



Food and Agriculture  
Organization of the  
United Nations

**AgWA**  
Partnership for agricultural water for Africa



Workshop to support the pre- and post-CAADP compact process for improved agricultural water management  
TCP/INT/3404

## Improving Agricultural Water Management in Africa

# SWAZILAND

## 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 • Ezulwini • Swaziland



**27-28 October 2015**

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## **1. Background and justifications**

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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 agricultural water management (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 Swaziland 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 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 online Diagnostic Tools for Investment (DTI). AgWA, the Partnership for agricultural water for Africa 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**

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The present report refers to the 2-day Workshop organized by FAO and the Partnership for Agricultural Water for Africa (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 to all stakeholder involved in AWM, whether policymakers or farmer representatives. The workshop ran from Tuesday 27<sup>th</sup> of October until Wednesday 28<sup>th</sup> of October 2015 at the Happy

Valley Hotel in Ezulwini, Swaziland.

### 3. Participants and trainers

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#### 3.1. Participants



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

#### Name, institution and position of participants

Name	Position	Institution
Lebdi Fethi	AgWA Coordinator	FAO, Addis Ababa
Eise van Maanen	Water Economist	FAO, Rome
Bongani Masuku	Land Use specialist	Ministry of Agriculture
Musa Mkhonta	Irrigation specialist	Ministry of Agriculture
Bhekisisa Mkhonta	Irrigation design specialist	Ministry of Agriculture
Freddy Magagula	Fisheries specialist	Ministry of Agriculture
Similo Mavimbela	Researcher	Ministry of Agriculture
Bafana Matsebula	Civil Engineer	The Swaziland Water and Agricultural Development Enterprise (SWADE)
Ruth Mamba	Water resource specialist	Irrigation districts of Siphofaneni, Emendla, Ekuphila & Malkerns
Linda Hlophe	Economist	Ministry of Finance
Melusi Mbuli	Environment specialist	Swaziland Environment Authority
Bianca Dlamini	Environment specialist	Swaziland Environment Authority
Zipi Nellela	Researcher	University of Swaziland

Bheki Ginindza	M&E specialist	FAO, Swaziland
Thobile Khumab	Environmental consultant	
Akeem Tijani	Consultant	
Shadrack Ndzimandze	Environmental specialist	Ministry of Agriculture
Carlos Gandarillas	Rural&Dams Engineer	Ministry of Agriculture
Patrick Dlamini	Soil surveyor	Ministry of Agriculture
Zamokuhle Nolangamandla	Energy assistant	Ministry of Natural Resources and Energy
Cephas Moonga	CAADP communications officer	COMESA

### 3.2. Trainers

	<p>FAO, Addis Ababa</p> <p><b>Lebdi Fethi</b></p> <p>AgWA Coordinator</p>
	<p>FAO, Rome</p> <p><b>Eise van Maanen</b></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 three of the DTI, the Context tool, Institutional and Policy tool and the Financial tool. This day consisted of 6 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 Tuesday 27<sup>th</sup> of October the workshop started with the presentations of Frederick Msiska and Mathews Madola on respectively the IA and the NIP. After these authors presented their work 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. Main points discussed were the lack of political will causing ineffective institutions and the lack of investment in operation and maintenance (O&M).

The training on the second day given by Eise van Maanen (FAO-Rome) consisted of theoretical sessions and practical sessions at the computer. The theoretical and practical sessions took place in a well-equipped room of the Happy Valley Hotel in Ezulwini. 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 Wednesday October 28<sup>th</sup> we closed the workshop with a lunch at the hotel in Ezulwini.

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 through email.

	Day 1	Day 2
	<i>Presentation 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 Frederick Msiska Presentation of National Investment Profile by Mathews Madola 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	
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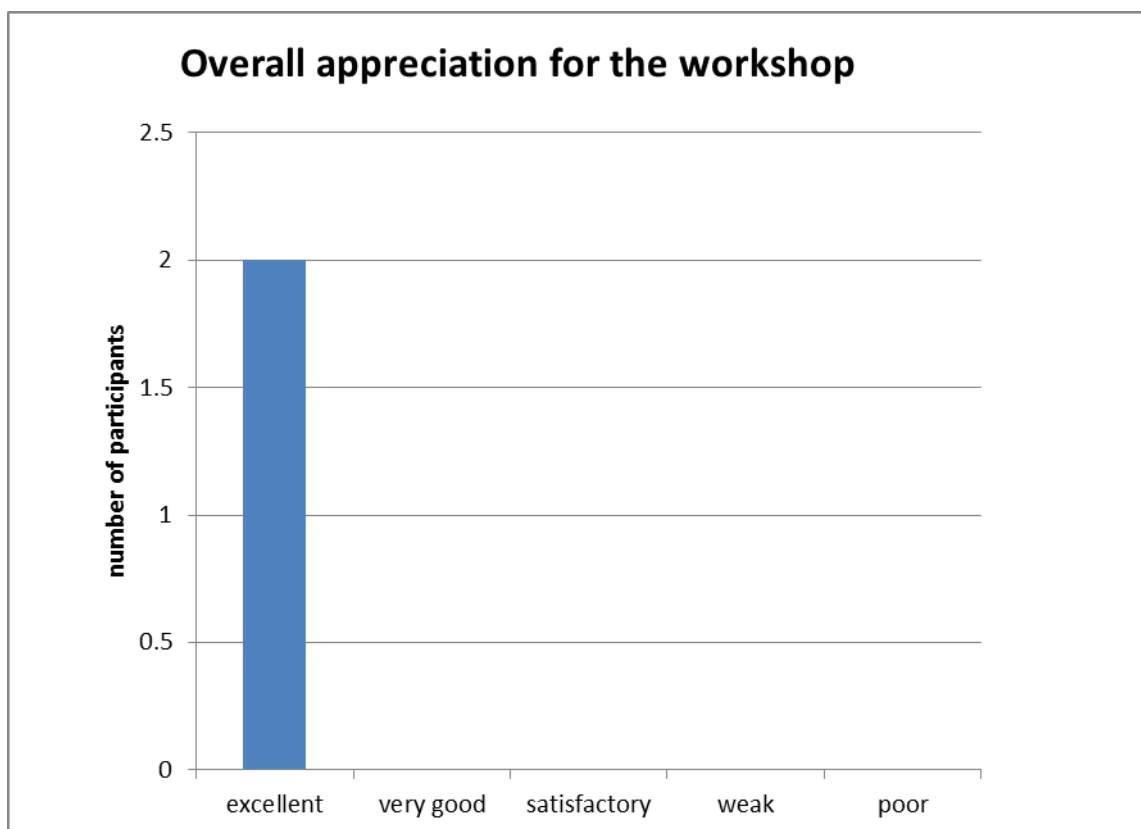
## 5. Evaluation

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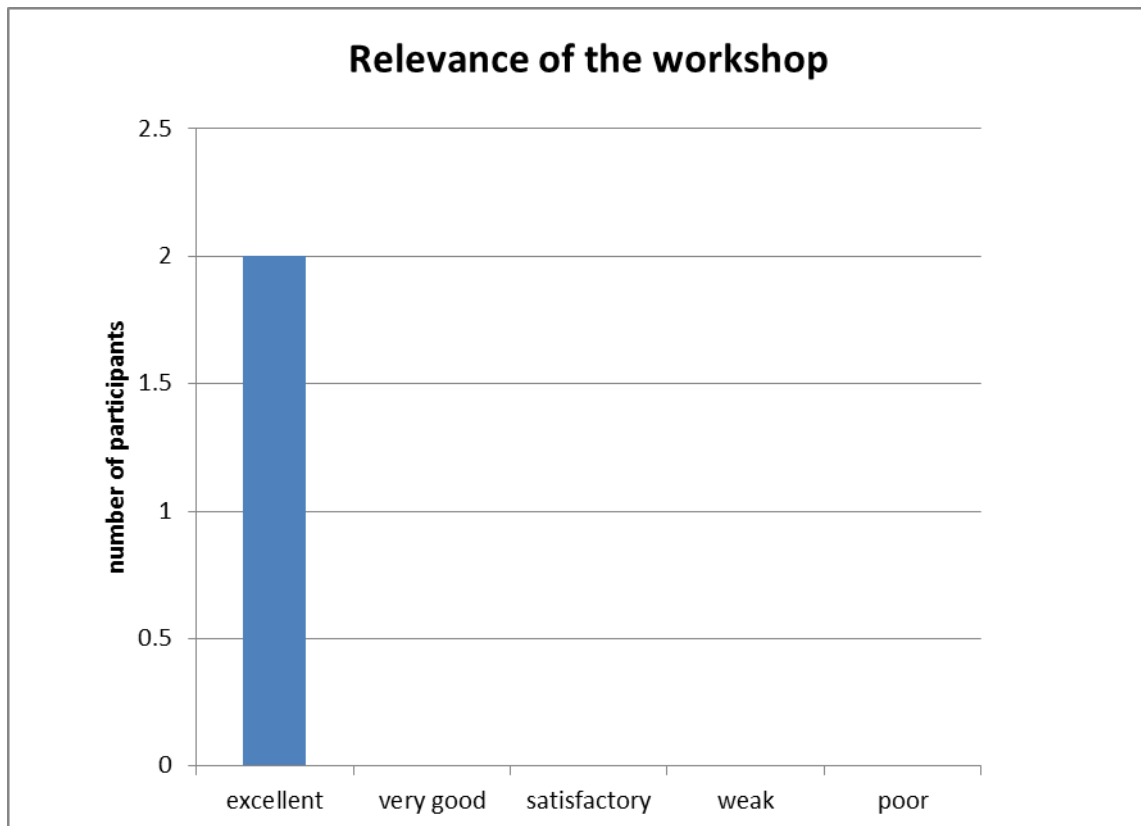
An evaluation form (Annex 1) was distributed to the participants on the last day of the training course and anonymously completed.

### 5.1 General aspects of the workshop

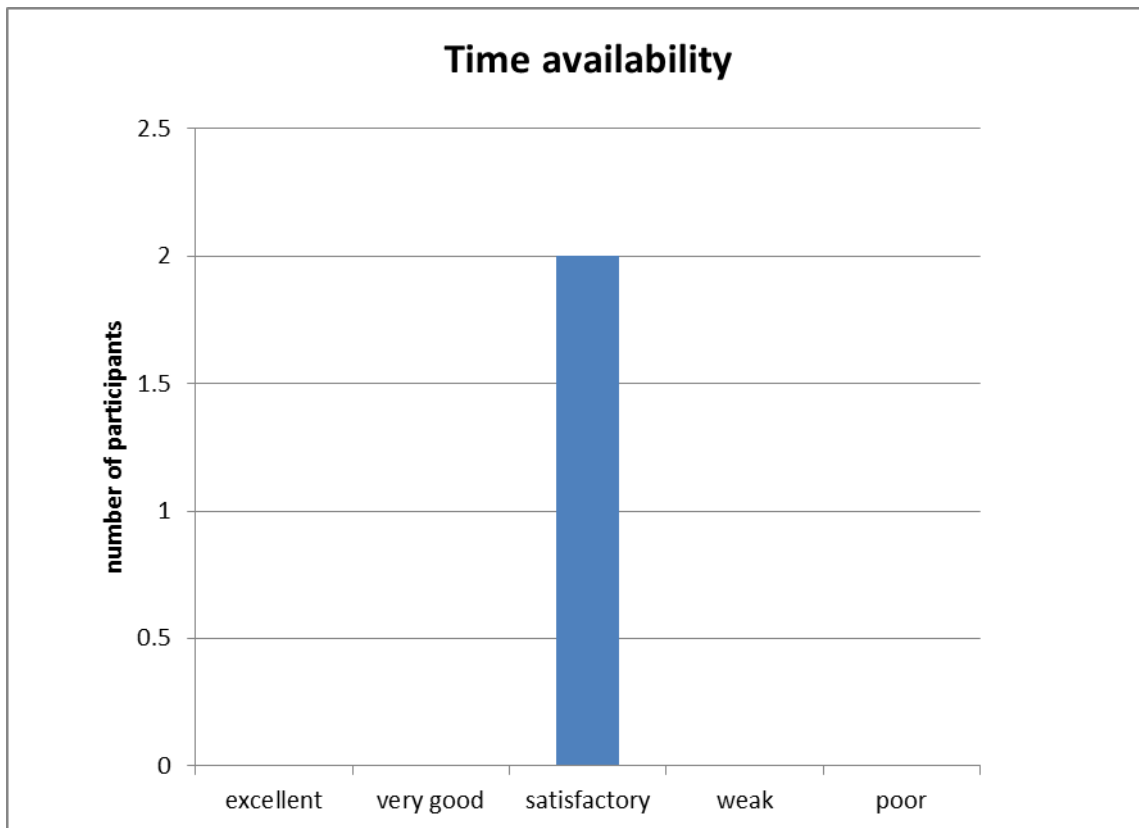
- Overall appreciation of the workshop



- **Relevance**



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

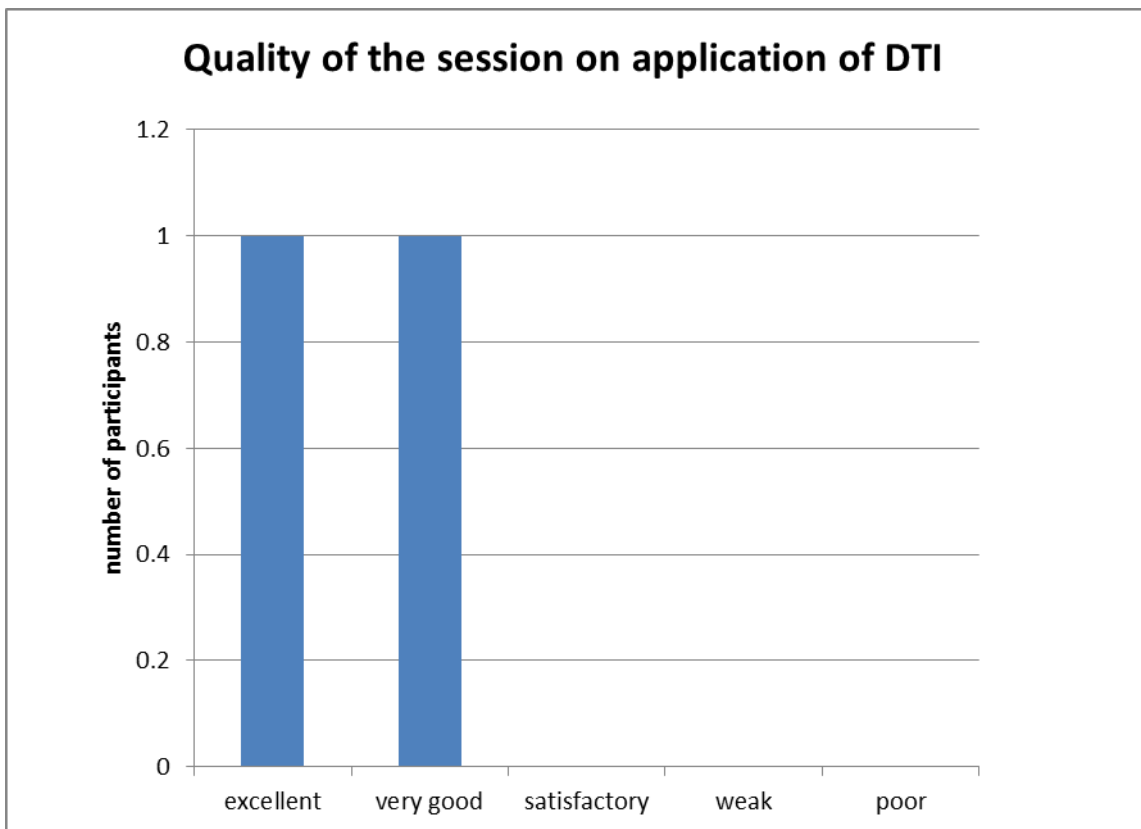
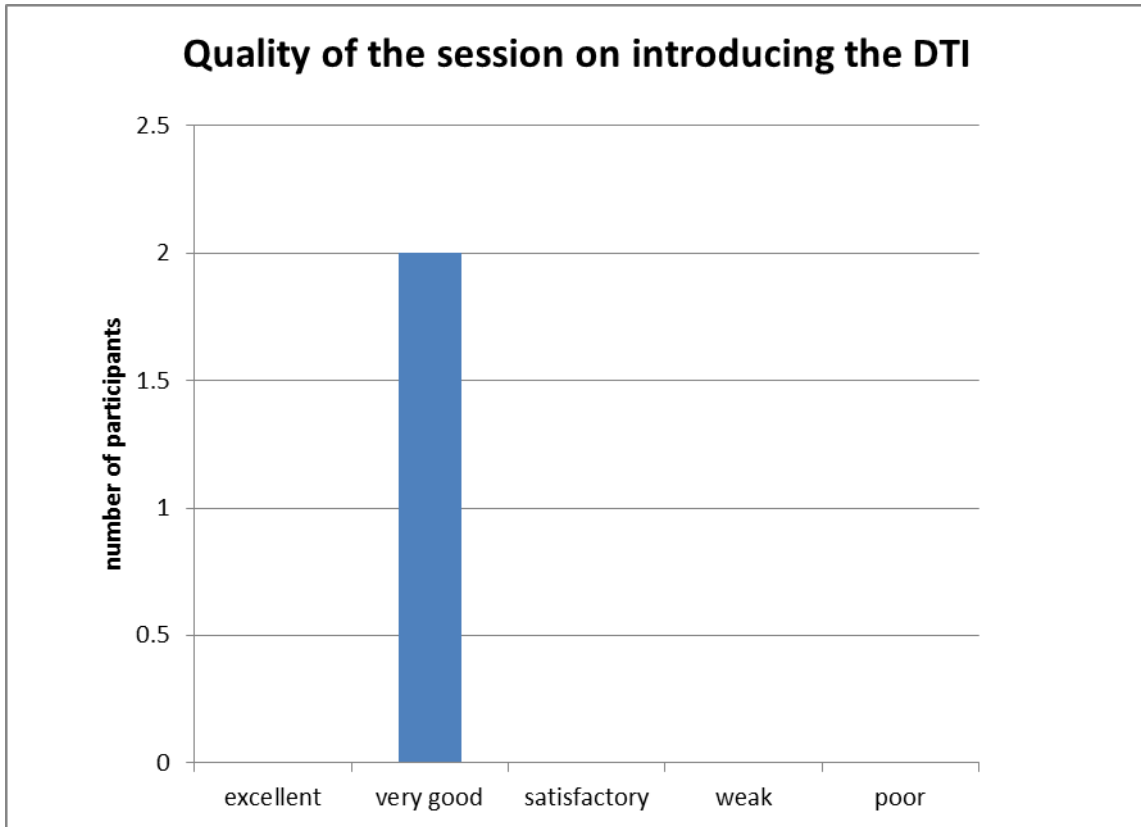


Comments:

- time not enough
- DTI training too short

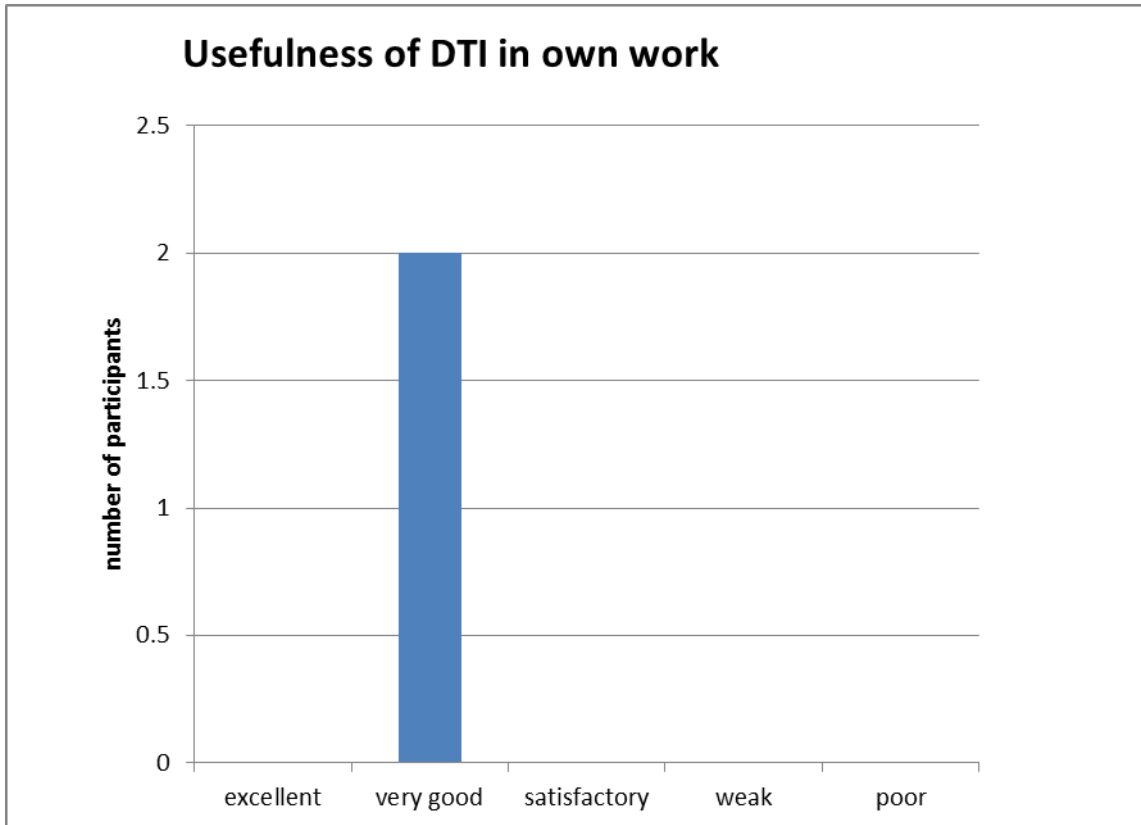
## 5.2 Training on DTI



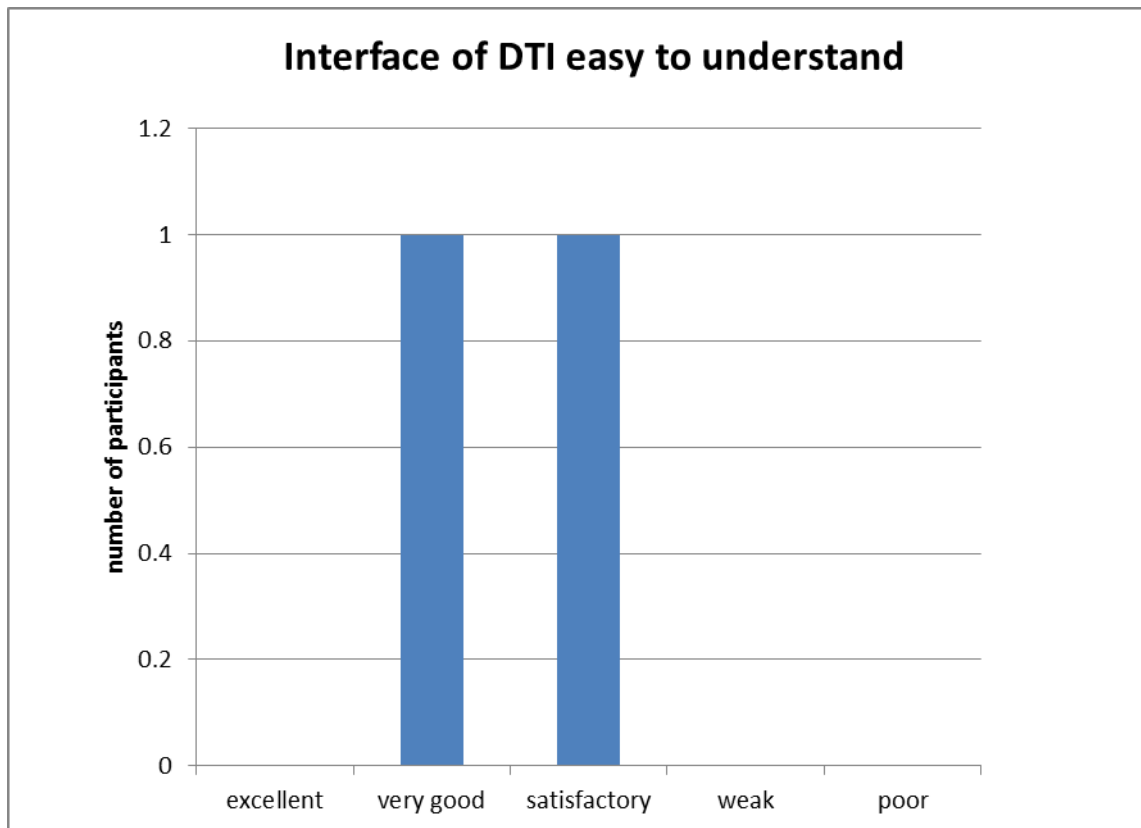


### 5.3 DTI software

- Usefulness



- Interface



#### 5.4 Most difficult part of the software to understand/use

- Coming up with parameters for each scenario.

#### 5.6 What were the best things about the course

- The outlook forward solving some of the investment challenges in the sector and planning what potentially can be done about them.
- Presentation, questions.

#### 5.7 What were the worst things about the course

- Time allocated to the online tool training was too short.
- Practical.

#### 5.8 Additional comments

- Allocating more time to practical.

#### Comments by the conductors of the workshop

The overall impression was very good. We focused more on the quality of the participants and had a fairly small group of participants. However the discussion sessions on both the IA and NIP were extensive and all participants interacted actively. The training session on the second day was also a success; all participants were paying attention, making notes and asking questions. Most important feedback was the length of the training on the second

day; we need more time to give the training.

## 6. Pictures



**Welcoming remarks by Mr Kumwembe**



**Fethi Lebdi (AgWA coordinator) presenting AgWA and this project**



**Akeem Tijani presenting the National Investment Profile he wrote**



**Training by Eise van Maanen in the use of the DTI**



**Bheki Ginindza (FAO, Swaziland) following the training in DTI on laptops**



**Eise van Maanen explaining the use of the online DTI on the laptops that were distributed amongst participants**



**Emelda Mapule Magagula (consultant Institutional and Policy Analysis) together with Bheki Ginindza discussing the online DTI**

## ANNEX I. Evaluation form

	<p style="text-align: center;"><b>Capacity development for DTI</b></p> <p style="text-align: center;"><b>Swaziland</b></p> <p style="text-align: center;"><b>27-28 October 2015</b></p>
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## Evaluation form

### Rating key

**1-Poor / 2-Weak / 3- Satisfactory / 4-Very good / 5-Excellent**

### 1. General aspects of the DTI workshop

Question	Rating	Comments
	1 to 5	
Overall appreciation of the DTI workshop		
How relevant was the workshop to your job?		
How was the length of the workshop (1.5 days)?		
How was the time availability for theoretical session?		
How was the time		



availability for practical session on the computer?		
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**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 sessions?**

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**6. What were the worst things about the sessions?**

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## 7. Additional comments

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## ANNEX III. Synthesis of the discussion groups

### I. Synthesis from discussion on Institutional and Policy Analysis

- A major recommendation during this session was to develop a National Agriculture Masterplan for Swaziland.
- The overlap of mandates of institutions involved in AWM is a real problem and paralyzes decision-making.
- Farmers should be more intensively be consulted, when no farmer (representative) consultations are taking place, policies will get stuck in the implementation phase.

#### **Are grass root level stakeholders consulted within policy making.**

- No, grass root level stakeholders are not consulted when making and changing policies. The consultations are done at the level of farmers union / federation.

#### **How to increase the link between research and policy making and grass root level farmers.**

- Conduct training and capacity building initiatives for farmers and extension services staff members.
- Improve extension services approach when reaching out to farmers to be more interactive and to stimulate demand and input from farmers.
- Establish dialogue platforms including road shows to increase level of communication and engagement between extension services and farmers.

#### **Is the private sector involvement the pathway to the development of AWM?**

- No, private sector engagement is not recommended as a pathway for development in AWM. This is because the current environment is not conducive for the active engagement of the private sector. The sector must remain a government led sector in terms of investment.

#### **How to stimulate data collection, sharing and release.**

- Give an incentive for data collection and sharing by introducing payment by clients who require data. Even government ministries and departments must start charging for data in order to encourage and facilitate data collection and sharing.
- Build awareness among stakeholders on data collection and record keeping. Make stakeholders to appreciate the value of data and encourage proper data collection at the different levels of operations within the sector.
- Strengthen capacity of institutions on data collection by dedicating officers for data and information management.
- Development of data sharing platforms and protocols.
- Conduct training and capacity building for institutions on data and information management.

**Main actions in matrix and prioritize.**

- Develop management information systems for the collection and sharing of AWM information such as river flow data, water storage data, rainfall, weather information and improve communication networks even at the rural development areas to create links with all stakeholders.
- Development of an Irrigation Master Plan.
- Development of an Agriculture Act.
- Mainstream climate smart agriculture in policies, programs in the AWM sector.
- Determine the country's water balance to inform planning for future projects in the sector.

**Is the long term under investment reflected in reality?**

- There is no concern on under investment by the country. The country does have long term plans for investment in the sector, these are not reflected due to the inability by the government to commit funds beyond the 8 year time horizon. There line ministries have plans for future projects but this are not captured in Government plan due to funds not yet secured by government for implementation thus government has not yet committed to fund project.

**How to extend the time horizon of budget planning?**

- There is need to develop long term plans (strategic) for water investment that government can commit to funding. A similar process to the development of the Swaziland National Investment Planning which government can commit to funding the projects even on a longer time horizon.
- Does the focus on cash crops stimulate economic growth and give positive effects or is this focus causing a deterioration on food security and self-sufficiency.
- Yes, the focus on cash crops is stimulating economic growth. The is employment of many Swazi

people in the irrigation farming industry giving people salaries to which they can use to buy the staple food. Also, it is very expensive for Swaziland to grow maize therefore it is a viable option to irrigate cash crops, sell them and get profits to buy the staple food produced cheaply in neighboring South Africa.

- Government intervention in growing the staple food would be required in terms of empowering the highveld and middleveld farmers with subsidized farming inputs in order to improve rain-fed maize productivity.

#### **Other important points raised in the discussions**

- Operations and maintenance of water infrastructure in some ministries is given 3% of the total capital cost. Is this sufficient for operation and maintenance.
- Need to include monitoring and evaluation as an important aspect for all the implemented projects to investigate their impact to draw up good outcomes and identify challenges to inform any necessary changes that can be made to improve the project and future projects.
- A reconsideration of irrigation designs for future projects and possibly change designs of existing projects in order to minimize the use of energy for irrigation by the farmers. There are currently new developments and technologies in the market which can be utilized to minimize the energy bill burden on the farmers. E.g. use of solar pumps, use of low pressure pumps and designing gravity irrigation systems.
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## **II. Synthesis from discussion on National Investment Profile**

- Lifespan of 40 years when calculating the Internal Rate of Return is too long, should be 20 years
- Water use should be charged and should be accounted, especially for sugar cane production as there is no pricing nor accounting for agricultural water use now. There should be an incentive for the sugar cane producers to optimize water use efficiency. Pricing water will also diversify the cropping patterns since sugar cane is water intensive.
- The NIP should not only consider the financial Internal Rate of Return, but also look at the economic rate of return.
- Only sugar cane cultivation is a 'viable' crop, cultivating other crops is not profitable enough
- Projects come and go, no need to worry too much about the short-term horizon of investment planning in AWM.
- There should be more focus on non-sugar crops, what if the EU cuts down the sugar imports anymore? Monoculture entails too many risks.
- Only big corporations benefit from sugar cane cultivation, not the Swazi's themselves.

