

資料 7

資料 7 インド水インフラセミナー配付資料

# Third meeting of the **PPP Council for Overseas Water Infrastructure** 16<sup>th</sup> February 2012 at Tokyo, Japan

Under the auspices of: Japan's

Ministry of Land ,Infrastructure,Transport and Tourism (**MLIT**)

Ministry of Health,Labour and Welfare (**MHLW**)

Ministry of Economy,Trade and Industry (**METI**)

1

## Country Session - **INDIA**

This Presentation is covering

- **The state of Urbanisation; the state of services of water supply & sewerage**
- **Development Plans for Water Infrastructure**  
and
- **Prospects of Public Private Partnership (PPP) in Water Infrastructure**

2

# Urbanisation in India & Sector Roles

## Demography as per 2011 Census

- Total Population 1210.2 Million
- Urban Population 377.1 Million (31.16%)
- Rural Population 833.1 Million (68.84%)
- More Urban growth during 2001-2011 than Rural
- Urban Growth Rate about 3 times that of Rural

## **Sector Roles:**

- Water Supply and Sanitation is a State(Prefecture) Subject; decentralized to the 3rd tier of Government to Urban Local Bodies (ULBs) which are responsible for developing projects and the O&M of water –sanitation services
- Govt. of India formulates policy guidelines, provides financial and technical assistance and facilitates external assistance

3

## Sector Condition of Water Supply w.r.t service benchmarks

Benchmark Indicator	Benchmark	Results Average
Water supply coverage	100%	63.6%
Per capita supply	135 LPCD	132
Non revenue water	15%	39%
Consumption metering	100%	46%
Continuity of supply	24 x 7	4 Hrs
Quality of water supply	100%	94%
Cost recovery	100%	73%

**Source: MoUD Benchmarking Pilot Study 2010 for select cities**

4

# Sector Condition of Sewerage w.r.t service benchmarks

Benchmark Indicator	Benchmark	Results Average
Toilet Coverage	100%	87
Sewerage network coverage	100%	62
Waste water collection efficiency	100%	59
Wastewater treatment adequacy	100%	85
Quality of wastewater treatment	100%	--
Extent of reuse & recycling of treated WW	20%	--
<b>Source: MoUD Benchmarking Pilot Study 2010</b>		

5

## SECTOR PROBLEMS

- Deficiency in service delivery
- Poor financial management and accounting system in ULBs
- Inadequate or NIL tariff levels
- High capital and O&M costs
- Over staffing
- High level of Non-revenue water (NRW)
- Wastage & Degradation of Resources
- Absence of Asset management

6

## **Opportunities in Urban WatSan**

- Citizens' Willingness to pay for better services; the PPP & Bankability of projects
- Methodologies of metering- water audit & energy audit;
- Models of proper Tariff for demand control
- Water efficient sanitary fittings
- Technology for treatment & reuse of waste water
- Rain Water Harvesting and artificial recharge of ground water

7

## **Policies of the Ministry of Urban Development**

- Delegation of urban service functions to 3<sup>rd</sup> Tier of Government(Cities)
- Universal access to basic services
- Reliability of services
- Sustainability of services
- Community participation by law
- Public disclosure by law
- Benchmarking of Service Delivery

8

# Development Strategies

## ***Water Supply Sector***

- *Demand side management*
- *Reduction in NRW , water economics application and auditing*
- *energy efficient methods*
- *water saving technologies & appliances*

**Sewerage sector:** *Innovative technologies for sewage treatment, recycling and reuse*

**Environment:** *Groundwater Management through recharge and rainwater harvesting*

**Governance Sector:** *Information technology for managing Water-Sanitation Utilities*

**All future development linked to Service Level Benchmarks** <sup>9</sup>

## Development Plans

- **Recent History:** The JNNURM Mission during 2005-2011 invested about US \$ 16 billion for urban wat-san sector
- **Planned Investment** for the next 20 years (2012-2031) is US \$ 161 billion
- **Investment Sources-** Governments, External Agencies, PPP and Commercial Loans

# Constraints for Sector Development

- Financial
- Technological
- Managerial Expertise

*MoUD aims to adopt PPP in a big way to bring in private sector efficiencies but previous experience is mixed or poor*

11

## Experience of PPP in WatSan

*India has 53 cities having population >1 million and about 500 cities with >0.1 million. All have piped water supply systems but PPP is negligible*

- There are only 14 PPPs in Water-Sanitation sector since 2004
- 3 PPPs are operational(1 Industrial City; 1 bulk supply of desalinated water & 1 with high costs)
- 11 PPPs under implementation but facing difficulties

12

# Requirements from PPP Council

- City-to-City Partnership through Twinning and sharing of best practices including PPP
- Collaborations with Indian Infrastructure Development Companies
- Sharing of Managerial, Technological and Financial Know-how
- Training Courses in PPP Model for City Managers and Engineers

13

**Thank You for  
your kind attention**

14





**The Third Meeting  
“PPP Council for Overseas Water  
Infrastructure”**

**16th February 2012**

**Tokyo International Exhibition Center**

**Yoji Matsui**  
(JWWA: Japan Water Works Association)



## Profile of JWWA (Japan Water Works Association)

**Utility Members : 1,352**  
**Associate Members : 532**  
**Individual Members : 492**



**JWWA's Events: General Assembly, Annual Conference**



**Training Courses**



**Assistance to Member  
Utilities on Management  
and Technical issues**



**Publications: Journals, Reports, Manuals etc.**



**Inspection Services & Certification Services**



**International Activities**



## Japan Water Works Association (JWWA) visited Indian Water Works Association (IWWA)



(社) 日本水道協会 / Japan Water Works Association

- 2005 - 2009:  
Contact IWWA at IWA meetings and other conferences
- January 2010:  
Attending 42th Annual Convention in Jodhpur, Rajasthan
- 28 February - 5 March 2011:  
Attending Utility Leaders Forum in Mumbai  
Visit & Survey in Vasai-Virar & Badlapur, Maharashtra
- 7 - 13 January 2012:  
Attending 44th Annual Convention in Raipur, Chhattisgarh  
Holding Seminar, Visit & Survey

[Seminar] India-Japan Water Works Seminar in Raipur  
[Meeting] MJP (Maharashtra Jeevan Pradhikaran), etc  
[Survey] Badlapur & Ambarnath Water Works, Maharashtra

(社) 日本水道協会 / Japan Water Works Association



## Theme: Challenges in Urban Water Supply



Venue: Shri Agrasen Dam  
Date: January 9, 2012

Organized by: Ministry of Health, Labour and Welfare, Japan  
Coordinated by: Japan Water Works Association

(社) 日本水道協会 / Japan Water Works Association

## Big Challenges in Water Supply



At the IWWA 44th meeting on the last day the delegation from the Government of Japan gave a presentation. Main topic at this conference was on the challenges in the water supply.

In this the delegation spoke on new technology and shared all the problems and challenges which they faced were explained.

On the last day the Vidhan Sabha chairman Dharam Lal Kawshik was present.

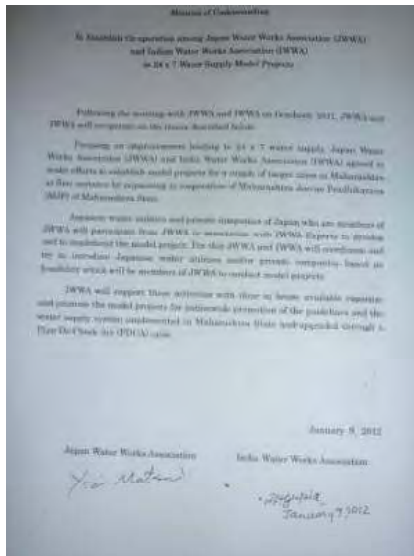
Tokyo is considered as having the world's best water supply technology and management. The delegation showed in their presentation how the water supply can be given 24 hours a day in Sum and Urban areas.

IWWA president Mr. R.N. Gupta said people should participate in the government organisations. Japanese delegation shared their technology, ideas and knowledge regarding the water supply and MOU was signed by Mr. Gupta

January 7<sup>th</sup> to 9<sup>th</sup> 2012

(社) 日本水道協会 / Japan Water Works Association

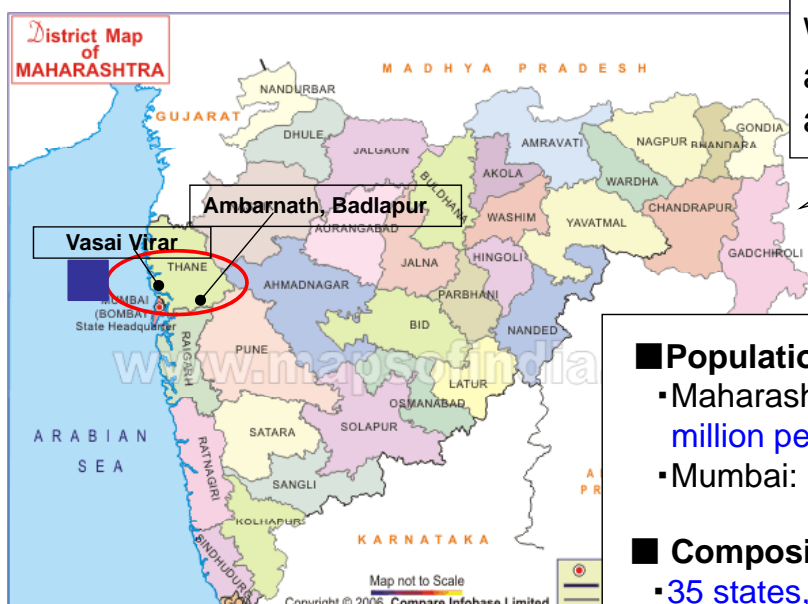
### To Establish Co-operation among Japan Water Works Association (JWWA) and Indian Water Works Association (IWWA) in 24 x 7 Water Supply Model Projects



9th January 2012  
in Raipur, India



(社)日本水道協会 / Japan Water Works Association



With urban development and growth, water supply and demand is increasing.

### Population (National Census, 2011)

- Maharashtra State: Approx. 96.7 million people
- Mumbai: 12.5 million people

### Composition of the state

- 35 states, 378 city governments
- 29,203 rural municipal governments

(社)日本水道協会 / Japan Water Works Association

***Thank you for listening***

***Yoji Matsui***  
***Japan Water Works Association***  
**matsui@jwwa.or.jp**