



Partners for Water and Sanitation

Note on project reports

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**Partners for Water and Sanitation
Project No: 36 Eth**

Title

Leakage Training

Submitted by:

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Date

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Background

Eddie Moir and Steve Snape visited Ethiopia in January and February 2007. Together with Abate Sleshi PAWS Country Manager and Tilahun Asmare Ministry for Water Resources, they visited six towns across Ethiopia. Meetings were held in each town to discuss current levels of leakage, the local approach to network management and leakage detection. Brief demonstrations in basic leak location were delivered, but it was agreed that a centrally held workshop would assist the Ministry to introduce a consistent approach to leakage strategy and reduction, which would assist in the ultimate goal of increasing access to safe water supplies.

The delivery of the workshop was delayed due to the recruitment and appointment of a new Country Manager, Melkamu Jaleta.

Leakage Workshop

Eddie and Steve returned to Ethiopia in February 2008 and travelled with Melkamu to the town of Adama, on Monday 11th February, to make final preparations for a three day workshop.

On Tuesday 12th February, Yohannes Gebre-Medhin, Urban Water Supply Department Head with the Ministry of Water Resources, officially welcomed the 47 participants, the facilitators and trainers during an opening address which also explained the importance of the workshop to the Ministry's leakage strategy and Ethiopia's growth.

Melkamu followed the opening address to explain the role of PAWS within the water sector in Ethiopia, before handing over to Eddie.

A number of presentations were delivered to promote debate and raise awareness regarding the importance of safe water. Further presentations on the history, strategy and determination of leakage completed the first day, together with a discussion to understand the problems and issues experienced in each individual towns water network.

The second day began with a practical demonstration in the use of a ground microphone to locate leakage. This equipment had been brought to the workshop by a candidate that had received the device with no instruction on its use. The session was also used to demonstrate the use of the basic acoustic listening device (listening stick) and an electronic equivalent.

Further presentations were given covering pressure management and network components and materials. These topics addressed questions raised during the previous day's discussions. Unexpectedly and of particular interest was a presentation on the use of plastic pipe materials (MDPE). This created considerable debate and the town of Mekele are currently conducting a trial using MDPE. The day continued with presentations on leakage equipment and step testing and was completed with a participant exercise to design a step test for an entire district meter area.

The third day started with a visit to a compound used by the Adama Water Authority. On Monday, we had requested the construction (and connection to mains supply) of a simple water network. This would enable the demonstration of all techniques discussed throughout the workshop and use of any equipment available. The test rig had been constructed, exactly, as requested by personnel from Adama Water.

We were able to simulate and then locate various leaks, using different equipment, some of which had been brought by candidates. Participants were also trained in the use of pipe locating equipment and leak location using an acoustic noise correlator. The practical training was concluded with group work to carry out basic step tests on the rig.

We returned to the training venue to continue with some further open discussion work on the next steps and verbal course evaluation, before closing the event with the presentation of certificates of attendance and posing for group photographs.

Conclusion

The course was extremely well received by all participants. They conducted themselves both professionally and with great courtesy throughout the three days making presenting and training a pleasure.

All candidates demonstrated a commitment to the industry and a huge thirst for knowledge. I feel confident that they will endeavour to implement an appropriate variation of the leakage strategy, which was discussed during the event, in the individual towns. However, they will require further support and assistance, but this should now be driven by the towns and be more specific. Budgetary constraints will continue to be a major hurdle to effective network management and leakage reduction. The Ministry appear to be open to privatisation, which may enable increased investment and improvement.

During our stay, we were given a tour of the Adama water treatment works. This is a six year old, three stage plant. It appeared to be proudly and professionally run and produces water to a good standard. Another encouraging sign of the developing water management within Ethiopia.

The trip was concluded with a visit to the Water Aid Office in Addis Ababa and discussions with Yohannes Gebre-Medhin, Tilahun Asmare, Negussie Lemma and Melkamu at the Ministry for Water Resources.

Point of Interest

The importance with which the Ministry of Water Resources and Melkamu placed upon this workshop can best be demonstrated by the invitation to the Ethiopian News Agency (ENA). The ENA attended throughout the first day of the event and filmed and photographed the workshop in progress, conducted interviews with Yohannes Gebre-Medhin and myself. News items were subsequently run on National television, radio and in the Ethiopian Herald.

My only disappointment with this was that the news items appear to have failed to acknowledge PAWS contribution to the project. I have discussed this with Melkamu and we agreed that the ENA should be kept informed on all PAWS projects to help raise the profile in country.

Should there be a request for further visits by myself, I have discussed the project with a major international manufacturer and supplier of leakage detection equipment and early indications are that they would be happy to send a representative to discuss latest technology and unit cost of equipment for that part of the world.

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