

## The Present Situation of Technical Exchanges with Asian Cities by Osaka Municipal Waterworks Bureau

**Osaka Municipal Waterworks Bureau**  
Japan  
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### Location of Osaka City

### Location of Osaka City, Heart of Kansai Region

<b>Kansai Region</b> Area : 2,717,100 ha Population : 24 million	<b>Osaka City</b> Area : 22,196ha Population nighttime : 2.6 million Population daytime : 3.7 million
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### Osaka water's facilities

■ Purification plant  
● Distribution plant (reservoir)  
▲ Distribution plant (under construction)  
★ Distribution plant (planned)  
— Main

**Water supply capacity:**  
 2,430,000m<sup>3</sup>/day  
**Total length of pipelines:**  
 5,126km

### Directives for Internationalization

- (1) Promoting Osaka to the world**
- (2) Forming and developing a meaningful urban network**
- (3) Sharing urban technology through international cooperation**
- (4) Enhancing citizen initiative in international exchange**
- (5) Creating a user-friendly city for visitors from around the world**

### Friendship Cities

<span style="color: green;">●</span> Sister Cities		8 Cities
<span style="color: blue;">●</span> Business Partner Cities (BPC)		11 Cities
<span style="color: red;">●</span> Sister Ports		7 Ports
<span style="color: orange;">●</span> Friendship and Cooperation Cities		2 Cities



### Acceptance of Trainees From Developing Countries in Osaka City

		1990	1995	2000	2002
JICA	Osaka City	62	98	109	96
	Japan	5,294	6,777	8,339	8,956
AOTS	Osaka City	506	1,238	1,061	1,166
	Japan	3,226	4,752	5,020	3,264
<b>Osaka City Total</b>		<b>568</b>	<b>1,336</b>	<b>1,170</b>	<b>1,262</b>

JICA : Japan International Cooperation Agency  
 AOTS : Association of Overseas Technical Scholarship



### Technical Exchange with Friendship City - Shanghai

1974 Friendship City ties established  
 1981 Friendship Port ties established  
 1995 Business Partner City ties established  
 Since 1988 - Annual signing of "Osaka / Shanghai Friendship Exchange Agreement"

### Technical Exchange with Friendship City - Shanghai

#### The Composition of "Osaka / Shanghai Friendship Exchange Agreement"

<b>Water Service Technical Exchange</b>	Scientific Exchange
Economic Exchange	Port Technical Exchange
Social Welfare Exchange	City Construction Technical Exchange
Financial Taxation Business Exchange	Juvenile Work Exchange
Gymnastics Exchange	City Refuse Disposal Technical Exchange
Horticulture Technical Exchange	City Personnel Exchange
Animal Exchange	

### Technical Exchange with Friendship City - Shanghai

-Annual visits to/from Osaka by water service staff  
( To date: to Shanghai: **8 times**, from Shanghai: **8 times** )

#### Main Contents of the Exchange

- **Planning**
- **Improvement of Old Pipes**
- **Water leakage prevention**
- **Water-purifying processing**, such as chlorine processing and advanced purification processing
- **Operation**, such as a remote control systems and pump number-of-rotations control
- **Water quality management**, such as preservation of water sources and measurement technology of water quality
- **Water supply service**
- **Business management**
- **Organization management**, such as personnel affairs and training
- **Business management**, such as a operating on-line systems and receipts

### Technical Exchange with Friendship City - Shanghai

7<sup>th</sup> – 13<sup>th</sup> Nov,2003 ( 7 days )  
Dispatch of 4 staff

#### Subject

Improvement plan for water service institution  
Operation / maintenance management of electric appliances and machines  
Effective management of personnel  
Ensuring water resources and water quality preservation



### Technical Exchange with Friendship City - Shanghai

#### Recent Example from Nov.2003

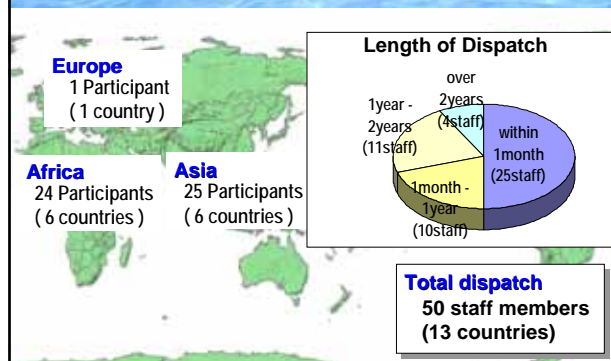
- Opinion exchange about the maintenance of advanced purification treatment such as GAC (granular activated carbon)  
( Osaka: advanced treatment was already introduced in 2000  
Shanghai: the construction of advanced treatment facilities has begun )
- Opinion exchange about subjects which will become important from now on, such as environmental problems



### Experts Dispatch (through JICA etc.)



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(Ex.) Dispatch to Indonesia (1991 ~ 1996)

- Cooperation for training of engineers of water supply and environmental sanitation in Indonesia
- In the field of water-purifying technology and water quality management,
  - Management of water supply and environmental sanitation training center
  - Making teaching materials
  - Giving seminars to the water service staff of various parts in Indonesia

### Acceptance of Trainees (through JICA etc.)

#### Short Term

- Mainly carried out through JICA. (JICA, central government, other cities and other organizations)
- Training consists of operation, water examinations, and visits to water purification plants and Water Examination Laboratory
- In the past 5 years, 513 trainees have been accepted from 23 countries

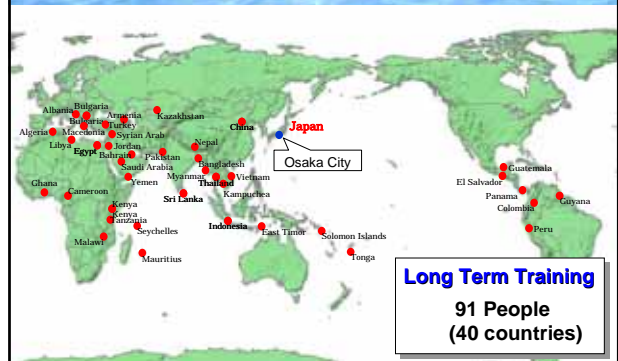
### Acceptance of Trainees (through JICA etc.)

#### Long Term

"The Promoting Committee of the JICA Group Training Course" on water supply systems was started by the Osaka Municipal Waterworks Bureau in 1994

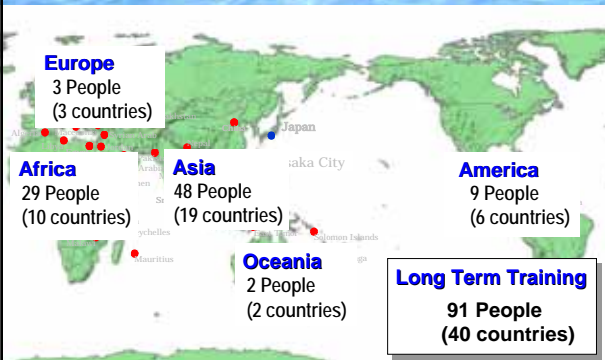
Operation and Maintenance of Urban Water Supply Systems Course
Advanced Microbial Enzyme Technology
High Performance Polymer Technology Course
Functional Organic Materials Technology Course
Air Pollution Control Course
Distribution of Fisheries Products Course
Project Planning for Urban Transport Infrastructure Course
Stormwater Drainage Technology with Sewerage System Course
Urban Greenery and Park Administration Course
Urban Solid Waste Management Course
Environmental Policy & Environmental Management Systems Course
Solar Power Generation and Application Technology Course
Rescue Techniques Course
Processing and Characterization of Inorganic Materials and Metals

### Acceptance of Trainees (through JICA etc.)



**Long Term Training**  
91 People  
(40 countries)

### Acceptance of Trainees (through JICA etc.)



### Acceptance of Trainees (through JICA etc.)



Lectures on general subjects such as the urban water supply system

### Acceptance of Trainees (through JICA etc.)

#### Practical Training



#### Site Visiting



### Participation in International Conferences

- Water Osaka '95 (1995)
- Proceedings of the Japan/United States Workshop on Urban Earthquake Hazard Reduction (2000,2001,2002)
- International Conference of Aquapolises
- Japan-China Water Processing Technical International Symposium (2001)

### Recent Examples of International Exchange Activities (2000-)

- Technical Exchange with a Friendship City – Shanghai City
- Cooperation with JICA – Expert Dispatch and Trainee Acceptance
- Cooperation with JBIC – “the Bisalpur Jaipur Water Supply Project”

### International events held in Osaka City



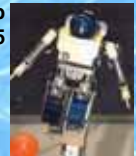
2003 3<sup>rd</sup>  
World Water Forum



2007 11<sup>th</sup> IAAF World Championships  
in Athletics

Rotary International  
Convention 2004

RoboCup  
2005



14<sup>th</sup> World Rose  
Convention 2006



### The Present Situation of Technical Exchanges with Asian Cities by Osaka Municipal Waterworks Bureau

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Thank You Very Much  
For Your Attention.

