What’s JTPA

Date established: 31 October 1957

Headoffice’s location: 3-23-1 Hongo, Bunkyo-ku, Tokyo, 113-0033 JAPAN

Legal supervisor: Ministry of Land, Infrastructure, Transport and Tourism (MLIT) under the Public Corporation Act

Objectives: Developing practically and effectively the integrated multimodal transportation system, following technical innovations and changes in needs of passengers and distribution arms. In this context, JTPA is to research/study, plan, design, and publish on integrated transportation system and facilities, including road, railway, railtrack, port, and airport, coordinating 108 member organs/firms of various sectors.
What’s JTPA’S Work Fields

Transport Hub (Station plaza), Crossing removal

Heritage-restored / Environmentally Sustainable Dev.

Overseas Activities

Integrated Transport Policy, Urban Renewal

Automated Guideway Transit (AGT), Guideway Bus, Light-rail Transit (LRT), Bus-rapid Transit (BRT)

Bicycle, Paratransit, Personal mobility
Urban Public Transport

Mass Transit
- Urban Railway/Subway

Medium Capacity Transit
- Monorail
  - Automated Guideway Transit (AGT) *
  - Light Rail Transit (LRT) **
    - (grade separated)
  - Guideway Bus System
  - Short Distance Transport Systems

Small - Medium Capacity Transit
- Light Rail Transit (LRT) ***
  - (at grade, within road right-of-way)

Small Capacity Transit
- Bus Rapid Transit (BRT) ****
- Bus System (Ordinal; Demand-typed)
- Others (inclu. Mini-bus, Para-Transit)

* AGT is regionally called as: New Transport System (NTS) in Japan, Automated People Mover (APM) in North America.
** such as LRTs in Metro Manila, Philippines
*** LRT is locally called such as Streetcar, Tram, Tramway, Light Rail or Light Railway.
**** BRT is regionally called as Key Route Bus in Japan.

Source: MLIT, 2012
Comparison of Transport Capacity

Satisfies Mass Transit Demand

- Operation interval (min.)
- Unit carrying capacity (passenger/train)
- Carrying capacity (passengers/hour/one-way)

Source: MLIT, 2012
Source
(2) Paris: OCOTRAM. Study ordered by UITP
(3) Central Tokyo (23 Wards) & Tokyo Prefecture: Government of Japan. National Sensus
Transition of LRT in Japan

1933
Cities: 65
Operation: 82
Length: 1,479km

1895
First Tramway in Kyoto

2010
Cities: 17
Operation: 19
Length: 205.5km

- Motorization
- Metro Construction

Source: Yuichi AIDA, LRT System in Japan and Its Potential in India, 8 February 2013
LRT provides passengers quicker and more regular moving, and realize modal change from private cars and other transport modes.
The **Toyama PORTRAM**, currently reconstructed LRT which had transformed from JR Toyama-port line, has realized to increase the **number of daily users by 2.2 times in weekdays and 5.3 times in weekend**; especially the number of **aged users of more than 60-year-old increased by 3.5 and 7.4 times** in each period.

Pictures: *JTPA*
LRT of the next generation, is more environment-friendly public transport system and more accessible to aged and physically or socially handicapped passengers.

Kagoshima YOUTRAM II

Hiroshima Greenmover

Pictures: JTPA
Current Status of Japan’s LRTs
RAKKURU
Operated by Hakodate City Tram Department
The Ordinal Car has Reformed to LRV

Source: Hakodate City Tram Department

Picture source: http://ja.wikipedia.org/wiki
MOMO

Operated by Okayama Electric Tramway Co., Ltd.

Source: Okayama Electric Tramway Co., Ltd.
Greenmover Max
Operated by Hiroshima Electric Railway Co., Ltd.
Car length = 30.5 meters, longest in Japan

Inner Urban area

Outer Urban area

Source: Hiroshima Electric Railway Co., Ltd.
HEARTRAM
Operated by Tosa Electric Railway Co., Ltd.

Source: Tosa Electric Railway Co., Ltd.
Type-0800
Operated by Kumamoto City Transportation Bureau
Introduced Japan’s first LRV

Source: Kumamoto City Transportation Bureau
YOUTRAM I & II
Operated by Kagoshima City Transportation Bureau

Source: Kagoshima City Transportation Bureau

Picture: JTPA
### System Overview

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speed</strong></td>
<td>Max 65km/h</td>
</tr>
<tr>
<td><strong>Number of Cars</strong></td>
<td>73 cars</td>
</tr>
<tr>
<td><strong>Passenger Capacity</strong></td>
<td>28,500 pphpd * (600 thousand/day)</td>
</tr>
</tbody>
</table>

* Passengers per hour per direction

**Scope by Japan’s maker:**
- System Integration
- Train, E&M System
- Civil
- Maintenance

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Japan’s Maker has:

• Completed Successfully a Full Turnkey Project
• taken a role as System Integrator
• Provided continuously Higher Service Availability since opening in 1999
• Provided more than 10 years of Maintenance by promoting Technical Transfer & Localization
PORTRAM
Operated by Toyama Light Rail Co., Ltd.

Source: Toyama Light Rail Co., Ltd. ⇒ http://www.t-lr.co.jp/about/portram.html
In India, LRT colors may be... **Grand Metro Transit (GMT)** with *Garam Masala Colors*

Car Type 5000: © Nagasaki Electric Tramway. Co. Ltd.

A right picture: http://www.h-spice.jp/dictionary/spicelist/images/10galam_l.jpg
Example in Nagasaki City

Information Services with Smart-phone

1. Finding Current Location of LRVs
2. Getting Information on Tourism, Barriers around the Stop, etc.
3. Ride-reservation services for aged/handicapped passengers

A 102-year-old wooden LRV is also used for those services!

Source: Nagasaki City LRT Navigation Promotion Association
LRT Operation with Tablet PC thru GPS

Mobile phone Instruction for handicapped passengers

Smooth riding with Stroller

Integrated Service of Transport, Information Network & Grid

GPS

Electric Bus

Charging EV

Shared-Taxi
Information Services for Handicapped persons

Ginza Area for Demonstration experiment

Radio Transmitter on road

Ideas for Shifting Transport Modes to More Advanced Systems following increasing in passenger needs

More Advanced Transport Systems

Ordinary Public Transports on road

Guideway Bus (GB)
New Transport System (NTS)
Bus Rapid Transit (BRT)
Light-rail Transit (LRT)
Today’s Presentations on LRT

Project Cycle

Fact finding, Preparation
Feasibility Study
Construction
O&M
Evaluation
Rehabilitation or Reconstruction
Oka-den presentation
Toshiba presentation
Opening of Business

Source: JTPA, Japan Transportation Planning Association
Refined Transport System, Better Quality-of-Life

= WE PROVIDE COMPREHENSIVE SOLUTIONS! =

आपका ध्यान के लिए धन्यवाद

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