Introduction

Only 42% of the total population in Ethiopia is using an improved drinking water source, according to the United Nations (UNSD: 2006). In order to achieve the Millennium Development Goals, Ethiopia continues to develop its water resources and conduct water supply projects in cooperation with international donors, including Japan.

In 1998, the Ethiopian Ministry of Water Resources recognized the need to focus on capacity building activities in the fields of groundwater development and water supply, and coordinated with the Japan International Cooperation Agency (JICA) to establish the Groundwater Development and Water Supply Training Center. In 2005, after reaching its initial goals, the center entered its second phase and was renamed the Ethiopia Water Technology Center, or EWTEC. Since then, 1,212 engineers, including many from zonal offices and drilling enterprises, have been provided with on-the-job training (OJT) led by Japanese experts, and 19 training courses have been developed for advance skills.

Our aim is to increase access to improved water sources by training professionals in both the public and private sector, including non-government organizations (NGOs) and technical and vocational colleges (TVETCs), on groundwater resource and water supply management and support other rural water supply schemes. Starting this year, Phase 3 will usher EWTEC into a new status as a permanent institution committed to the cultivation and education of human resources for groundwater development and water supply.
Activities of EWTEC

1. Implementation of Training Courses
EWTEC is expanding its scope to include a greater number of participants from the private sector as well as NGOs and a renewed focus on TVETCs. A variety of courses are on offer at EWTEC, from the basic courses that serve as the cornerstone of learning to the advanced training courses that boost the abilities of participants, in addition to supplemental courses which are provided as needed.

- **Basic Training Course: 8-12 weeks**
  - Groundwater Management
  - Drilling Technology
  - Drilling Machinery Maintenance Technology
  - Water Supply Engineering
  - Electro-Mechanical Maintenance Technology

- **Advanced Training Course: 4 weeks**
  - Groundwater Modeling
  - GIS/Information Management (1 & 2)
  - Water Supply Engineering: (1) Planning & Designing; (2) Operation & Maintenance
  - Remote Sensing

- **Supplemental Courses (On-Demand)**
  - Rope Pump Manufacturing
  - Diagnostic Investigation of Well
  - Rehabilitation of Well
  - Artificial Recharge
  - Others

*Conducted in the regions according to need

2. Research and Development Activities
In Phase 2, EWTEC was active in various research and development projects that helped to enhance the training courses and further expand the expertise of instructors and participants. A few examples are:

- A Butajira-Ziway area development study was implemented to 1) clarify the mechanism of groundwater flow through the rift valley pediment slopes, 2) develop and disseminate technologies to increase resiliency against chronic drought, and 3) utilize the results for training courses.

- Pilot projects for rural community (household) water supply systems to develop rope pump technology and durability tests of locally produced spare parts for Afridev hand pumps.

- Diagnostic investigation and rehabilitation of wells

3. Implementation and Support for RWSS
- Donors and NGOs need to coordinate their activities for Rural Water Supply and Sanitation (RWSS) in Ethiopia. EWTEC supports this through the implementation and support for grant aid projects and activities by NGOs and other donors in the field of RWSS.
International training courses have been organized regularly inviting participants from 15 other African countries: Botswana, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe.

- 1st Groundwater Modeling, 2004
- 2nd Groundwater Modeling, 2005
- 3rd Groundwater Modeling, 2006
- 1st GIS, 2007
- 2nd GIS, 2007
- 1st Remote Sensing, 2008

Number of Participants in Phase 2: 78 (as of Feb. 2008)
<table>
<thead>
<tr>
<th>Markos Tefera</th>
<th>Mulugeta Kenfu</th>
<th>Endris Mohammed</th>
<th>Akira Kamata</th>
<th>Nisa Oishi</th>
<th>Masahiko Ikemoto</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of the Center</td>
<td>Course Coordinator</td>
<td>Course Coordinator</td>
<td>Chief Advisor &amp;</td>
<td>Assessment Prog 1</td>
<td>Assessment Prog 2</td>
</tr>
<tr>
<td>(DT)</td>
<td>(DT)</td>
<td>(DMMT)</td>
<td>Organizational Ops</td>
<td></td>
<td>&amp; Training Mgt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yilma Assefa</th>
<th>Shumet Kebede</th>
<th>Tensay Getnet</th>
<th>Tamotsu Ishii</th>
<th>Takashi Suzuki</th>
<th>Naoaki Shibasaki</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Coordinator</td>
<td>Course Coordinator</td>
<td>Course Coordinator</td>
<td>Machinery/Electric Machinery</td>
<td>Drilling Technology</td>
<td>Groundwater Modeling</td>
</tr>
<tr>
<td>(EMMT)</td>
<td>(GM)</td>
<td>(WSE)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Melaku Nesibu</th>
<th>Mekonnen Awoke</th>
<th>Abebe Mekonnen</th>
<th>Toshiyuki Matsumoto</th>
<th>Hiroshi Takashima</th>
<th>Kazutoshi Masuda</th>
</tr>
</thead>
<tbody>
<tr>
<td>(EMMT)</td>
<td>(DT)</td>
<td>(DMMT)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feleke Timkete</th>
<th>Getachew W/Michael</th>
<th>Tamiru Fekadu</th>
<th>Peifeng Lei</th>
<th>Steven Sundstrom</th>
<th>Ryohhei Matsumoto</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanic</td>
<td>Chief Mechanic</td>
<td>Course Coordinator</td>
<td>GIS</td>
<td>IEC/Pedagogy</td>
<td>Information Mgt</td>
</tr>
<tr>
<td>(DMMT)</td>
<td>(DMMT)</td>
<td>(GM)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**How to contact us:**
Ethiopia Water Technology Center (EWTEC)
P.O.Box 5744, Addis Ababa, ETHIOPIA
Tel.  (251-11) 4431125, 4431126, 4431127
Fax.  (251-11) 4431128
Open: 08:30 - 17:00 (Monday - Friday)
E-mail: ewtec@ethionet.et
HP: http://www.ewtec.org.et/