Ieda</b> , National Graduate Institute for Policy Studies
	(GRIPS), Japan (45 min.)
	(OKH 5), Japan (+3 IIIII.)
	Presentation of case studies
	High Speed Railways: Case of China – by Ms. Shanshan Li, Vice Country Director, ITDP,
	P. R. China (15 min.)
	Tru Olima (15 mini)
	Open discussion /Q &A (30 min.)
12:30 – 13:30	Networking Lunch
13:30–14:15	Open discussion / Interactive Session (45 min)
14:15–15:30	Lecture 2: The Second Rail Revolution: How Rail Based Transport Systems can Meet the
	Growing Travel Demand in Asia – by Prof. Peter Newman, Sustainability Policy Institute,
	Curtin University, Australia (45 min.)
	[This lecture will covers the TOD and TDM]
	Presentation of case studies
	Innovative Policies for Rail Based Transport System to Meet the Growing Travel Demand:
	Case of India – by Mr. Ved Pal, Additional Member/Planning, Indian Railways, the
	Government of India (15 min.)
	Government of meda (15 mm.)
	Open discussion /Q &A
15:30–16:00	Break
16:00–17:30	Open discussion/Interactive Session
	An open discussion will be carried out considering the use of integrated land-use and
	transport planning to uncover new models for securing funding and finance for railways.

DAY 2: 27 February 2018 (Tuesday)

	Urban Railways (Management and Operation)
9:30 – 10:45	Lecture 3: Improving Railway Efficiency Through Better Technologies, Operation and
	Maintenance – by Mr. Nobuyuki Yokoyama, Deputy General Manager, Planning and International Relations Division, International Affairs Headquarters, East Japan Railway Company (45 min.)
	Presentation of case studies (30 min.)
	Urban Railways Management and Operation: Case of Iran – by <b>Prof. Mahmoud Saffar Zadeh,</b> Consultant, Road, Housing and Urban Development Research Center (BHRC) (15 min.)
	Improving Railway Technologies and Efficiency: Case of China – by Ms. Shanshan Li, Vice Country Director, ITDP, P. R. China (15 min.)
10:45 - 11:00	Break
11:00-12:00	Open discussion/ Interactive Session/ Q &A (60 min.)
	An open discussion will be carried out considering how greater efficiency, improved operation and maintenance can benefit railway projects.
12:00 – 13:00	Networking Lunch
13:00–15:15	Lecture 4: Role of Railways in Building Resilient Against Natural Disaster-Lessons from Japan – by Prof. Yoshitaka Motoda, Iwate Prefectural University, Japan (45 min)
	Presentation of case studies (30 min.)  The Role of Railways to Building the Resilience and Sustainability of Cities and  Communities – by Prof. Peter Newman, Sustainability Policy Institute, Curtin University,  Australia (15 min.)
	Role of LRT for Acheiving Smart, Resilient and Low-carbon City :a Case of Toyoma – by Mr. Masashi Mori, Mayor, Toyama City Government, Japan (15 min.)
	Open discussion/ Interactive Session/ Q &A (60 min.)
	An open discussion will be carried out considering the potential for combining elements of
	safety, security, efficiency and operation to deliver greater resilience in cities and harness
15:15 – 15:30	economic, social and environmental outcomes.
15:30–17:30	Break Lecture 5: Urban Railway System Development in Japan –Contribution of the Private
	Sector – by Mr. Fumio Kurosaki, Senior Researcher, Institute of Transportation Economics (ITE) (45 min.)
	Presentation of case studies
	<i>Urban Railway System: Case of India</i> – by <i>Mr. Manoj Kumar</i> , Additional Secretary, Ministry of Housing and Urban Affairs, the Government of India (15 min.)
	Open discussion/ Interactive Session/ Q &A (60 min.)

# DAY 3: 28 February 2018 (Wednesday)

Role of	Railways on Urban Development and Regional Development
9:30 – 10:45	Lecture 6: Railway Management - Institutional Arrangements and Good Governance – b. Mr. Kazuyasu Takeda, Director, International Policy and Project Division, Railway Burea Ministry of Land, Infrastructure, Transport and Tourism (MLIT) (45 min.)
	Presentation of case studies (30 min.)  Institutional Arrangements and Good Governance for Railway Management: Case of China (by Mr. Robert Earley, President, Sino-Canadian Commodities Consulating P. R. China (min.)
	Railway Management – Institutional Arrangements and Good Governance – The role of I Data and Technology – by Mr. Karlson Hargroves, Senior Research Fellow, Cur University Sustainability Policy Institute, Australia (15 min.)
10:45 – 11:00	Break
11:00-12:00	Open discussion/ Interactive Session/ Q &A (60 min.)
	An open discussion will be carried out considering how institutional arrangements and governance can enhance railway outcomes and benefits.
12:00 - 13:00	Networking Lunch
13:00–15:15	<b>Lecture 7</b> : Role of Railways on Urban Development and Regional Development – by Nakashi Yajima, President, Land Readjustment Center, Japan (45 min.)
	Presentation of case studies (30 min.)  Role of Railways on Urban and Regional Development of India – Mr. Ved Pal, Additio Member/Planning, Indian Railways, the Government of India (15 min.)
	The Contribution of Railways to Urban and Regional Development in a Smart and Disruptive World – by <b>Prof. Peter Newman</b> , Sustainability Policy Institute, Curtin University, Australia (15 min.)
	Open discussion/ Interactive Session/ Q &A (60 min.)
15:15 – 15:30	Break
15:30–17:30	Presentations and Case studies: Project Development and Implementation for Railwa (30 min)
	Delivery Models for Enhanced Private Involvement in Land and Rail Based Projects – by N Sebastian Davies-Slate, Curtin University, Australia (15 min.)
	Project Development and Implementation: Lessons Learned – by Mr. Nigel Gan, United Nations Institute for Training and Research (UNITAR) (15 min.)
	Exercise: Project Development and Implementation for Railways (90 min.)
	The exercise will be carried out considering the viability of proposed models for future railway projects before considering a range of technical aspects of railway projects.

# DAY 4: 1 March 2018 (Thursday)

Technical Field Trip	
8:15	Meet at the lobby of Tokyu Stay Aoyama Premier and move by chartered bus
9:30	1) Visit: Railway Technical Research Institute to Observe Railway Research Facilities
11:30	Move by chartered bus
12:30 – 13:30	Networking Lunch at Shin-Yokohama Cubic Plaza
13:30	Move by chartered bus
14:00	2) Visit: Japan Railway Construction, Transport and Technology Agency (JRTT) to Observe Urban Railway Construction Site in Yokohama City
15:30	3) City Tour in Yokohama by chartered bus
17:00	Leave for Tokyu Stay Aoyama Premier by bus (1 hour)

DAY 5: 2 March 2018 (Friday)

	Technical Field Trip cont
7:45	Meet at the lobby of Tokyu Stay Aoyama Premier and move by chartered bus
8:30	4) Observation of Railway Facilities at JR Tokyo Station
9:30	5) Introduction of Railways System and Observation of JR Central Facilities (Participants need to be split into two groups)
11:30 – 12:30	Networking Lunch at Sapia Tower hosted by JARTS
12:30 13:30	Move by train and arrive at JR Shinkiba Station (10 min. ride by metro) Transfer from train to bus
14:00	6) Tokyo Metro :Introduction of Subway System and Visit to Training Ceter
16:00	Move to Hotel Metropolitan Edmond (Iidabashi)
17:00 – 17:30	Wrap up and Course Evaluation
17:30 – 18:00	Closing Remarks
	<ul> <li>Mr. Satoru Osanai, President, Japan Railway Technical Service (JARTS)</li> <li>Mr. Teruyoshi Hayamizu, Director-General, Environmental Management Bureau, Ministry of the Environment of the Government of Japan (MOEJ)</li> <li>Mr. Manoj Kumar, Additional Secretary, Ministry of Housing and Urban Affairs, the Government of India</li> <li>Mr. Choudhury Rudra Charan Mohanty, Environment Programme Coordinator,</li> </ul>
	United Nations Centre for Regional Development (UNCRD)
18:00-18:30	United Nations Centre for Regional Development (UNCRD)  Distribution of the Certificates
18:00-18:30 18:30-	