



This newsletter provides frequent updates on the latest and upcoming developments, activities and results from the A4labs action research project: Arid African Alluvial Aquifers.

### A4Labs inception workshop held in Zimbabwe

July 2016

In July 2016 representatives from 4 involved countries, Ethiopia, Mozambique, Zimbabwe, and the Netherlands, joined forces during a 4 day workshop in Bulawayo, Zimbabwe. Due to unforeseen circumstances the Ethiopian team could not attend, but their input has been greatly appreciated through the digital pathway.

Project scope for the three labs has been discussed extensively and constructively, resulting in realistic objectives and a well-developed plan for the coming three years. Differences in needs and possibilities between the countries were clarified and built in the project set-up. The team became acquainted with the current abstraction and use of alluvial water use in the Gwanda and Matobo districts. A sand dam, soil conservation projects, and several community gardens were visited. The gardens use rower or solar pumps for abstracting water from the alluvium. Participants were impressed by the vastness of the sand rivers and the opportunities they provide. Partners had ample opportunity to get to know each other during the four days, which were completed with a lovely dinner in Bulawayo town.



#### Upcoming events

- February 18-19: Tekeze lab is planning a kick-off workshop, where the 2017 annual plan will be discussed and finalised.
- February: Inception workshop in Matobos district, Zimbabwe
- February-March: a student from Utrecht University in the Netherlands will conduct hydrological research in Mzingwane, Zimbabwe
- March 13-18: A4Labs annual meeting in Mekelle, Ethiopia

### A4Labs field visit to Chókwè and Guijá in Mozambique

November 2016

Helder Paulo (Oxfam Mozambique) and Pieter van der Zaag (Unesco-IHE) visited Chókwè and Guijá on November 1-2. They started with a visit to A4Lab partner Instituto Superior Politecnica de Gaza in Chókwè, where they were heartily welcomed by a very strong delegation of 7 lecturers, led by Eng. Lateiro, Director Geral Adjunto Para Área Académica.

The next day Eng. Enoque Moiane and Eng. Moises Buduio accompanied them on a field visit to the Guijá district, along the Limpopo river opposite the Chókwè irrigation scheme. This appeared a very interesting experience, as they visited quite a number of individual farmers and one group of farmers who all struggle to pump sufficient amounts of water from the Limpopo river. The river was practically dry – not surprising as it was at the end of the dry season, and moreover extremely dry as it was an El Niño year!

All farmers use diesel pumps that are expensive in use (fuel) and cause large water losses. The water discharges are on the high side, leading to further application losses in the field. They raised the difficulties they experience with drawing water from the river once the dry season progresses. None of the farmers have drilled tubewells in the river bed, which is believed to be a fairly rich and deep sandy alluvial aquifer and still carrying water, even now.

So this is where A4Labs can and will make a difference! Yet many challenges remain. For example, with solar powered pumps discharges become approximately 20 times smaller, so normal furrow irrigation will not be possible. Farmers will either need a storage tank or change to a cheap type of drip. Perhaps home-made extremely low pressure driplines can be a solution? That's what A4Labs is going to find out. With farmers. Learning by experimenting! In all it was a very informative and inspiring field visit. Guijá, here we come!



## Gwanda District welcomes A4Labs

The Government of Zimbabwe and Gwanda Rural District Council have welcomed the newly inceptioned research project, Arid African Alluvial Aquifers Labs Securing Water for Development (A4Labs) as key to enhancing water security in the region through the proper utilisation of underground water sources.

This was revealed at an inception meeting conducted for A4 Labs at Gwanda Rural District Council (RDC) offices hosted by Dabane Water Workshops on the 1st of December 2016. The meeting was officially opened by Gwanda RDC Treasurer, Mr R. Sibanda on behalf of the council's CEO. The Program implementing partners: Mzingwane Catchment Council, University of Zimbabwe (UZ), National University of Science and Technology (NUST), Zimbabwe, National Water Authority (ZINWA), Department of Irrigation Development, UNESCO-IHE, Ministry of Small and Medium Enterprises and Cooperative Development, and Dabane Trust were all represented at the meeting with the exception of WaterNet and Oxfam. The Ministry of Small and Medium Enterprises and Cooperative Development, Deputy Director Mr. Richmond Ncube, applauded the project as it will ensure better business opportunities and better livelihoods for communities.

"The availability of water supplies that are adequately managed will increase agricultural productivity which will demand market linkages that we are ready to provide in order to help improve our livelihoods economically."

The Matabeleland South Provincial Environment Officer, from the Environmental Management Agency, Mrs. Amkela Sidange, assured stakeholders present that her department will support the project as it is based on conservation and appropriate use of natural resource and protection of the environment.

"Project stakeholders must prioritise working with farmers as they have much information and experience gained from farming in the area and are better equipped with indigenous knowledge on the environment," said Ephraim Nyathi, Chairperson of Natural Resources and Environment Committee and also Councillor for ward 17.



## Short announcements

- Kidst Bekele and George Mhlope, MSc students from UNESCO-IHE, have carried out her MSc data collection in Tekeze lab and Mzingwane lab respectively with financial support of the project. They have returned to Delft in January and have started data analysis and thesis writing. A reflection of their work will be included in the next newsflash.
- One MSc student from Mekelle University has applied to carry out his MSc research on climate change and hydrological assessment within the A4Labs project. The project will supervise and fund his research and he is currently finalizing his proposal.
- Under the existing bilateral cooperation between the University of Florence and Mekelle University, University of Florence is planning to send two students to do their MSc research within A4Labs project with full expense covered by themselves. The students will begin their fieldwork in March 2017.
- Request: If you have an original idea for the name of this newsletter, please inform the project team!



## More information

Visit: [a4labs.unesco-ihe.org](http://a4labs.unesco-ihe.org)

Or contact: Pieter van der Zaag or Annelieke Duker  
[p.vanderzaag@unesco-ihe.org](mailto:p.vanderzaag@unesco-ihe.org)  
[a.duker@unesco-ihe.org](mailto:a.duker@unesco-ihe.org)

**Any news to share? Send it to Annelieke Duker by March 28 and it will be put in the next A4News.**