

## Summary of Groundwater Development and Water Supply Training Project in Ethiopia

2007/03/31

1st Phase: 1998.1.15 ~ 2003.1.14	Follow-up: 2003.1.15 ~ 2005.1.14	2nd Phase: 2005.3.15 ~ 2008.3.14
<p><b>Background</b></p> <ul style="list-style-type: none"> <li>*Exhaustion of economy by internal warfare and drought</li> <li>*Lowest water supply and sanitation coverage in Africa</li> <li>*Diffusion of manpower and equipment to regions as a result of establishment of federal system, significant technological gaps among regions</li> <li>*Completion of “Water Sector Development Program 2002-2016”</li> <li>*Severe deficiency of manpower in groundwater development and water supply fields</li> </ul>	<p><b>Background</b></p> <ul style="list-style-type: none"> <li>*Subsisting lowly water supply sanitation coverage</li> <li>*Completion of “National Water and Sanitation Master Plan” (2002 Dec.)</li> <li>*Accelerated decentralization, i.e. establishment of Woreda (district) office</li> <li>*Establishment of vocational training center for Woreda water desk staffs</li> <li>*Low operational rate of water well (50-70%)</li> <li>*Dispatch of basic design study team for Japan’s Grant Aid (2004 Oct.)</li> <li>*Request for Phase-2 project</li> </ul>	<p><b>Background</b></p> <ul style="list-style-type: none"> <li>*Commitment of big donors such as World Bank or AfDB to achieve MDGs (disbursement plans of huge amount of budget)</li> <li>*Program approach through donor coordination, proposal of common basket</li> <li>*Enormous requirement of training for Woreda water desks personnel and its support unit personnel</li> <li>*Importance of groundwater potential assessment for a source of water supply schemes (completion of National Water and Sanitation Master Plan)</li> <li>*Chronic droughts</li> <li>*Launch of Japan’s Grant Aid on rural water supply and sanitation</li> </ul>
<p><b>Aim of Cooperation</b></p> <ul style="list-style-type: none"> <li>*Establishment of appropriate training center in the field of groundwater development and water supply</li> </ul>	<p><b>Aim of Cooperation</b></p> <ul style="list-style-type: none"> <li>*Formulation of Phase-2 project implementation plan</li> <li>*Being a transitional period for Phase-2 project, execution of trial implementation of Phase-2 project’s activities in advance in order to give impetus to the initiation of Phase-2 project</li> </ul>	<p><b>Aim of Cooperation</b></p> <ul style="list-style-type: none"> <li>*Various demand-based new training programs, expansion of training capacity</li> <li>*Research and development activities</li> <li>*Preparation for shifting to financially semiautonomous organization</li> <li>*Japan’s own program approach in water and sanitation sub-sector</li> </ul>
<p><b>Program of the Project</b></p> <ul style="list-style-type: none"> <li>■ <b>Establishment of Addis Ababa Training Center</b> <ul style="list-style-type: none"> <li>*Development of training curricula</li> <li>*Provision of training equipment</li> <li>*Development of training textbooks and materials</li> </ul> </li> <li>■ <b>Implementation of training courses</b> <ul style="list-style-type: none"> <li>*<b>Core course:</b> Groundwater Investigation, Drilling Technology, Drilling Machinery Maintenance, Local Social Development</li> <li>*<b>Ad-hoc course:</b> Water Supply Management, Water Supply Engineering, Electrical Equipment Maintenance, Gender and Development</li> </ul> </li> <li>■ <b>Model area activities</b> <ul style="list-style-type: none"> <li>*Construction of a water supply facility in Ebisa-Leku-Gidano village, Oromia region, as a model area for providing practical training opportunity to the participants of training courses such as groundwater investigation, drilling, community participation and promotion</li> </ul> </li> </ul>	<p><b>Program of the Project</b></p> <ul style="list-style-type: none"> <li>■ <b>Implementation of training courses</b> <ul style="list-style-type: none"> <li>*<b>Continuation</b> of existing training courses (both core course and ad-hoc course)</li> <li>*<b>New course:</b> Groundwater Modeling, GIS, Training courses for Woreda water desk staffs (Southern Region), Well Rehabilitation, Trainer’s training for vocational training center for Woreda water desk staffs</li> </ul> </li> <li>■ <b>Preparatory steps for establishment of African network on groundwater management</b> <ul style="list-style-type: none"> <li>*Implementation of Groundwater Modeling course for African countries</li> <li>*Coordination with other donors, NGOs and institutions</li> <li>*Publicity through internet, <a href="http://homepage.mac.com/shukran/gdwstp/">http://homepage.mac.com/shukran/gdwstp/</a></li> </ul> </li> <li>■ <b>Research activities</b> <ul style="list-style-type: none"> <li>*Groundwater related data integration study using GIS in Addis Ababa and Akaki areas</li> <li>*Feasibility study on domestic production of hand pumps and its spare part circulation</li> <li>*Well mapping study using GIS in Oromia (with Water Aid)</li> <li>*Well diagnostic study using borehole camera in Oromia</li> <li>*Artificial recharge analysis (with NGO)</li> <li>*Study on improved type of hand dug well (with NGO)</li> <li>*Impact evaluation of the project and training needs study</li> </ul> </li> <li>■ <b>Rural Water Supply (RWS) implementation program</b> <ul style="list-style-type: none"> <li>*Drilling a borehole and construction of a water supply facility in Kilinto village (coordination of Japan’s Grassroots Grant Aid and technical assistance)</li> </ul> </li> </ul>	<p><b>Program of the Project</b></p> <ul style="list-style-type: none"> <li>■ <b>Center for Africa</b> <ul style="list-style-type: none"> <li>*Implementation of advanced training courses on groundwater management for hydrogeologist from other African countries</li> <li>*Establishment of Inter-African network on groundwater management</li> </ul> </li> <li>■ <b>Responding to local demand on human resource development in Ethiopia</b> <ul style="list-style-type: none"> <li>*Training for Woreda staffs, local service providers and dug well technicians (to be implemented in each region)</li> <li>*Trainer’s training for vocational training center for Woreda water desk staffs</li> <li>*Well diagnostic investigation, well rehabilitation training (to be implemented in each region)</li> <li>(Addis Ababa training center would function as “Center of Excellence”)</li> </ul> </li> <li>■ <b>Research and Development</b> <ul style="list-style-type: none"> <li>*Development, trial and dissemination of “Low cost appropriate technology” (empowering villages against drought)</li> <li>*Investigation on groundwater resources management (field and laboratory)</li> <li>*Survey on groundwater and well related data management (GIS)</li> </ul> </li> <li>■ <b>Support for RWS implementation programs (incl. Japan’s Grant Aid)</b> <ul style="list-style-type: none"> <li>*Training for Woreda staffs, local service providers and dug well technicians (to be implemented in particular region where Japan’s Grant Aid comes)</li> <li>*Capacity building of implementation organization (WWCE) for better management</li> <li>*Capacity building of Operation &amp; Maintenance unit in Regional Water Bureau</li> <li>*Standardization of hand pump, establishment of spare part circulation system</li> </ul> </li> <li>■ <b>Expansion of training capacity</b> <ul style="list-style-type: none"> <li>*Expansion of classroom, information management equipment and dormitory</li> <li>*New name of training center and restructuring of organization suitable for new roles</li> <li>*Preparation for shifting to financially semiautonomous organization</li> </ul> </li> </ul>
<p><b>Impact</b></p> <ul style="list-style-type: none"> <li>*<b>375 staffs</b> from federal and regional governments were trained.</li> <li>*10-30% increase of success rate of drilling in regions</li> <li>*10-30% increase of operational rate of machineries in regions</li> <li>*10-20% increase of workshops to community people (social development)</li> </ul>	<p><b>Impact</b></p> <ul style="list-style-type: none"> <li>*<b>342 staffs</b> from federal and regional governments were trained including 15 participants from 13 other African countries (Ghana, Kenya, Lesotho, Malawi, Mozambique, Nigeria, Rwanda, South Africa, Swaziland, Tanzania, Uganda, Zimbabwe, Zambia).</li> <li>*Hydrogeological map of Addis Ababa, Akaki and Dukem Areas was completed based on the Project’s research activity, which were distributed to the concerned authorities.</li> </ul>	<p><b>Impact</b></p> <ul style="list-style-type: none"> <li>*<b>208 staffs</b> from federal and regional governments and some local NGO were trained including 15 participants from 12 other African countries (Ghana, Kenya, Lesotho, Malawi, Mozambique, Nigeria, Rwanda, Sudan, Swaziland, Tanzania, Uganda, Zambia).</li> <li><b>(Total 1,577 trainees as of 2005/11/09)</b></li> </ul>