

Improving Agricultural Water Management in Africa

SUDAN

WORKSHOP REPORT

Support to the pre- and post-CAADP compact process for
improved agricultural water management

Thematic Workshop on policy and investment in AWM

• FAO-AgWA • Khartoum • the Sudan



9-10 December 2015

Contact Person

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1. Background and justifications

The project “TCP/INT/3404: Support to the pre- and post-CAADP compact process for improved agricultural water management” aims at enhancing food and energy production in four African countries (Swaziland, Malawi, the Sudan and Egypt) by focusing on the improvement of Agriculture Water Management (AWM) and mainstreaming AWM in national frameworks and processes. The objectives of this project are in line with the Comprehensive Africa Agriculture Development Programme (CAADP), which provides a common framework for stimulating and guiding national, regional and continental initiatives for enhanced agriculture productivity in Africa.

COMESA has requested FAO’s technical support to “assist Egypt, Malawi, the Sudan, and Swaziland to foster AWM through the effective implementation of the CAADP compact and post-compact process, the refinement of national agricultural water development strategies, and the alignment to national strategies for food security strategies and programmes”. The project has the following outputs: (1) Evidence-based analysis and identification of AWM priorities at national level is conducted and national capacity is built in the Sudan in the context of the CAADP-compact process to tackle in particular knowledge, institutional, governance, regulatory and financial barriers to sustainable AWM; (2) Evidence-based analysis and identification of AWM priorities at national level is conducted and national capacity is built in Egypt in the context of the CAADP-Compact process to tackle in particular knowledge, institutional, governance, regulatory and financial barriers to sustainable AWM; (3) A broad National Agriculture Investment Plan (NAIP) is refined for Egypt to specifically re-emphasize AWM, detailing out specific programs that will achieve sector goals, objectives and targets as stipulated in the CAADP compacts; (4) Investments projects in agricultural water are defined for Malawi and bankable project documents are prepared to foster the investment flow into high-priority areas, based on the NAIP; (5) Partnerships in Egypt, Malawi, the Sudan, and Swaziland fostered around common AWM priorities at national level, including in cooperation with Pillar institutions; (6) increased regional integration, coordination, and partnership between the Partnership for agricultural water for Africa (AgWA) and COMESA.

The two main outcomes to be presented and discussed in this workshop are the Institutional and Policy Analysis of Agricultural Water Management and the National Investment Profile. The authors of these outputs will present their reports which will subsequently be discussed by all participants. The feedback will be included in the finalization stage of these reports.

Another main outcome of this workshop is training in the use of the online Diagnostic Tools for Investment (DTI). AgWA has launched these DTI online in order to offer an integrated platform to systematically assess, at country level, trends in use of water resources, the policy and institutional frameworks and the investment needs and potential to boost the sustainable use of water. The tools work in synergy to provide a clear representation of all dimensions relevant to the use and management of water resources for agriculture development and hydropower generation.

2. Venue and Organization

This report refers to the 2-day Workshop organized by the Food and Agriculture Organization of the United Nations (FAO) and AgWA as part of the CAADP compact process for improved agricultural water management. The workshop was organized in the frame of the project “TCP/INT/3404: Support to the pre- and post-CAADP compact process for improved agricultural water management” and targeted all stakeholders involved in AWM, whether policymakers or farmer representatives. The workshop ran from Wednesday 9th of December until Thursday 10th of December 2015 at the Grand Holiday Villa hotel in Khartoum, the Sudan.

3. Participants and trainers

3.1. Participants

The 47 participants included representatives from governmental and non-governmental agencies and donors dealing with agricultural water resources management, and representatives from relevant research or higher education institutions.

Name, institution and position of participants

Name	Institution
Lebdi Fethi	FAO, Addis Ababa
Eise van Maanen	FAO, Rome
Abdi Jama	FAOR, Sudan
Asmakhidir Mokki	Ministry of Agriculture and Forestry
Davalsdam Abdelgadir	Ministry of Agriculture and Forestry
Amir B. Saeed	University of Khartoum
Heba Tarrig El Naium Mon	Ministry of Agriculture and Forestry
Arafatae Kafy	Ministry of Agriculture and Forestry
Inaam Babiker M.A.	Ministry of Investment
Fattma Youssef	Ministry of Agriculture and Forestry
Mahasin Abdalla Mohammed	Ministry of Finance
Sofie Mahmoed Abd El Gader	Ministry of Finance
Omema Mohammed Al Ragman	Ministry of Agriculture and Forestry
Isam Ali Hussein	Ministry of Livestock
Etimad Hamad El Rol	Ministry of Agriculture and Forestry

Balla Ahmed	HWRIFE
Hassabelnabi Musa	Ministry of Water Resources, Irrigation and Electricity
Farhien Abd El Kiomme	Ministry of Water Resources, Irrigation and Electricity
Alawia Abdel Hamid	Ministry of Water Resources, Irrigation and Electricity
Ahmed Habur Subaki	IFAD
Mohamed Hassan Dubara	FAO
Abbas Saad	SUNDA
Hodia Ahmed	Ministry of Agriculture and Forestry
Ali Mohammed	Ministry of Water Resources, Irrigation and Electricity
Omer Abdeluhab	CTC-Group
Ali Abdelaziz Soha	Consultant
Hamid Faki	Consultant
Abdelrahman K. Osman	Consultant
Babiker Abdallah	Consultant
Amal Mohamed F.H.	Ministry of Agriculture and Forestry
Mohamed El Hay Sirelkhatim	IFAD
Elhadi Elsidey Yousef	Ministry of Agriculture and Forestry
Farhien A. Kiom	Ministry of Water Resources, Irrigation and Electricity
Hola Arafat Alfadil	Ministry of Water Resources, Irrigation and Electricity
Fattma Yousuf	Ministry of Agriculture and Forestry
Abdellah Abdeldaem	Ministry of Finance

Ahmed Abdelsalame Abdelmajeed Fadal	Ministry of Livestock
Isam Ali Hussein	Ministry of Livestock
Zohaira Mohammed	Ministry of Water Resources, Irrigation and Electricity
Omema Mohamed	Ministry of Livestock
Heba Tarig Elnaieem Mohamed	Ministry of Agriculture and Forestry
Samsan Khaielseid	Range & Pasture
Salma Yousef Shalawani	Ministry of Agriculture and Forestry-ICD
Magda Abdellatif	Ministry of Livestock
Nadia Ahmed Ismael	Ministry of Agriculture and Forestry
Eman Elhayeb Abdelkram	Ministry of Environment
Farahien A. Kiom Ghanem	Ministry of Agriculture and Forestry

3.2. Trainers

	<p>FAO, Addis Ababa</p> <p>Lebdi Fethi</p> <p>AgWA Coordinator</p>
	<p>FAO, Rome</p> <p>Eise van Maanen</p> <p>Water Economist</p>

4. Programme

The first day was mainly dedicated to the two main outputs of this project, i.e. the Institutional and Policy Analysis (IA) and the National Investment Profile (NIP). The first day consisted of 10 sessions of approx. 30 minutes. Both the NIP and IA were presented by the authors and subsequently discussed in groups by all participants in order to finalize this research. The project and AgWA were also presented by Fethi Lebdi.

The second day consisted of a training session in the use of the online version of the DTI; i.e. the Context tool, Institutional and Policy tool and the Financial tool. This day consisted of six sessions of approx. 45 minutes; each tool was presented after which the participants got assignments to directly bring this training into practice on the laptops in front of them.

On Wednesday December 9th the workshop was opened with welcoming remarks from Abdi Jama (FAOR of Sudan) and Yagoup Ahmed Eltayib (State Minister of Agriculture and Forestry), and continued with the presentations of Ali Abdelaziz and Hamid Alfaki on respectively the IA and the NIP. After these presentations by the authors there was room for a Q&A session.

After the lunch break all participants came together to discuss the outcome of the IA and NIP. The focus in both discussions, moderated by Abdelrahman Osman was on the way forward using the knowledge acquired in this project. The main question asked was what should be done to improve AWM in Sudan, and how FAO/AgWA can assist in this. This discussion concluded with the following proposed pilot project:

- Plot of land in Gezira scheme (1000feddan) will be selected for demonstration of improved water use efficiency and improved water productivity through:
 - agricultural water management
 - improved crop husbandry practices
 - Main stakeholders of the project are:
 - Ministry of Water Resources
 - Ministry of Agriculture
 - Agricultural Research Corporation
 - Farmers Association

After the first day of this workshop the FAO team debriefed Yagoup Ahmed Eltayib (State Minister of Agriculture and Forestry) and discussed this proposed project. The relevance of this project, to improve AWM in the Gezira Scheme was confirmed and both parties (FAO and Government of Sudan) agreed to collaborate and to find a donor.

The training on the second day given by Eise van Maanen (FAO-Rome) consisted of theoretical sessions and practical sessions. The theoretical and practical sessions took place in the meeting hall of the FAO office in Sudan. In groups with a maximum of three participants a laptop was shared to follow the lecture during the theoretical sessions and to practice during the practical sessions. Since this session is highly interactive all feedback on the functioning of the DTI was also discussed.

On Thursday December 10th we closed the workshop with a lunch at the FAO office in Sudan.

At the closing ceremony Eise van Maanen gave an overview of the workshop, and addresses of thanks and appreciation. The participants filled the evaluation forms in after the workshop.

	Day 1	Day 2
	<i>Presentation and discussion of NIP and IA</i>	<i>Training Online DTI</i>
Morning	Registration of participants Welcoming remarks Presentation of AgWA Presentation of the project Presentation of Institutional and Policy Analysis by Ali Abdelaziz Presentation of National Investment Profile by Hamid Alfaki Q&A session	Introduction into online DTI Theoretical training session of Context tool Practical session of Context Tool Theoretical session of Institutional and Policy tool Practical session of Institutional and Policy tool Theoretical session of Financial tool Practical session of Financial tool Closing remarks and way forward

Lunch break

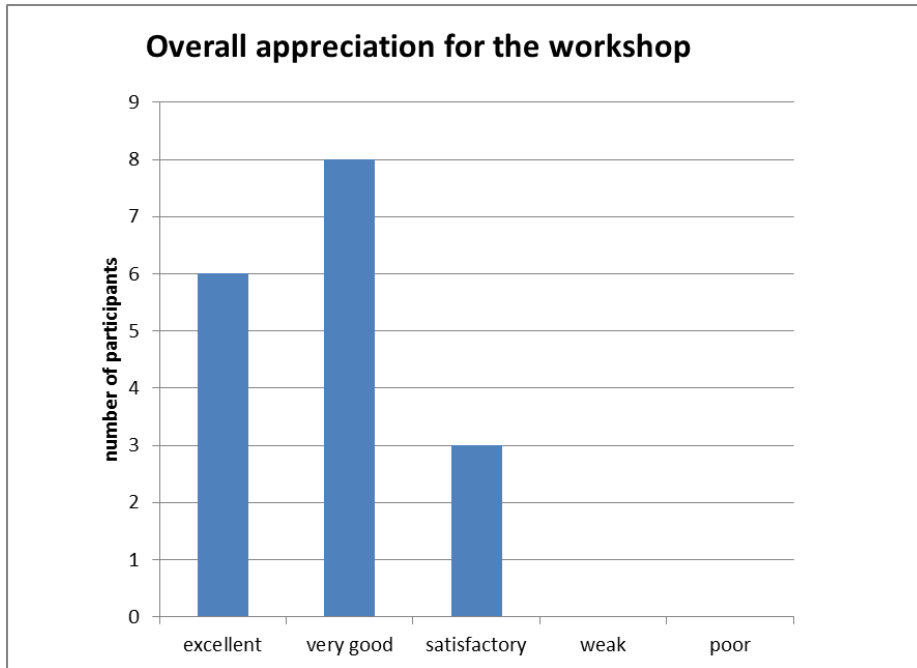
	Day 1	Day 2
Afternoon	Remarks and introduction into discussion Group discussion on Institutional and Policy Analysis Group discussion on the National Investment Profile	

5. Evaluation

An evaluation form (Annex 1) was distributed to the participants on the last day of the training course and anonymously completed.

5.1 General aspects of the workshop

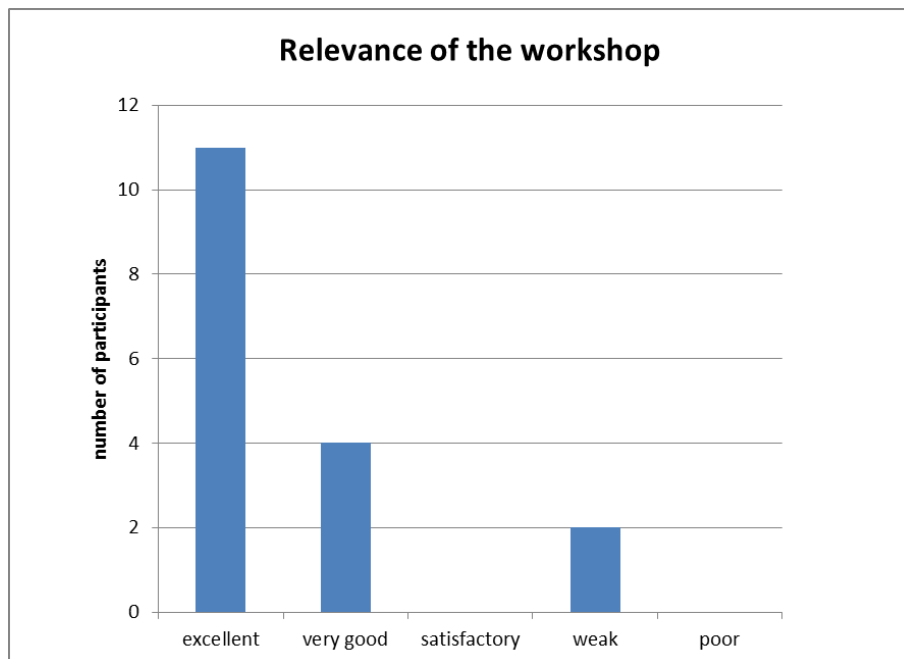
- **Overall appreciation of the workshop**



Comments:

- Very good
- It is much appreciated
- Would be better to circulate the papers earlier before the workshop
- A lot of appreciation

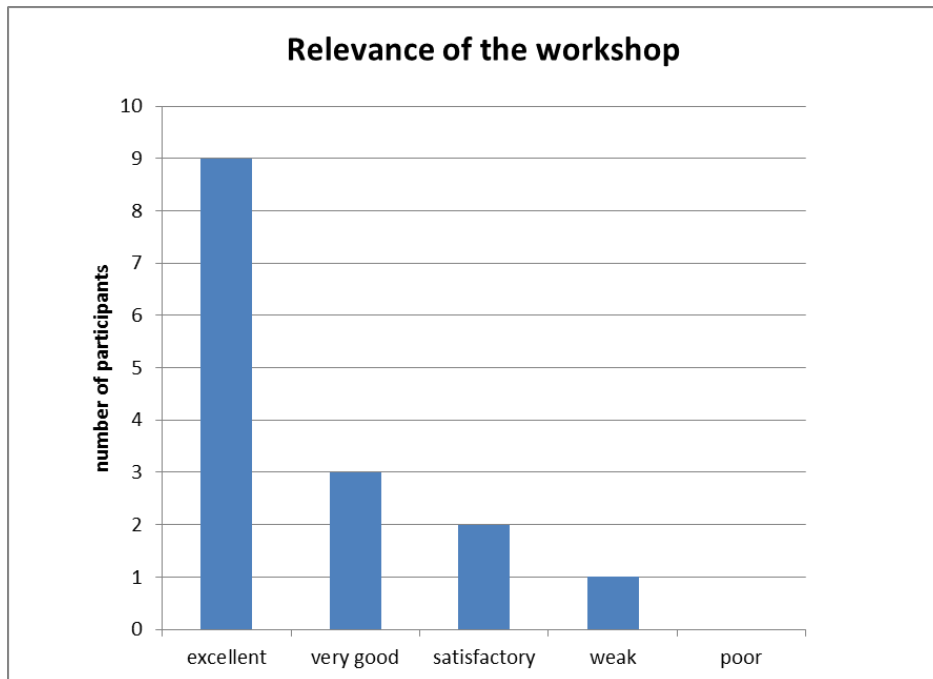
- **Relevance to expectations of AWM development and investment in the Sudan**



Comments:

- It is relevant and much appreciated to have this at this time
- Needs more awareness with farmers
- For myself it is very good (I'm civil engineer) as well as for the Ministry
- I expect the more on the engagement of AWM to CAADP in Sudan
- It is relevant

▪ **Relevance to your job**

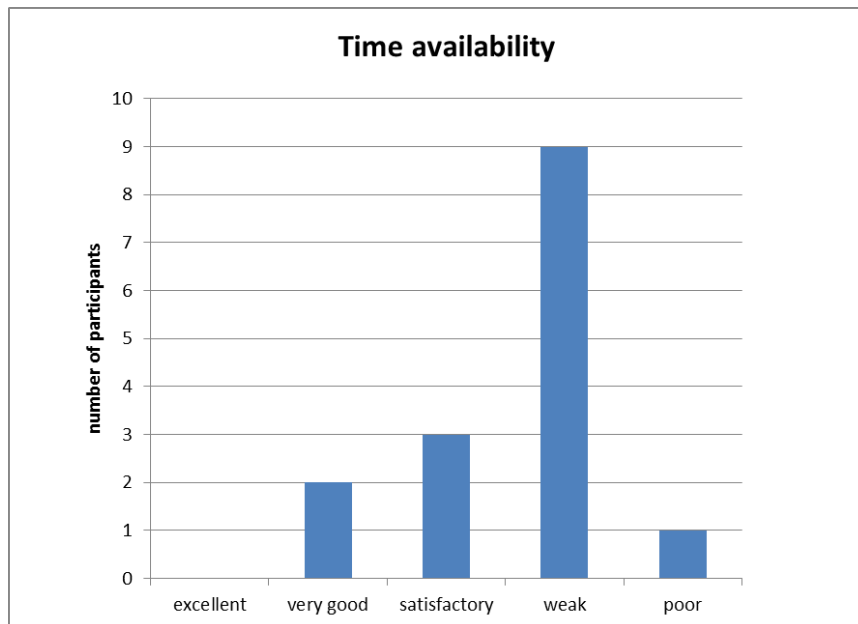


Comments:

- Highly relevant to inform decision makers about this information
- Capacity building
- I am interested in cropping WR and water management
- Strongly relevant to my job
- Suitable
- Very good

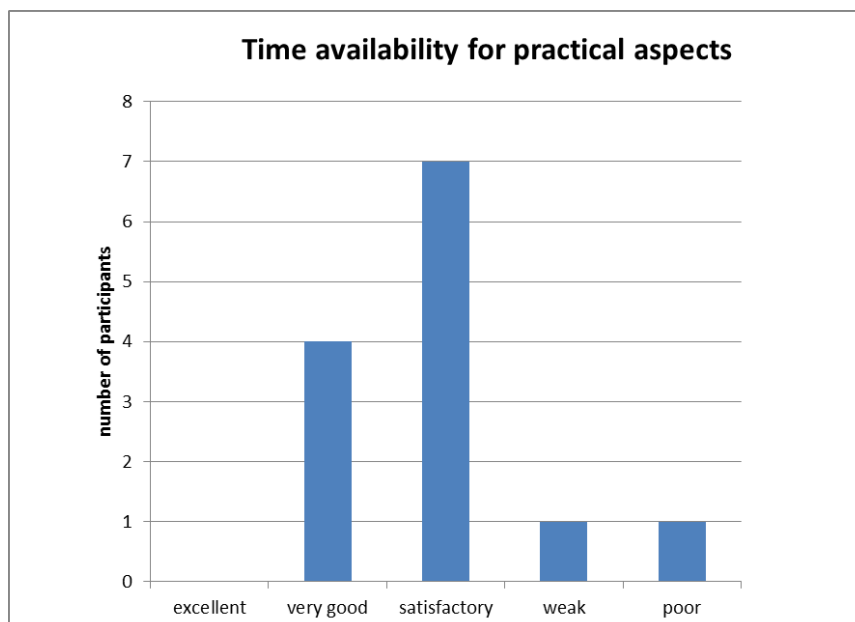
- **What next do you expect after this workshop?**
 - To develop a concept note
 - More training in a workshop
 - Capacity building
 - Capacity building and training
 - Another workshop
 - Implementation of tools on the ground
 - Promote investment in AWM
 - To prepare a proposal for the pilot project for El Gezira scheme
 - Training and capacity building
 - Committee/working group
 - Implementation of the project as a pilot

- **Length of workshop, time availability for practical sessions**



Comments:

- Need to have more practice
- Very short
- There is need to be longer
- Ok
- Too short
- Good
- Need more practice
- Short

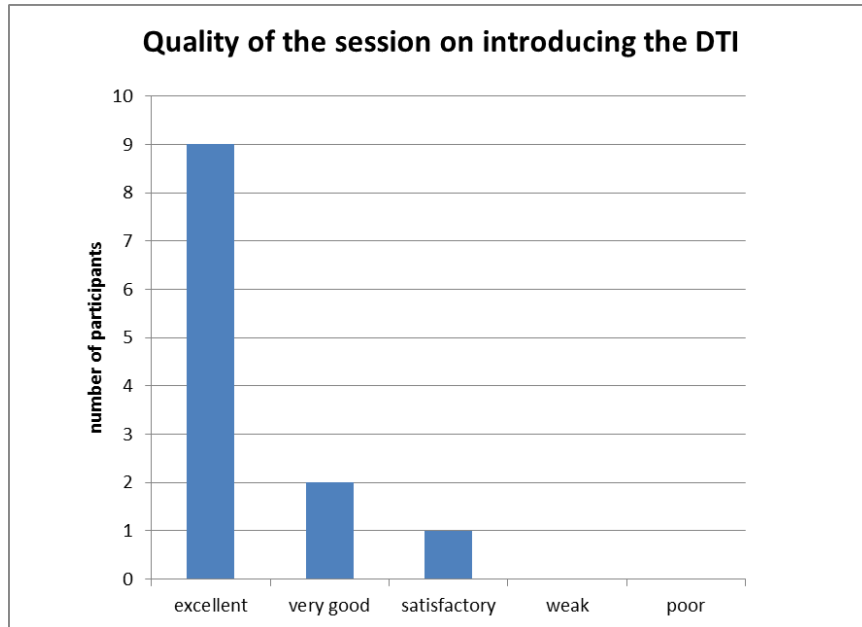


Comments:

- Need for more time

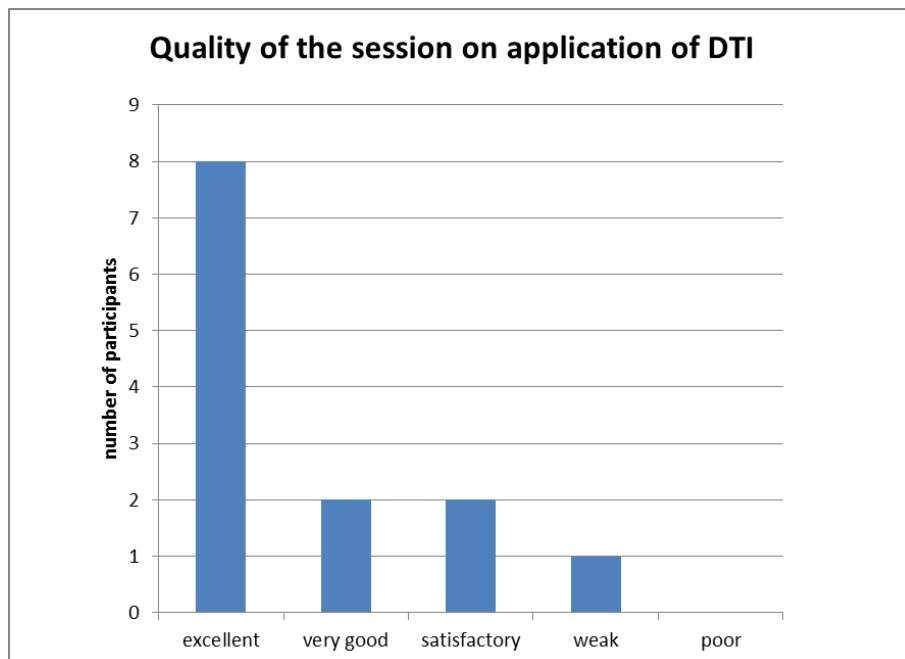
- The time not enough and no stable internet connection
- Ok
- Too short

5.2 Training on DTI



Comments:

- Very good
- Good

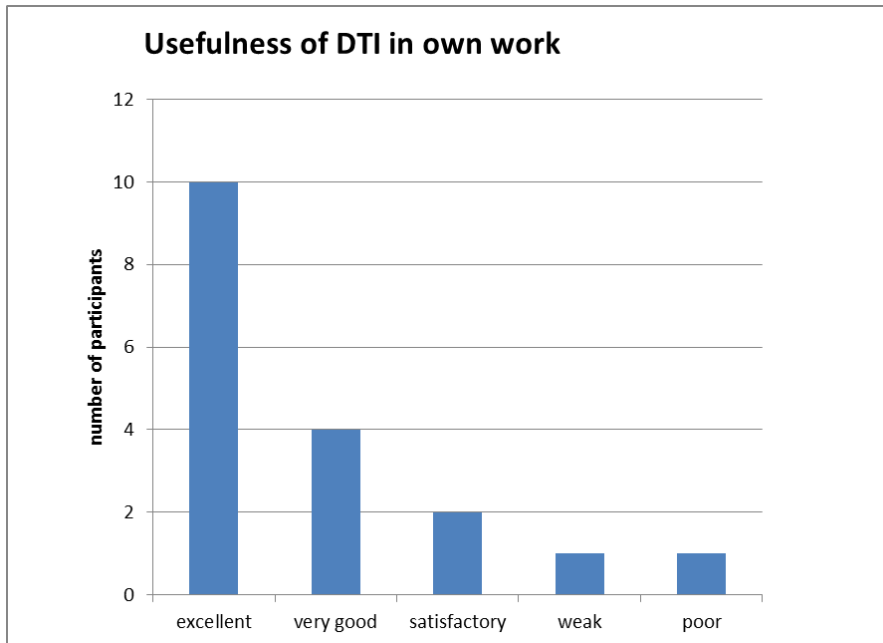


Comments:

- Good

5.3 DTI software

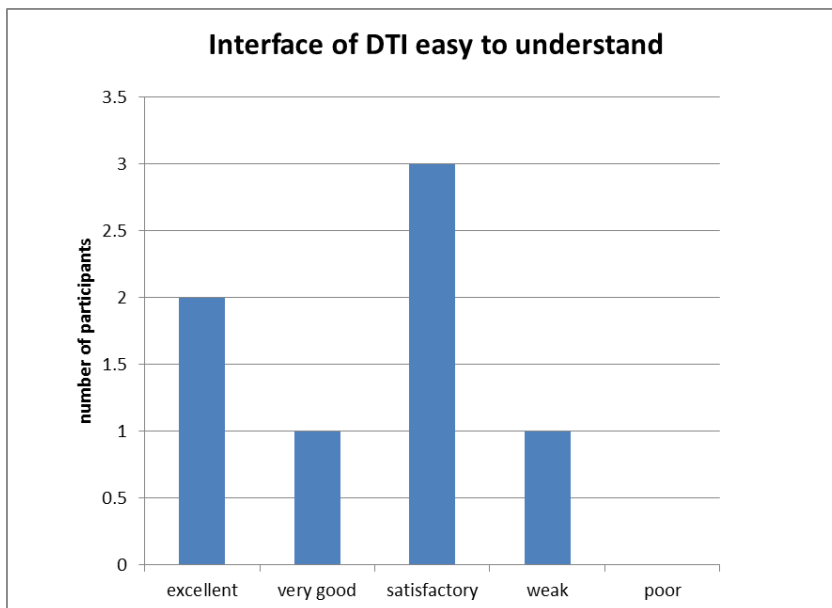
- Usefulness



Comments:

- Yes, my first job is to work on it
- To take best management for all resources

- Interface



5.4 Most difficult part of the software to understand/use

- No comment

5.6 What were the best things about the course

- Reports
- Opportunity to share knowledge

5.7 What were the weaknesses about the course

- Training needs more time

5.8 Additional comments

- We hope to exchange knowledge through Ministries

Comments by the conductors of the workshop

The overall impression was very good. The show up rate was very high and all participants actively participated. During the workshop (first day) there was enough time for all participants to give their input. This input was, in combination with both the NIP and the IA, used for the debriefing of the State Minister of Agriculture and Forestry at the end of the first day. This State Minister agreed to work on a concept note to find donors for the pilot project in El Gezira scheme. The AgWA team was very satisfied with this workshop. The training in the use of the DTI on the second day was unfortunately too short; participants arrived fairly late and we spent more time on the discussion of the first day, which of course is also very useful.

6. Pictures



The consultants (Dr Ali and Dr Hamid) together with the moderator and the FAOR (Abdi Jama) preparing for the workshop



Registration of participants in the Grand Holiday Villa



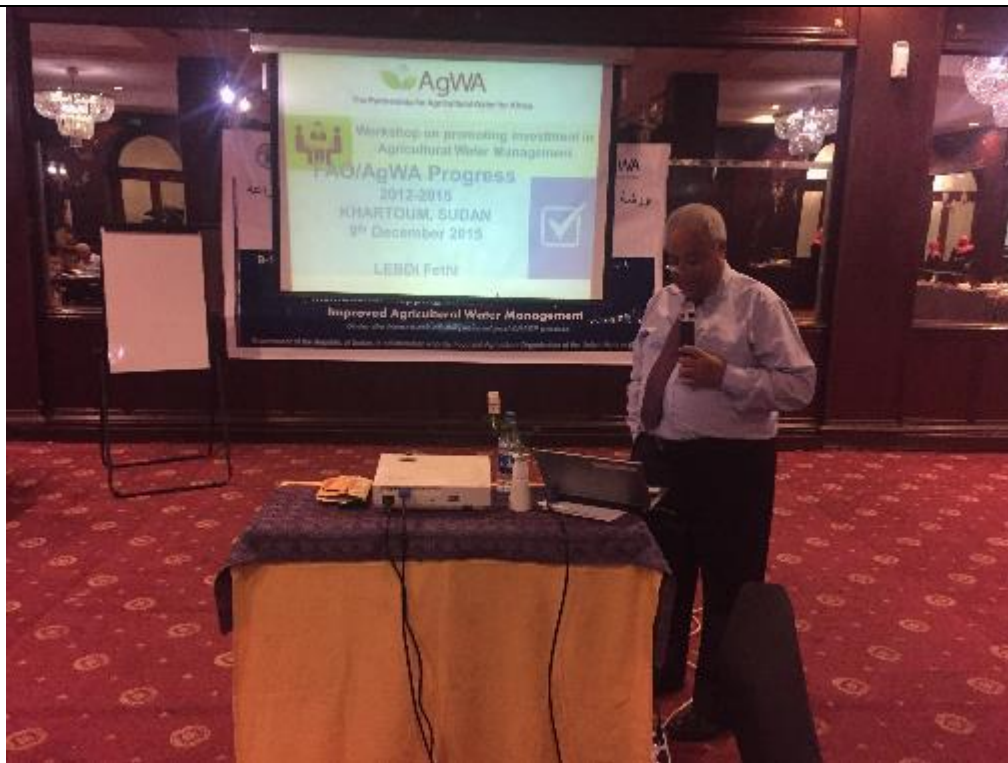
The validation workshop, ready for opening



Welcoming remarks by Abdi Jama (FAOR Sudan) and Yagoup Eltayib (State Minister of Agriculture and Forestry) covered by national TV



From left to right, Abdi Jama, Yagoup Eltayib and Adel Yousef (Acting Undersecretary of Agriculture and Forestry)



Fethi Lebdi (AgWA coordinator) giving a presentation on AgWA



All eyes on the consultants who wrote the NIP and IA



Dr Ali presenting the outcome of the IA



Q&A session



Discussion on the IA moderated by Prof. Abdelrahman Osman



The training on the second day in the online use of DTI at the Meeting Hall at FAO country office



Fethi Lebdi discussing the DTI

ANNEX I. Evaluation form

	<p style="text-align: center;">Promoting investment in Agricultural Water Management in EL SUDAN</p> <p style="text-align: center;">FAO/AgWA</p> <p style="text-align: center;">9-10 December 2015</p>
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Evaluation form

Rating key

<p style="text-align: center;">1-Poor / 2-Weak / 3- Satisfactory / 4-Very good / 5-Excellent</p>

1. General aspects

Question	Rating 1 to 5	Comments
Overall appreciation of the workshop		
How relevant was the workshop to your expectations for AWM development and investment in Egypt?		
Main recommendation for AWM development and investment in Egypt for the short and long term (Please write comments)		
How relevant was the workshop to your job?		

What next you expect after this workshop (please write comments)		
How was the length of the workshop (1.5 days)?		
How was the time		
How was the time availability for practical points?		

2. Individual sessions of DTI workshop

Session	Quality of the sessions		Comments
	Theory	Exercises on PC	
Introduction to DTI			
Data, Applications, Conclusions, way ahead			

3. DTI software

Question	Rating 1 to 5	Comments
Will DTI be useful in your work?		
Is the DTI interface easy to understand?		

4. Which is the most difficult part of the software to understand/use?

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5. What were the best things about the session?

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6. What were the Weaknesses of the sessions?

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7. Additional comments

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ANNEX III. Synthesis of the group discussions

I. Synthesis from discussion on Institutional and Policy Analysis

- Necessary for 1 million feddan plan: formulate a plan for groundwater sustainability plan, quantity and quality.
- 10 000 WUAs in Egypt, so Egypt needs capacity building for water users. So ‘capacity building for water users’.
- Egypt suffers from pollution, pollution control is essential. Focusing on awareness, updating and enforcement of laws, encourage private sector to manage solid waste. Ask private sector to join to minimize pollution from solid waste.
- Rehabilitation of irrigation infrastructure, of course no possible to do all of Egypt. But select pilot projects and to see whether Egypt is there.
- Enhance the role of the private sector in AWM.
- Improve cooperation between MALR and MWRI.
- Agricultural union versus the agricultural public entities.
- Eliminate overlapping between different stakeholders and institutions, more training and knowledge transfer, eliminate overlapping responsibilities also in same Ministry, support NGOs and civil society in the field of AWM.
- Enhance woman participation.
- Enhance Principal Bank for Development and Loans.
- Regulations revise and reviewed.
- Enforcement of law, no unified system to enforce law.
- Strengthening the role of NGOs in protecting the environment, there is no responsibility and role now for civil society.

- FAO/AgWA needs to provide capacity building.

What's most missing:

Harmonization of interest among Ministries.

Technical skills.

Land reclamation (35 percent of land is affected), need to work on land reclamation to keep up with overpopulation.

Drainage system, fishing farms use drainage water but polluted. They go back to farming but soil is infertile.

Implement pilot projects with the most promising innovative techniques, and through spill-over effects have this technology spread over Egypt.

Agricultural mechanization.

Water harvesting techniques in the North, there is potential but there's a shortage of budget.

No clear cut plan for drought management, but this is a huge problem in Egypt. No clear roadmap for drought management. We need to differentiate between water scarcity and drought management. Need for investment is high. Drought is only concerning rain-fed agriculture.

Drought is no also source of migration.

AgWA should visit and see what the necessities are.

Three pillars:

1. Most promising agricultural water solution (most promising technical and institutional solution) to reach potential of water and land resources on irrigated and rain-fed area at national level.
2. Resilience to drought, in rain-fed area in North-West coast.
3. Develop a version of the Switzerland project for Egypt.

II. Synthesis from discussion on National Investment Profile

Mainly the validity of the data and structure of the report were discussed.
