

JICA Group and Region-focused training programs

1) Engineering on Water Supply Systems

[Implementing Partner] Japan Water Works Association
[Cooperation Period] 2005-2009
<p>[Objectives]</p> <p>This course aims at developing capacity of engineers who take leadership roles in the planning and design of water supply systems or operation and maintenance of water supply. Particular focus shall be given to the planning skill of water supply systems.</p>
<p>[Outcomes]</p> <p>Through the training course, participants are expected:</p> <ol style="list-style-type: none"> <li>1) To gain the skill of basic planning and design for water supply systems,</li> <li>2) To acquire comprehensive knowledge on water supply systems, which is required for planning, operation and maintenance,</li> <li>3) To understand systems for waterworks and functions and roles of related organizations,</li> <li>4) To formulate an Action Plan based on 1)~3) for improving water supply planning or design in their own countries</li> </ol>
<p>[Target Organizations]</p> <p>Departments responsible for water supply planning or designing under water supply utility, national or local government (excluding mechanical and electric departments)</p>
<p>[Target Group]</p> <ol style="list-style-type: none"> <li>(1) Individuals presently in a management position or senior engineers with currently or expected to be engaged in the formulation of waterworks plan,</li> <li>(2) Engineers with more than 5 years of experience in water supply systems</li> <li>(3) University graduates from the faculty of engineering such as civil, sanitary, environmental, or with equivalent academic background</li> </ol>

2) Waterworks Engineering

[Implementing Partner] Waterworks Bureau, City of Sapporo
[Cooperation Period] 2008-2010
<p>[Objectives]</p> <p>This course is designed to acquire wide knowledge on waterworks, therefore, contribute to the improvement of waterworks in respective countries with integrated views. The participants are also expected to share the experience in</p>

<p>Japan with colleague.</p> <p>Upon successful completion, following outputs are expected;</p> <ol style="list-style-type: none"> <li>(1) To understand the purification plants and purified water processes</li> <li>(2) To understand transmission, distribution, and service water system</li> <li>(3) To understand leak prevention</li> <li>(4) To understand securing good water resources and water quality control</li> <li>(5) To understand the management of environmentally considered waterworks</li> <li>(6) To address action plans to realize the learning in Japan</li> </ol>
<p>[Target Organizations]</p> <p>Organization of mainly managing waterworks</p>
<p>[Target Group]</p> <ol style="list-style-type: none"> <li>(1) Be senior technical officers in charge of waterworks engineering in central or local government.</li> <li>(2) at least three 3 years of practical experience,</li> <li>(3) be university graduates or equivalent technical qualifications in waterworks engineering.</li> <li>(4) Proficient in spoken and written English</li> </ol>

### 3) Operation and Maintenance of Urban Water Supply Systems

<p>[Implementing Partner] Osaka Municipal Waterworks Bureau</p>
<p>[Cooperation Period] 2004-2008</p>
<p>[Objectives]</p> <p>Through the program of the Osaka Municipal Waterworks Bureau, participants are expected to achieve the following objects to contribute to a safe water supply in their own countries (local government):</p> <p>Outcome: Action plans to solve issues on urban water supply system in participants' respective organizations will be formulated by participants' organizations with utilizing obtained skills and knowledge in the training in Japan.</p> <p>Output: After the completion of this training course in Japan participants will be able</p> <ul style="list-style-type: none"> <li>To explain maintenance technologies of pipelines and service installations in Japan</li> <li>To explain operation technologies of intake, treatment and distribution facilities in Japan</li> <li>To explain technologies of water treatment and water quality control in Japan</li> </ul>

To make appropriate action plans to improve water supply in their respective organizations
<p>[Target Organizations/Group]</p> <p>(1) Engineers responsible for the operation and maintenance of urban water supply schemes/authorities using surface water resources</p> <p>(2) Individuals with at least 5 years experience in the area</p> <p>(3) Graduates from technical colleges or authorized water training institutes or equivalent</p> <p>(4) Age: 55 years old</p>

4) Non-Revenue Water Management

[Implementing Partner] Nagoya Waterworks and Sewerage Bureau, Nagoya City
[Cooperation Period] 2006-2010
<p>[Objectives]</p> <p>The objective is to learn waterworks maintenance and management activities and the system in Japan as well as developing the capacity to apply them in the participant's home country and duties.</p> <p>Through the program, participants are expected to:</p> <ol style="list-style-type: none"> <li>1. Acquire a comprehensive knowledge concerning various problems relating to non-revenue water</li> <li>2. Understand the operation of leakage detectors</li> <li>3. Understand the classification of leakage prevention works and diagnosis of the water distribution volume</li> <li>4. Understand leakage prevention planning</li> <li>5. Understand practical knowledge and techniques for planning, designing, construction and management of leakage prevention measures</li> </ol>
<p>[Target Organizations]</p> <ol style="list-style-type: none"> <li>1. Waterworks bureaus of local government, waterworks public corporations, administration bodies in charge of water resources</li> <li>2. Special organizations maintaining and managing waterworks systems</li> </ol>
<p>[Target Group]</p> <ol style="list-style-type: none"> <li>1. Technology university graduates or equivalent professional qualifications in this field</li> <li>2. Individuals with at least 5 years of work experience in this field</li> <li>3. Individuals with a sufficient command of spoken and written English</li> </ol>

5) The Seminar on Administration by Competent Authorities for Better Management of Water Supply Services

[Implementing Partner] Japan International Corporation of Welfare Services
[Cooperation Period] 2007-2009
[Objectives] This course aims at achieving consensus for challenges and sharing the idea of improvement plan for better management of water supply after the participants' returning.
[Outputs] Participants are expected to be able to: (1) Understand the water quality management, non-revenue water, guidelines of water supply to acquire the ability of applying the knowledge in their countries, (2) Specify the challenges which need to be tackled and formulate the improvement plan and (3) Share the idea of implementation plan which participants formulate among related persons in their organizations after returning back.
[Target Organizations] Departments which are in charge of water supply administration at national/ regional authorities
[Target Group] 1) Individuals with 5 years experience in the field of water supply 2) Individuals expected to play major roles in the development of regulations and policies on water supply

6) Waterworks Engineering Waterworks Engineering for Caucasus and East Asia Regions

[Implementing Partner] Waterworks Bureau, City of Sapporo
[Cooperation Period] 2005-2009
[Objectives] This course is designed to obtain knowledge and technology of waterworks including water resources, design, facilities, water treatment, leak prevention and water management to ensure the supply of safe drinking water to people. Upon successful completion, following outputs will be expected; (1) To deepen the understanding of plan of waterworks (water resources, water demand, water supply system, etc.),

<p>(2) To deepen the understanding on management of waterworks (financial system/water charge),</p> <p>(3) To acquire the knowledge on basic/advanced water treatment methods</p> <p>(4) To obtain basic knowledge and practical skills on water leaks prevention</p> <p>(5) To be able to propose action plans for appropriate management of waterworks engineering in respective countries.</p>
<p>[Target Organizations/Group]</p> <p>(1) Nominated by government in accordance with proper procedures</p> <p>(2) Managers or directors who supervise technical department/division/section of a public enterprise or local body which provides water supply services</p> <p>(3) More than 3 years of practical experience</p> <p>(4) Proficient in spoken and written Russian</p> <p>(5) In good health, both physically and mentally, to undergo the course of training.</p>

7) Water Supply Management for Middle Eastern Countries - Maintenance of distribution pipeline and Leakage prevention -

<p>[Implementing Partner] Hiroshima City Waterworks Bureau</p>
<p>[Cooperation Period] 2008-2010</p>
<p>[Objectives]</p> <p>To make the improvement plan which contribute to solving the issues about distribution pipeline and underground leakage.</p>
<p>[Outputs]</p> <p>(1) Participants understand the current conditions of water supply management in big-sized Japanese city and can explain the difference between their countries and Japan.</p> <p>(2) Participants acquire the practical knowledge and skills in order to build the appropriate distribution pipeline and can explain to their colleague after returning their country.</p> <p>(3) Participants acquire the practical knowledge and skills in order to establish the leakage prevention systems and can explain to their colleague after returning their country.</p> <p>(4) Participants make the report of the current issues and countermeasures in their countries using the knowledge and skills which you acquired through this training.</p>
<p>[Target Organizations]</p> <p>The organizations which implement the practical operations such as planning,</p>

designing, operation and maintenance of distribution pipeline and investigation and repair of underground leakage.
[Target Group] 1) Current job: engineers who perform the practical operations of design and maintenance/control in the field of water supply projects. 2) Experience in water supply projects: have more than five years of work experience in water supply projects. 3) Language: have a sufficient command of English to understand the training in English.

8) Urban Waterworks Engineering

[Implementing Partner] Yokohama Waterworks Bureau
[Cooperation Period] 2008~2010
[Objectives] Participants acquire wide knowledge about waterworks and get abilities to improve the waterworks in respective countries with integrated views, and also share those with colleague after completion of the training in Japan.
[Outputs] To understand the system of purification plants and purified water processes To understand water transmission and distribution system, and maintenance including water leakage control To understand securing good water resources and water quality control To get ideas on the effective management of waterworks considering environmental condition To prepare and present an Action Plan using what have been acquired through the course
[Target Organizations] Organization of mainly managing waterworks
[Target Countries] African countries

9) Water Supply in Small and Medium Scale Cities in Central Asia

[Implementing Partner] Yokohama Waterworks Bureau
[Cooperation Period] 2006~2010
[Objectives] 1. Participants from different countries will share their experiences in tackling

<p>their common problems with a limited budget, i.e. the management of complicated waterworks facilities constructed under the former Soviet Union.</p> <p>2. Participants will gain a significant understanding of their problem in management and technical aspects and will prepare and present a Study Report to improve their waterworks management.</p>
<p>[Outputs]</p> <ol style="list-style-type: none"> <li>1. Gain knowledge about the management of the water supply system in Japanese local cities, by studying the case of Yokohama City</li> <li>2. Enhance general waterworks techniques</li> <li>3. Through the above, find the keys to solve the problems on water supply systems in participants' country</li> </ol>
<p>[Target Organizations]</p> <p>Waterworks Utilities at Small and Medium Scale Cities in the following areas;</p> <p>Kazakhstan: North Kazakhstan Province and Akmora Province</p> <p>Tajikistan: Dushanbe and Khatlon Oblast</p> <p>Uzbekistan: Tashkent Province, Fergana Province, and the Republic of Karakalpakstan</p> <p>Kyrgyz : Issik-Kul Province and Osh Province</p>
<p>[Target Group]</p> <p>Water treatment engineers of the target organizations</p>

Reference: Outline of group and region-focused training programs in Japanese fiscal year 2009 (JICA)