REPORT

"*WATERMAN*" SYMPOSIUM

Mobilising water research for development:

Thinking differently about dissemination

12th & 13th February 2008
ILRI Campus, Addis Ababa, Ethiopia.

Project number: INCO-CT-2006-031694 6th Framework Programme

Duration: 01/10/2006-31/03/2008 (18 months) Specific Support Action

Coordinator: Dr. Willibald Loiskandl, Universität für Bodenkultur Wien, Austria

Project Website: http://waterman.boku.ac.at

Workshop Day 1

1.1 Workshop Schedule

2 days Workshop

12th February 2008: Looking at key examples
13th February 2008: What have we learnt and how can we use it

1.2 Registration

by Nigist Wagaye and Tsegereda Lemma

All participants were asked to register and received a folder with a pen, notebook, agenda, symposium concept note and the WATERMAN brochure.
For list of participants please see (Annex 4)

1.3 Introduction

Chair: Dr. Seleshi Bekele Awulachew
Rapporteur: Dominik Ruffeis

1.3.1 Welcome note and introduction by Prof. Dr. DI. Willibald Loiskandl

Welcome note
Prof. W. Loiskandl welcomed His Excellency the Ambassador of the Czech Republic, Mr. Dobias. He passed on regards from his Excellency Rudolf Agstner, the Ambassador of the Republic of Austria, from the Director General of the Ethiopian Institute for Agricultural Research (EIAR) Dr. Solomon Asefa and from the Project Coordinator of the European Commission M. Scalet, who all could not attend the Symposium but sent their best wishes for the final Symposium. Prof. W. Loiskandl passed on his grateful thanks to the host Dr. Seleshi Bekele - the Head of the International Water Management Institute (IWMI) - Nile Basin and East Africa Office and his team for organizing this Symposium.

Introduction
Prof. W. Loiskandl gave an overview of the two days of the Symposium which would include overview and reflection on the Waterman project, sharing of practical examples and experiences, and interactive sessions. He mentioned that the participation and contribution of several persons, who are not direct partners or members of the Waterman consortium is a very important sign that the idea of Waterman is of interest to many different stakeholders. Furthermore he emphasized the importance of the Project Plan and Gender Award.
Prof. Loiskandl highlighted the objectives and concept details of the Waterman project which include:

- Discovering new ideas on how to put research into practice
- Improving the means of disseminating knowledge which already exists
- Good research is done but there is a narrow focus on dissemination
- Dissemination is only limited to academic outputs
- Research sits on the shelf: it needs to get off the shelf
- Dissemination should not be ‘Top Down’, but rather an invitation for participation
- It is necessary to learn from indigenous knowledge
- It is important to bring together people from various stakeholder groups.

1.3.2 Opening remark by H.E. Dobias, Ambassador of the Czech Republic

H.E. Dobias apologized for the absence of the Austrian Ambassador and passed on his regards. He expressed his honor to attend the symposium and presented his opening remarks. In his speech the Ambassador recounted his experiences of Ethiopia and gave an insight into his interests and experiences aligned to the water sector. In particular, he highlighted the importance of water resource management.

1.3.3 Keynote speech by Dr. Fantaw

(on behalf of Dr. Solomon Asefa General Director Ethiopian Institute of Agricultural Research)

Dear Mr. Chairperson, invited guests, fellow researchers, ladies and gentlemen,

I am proud and happy to welcome you all to this Symposium on 'Mobilizing Water Research for Development: *Thinking differently about dissemination*.'
From the outset I would like to recognize the fruitful collaborative venture being undertaken between my Institution, other Ethiopian and East African Institutions and IMWI. The vintage position of working together on sustainable water resource management in semi- and arid- ecosystems of Ethiopia is of paramount importance.

In my opinion, doing research on water related activities and letting results remain out of sight from clients is a crime against science and society. We know that our researchers are struggling to transform a variety of data (referring to facts and figures) into information (often represented as data plus interpretation and context). We also realize that researchers are challenged with transforming information to knowledge, whereby knowledge is broadly classified as information plus skills, attitudes, experiences that means how information is used. Naturally, this is followed by wisdom. Wisdom is knowing when, why and how to use knowledge, and knowledge thus needs to be applied and reflected upon. Therefore, for knowledge to be applied and reflected upon, it needs to be disseminated.

Perhaps in today's technological advancement in communication we can enumerate a variety of ways and means of disseminating knowledge. Knowledge acquisitions could be using a single or combination of means. Faced with increasingly dynamic communication environments, research institutions (including my institution, EIAR) higher learning institutions and government bureaus are beginning to realize that there is a vast ad largely untapped asset to be diffused to the clients. However, for concrete, target and mission-based approaches we need to think differently about dissemination of knowledge. This is the task ahead of us. This is the agenda we are dealing with in our business process re-engineering activity; aiming at changing our research process to be cost-effective, client-oriented and capable of producing quality products and services and letting clients have technological options to change their activities and lives.

On one end of the scale, we are advocating that knowledge has become a key resource in our scientific and technological endeavours and has considerable influence on our research, education and development activities. On the other end of the scale, we pay less or little attention to the way in which useful and often vital knowledge is shared, applied and reflected upon. Knowledge is often seen as a commodity, which requires efficient management, and is made accessible with the help of technology, but it is more than that.

The most common sources of criticism on issues spanning around knowledge is its unavailability, inaccessibility and incompatible formatting, languages or depository. Thus, one can bravely say that much of our knowledge assets are imprisoned. I believe there are a number of issues that need attention by way of identifying research that articulately responds to the needs and wants of clients on the ground to solve their problems. By way of healing the wound, we should be able to position ourselves appropriately to package and make knowledge available to our trustworthy clients. Whom do we suppose to deal with this?! We are the ones to think differently and explore the best and innovative practices. You are the most delegates to go along with it.

Ladies and Gentlemen

I am of the opinion that the WATERMAN Project is very much concerned with this demanding situation of bridging the gap between research results and their application toward development outcomes in Ethiopia.

To play active and catalytic roles we need to think out of the box and widen our focus on dissemination knowledge. We should be able to break the dichotomy of academic publications and dissemination pathways that do not reach the vital target clients. We need to think more broadly and in different ways about how to share knowledge as the key to power with a wide range of communities in arid and semi- arid ecosystems of Ethiopia.

As I said earlier, who would play a facilitative role in getting knowledge into the hands of those who can make use of it to change their activities or lives, we all know that the WATERMAN Project has been trying to explore innovative ways to narrow the rift between research and application. I believe that we should learn from such gracious ideas and experience.

In this context, the aim of the symposium is in agreement with the national development program of the Government of the Federal Democratic Republic of Ethiopia. Thus, I would like to assure you that the Government is always at your side for the fruition of WATERMAN Project and in getting research off the shelf and into use.

With this remark, I am happy to declare that Symposium is officially opened.

Thank you!

1.3.4 Introducing the WATERMAN Project by Prof. Dr. DI. Jean Schneider

Prof. Schneider outlined the concept, activities and objectives of the Waterman project.

The main activities of the 18 month project have been three workshops held at Hawassa, Haramaya and Mekelle Universities, the Project Plan and Gender Award and this final Symposium. The workshops were set up using PPA tools and dealt with the following topics:

- Integrated water supply and resource management (Hawassa University)
- Soil fertility and salinity (Haramaya University)
- Water Management and Irrigation (Mekelle University)

Prof. Schneider gave an overview of all the collaborating partners, the work plan, work packages and cost categories of WATERMAN. Furthermore he mentioned the milestones and deliverables of the project.
He highlighted the intention and objectives of the Waterman Workshops as follows:
- Networking
- Dissemination
- Identification of applicable research results
- Future needs for research – Wish list
- Platform for multilevel interaction

Prof. Schneider identified the following as the target groups which were addressed by the project:
- Staff of partner institutions
- Local authorities
- Agricultural and Water Bureaus
- Farmers

A review of the Kick-off workshop and the three workshops organized by the partner Universities was given.

At the end of his presentation Prof. Schneider emphasized the lessons learnt from the project as:
- Academics are concerned about their careers and producing scientific publications, but science should also focus on applicability for the benefit of society.
- Applied scientists are not readily accepted.
- There is poor communication between scientists and decision makers.

The benefits of the Project have been as follows:
- Awareness building.
- Dissemination of scientific knowledge.
- Communication – bottom up.
- Awareness building concerning the Gender issue.
- Promotion and sponsorship of male and female students.

The following questions were raised:

Does this project include knowledge sitting on the shelf?
The main focus of the Project was on knowledge that has already been generated and which requires better communication between different stakeholder groups. The continuation of this process is greatly needed. The project tried to find technologies and ways to disseminate them. A high emphasis was given to farmers experiences.

How do you see the differences and importance of using a linear model versus a holistic approach?
A major task of the Waterman project was to bring specialists of different professional backgrounds together. It is necessary to continue collaborative projects and to conduct research according to a holistic approach.

1.4 Learning from examples

Chair: Benedict Mutua
Rapporteur: Cara Flowers

1.4.1 Parallel Session

In this session the aim was to learn from key approaches used in the WATERMAN project as well as from other projects and organisations. There were three parallel sessions, including:

A. Innovative Print Materials.
B. Innovative Interactions.
C. Innovative Media.

The session involved the showcase of examples of various approaches (3 per parallel session), questions and answers around the presentations, and a facilitated discussion around each of the three main dissemination themes.

1.4.1.1 Innovative Print Materials

Chair: Benedict Mutua
Rapporteur: Cara Flowers
Number of Participants: aprox. 11

a) Use of visual displays – example from Handwashing and sanitation project by Ato Mulugeta (Technological Faculty, Irrigation and Water Department, Awassa University)

Presentation
1. Water supply
Group discussions for better management of existing water supply schemes including the use of streams and springs were conducted.

2. Hygiene Promotion
To reach all sections of the population the hygiene promotion is carried out with all groups of the population by community Wash Volunteers. (1 female and 1 male volunteers for 16 HH)

3. Sanitation
In the project, a community led total sanitation approach (CLTS) is undertaken. The CLTS is achieved through effective facilitation and the use of PRA methods such as transects walks, mapping and community discussions.

Almost all approaches are also supported by pictorial presentations (innovative print materials) and role playing (Dramas) to disseminate and strengthen information required.

Why are pictures a useful medium?
- Illiterate community.
- Children can also understand.
- They are more interesting than text.
- Visual images remain in the memory longer than text.

However, pictures need to be appropriate.

Examples of misinterpretation:

Example 1
Picture showing a man defecating and the community shaming him.
However, in some communities open defecation like that shown does not take place or only occurs at night. The picture may be seen as irrelevant to the community.

Example 2
Picture showing woman washing in the river.
However, use of the picture in communities highlighted that it isn't clear if the animals are up- or downstream.

Conclusion
Pictures are a useful tool but we need to be aware of the potential for misinterpretation. Perception of images may change from community to community and in different regions of the country. This must be explained to field workers and we must be careful to pilot any images with the target audience.

Questions & Answers
What alternatives do you offer to open defecation?
Is there a strategy to internalise behaviour within the communities?

> We find that when we demonstrate the links between defecation behaviour and health that communities are very receptive. Once the link between health and behaviour is made there is motivation to change practises.

b) Diagrams for sharing and explaining technologies – sand filter example by Ato Alemayehu (Land and water management at Awassa University)

Presentation
There are many methods of water treatment. Ideally, they should be;

- Cost effective
- Simple to operate
- Constructed from local materials.

Sand filtration methods fit these criteria. They cost around 215EHB per unit. This can be less if they are mass produced. They can be constructed from local bamboo.

Sand filtration systems work using the following processes;

- Sedimentation.
- Adsorption.
- Straining.
- Biological treatment.

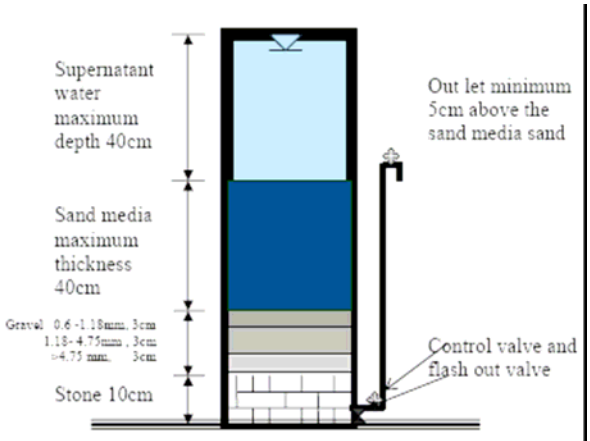


Fig 1. Components of house hold filter (not to scale)

Each time the tank accommodates about 50 litres, totalling 100 litres of water per day, which is sufficient for an average family of 7 persons. Each 50 litres of filtered water is ready for use after 3 to 4 hours of operation.
If water is added continuously the unit can treat up to 300 litres of raw water per day.

Conclusion
Benefits of using diagrams;

- In order to show the technological components and construction of sand filtration systems. They are easy for field officers and potential users to understand.
- Useful to show where conventional treatment systems are not viable.

Questions and Answers
What sort of links to dissemination are there in the university? Via government?

Well not so many at the moment but perhaps this workshop is an opportunity to develop some support for dissemination.

Are there any independent quality checks undertaken on this technology? E.g. water quality testing.

No, not at the moment. I'm not really sure if this method is used in rural areas at all as it's mainly used in urban zones. There isn't much university support for this.

Does the filter clog? Is there any data to evaluate how well the filter works?

There is a World Health Organisation (WHO) report and a US Environmental Agency report which both recommend this as a water treatment method.

Are local WatSan implementers/Development agents trained in this technology?

With other NGOs there is training. Here via the university we do not have a training programme.

Comments from the audience
There are other organisations such as Wateraid who implement WASH programs. UNICEF also supports such things. At Ambo University we have links to a WASH programme. Therefore, I think there is potential for dissemination and documentation of this technology in conjunction with other organisations.

c) Poster for explaining technology – example of plastic mulch for saving irrigation water by Boja Mekonnen (Graduate student, Haramaya University)

Presentation
The objectives of research were to evaluate the impacts of both straw and plastic mulch on soil moisture content. Materials and methods used include use of CROPWAT. A 6 treatment combination replicated block design experiment was used.
Results demonstrated that plastic mulch generated higher yields and had greater water use efficiency. ET was reduced. ¾ of the usual level of water application was required.

Questions and Answers
What are the costs of each technology? Is the use of plastic mulch compensated by higher yields that mean more income? Surely straw is cheaper for farmers? Is it easy to get hold of plastic?

We did have problems getting hold of plastic. It may be difficult for farmers to get plastic but in that event we are suggesting that they use straw. Straw mulches still resulted in greater yields than the control.

Is there added value from straw in terms of nutrient application? Also what about the environmental impacts of plastic in the soil?

We do try to recommend straw to farmers. Preferably wheat straw mulch, if not then another. Plastic mulch is not environmentally friendly as it does not decompose and it can cause structural disturbance to the soil.

Straw may have other uses such as fuel. What about the economics of this? What if farmers use straw for something else? It may be that there are other uses of straw which have greater economic benefit for farmers?

Are there specific types of plastic that should be used?

Certain thickness is recommended.

Post Session Discussion
Questions

- Where do we start in the community?
- How do we involve the people?
- How can we put information simply?

Egerton University has an active extension programme linked to the university. This is called 'Touch the people' research. Groups were formed comprising extension workers and community based organisations (CBOs). Any potential research must consult this group. The group will then feed back on local approaches. This creates a link between research and communities. If research is conducted without this consultation it is an imposition. If the community is consulted first then the topics are more relevant to community needs and the research generated is better. For example, in the area of sanitation and health there are many cultural issues which may affect uptake. Pilot research is undertaken first before a large project.

Comments
Wateraid supports universities and encourages research.

1.4.1.2 Innovative Interactions

Chair: Jean Schneider
Rapporteur: Kamila Špongrová
Number of Participants: app. 17

Three different presentations dealing with the same topic were presented and discussed.

d) Farmers perception on the productivity of water in agriculture - A case study at Debre Kidane Watershed, Estern Tigray, by Nata Tadesse and Emebet Bekelle (Dep. Applied Geology, Mekelle University)

Presentation
PWA is generally the amount of crop produced per unit volume of water
Case study - Debre Kidane watershed, 3761 households
Main question – do farmers know how much water they use for their production?

Questionnaires
- Irrigation (no or yes, if yes what water is used and what type of system is used)
- Training (training quality in general, its relation to water, its ability to reach the farmers)
- Shallow wells (no or yes, if yes how many are around)

Outcomes
- Farmers know how much they have produced, but have no idea about water consumption.
- Irrigation system – if farmers need to pay for the pump, then they take as much water as they can within one day to spare money.
- Farmers prefer demonstrations - to see it, to touch it, to try it…
- Training should concentrate also on other purposes (not only agricultural, but also domestic, drinking…)
- Problem of having too many shallow wells and no willingness to have a common well.

Interesting remarks
- Farmers responded in all cases
- Important role of extension workers

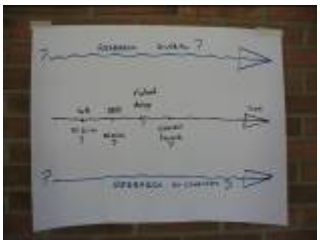
e) Top to bottom approach to link research with policy in water and sanitation sector by Mark Harvey (DFID/Ministry of Water Resources)

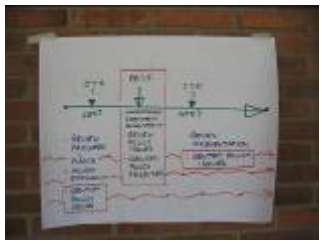
Presentation
Top to bottom approach:
- Twice a year – Joint Technical Review
- Annual Multi-Stakeholder Forum

After 2 years of experience – lessons learnt:
- Key points for dissemination: Timing and Audience
- The end users need to be involved in the process of planning and identifying the key issues for the next period of the project.
- Keep it simple.

Until recently the water, sanitation and hygiene (WASH) sector was very common within developing aid programs in Ethiopia. The well worn adjective "fragmented" was often used. The sector was supported by donor projects that were poorly coordinated, promoted and adopted inconsistent approaches, managed by separate project management units at various levels of government administration and demanded separate systems and reporting. Finance was provided through different arrangements.

For the past two years the aim of the “European Union Water Initiative - Country Dialogue” has been to improve the sector’s governance. Harmonization between the different projects started to take place. While there is still a long way to go, financing has been harmonized into one channel, a pooled fund for capacity building and technical assistance is being set up, a sector wide M&E system is being developed and a national WASH program implementation manual is being prepared. Most importantly for research dissemination is the establishment of one annual Multi-Stakeholder Forum and two semi-annual Joint Technical Reviews - these provide the audience and the timing for research dissemination.





f) Disseminating Information to development practitioners and rural communities: A case study of PELUM association by Stella Lutalo (PELUM, Uganda)

The presentation offered a very nice overview of different methods used for dissemination of knowledge by PELUM in Uganda.

Presentation
PELUM Uganda is a network of 27 NGOs, members work together to improve the livelihoods in rural communities.
Questions to consider when planning dissemination:

- Who is your target?
- What motivates them?
- What do they listen to?
- What do they watch?
- What do they read?
- Who are they influenced by?

Printed material

- Ground Up Magazine, a regional publication published bi- annually
- Print publications of research done.
- Simplified versions of research done
- Translation of publications into 3 major local languages
- Fact sheets
- Posters

Interactions

- Farmer field schools
- Community libraries
- Farmer to farmer exchange visits
- Member organizations exposure and exchange visits
- Exhibitions at different national and international forums
- Workshops, seminars and meetings
- Regional events: Trade and agriculture shows

Electronic material

- PELUM Association E - Bulletin
- Posting information on the PELUM Association Website
- Sharing through regular email
- DVDs
- CDs

Public media

- Press Conferences
- Launch of publications
- Public dialogues
- Print media/ newspapers
- Press releases
- Radio/TV talk shows

Challenges

- High costs of simplifying and translating posters
- Poor reading culture – alternatives (pictures, comics)

1.4.1.3 Innovative Media

Chair: Svat Matula
Rapporteur: Dominik Ruffeis
Number of Participants: app. 20

g) A water balance model for teaching and learning – An Ethiopian case study by Tim Hess (Cranfield University)

Presentation
Main topics of the model

- WaSim
- Method of dissemination of outputs using Computers
- Software developed by Cranfield University
- Simulation of Soil-Water relation in the context of irrigation
- Learning tool which puts emphasis on Learning by doing
- Benefits for students – Time saving, experience by gaming, Self-learning
- Benefits for institutions – Substitution of laboratories, save financial resources
- Focus is given rather on usability than on accuracy, but reasonable level of accuracy
- Easy to use
- Good visualization
- Low data requirement

WaSim can be used for

- Estimating irrigation needs
- Evaluating irrigation schedules
- Testing of drainage design
- Salinity control
- Estimating ground water recharge
- Scheduling water requirements

Regarding the use of WaSim in the Ethiopian context, experiences from the case study of Metahara Sugar Estate are available.

The Software is

- Downloadable from the web
- Free of charge
- Contains default data base
- Has online Help
- Includes a user, technical and tutorial manual
- Includes case studies

Questions and Answers
Does the software also consider leaching amount?
No rule for leaching requirement, Water application according to the crop water requirement. Monitor soil conditions in terms of salinity and adapt water application accordingly. Second solution is to take FAO equations and calculate leaching requirement which can incorporate into the model.

In relation to the drainage flow, does the model consider – drainage flow from groundwater or drainage directly from irrigation water application?

WaSim is a 1D and not a 3D model

h) The use of maps, databases and information networks for dissemination by Aster Denekew (IMWI)

Presentation

Maps are used to visualize geospatial data.

Help the users to better understand geospatial relationships, retrieve information, and reveal patterns. The GIS systems provide capabilities to query and analyse the digital maps and their corresponding databases and extract information from them.The results of the analysis, that is the knowledge generated from them, have to be communicated to the users. In order to communicate the geospatial information the maps produced should be effective.

Different purposes of maps

- The Central Statistical Offices, Population and Housing offices use maps for the dissemination of the census data.
- Socio economic maps, such as population density maps, poverty maps, etc. are produced from statistical data acquired from organizations.
- Different thematic maps, Environmental, hydrological, etc. are produced from satellite images, airborne and laser scanner data.

Different maps

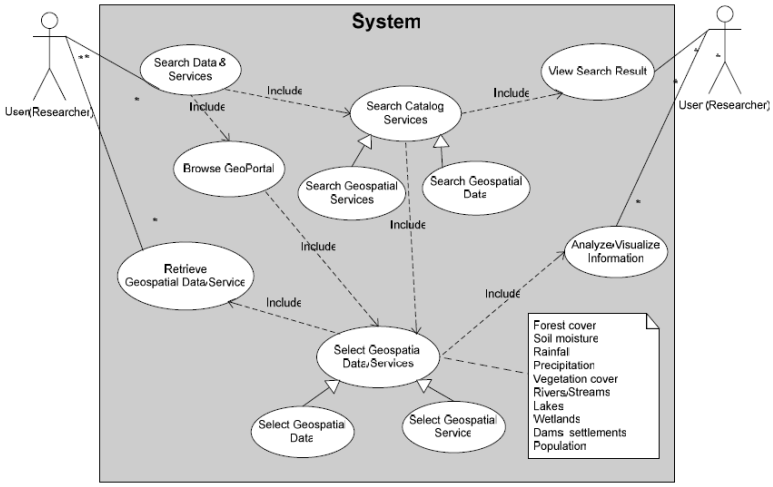
- Static maps
- Animated maps
- Maps to track changes over time

Maps are used as decision tools.

- Explaining patterns
- Comparison and Analysis
- Analysis and Decision making
- Maps as interfaces for databases
- Maps for searching online information resources

Dissemination Media

- CD – ROMs; Portable map format
- Atlases; Paper and electronic - view only, interactive, analytical atlases
- Websites; disseminate maps and geospatial data, knowledge generated from them, and other research results to the wider range of users
- Geospatial portals; Portals are web sites that give users organized access, to a collection of information resources, http://geoserver.itc.nl/aster
- Information Networks; CGIAR-CSI, http://csi.cgiar.org/index.asp
- Spatial Data Infrastructures (SDI); INSPIRE, http://www.inspire-geospatial.eu
- Global Directories/Databases and Clearinghouses



Conclusion

Currently, there is a lot of information and knowledge generated from “them out there”, and it is up to the user to check the usability and quality before using them.

There are different means and dissemination media available to share the knowledge generated. It is up to the information provider or knowledge generator to ensure effective communication and choose the best media to disseminate to a wider audience.

i) Use of Documentary Film in Promoting Water and Sanitation Practices by Simret Yasabu (RiPPLE)

The film deals with how access to water changes the lives of people living in developing countries with particular reference to Ethiopia. It differentiates between people living in rural and urban areas. In rural areas people have to cover long distances in order to catch water and in urban areas are confronted with the trade off of cost and quality of available water. Water can be limited within communities which forces women to fetch water from afar.

Access to water can be provided by

- Public service
- Private business

The film highlights the differences in water utilization of rural and urban areas whereby the main difference is the use of water for agriculture which is not as relevant for urban compared to rural areas. Furthermore water supply in urban areas depends on an effective pipe system.

Several case studies and their main problems are highlighted in the film.

The nexus between costs of water access and the need of market access to refinance the investment costs are described in the movie.

A major issue of easy access to fresh water is that adults can care for their children and children can go to school. The main challenge is to capture the water and transport it to the people and communities.

Will the film be distributed via mass media?
The film was presented at World water Day and to the Ethiopian State Minister of Health. There is no possibility to broadcast it via television. It may be possible for the film to be distributed to Ethiopia Universities.

What was the response to the video?
The film brought the problem to the attention of a wider public. Using innovative media changes the way people look at certain problems.

Who is the target audience?
Partners of RiPPLE, donors, decision makers, policy makers, implementers

1.4.2 Lesson learnt – Presentation by Tim Hess

In his presentation Tim Hess gave a good overview of the three WATERMAN workshops held in - Hawassa (April 2007), Haramaya (September 2007) and Mekelle (November 2007). All together there were approximately 180 participants from different stakeholder groups (University staff & students, research, politics, NGOs and farmers) at these three workshops.

Dissemination of Research was done via the various methods shown in the table below:

Conference presentations – "Formal" conference presentations o Case studies – Technical subjects – Mostly in English	**Posters** – Photos – Maps & plans – People to explain
Field visits – Irrigation schemes o Small-scale o Large-scale – Water supply schemes – Environmental issues (e.g. salinity)	**Demonstrations** – Hardware o Water filtration o Micro-drip irrigation o Treadle pump – Software o WaSim

Some types of sessions and activities used at the workshops were as follows:

Getting to know people – "Speed dating" – Social events / meal times	**Participatory sessions** – Researchers need contact with end users – End users to set the agenda – involved from the start – Respect local farmers & their knowledge – Feedback to communities
Student discussion groups	

Lessons for Researchers

- Researchers need contact with end users
- End users to set the agenda – involved from the start
- Respect local farmers & their knowledge
- Feedback to communities

Observations

- Top-down approach
  - Policy →Researchers →Extension / NGO →Community
- Lack of consistent policy from the top
- Role of extension workers
- Local problems in catchment context
- Language can be a barrier to communication, due to
  - Type of language used or not used: English, Amharic, Local languages
  - Use of Scientific language which all groups do not necessarily understand

Positive ways of sharing results include

- Re-packaging information – format, language
- Local workshops, meetings, gatherings
- Demonstrations, drama, arts
- Formal training – all levels
- Paper outputs
- Mass media

Experience of WATERMAN Workshops

✓ POSITIVES	– NEGATIVES
✓ Well organised ✓ Range of participants ✓ Mixed discussion groups ✓ Varied activities ✓ International exchange ✓ Integration of theory & practice ✓ Good facilitators	– Language challenges – Practicality of aspirational goals – Not enough women – Some unwilling to discuss 'contentious' issues – Too many formal presentations – Business not represented – Not enough Socio-economic – Too many policy makers! – Cost of participation

Conclusion

- **Networking - people have met & started talking**
- **Better understanding of each other's roles**
- **Many important research topics have been identified**
- **Better understanding of dissemination**

1.4.3 Open Space

In most symposia and conferences, the agenda is set by the organisers which leaves little opportunity for participants to bring up topics that they would like to discuss.

Therefore an 'Open Space' was included in this symposium to allow participants to suggest topics that they would like to have discussed within the context of the theme of the symposium. These Open Space slots were then available for people to hold discussions or share knowledge and experiences of their own.

Six open space slots of thirty minutes each were available for people to sign up for. These took place in two parallel sessions. Topics could be signed up on the notice board outside the Large Auditorium.

Use of web resources: Existing online resources. Example of DEW Point, DFID Resource centre for water, sanitation and Environment. (Cara Flowers – Cranfield Univ.)	Gender issues & participatory approaches (Willibald Loiskandl – BOKU Univ.)
Transboundary dimensions of water research: ***Is research crossing borders?***	Community – managed de-fluorisation (Christian Relief Services)
Role of NGOs in research in hydrology, pressurized irrigation, and groundwater (Melak Mekomen)	Community – led research (Benedict Mutua – Egerton University)

1.4.4 Market place: Booths and Demonstrations

This session offered opportunities for people to present examples of their dissemination methods or to do dissemination of their research results in a marketplace-type setting using posters, literature, photos, websites or whatever materials they wanted.

The marketplace was set up in its own room with tables available for display of literature and other materials and pin boards available for displaying posters. Participants could visit the marketplace at any time during this session and in between open space discussions they chose to attend.




1.5 Project Plan and Gender award

1.5.1 Introduction of the awards by Prof. Willibald Loiskandl

The Project Plan Award was designed for the definition and planning of high impact, sustainable water management projects.

The exact title of the award is:
“Dissemination of research results in semi-arid and arid ecosystems with a focus on sustainable water resource management in Ethiopia”

The students could hand in proposals related to three topics:

- Integrated Water Resource Management
- Salinisation and Soil Fertility
- Water Management and Irrigation

The benefits of the award for the students were:

- Invitation of winners to international symposium *"WATERMAN".*
- Fellowship
- Project application was provided
- Intellectual property stays with project proposer
- Improvement of proposal writing skills through supervision and monitoring

Jury Members

Integrated Water Resource Management	**Salinisation and Soil Fertility**	**Water Management and Irrigation**
• Jean Schneider (BOKU) • Wycliffe W. Saenyi (EU)	• Seleshi Bekele (IWMI) • Svat Matula (CULSP) • Kamila Spongrova (CULSP)	• Tim Hess (CU) • Nata Tadesse (MU) • Stella Grace Lutalo (PELUM)

Gender Award Jury Members

Gender
• Alexandra Strauss-Sieberth (BOKU) • Kamila Spongrova (CULSP) • Stella Grace Lutalo (PELUM)

Winners of the awards

Project Plan Award • Megersa Olumana Dinka • Mulugeta Dadi	 Haramaya University Haramaya University	 BOKU, Austria present
Fellowship Award • Tarekegn Kebede Godobe • Wossenu Lemma Legese • Getu Bekere Mekonnen • Elias Tedla Shiferaw • Yohannes Tadesse • Sead Ahmed	 University of Hawassa University of Hawassa University of Hawassa University of Hawassa Haramaya University Haramaya University	 CULSP, Czech Rep. CULSP, Czech Rep. CULSP, Czech Rep. CULSP, Czech Rep. present present
Gender Award • Tigist G/Micheal • Mitslal G/slassie	 Haramaya University Haramaya University	 present present

1.5.2 Presentation of the winning projects

Chair: Willibald Loiskandl
Rapporteur: Dominik Ruffeis

1.5.2.1 Project Plan Award

Delineating the Ground Water Depth & Quality across Time & Space Using Hydrologic Models & GIS: Case I - Metahara Sugar Estate in the Central Rift Valley, Ethiopia
by Megersa Olumana Dinka

Poster- Presentation

The main objective of the study is to delineate the ground water depth and quality across time and space using hydrologic models and GIS. The map for the ground water depth and quality will be generated in GIS.

A consensus is not reached as to whether the irrigation development contributes significantly in the reduction of rural poverty as unwise (poor) management of irrigation projects may lead to serious environmental, social and health problems.
The case is true for Metahara Sugar Estate, where it started to experience ground water table rise, salinity and alkalinity/ sodicity after nearly 40 years of irrigation, and as the result certain cultivated agricultural fields are abandoning every year.
Currently, Lake Basaka (highly saline water) is expanding towards the plantation field at a significant rate. It is the result of the changes happening in the great African Rift Valley in general, and Ethiopian Rift Valley in particular. The lake expansion will affect the GW dynamics of the plantation area and the condition is very terrible for Metahara Sugar Estate. Hence the evaluation of the groundwater condition of the area across time and space is extremely important.

1.5.2.2 Gender Award

Use of Treadle Pump- Drip Irrigation Set Combination for Small Scale Vegetable Production by Women in Ethiopia by Tigist G/Micheal and Mitslal G/Slassie

PowerPoint- Presentation

Malnutrition prevents a lot of the world's population from reaching full potential (mentally, physically or financially), it also contributes to higher death rates (heart disease, stroke, cancer). Vegetables are the most affordable and sustainable dietary sources of vitamins, trace elements and other bioactive compounds.
Improved vegetable production and consumption is thus the most direct, low-cost method for many of the urban and rural poor society. Clearly, irrigation can and should play an important role in raising and stabilizing food production, especially in the less-developed parts of Africa, south of the Sahara.
In order to produce sufficient food and fibre for the fast growing population with limited water resources, water must be used efficiently. Drip irrigation, which is considered as the most efficient, is a flexible system for small- scale irrigation especially in combination with the treadle pump.
The majority of people directly involved in irrigated agriculture in Africa are women and they are involved to the greatest extent at the lowest level but usually they have neither land nor water rights. Yet, future development of smallholder irrigation in southern Africa will depend on improved returns to investment in irrigation and more than ever this means that women's needs must be prioritized.

Method and materials:

- Five female farmers per Kebele
- One treadle pump and drip irrigation equipment will be supplied per group
- Selection of vegetable type depending on the local market
- Common farm land for each group (five farmers)
- Plantation of vegetables

Objectives:

- Treadle- pump - drip irrigation set in terms technical performance
- Treadle- pump - drip irrigation combination for vegetable production
- Energy requirement of treadle pump
- Gender aspects of drip irrigation system and treadle pumps in Ethiopia specifically Kebeles surrounding Haramaya University

Evaluation:

- Household economic feasibility
- Social acceptance
- Energy requirement
- Environmental friendliness will continue

Project Work plan

Activities	Time and duration 2008/2009									
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Survey to select women farmers	■									
Field assessment		■	■	■	■					
Data collection					■	■	■			
Data analysis							■	■	■	
Final write up about the evaluation of the project										■

1.5.3 Reception

A formal presentation of the awards was held in the Garden in front of the ILRI Cafeteria.

2 Workshop Day 2

2.1 Welcome to Day 2 and Day 1 highlights

Prof. Matula held an opening speech and gave the opportunity to the representatives of each group from the previous day to present the highlights of their group work:
Cara Flowers presented the highlights from Group A- aimed on the Innovative print material. Jean Schneider gave an overview of Group B on the Innovative interactions. The major points of Group C – innovative media were presented by Dominik Ruffeis.

2.2 What have we learnt?

Chair: Svat Mutula
Rapporteur: Kamila Špongrová

2.2.1 World Café

The World café is a new approach to facilitating discussion among participants in workshops and symposia. It is based on the recognition that people most often and most effectively 'chat' and share information when in informal situations such as sitting in a café with their friends. The World Café approach tries to mimic this by setting up tables with 'paper table cloths' for people to write, draw and express themselves, and to document the discussions.
Each table has a question to discuss. In this session we had three questions in total- so two tables each had the same questions. After 20 minutes of discussion, participants were asked to find a new table with a different question and also with different people than their last table. After these 20 minutes participants were asked to do the same again-so that they had now covered all three questions. During the exercise, one person-designated as the 'table host' stays at the table during all three rounds and helps to facilitate the discussions, ensure documentation and give feedback at the end.

Feedback is given from each table and the main points are noted on a general flip chart by a designated person.

Question no. 1
What are some of the most effective approaches to dissemination of knowledge / getting research into use? Why? What are some good examples? Can you identify positive lessons?

Question no. 2
What are some of the difficulties and challenges in doing dissemination / getting research into use? Any examples of issues and problems? What are some of the things that hinder the process or that have to be overcome?

Question no. 3

What have you learnt/ or know about how to plan dissemination? What needs to be done to bridge gap between research and use? How can we plan and implement this better?

2.2.2 Report back from World Café

Question no. 1

Dr. Seleshi presented a comprehensive table with an overview of different dissemination approaches, together with the examples (see Table 1 bellow) as the outcome of Question no. 1. The table summarizes the following:

- Most Effective approaches of dissemination of Knowledge in to use? Why?
- What are good examples and positive lessons
- About 28 various types of approaches are identified
- Various scales/levels of knowledge disseminations are considered

Table 1:

	"Effective" Approaches	Why?	Examples and positive Lessons
1	Demonstration	Can visualize	Demonstration plots of irrigation
2	Participatory Approach	User participate in the process of knowledge generation	
3	Graphical Approach	Much easier to understand	
4	Hear, see and feel	Best way to retain knowledge	
5	Publications	Can transmit knowledge at various levels	Articles, books, leaflets, manuals, etc
6	Internet	Can reach world wide	Website of DEWPOINT, IWMI Publications
7	Media	Can access lots of people	Radio, TV, Plasma, Educational radios, Local Radios
8	Drama/Theatre	Entertaining and transmitting knowledge/message	
9	Workshops/conference/symposium	Give opportunity for interactive discussions	This symposium
10	Pictorial	Very easy to understand	IEC material
11	Audio-visual	Can be easily replicate, can be seen repeatedly	Films, video
12	Exchange visit		Hand dug well & drip, Adha (Tigray),..
13	Farmers day/Field day	Demonstrating technology	
14	DAs and Extension Agents	Local presence	
15	GOs and NGOs		
16	Religious	Very useful and can cover most	HIV/AIDS, can extend to water management, diet, see Moses biblical
17	School	Education, curriculum are effective	
18	Associations	Can be effectively communicated	Idir, Mahber/Senbete, Youth Assoc., Women Assco., Farmer's Association
18	Piloting		De-fluoridation work
19	Networking		WASH program
20	Through traditional/Indigenous systems/ local elders	Effective and enforcing power	Aba Geda, Oral relaying in pastoral areas
21	Model Farmers and Users	Cost effective	
22	Press conference		
23	Public Dialogue	Can invite many media and can reach large audiences	
24	Community Libraries	Open to wide public	Different categories can listen
25	Training		
26	Translations to local knowledge		
27	Targeting national and international events		
28	Satellite sites/farming		Integrates various disciplines

Prof. Matula, table host from the second table discussing Question no. 1, made a few additional remarks:

- Different situation for rural and urban area
- Importance of churches and mosques for knowledge sharing and dissemination was highlighted
- Significance of the development agents, and extension offices
- Significance of the "bright spots", experimental farmers acting like a good example for the others

Question no. 2

Dr. Tim Hess summarized the outcomes of Question no. 2 dealing with the difficulties and constraints to dissemination. Five main headings were pointed out.

- The research may not be demand driven and as such, is insufficiently applied or practical enough to be taken up. Research is often driven by researchers, rather than end users. The research agenda of an organization may be unclear or changing in response to political drivers.
- Research organizations may not have the skills, capacity or resources (especially financial) to carry out effective dissemination of research outputs.
- We recognize that there are "pull" factors as well as "push" factors involved in dissemination. "Next users" find it difficult to access research as there is no single source of water management research information.
- The job descriptions and career structure of researchers does not encourage dissemination outside of their peer group, neither does it develop the skills for effective dissemination (see 2 above).
- Linkages between researchers, extension agents (and other "next users") and end users are often poor. A linear model of research – extension – end user can lead to misinterpretation of research messages, communication errors and mistrust by end users. A more interactive approach is needed.

Prof. Loiskandl added some remarks to the Question no. 2

- The roles of different stakeholders have to be discussed. For example: Universities are quite distant from the community.
- Participatory approaches are needed.
- There are problems of assessing the impact of the dissemination. (It is difficult to get the information about the impact.)
- It is difficult to prove the value of the dissemination.
- A link to economy with regard to the value of the research and dissemination is missing.
- There is a need for capacity building – extension workers. (To identify who and what should be trained)
- Training should be a process with interaction, not just a technical content.
- The three C's: Conflict, Consensus, Commitment were pointed out.

Question no. 3

Dominik Ruffeis summarized the outcomes from the discussion of Question no. 3 about the dissemination plans and how to bridge the gap between research and use. The following points were highlighted:

- In the first place it is necessary to understand the audience and target group and to identify influential people.
- Further it is very important that the information is packaged in the right way.
- Simplifications and translation to local languages are needed, but financial resources are often critical.
- One has to think carefully about which approach to use for the dissemination. (E.g.: radio, TV, movies, newspapers, etc.)
- The right timing is an important factor.
- Partnership with other groups would bring additional positive outcomes.
- Socio- economic and ecological conditions should be considered.
- Dissemination should be included in the project proposal.

Cara Flowers made some additional notes from her discussion group. A gap between research and final use was introduced as two banks of a river, with the creation of a bridge as one of the roles that can be played by dissemination.
End- users are:

- Farmers
- Policy Makers
- Students
- Other researchers
- NGOs
- Community Groups
- Government (all levels)

The gap between researchers and end users exists because of the one way information channel which is practiced nowadays:

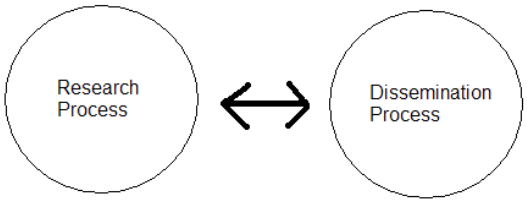
Researcher → Extension NGO → End Users

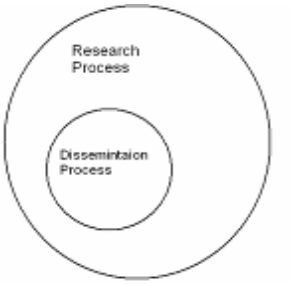
This system leaves a big distance from end users to the researcher which is not closed through lack of feedback mechanisms.

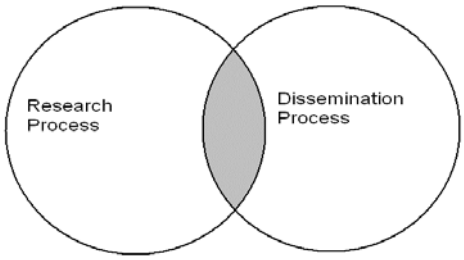
To bridge these gap four possibilities were brought up:

- Problem identification (together with stakeholders)
- Info sharing on equal level
- Partnerships
- Participation

Further four possible models of dissemination were identified:







1) Applied Research/Action Research
2) Research Process
3) Research/Dissemination Process

2.2.3 Plenary Discussion

Nadia Manning started the discussion with some opening questions concerning financial issues. The discussion continued smoothly from the previous section. The following points were the main outcomes:

- It is difficult to estimate how much money from the budget is reserved for information dissemination. The amount is likely to be quite small compared to the overall budget.
- Not enough attention is paid to dissemination because of the time limitations; time is money.
- Extension departments do not have enough money to enable them to effectively disseminate.
- Extension offices should better cooperate with universities.

The chair, Svat Matula, raised further questions, which were not covered:

- Is dissemination in the water sector different from others? Do we need to think about specific things then try to undertake dissemination regarding water research? (Advice: publications!!)
- What might the role of the Universities and research institutions be in the future dissemination in water sector in Ethiopia, Uganda, and Kenya?

- How to link WATERMAN results with universities research and extension units?
- What should be included into the continuing project proposal in order to make it more effective?
- What is the right procedure for this?
- How can the communities, farmers, development agents get information about results of our project?
- What about dissemination to the decision makers, politicians, and the public at different levels?

Question concerning the water sector was widely discussed; it was pointed out, that until now, researchers have not been able to convince policy makers to establish a National Water Resource Research Centre. Also the question concerning the possible linkages was discussed. Several other constraints were highlighted including lack of sharing between and coordination among various actors in the water resources sectors. Links need to be created and strengthened in order to bring relevant information to the final users. One of the outcomes from the discussion was that participatory and joint planning approaches were found to be good tools for strengthening linkages. This was the point where the Project planning exercise (Session V.) was introduced.

2.3 How can we use what we have learnt? – Project planning

Chair: Jean Schneider
Rapporteur: Stella Grace Lutalo

As the first day of the symposium was mostly passive activities of listening to presentations and the morning was about review and analysis-this afternoon session focused on using what we have learnt and our experiences to try to put things into action. Participants were asked to get into groups. Each group was then required to identify a research result, some knowledge or a potential or actual project from which to base the planning exercise. The task was then to develop a dissemination plan, based on ideas generated during symposium, for the research, knowledge or project chosen. After the exercise, feedback was given by each group about their plan.

2.3.1 How to disseminate the WATERMAN project results?

The example project of group one was the WATERMAN project. Five institutions were considered as target groups:

- Research institutions
- Government institutions
- Universities
- District level institutions
- Local level Institutions

Different methods to spread the outcome of the WATERMAN project are:

- Journals (East African Journal)
  - Review Articles
  - Special Edition
  - Scientific Presentation

- Website: On line-(WATERMAN) Project, University Websites
  - Promoting the website
  - Making links to partners, for example IWMI, Universities' website, etc.

- CD-ROMS: Workshop proceedings and other research results, learning tool, how the dissemination process works

- International events such as Environment day or Water day

- Preparing exhibitions
- Training in vocational schools for the local development Agents and Extension workers

CD-ROMS as well as leaflets/ publications are the main ways to distributing the information:

- IWMI has distribution lists for partner institutions and experience.
- Each institution to be responsible to redistribute down to more levels.

Next to English and Amharic, local languages should be used for dissemination. Therefore responsible institutions for translation have to be found.

The workshops should have media coverage:

- Radio
- Television
- Films
- E.g.: Mekelle and Awassa workshops had media coverage

The financial requirements to disseminate the information are:

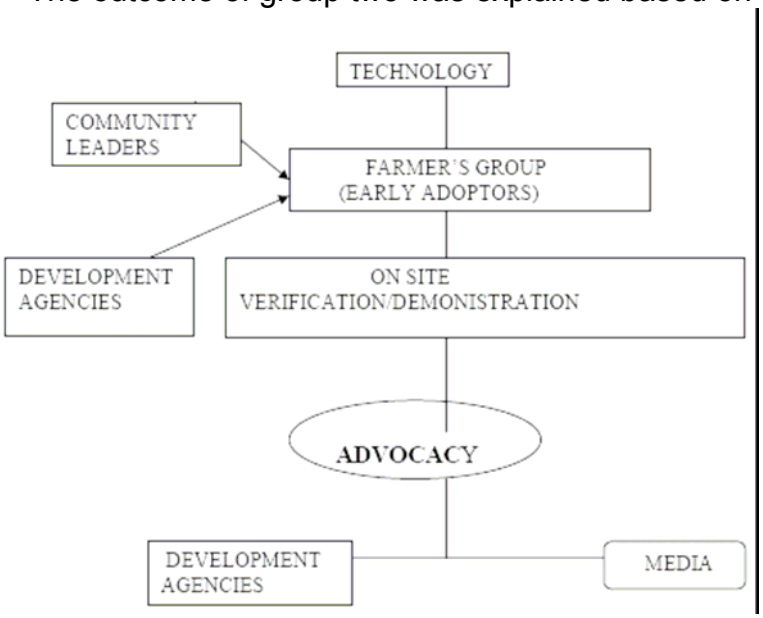
- Purchasing CDs
- Translating of the results into different languages
- Registering into search engines
- Maintaining website

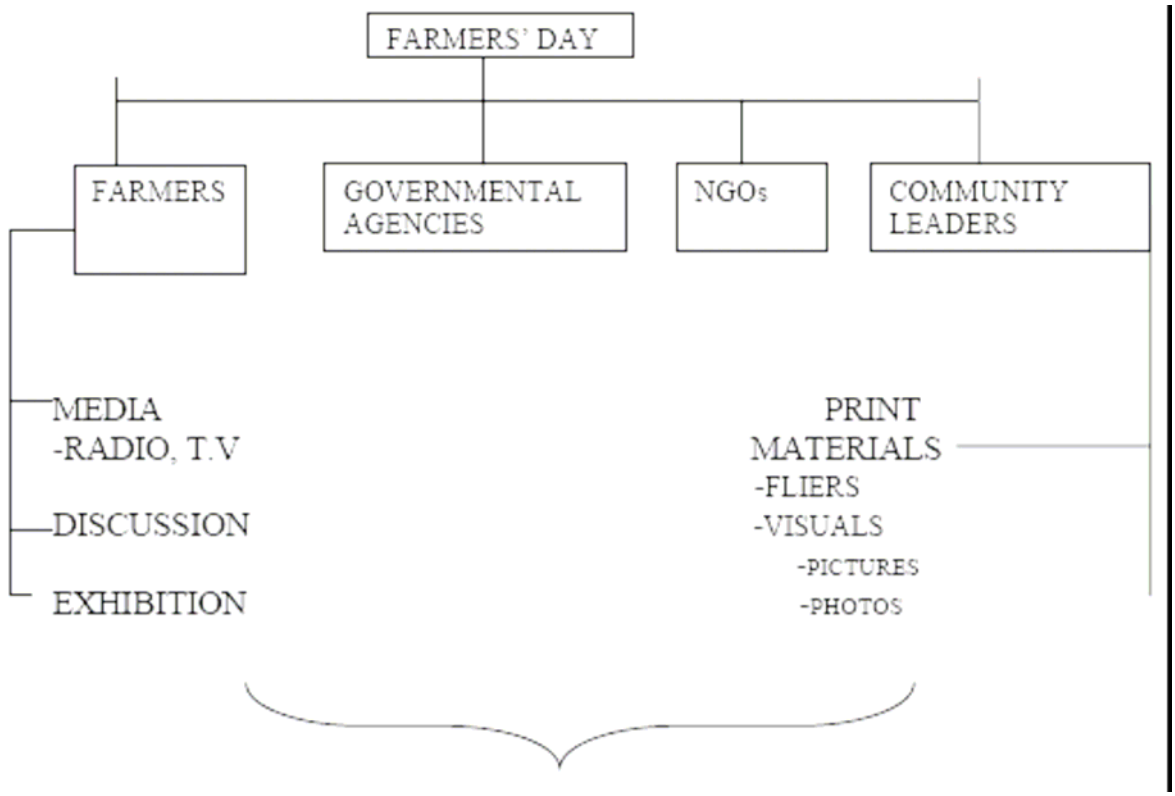
Comments on the plan:

- Food for thought: Publishing symposium results in the press.
- There is a chance to publish a special issue of the East African Journal on Waterman project results.

2.3.2 Dissemination of treadle pump drip irrigation set for women farmers

The outcome of group two was explained based on the following two graphs:





Comments on the plan:

- The plan is applicable to the gender award project.
- There is a challenge of getting the female farmers to the Farmers' day having their responsibilities at home. Conditions for the Farmers' day should therefore favour the participation of women.
- There is a need to look for financial resources.

2.3.3 Sub surface dam, as a water harvesting structure

Taking this case study in Abala Woreda as their example, group three explained another way of dissemination.

Joint objective definition are:

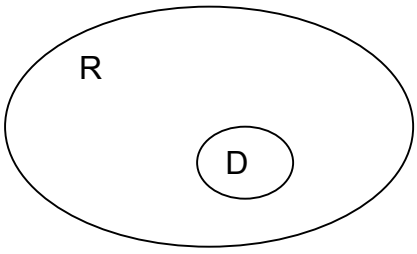
- Identification of the target group: selecting relevant farmers and sites
- Creating a platform with influential people, co-operatives, line departments, NGOs
- Project priority and objective definition
- Conducting research
- Verification for feasibility

Large scale dissemination can be done through:

- Training
- Demonstration
- Field Days
- Exchange Visits
- Farmer To Farmer Communication
- Publications (leaflets, etc)

The risks and assumptions have to be definde.
Participatory Monitoring and Evaluation

Conclusion:
Dissemination should be a sub set of research as shown in the diagram below (as mentioned in the outcome of the “World café”).



Comments on the plan:

- The first phase of this project, including the dissemination, is financed. However, farmer to farmer communication is not yet financed.

2.3.4 Improving water quality at household level in the Oromyia Regional State

This project in the water management on household level with woman as the target group was the demonstration example of group four.
The general goals of the project were:

- Supply (multiple uses)
- Sanitation
- Quality Services

Four partners were involved within the project:

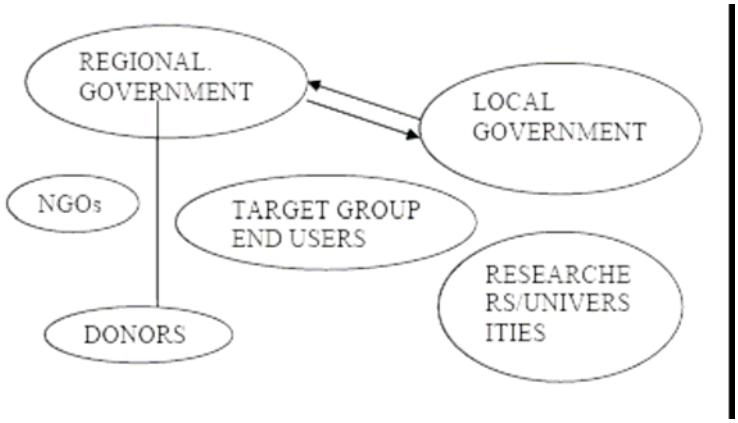
- Regional Government
- JICA
- NGOs
- External Consultants

So far the above study is completed.

The next step is to do dissemination:

STAKEHOLDER	**RESPONSIBILITIES/ACTIVITIES**
Water Resources Bureau (Regional Government)	Coordination of workshop that is, launching workshops; (on scientific, information and introduction to the technology) with other partners.
Local Government	Local workshops at the district level.
NGOs	Support to dissemination of technology. Direct contact with communities
DONOR (JICA) local workshop/training of trainers, TOT.	Funding and Follow up activities e.g evaluation Technical support
RESEARCHER(S)	Training of trainers Use of Participatory Approach

The following graph shows how the information should be distributed:



That the information reaches the target group is next to actual use of the technology and an impact assessment the main aim.

Comments on the plan:

- The more the number of players and targets the more difficult it is to disseminate
- Partners need to share expectations and goals.

2.3.5 Improving Small Scale Irrigation water management technology

Group five discussed different dissemination plans for seven groups of end users to reach the goal of a successful adoption of technology:

Small Scale Farmers Farmer field day with training of DAs. Demonstration field. (model farmers) Farmer field (Peer To Peer)	**Medium and large scale farmers** Policy briefs Workshops
Policy makers Workshops Policy briefs Stakeholder consultations	**Private Enterprise** Networking Workshops Policy briefs
NGOs Guidelines/ manuals Workshops Leaflets Video materials	**Research and academicians** Direct beneficiaries(farmers) Research stations/fields Farmers' field
Indirect benefits (Private Practitioners) Publications Conferences Models (Physics-Math)	

Comments on the plan:

- The above dissemination is being used by Egerton University.
- There are no major differences in disseminating the different kinds of research and technologies.
- The private sector is a key target in disseminating information
- Next users of research are usually NGOs, policy makers, etc. while the end users are usually farmers and local communities.
- Dissemination should not be linear but diverse ways should be explored.

2.4 Final Remarks

2.4.1 Symposium highlights and key points by Dr. Seleshi Bekele

Dr. Seleshi summarized the symposium in a powerpoint presentation, starting with a look at the agenda setting and the organization of the event.

60 participants from 30 institutions and seven different countries attended the WATERMAN symposium. A high participation of females (22%) was achieved, as well as the brining together of people from different backgrounds:

- Academicians (Graduate Assistant – Professors)
- Researchers
- Practitioners
- Development workers
- Students

The opening included a good explanation of the symposium and Prof. Schneider gave a recapitulation of;

- Project goal
- Objectives
- What has been achieved and what hasn't?
- The various process undertaken. For example, workshops, the selection of project plan and gender awards, and the pertinence of this symposium

The first interactive session was about "Learning from Examples". The three parallel sessions were based on true and actual examples on relevant WRM issues and gave excellent opportunities to see how various dissemination mechanisms could be used. Tim Hess presented the contents of the three past WATERMAN workshops and presented lessons learnt and good points along with challenges experienced. He also explained the IWRM principles and stakeholders involved in the Project.

Within the "Market Place" session about 24 posters on nine topics were displayed. All topics related either to water or dissemination of knowledge.

The "Open Space" session took place in parallel to the Market Place and offered participants an opportunity to put forward topics of their choice for discussion. At the start not all participants were familiar with this approach and proactive to nominate themselves. However, once topics started everybody debated the issues and the discussions were very interesting:

- Some approaches to dissemination were put forward and discussed in detail.
- Knowledge exchange took place: E.g.: Tran's boundary water resources issues were raised and discussed

The introduction to "Project Plan and Gender Award" by Prof. Willibald Loiskandl provided a good understanding why these particular individuals were given awards. These sorts of activities seem to be very useful mechanisms to encourage young professionals. Unfortunately the award appeared to be limited to Hawassa and Haramya Universities in this instance. Future opportunities should expand scope.

The session called "World café" focused on key issues regarding putting research in to use. To disseminate information in a sufficient way, three major points have to be considered:

- Over 30 different approaches were listed. These could be sorted out based on target groups and stakeholders.
- Challenges. Over 12 listed for consideration in research design.
- Complex interactions. Weak links have to be identified in effective planning of disseminations.

Questions were also raised in relation to the Ethiopia and East Africa context.

The last session of the symposium "How can we use what we have learnt" enabled participants to think through how to apply the various techniques, which had been discussed. It also included reflection on the 14 topics which were discussed during the workshops.

As closing remarks Dr. Seleshi pointed out the following:

- Dissemination is of equal value to knowledge generation.
- End users can be variable: Therefore the target is to find various mechanisms, of which many were demonstrated during this symposium.
- The partnership of the project was an excellent approach to bring together different groups.
- It is important to sustain this platform through identifying future projects and collaborating opportunities.

2.4.2 Way forward and closing by Prof. Dr. DI. Willibald Loiskandl

Dear participants,

In my opinion we had an interesting two days together. The emphasis is on “together” as a central goal of WATERMAN is to bring people together. At the end of the day I hope that our project co-operation has gained enough momentum to continue to bring people together and that WATERMAN will not be a one off event.

Bringing people together is not possible without a strong commitment from those who had to organize this symposium. I would like to call upon Prof. Schneider to express our gratitude to Dr. Seleshi and Nadia. One person I would also like to name who worked very hard to organise this event was Dominik (Thank you!).

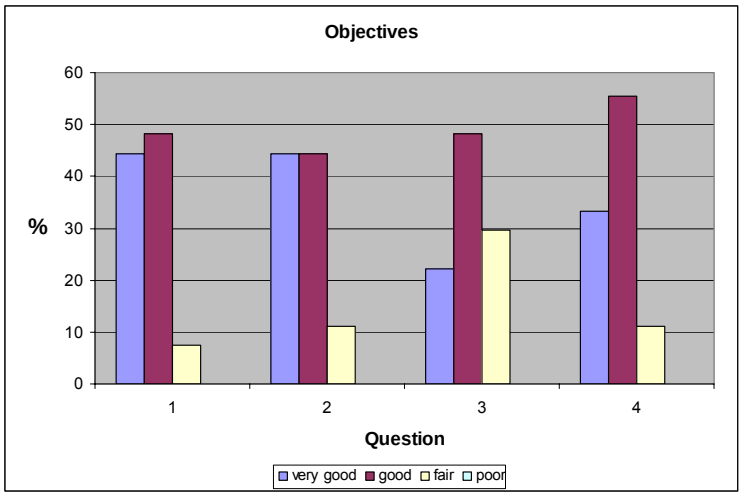
Dr. Fentaw stated in his welcome address that knowledge is wisdom and knowledge needs to be disseminated. I would like to add to this again from the Ethics of Freshwater Use: “There is a fundamental truth which I would like to emphasize … the water supply does not run dry when it is drawn from the well of human wisdom”. I hope all of you will have enough water in the future and that we use our resources with care.

At the end of this symposium I thank you for your active participation. I wish you all the best for your future work and life and also a safe journey to wherever you have to travel.

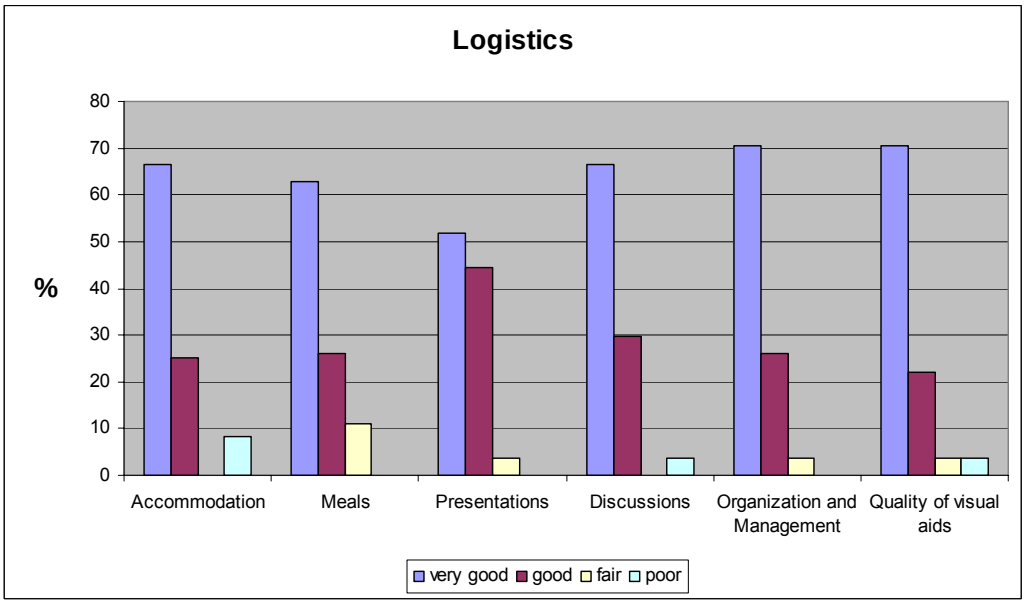
It is more difficult to close the symposium than to open it. But it is my duty and I know you have other things to do. Again, thank you for participating and I declare the workshop as closed.

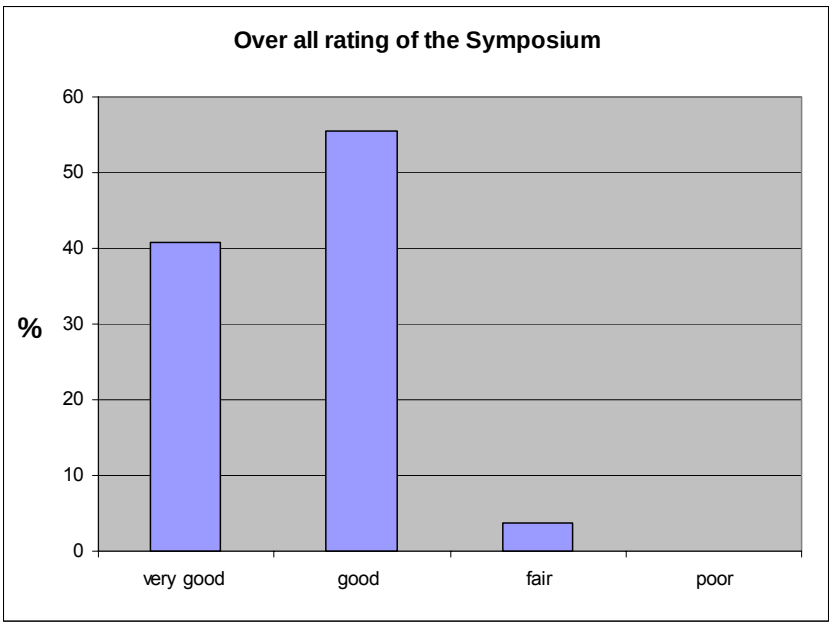
Thank you

3 Evaluation



Question #1:
Create a space and opportunity for the presentation, discussion and planning on innovative ways to disseminate research results.
Question #2:
Bring together WATERMAN project partners, other organizations involved in knowledge generation, sharing and application, as well as key stakeholders to share knowledge, experiences, insights and ideas on bridging the gap between research and use.
Question #3:
Through the design of the symposium itself, expose all participants to cutting edge science and research results through use of particular approaches.
Question #4:
Involve key actors in discussion and activities to explore opportunities and mechanisms though which sharing of research results towards greater uptake and impact may be enhanced.





Comments

- Some stakeholder-groups should have been more strongly represented: decision makers, politicians (regional & federal government) community groups representatives, key actors from agricultural and technology dissemination, private sector, media, rep. of education.
- It would have been an advantage if more of the participants of the symposium were those, who participated in the previous workshops.
- A session to receive feedback from the end user should have been included.
- Few technologies have been presented.
- The report should be sent to all participants.
- I am quite sure that the symposium will improve dissemination.
- The symposium was a very good opportunity to bring various stakeholders together.

4 Annex

4.1 Agenda

Time	Activity	Description	Personnel/Location
Day 1: Looking at key examples			
8:00 - 8:30	Registration		Nigist/Tsegereda
SESSSION I: SETTING THE STAGE (PLENARY in LARGE AUDITORIUM)			Chair: Seleshi Rapporteur: Dominik
8:30 - 9:00	Opening and introduction	-Welcoming all to the Symposium -Explaining purpose/goal of Symposium -Running through Agenda and housekeeping	Willibald Loiskandl
9:00 - 9:30	Official Opening	Official Opening of Symposium	Austrian Ambassador and Czech Ambassador
9:30 -10:00	Introducing the WATERMAN project	Presentation of the WATERMAN project concept, process results, and lessons learnt.	Jean Schneider
10:00 - 10:30	Tea/Coffee		In front of cafeteria
SESSION II: LEARNING FROM EXAMPLES			Chair: Benedict Mutua Rapporteur: Cara Flowers
10:30 -12:00	Learning from key approaches used in WATERMAN project 3 parallel sessions:	Showcase of examples and facilitated discussion around three main dissemination themes	See each session: A, B, C
	A : Innovative print materials **LARGE AUDITORIUM** **Chair: Benedict Mutua** **Rapporteur: Cara Flowers** 1) Use of visual displays- example from	**B: Innovative interactions** **MEETING ROOM (IPMS Buidling)** **Chair: Dr. Jean Schneider** **Rapporteur: Kamila** 1) "Farmer Perception on the	**C: Innovative media** **SMALL AUDITORIUM** **Chair: Svat Matula** **Rapporteur: Dominik** 1) A water balance simulation

20 min 20 min 20 min	Handwashing and sanitation project (Ato Mulugeta -Awassa) 2) Diagrams for sharing and explaining technologies- sand filter example (Ato Alemayehu- Awassa) 3) Poster for explaining technology-example of plastic mulch for saving irrigation water (Dr. Tena-Haramaya)	productivity of water in Agriculture: A case study at Debre Kidane watershed, Tigray, Ethiopia. (Dr. Tadesse-Mekelle) 2) Approches to dissemination used by PELUM (Stella Lutalo-Pelum Uganda) 3) How research links with Policy in Water and Sanitation Sector (Mark Harvey-DFID/Ministry of Water Resources)	model for teaching and learning - An Ethiopian case study. (Cranfield University) 2) The use of Maps, Databases and Information Networks for Dissemination" (Aster Denekew-IWMI) 3) Use of Documentary film in Promoting Water and Sanitation Practices (Simret Yasabu-RiPPLE)
12:00 -12:30	Lessons learnt from the WATERMAN project-Overview (PLENARY)	This presentation provides an overview to lessons learnt from the WATERMAN project.	Tim Hess LARGE AUDITORIUM
12:30 -12:40	Introduction of session after lunch-Open Space activity and Market Place (PLENARY)	To explain how session after lunch will work-so it can begin in groups straight after lunch	Nadia Manning LARGE AUDITORIUM
12:40 - 14:00	LUNCH		Cafeteria
SESSION II: Learning from examples…continued			Nadia- Open Space Dominik-Market Place
14:00 - 15:30	**Open Space** (SMALL AUDITORIUM and TRAINING ROOM) These Open Space slots will be available for people to hold discussions or share knowledge and experiences of their own. Topics can be put up on a notice board in the 6 slots available. Open space slots will be 30 min each-one after other- and take place in two	**Market place : Booths and Demonstrations** **(**LARGE AUDITORIUM**)** This session offers opportunities for people to present examples of their dissemination methods or to do dissemination of their research results in marketplace via posters, literature, photos, websites etc.	People can choose during this session to attend particular discussions as well as visit the market place. Marketplace to be set up during lunch in small room and outside if necessary. Open space to be in small and big auditorium.

14:00 - 14:30 14:30 – 15:00 15:00 - 15:30	different rooms. Open Space (30 mins each)		
15:30 - 16:00	Tea/Coffee break		In front of Cafeteria
SESSION III: Project Plan and Gender Awards			Chair: Willibald Rapporteur: Dominik LARGE AUDITORIUM
16:00 - 17:00	Project Plan and Gender Awards (PLENARY IN LARGE AUDITORIUM)	-Introduction of Award part of project -Presentation by Award winners of their projects	
17:00- 17:30	**Reception**	-Held at ILRI- in Garden in front of Cafeteria -Formal presentation of the awards	Willibald Loiskandl FRONT GARDEN OF CAFETERIA
Day 2: What have we learned and how can we use it			
8:30 - 9:00	Welcome to Day 2 and Day 1 highlights		Chair: Svat Rapporteur: Kamila
SESSION IV: What have we learnt?			
9:00 -10:30	**SESSION IV:** What have we learnt?	Identification of lessons (World Café approach) 3 key questions- 3 rounds of 25 minutes	Nadia LARGE AND SMALL AUDITORIUM
10:30-11:00	Tea/coffee		Nigist/Tsegereda
11:00-11:30	Report back from World Café	Each table host to give major points arising from table discussions	Nadia LARGE AUDITORIUM
11:30-12:30	**Plenary Discussion**	Including: • Q&A and comments from World Café • Key Questions from the Chair	Chair: Svat Rapporteur: Kamila LARGE AUDITORIUM
12 :30- 14:00	LUNCH		

SESSION V: **How can we use what we have learnt-** Project planning exercise			
14:00- 15:30	**SESSION V**: **How can we use what we have learnt-** Project planning exercise	* I.d research result/knowledge that is usable either from symposium, your experience/situation/ or in particular groups that want to explore future work * Develop dissemination plan, based on ideas generated during symposium	Chair: Dr. Schneider Rapporteur: Stella LARGE AND SMALL AUDITORIUM
15:30 - 16:00	Tea/coffee		
16:00 - 16:30	Report-back from group work on Project Planning		Chair: Dr. Schneider Rapporteur: Stella
16:30 - 17:00	Symposium Closing: • Summarising of symposium highlights and key points • Way Forward and Close		 Seleshi Willibald

4.2 Participants List

	Name	Institution
1	Willibald Losikandl	BOKU, Austria
2	Jean F. Schneider	BOKU, Austria
3	Dominik Ruffeis	BOKU, Austria
4	Svatopluk Matula	CULS Prague, Czech Republic
5	Kamila Spongrova	CULS Prague, Czech Republic
6	Tim Hess	Cranfield University, UK
7	Cara Flowers	Cranfield University, UK
8	Dessie Nedaw	Mekelle University
9	Nata Tadesse	Mekelle University
10	Atinkut Mezgebu	Mekelle University
11	Fantaw Abegaz	EIAR
12	Tilahun Hordofa	EIAR
13	Makonnen Loulseged	IWMI
14	Nadia Manning	IWMI
15	Seleshi Bekele	IWMI
16	Aster Denekew	IWMI
17	Stella Grace Lutalo	PELUM Uganda
18	Benedicat Mutua	Egerton University, Kenya
19	Mulugeta Dadi	Hawassa University
20	Shemelis Asseffa	Hawassa University
21	Alemayehu Muluneh	Hawassa University
22	Yohannes Tadesse	Haramaya University
23	Melese Tesfaye	Haramaya University
24	Tena Alamirew	Haramaya University
25	Desalegn Chemeda	Haramaya University
26	Sead Ahmend Swalik	Haramaya University
27	Boja Mekonnen	Haramaya University
28	Tigist G/Michael	Haramaya University
29	Mitslal G/Slassie	Haramaya University
30	Abraham Asnake	World Division Ethiopia
31	Girma Taddese	ILRI
32	Solomon G/Selassie	ILRI
33	Wagnew Ayalneh	ILRI
34	Alan Duncan	ILRI
35	Ranjitna Puskua	ILRI
36	Richard Fulss	ILRI
37	Shimelis Dejene	Jimma University, Ambo College
38	Abdulkadir Adem	BOARD
39	Bekele Abaire	CRS/Ethiopia
40	Kifle Abegaz	CRS/Ethiopia
41	Gezahegn Alemu	JICA
42	Moges Worku	U.S. Embassy
43	Getachew Tikubet	ICIPE

44	Gashaye Chekol	EOC - DICAC
45	Melaku Yirga	Gambella Water Bureau
46	Lemessa Mekonta	Oromia Water Resource Bureau
47	Melaju Mekonen	Melaferia Consulting Engineers
48	Abubeker Ali	FAO
49	Nega Emiru	CARE International Ethiopia
50	Adinew Abate Retta	Kobo Girana Valley Dev. Program
51	Pineau Mathias	Swiss College of Agriculture
52	Awa Elisa Cascao	King`s College of London
53	Abera Mekonen	MoWR
54	Michael Abebe	MoWR
55	Mark Harvey	MoWR
56	Sihine Tekle	Debre Zeit Agricultural Research Center
57	Zinash Mekonnen	Halcrow
58	Simret Yasabu	Water Aid/RiPPLE
59	Mahider Tesfu	Water Aid Ethiopia