Annex 4.7

Proceedings of the project launching workshop

Federal Democratic Republic of Ethiopia

Ministry of Water Resources

Food and Agricultural Organization of the United Nations

Project: Strengthening national water monitoring capacities, with emphasis on agricultural water management (GCP/GLO/207/ITA)

Project Launching Workshop

Proceedings

Ministry of Water Resources
17, December, 2008
Addis Ababa

TABLE OF CONTENTS

0. SUMMARY 3

I. INTRODUCTION 3

II. PRESENTATIONS 4

III. WORKING GROUP DISCUSSIONS 5

3.1 Review of the 6 indicators identified by GIRWI 5

3.2 Review of the database to be established 8

IV. WAY FORWARD 8

ANNEXES 10

Annex 1: Workshop Schedule 10

Annex 2: Opening Speech 11

Annex 3: Key Note Address 13

Annex 4: Findings of the working group deliberations 15

Annex 5: List of workshop participants 17

Abbreviations

BoARD	Bureau of Agriculture and Rural Development
FAO	Food and Agriculture Organization
GIRWI	Global Initiative for Rationalizing Water Information
IWMI	International Water Management Institute
IWR	Irrigation Water Requirement
LDP	Livestock Development Program
MoARD	Ministry of Agriculture and Rural Development
MoWR	Ministry of Water Resources
NMA	National Meteorological Institute
OWRD	Office of Water Resources Development
SNNPR	Southern Nations, Nationalities and People's Region
UN-DESA	United Nations Department of Economic and Social Affairs
WaSH	Water Sanitation and Health
WUA	Water Users' Association

0. Summary

The launching workshop has brought together the major stakeholders to discuss major aspects of the project and implementation modalities. The presentations made by the FAO project coordinating team provided overview of the project profile, scope, contents as well as the methodological approaches to be followed. Discussions that followed the presentations highlighted on the needs of adjustments to have made and "gray "areas that need clarification. Consensus was reached among others, on the need for re-phrasing and /or reformulation of the six indicators and careful determination of appropriate variables by the study team. Consensus has also been attained that project is filling an important gap and that it should focus on data regarding agricultural water management in the larger framework developed under the GIRWI project

Working group discussions carried out by two separate groups made in-depth analysis of the indicators and the envisaged data base. The group discussion results also underlined the need for major adjustments and refining of the indicators before they are applied. Regarding the data base, it was emphasized that none of the major stakeholders (MoWR, MoARD, the regions and the river basin authorities) should be left out and that the system should grant inclusive access. Incorporation of the suggestions and comments made during the launching workshop; refining of the six indicators and determination of variables; determination of follow-up activities by stakeholders and development of a time table for action have been suggested indicating action forward.

I. Introduction

The project "Strengthening National Water Monitoring Capacities with Emphasis on Agricultural Water Management", GCP/GLO/207/ITA, financed by the Italian Government, is a 12-month intervention to be implemented by FAO in association with the Ministry of Water Resources as focal institution and other federal and regional level government stakeholders. This global project with a total budget of US$ 440,000 for Ethiopia and Benin is a contribution towards enhancing the systematic collection of data and information with particular emphasis on the provision of adequate and detailed information on water resources and agricultural water use at country and basin level as a means of strengthening water resources management. The major outputs of the project are: (i) development of a methodology for the monitoring of agricultural water related information for improved decision making; (ii) undertaking baseline survey on water availability, water use and water productivity; (iii) provision of policy and management options to decision makers to improve the profitability of water use in agriculture through targeted investments in the agricultural sector; (iv) increasing capacity at national and regional levels with regard to data collection, data interpretation, modeling, GIS, and data dissemination in the field of water resources and their use in agriculture, as well as increased knowledge of laws, institutions and policy options in agricultural water management.

Objectives of the launching workshop

The objective of the launching workshop was threefold:

- To bring the stakeholders together and build consensus on major issues
- To discuss on overall implementation modalities (road map)
- Identify gaps and potential impediments vis-a- vis measuring indicators and related variables

Workshop venue and participants' profile

The one day launching workshop which took place at the Ministry of Water Resources was attended by major stakeholders from the relevant institutions. represented were: the Ministry of water Resources (MoWR), Ministry of Agriculture and Rural Development (MoARD), the Awash Basin Authority, regional bureaus of Agriculture and rural development, regional bureaus of water, mines and Energy UN-DESA, GIRWI project, Arbaminch University, the FAO, Central statistics office, the International Water Management Institute (IWMI), the Italian Development Cooperation and different other development projects and programs.

II. Presentations

The presentations in the plenary session provided the basis for the lively discussions that followed in which workshop participants participated with enthusiasm and interest. The first presentation was made by Mr Benjamin Kiersch, the Technical Advisor of the project, which was then followed by the presentation of Mr Yibeltal Tiruneh, senior irrigation engineer, in charge of the project on part of the FAO Ethiopia for undertaking water resources and use survey and coordinating the project.

Mr Kiersch's presentation provided an overview of the profile, scope and contents of the project. The presentation started describing contextual aspects and linkages to internationally and nationally set development objectives with particular focus on linkages to the Millennium Development Goals 1 and 7 as well as the different initiatives at country level. Project justification, FAO's comparative advantages and relevance to its mandates and commitments were highlighted. Anticipated impact, outcomes and results of the project were also summarized along with implementation modalities and timeframe. Structure of the implementation arrangements, reporting and monitoring as well as expected inputs by the different stakeholders were described.

The presentation made by Mr Yibeltal summarized the methodological approach that is to be followed in the implementation of the project. It started by the introduction of six indicators, identified by Global Initiative for Rationalizing Water Information (GIRWI) project also hosted by MoWR, which the project will be dealing with, and indicating the need for additional efforts in terms of defining the indicators and associated variables. Particular focus was made on the different options of estimating agricultural water use or irrigation water requirements (IWR). Ago-ecology based GIS supported system and scheme based systems were comparatively analyzed revealing their respective advantages and shortcomings. The rationale behind the selection of the Awash River Basin for piloting was presented along with the methodological approach for the baseline survey.

The establishment of the envisaged database including its architecture and the different functions and modules were also briefly described.

Following the two presentations the participants raised the following major issues and questions were raised and discussed:

- A suggestion was made by the World Bank representative to include indicators or attributes on drainage systems and percentage areas that are flooded as this has significant implication in water monitoring. Mr Yibeltal responded by indicating that this has already been considered and included in the draft questionnaire
- It was also suggested by the World Bank Representative to include data on traditional water users' organizations, Water Users Associations (WUA) and irrigation cooperatives. Mr Yibeltal has also indicated the inclusion of these in the draft questionnaire. .
- A question was raised on what strengthening water monitoring means and whether this assumes the existence on certain functioning systems already that require strengthening. As response to this, Mr Yibeltal mentioned that there are rudimentary and disjointed efforts as indicated in the GIRWI study but not any form of coherent and consolidated system as yet.
- Concerns of mandates were raised questioning what the arrangements would look like when the Awash River Basin is mandated to monitor all water related developments while all tributaries are under the jurisdiction of the regions.
- Lengthy discussions were made on discrepancies of actual water use and agricultural water use and indications were made that it will lead to wrong conclusions and information if this is not handled with care. Discussants agreed that there is need to define what agricultural water use means.
- Questions were raised whether other indicators could be added to the six mentioned or the project restricts itself to the given indicators only. There was wide spread consensus that as useful and relevant the indicators are that they need major rephrasing and reformulation along with careful determination of appropriate variables, and that this task should be handled by the project.

III. Results of working group discussions

Participants of the launching workshop were divided into two groups to discuss on the following two thematic areas.

3.1 Review of the 6 indicators identified by GIRWI

Guiding questions provided to facilitate discussion were:

- Are the indicators simple and easily measurable?
- What does advanced practice mean?
- What does the area treated with different soil conservation practices indicate?

- Demarcation between water conservation such as level bunds and in-situ water harvesting?
- What are the variables to estimate the indicators?
- Define traditional and modern irrigation schemes
- Spatial or point mapping of irrigation schemes?
- Method of agricultural water use survey
- At what level should area under water harvesting practices and catchments treatment works be collected?
- Are there other indicators to measure irrigation performance

1. ***Proportion of annual freshwater consumption to renewable freshwater resources***

This indicator is considered valuable to the envisaged system of monitoring. However, agricultural water use in general and estimation of irrigation water requirements and use are complicated due to several factors. Assessing water use in traditional and small scale irrigation schemes is very difficult. Resources and capacity limitations have been mentioned as constraints. It was recommended to estimate withdrawal as an approximation for consumption values which may be easier to obtain.

2. ***Area of land under irrigated agriculture or under improved rainwater agriculture (per capita) by type of system***

This indicator has also been found to be relevant and useful but further clarification is sought with regard to what is meant by improved rainwater agriculture. There is also a need to clarify if this is meant to include water harvesting practices for agricultural use. There are major discrepancies between planned, equipped and actually cropped irrigated areas which require verification. It was indicated that it may be wise to focus on irrigation.

3. ***Income differential between farmers having access to irrigation and farmers not having access (per ha) by produce- What does this indicate?***

Consensus has been reached about the usefulness of this indicator. The indicator however should be modified to capture yield differentials between farmers using irrigation and those that base their production on rainfall. The comparisons should also be made between similar crops and between farmers of same localities.

4. ***Irrigated areas using advanced practices (% of total irrigated area) by type of technology***

The participants are of the opinion that this indicator has some similarity to indicator No.2. The indicator has been found very useful while the term “advanced” requires a definition or should be removed.

5. ***Area of the watershed developed under soil and water conservation practices or measures (%) by type of measure***

There is no general consensus on the usefulness of the indicator as it is not always clear in which ways soil and water conservation practices have an impact on the water balance. There is widespread concern on the applicability and the calculation of the indicator. It is left to the study team to revise the indicator.

6. ***Index characterizing the impact of seasonal rainfall variability on agriculture production (to be studied) type of produce***

This indicator is the least understood and requires further elaboration and clarification. It was agreed that the project should, as a matter of priority, deal with the other indicators first.

The remaining questions have not been separately treated as participants believed that they have indirectly been addressed while discussing the indicators.

The item requiring defining ***traditional and modern irrigation*** schemes is left for the study team to deal with.

The point related to ***spatial or point data mapping of irrigation schemes***, unanimous agreement has been reached to combine both. It has been pointed out that although spatial data mapping has higher preference, realistically this could not be applicable on small scale irrigation because of manpower and resources limitations. It has also been pointed out that the point data mapping to be more appropriate for traditional and small scale irrigation schemes while spatial data mapping is appropriate for large schemes.

With regard to estimating agricultural ***water use,*** the participants suggested to apply both agro-ecology and scheme based approaches for the determination of irrigation water requirement in combination as appropriate. The difficulty of using satellite imagery for traditional and small scale irrigations has been underlined.

Another point of discussion was at what level to collect data on water harvesting as well as soil and water conservation practices. There was shared view among participants that the logistical, budget and manpower requirements of undertaking such assessment at site level to be overwhelming. However, the importance of the information and data on this has been recognized provided the information to be reported by woredas reflects the reality on the ground.

The question included for discussion on other possible indicators to measure irrigation performance was deferred to the study team to deal with at a later stage.

3.2 Review of the database to be established

The following were guiding questions provided for discussing the database:

- What or which functions should the database have?
- Who should be able to access it or modify it?
- Data uploading/updating procedures and data quality check
- Static or dynamic vis-à-vis complications (complexity, need for restriction on certain data)
- Home /web page content and architecture
- Type of software (MS Access, MS SQL)
- Relevant websites to be linked to.

It has been underlined that the database is important to the Ministry of Agriculture and Rural Development (MoARD), MoWR, the Regions and the River Basin Agencies. None of these stakeholders should be excluded. Considering the options of updating and uploading procedures, the issues of mandates and access to internet connections were raised and are left to the study team.

IV. Way forward

At the culmination of the workshop, participants forwarded actions to be taken by the project. The major suggestions included the following:

- the incorporation of suggestions, comments and recommendations obtained from the one-day workshop deliberations
- Refine and further detail the indicators as some of them require major revisions or rephrasing to make them more usable
- Initiating and conducting trainings based on identified gaps to people who will be involved in the generation of data and information
- Develop a time table and determine activities to be undertaken by the different stakeholders at the different levels
- Deliberately explore the possibilities of making use of recent developments such as the development of the 'woreda net" and other new arrangements within existing structures.
- orient the activities towards long-term development, simple and gradual capacity building and improvement of existing systems as opposed to the elaboration of sophisticated database systems which may not be adopted
- Develop and adopt accommodative and participatory approaches.

Concluding remarks

Continued dialogue and discussion between the major stakeholders is necessary to clear gray areas with regard to locating the database and granting of access to the system. Close cooperation with the GIRWI initiative within the Ministry of Water Resources is also very critical particularly to clarify issues surrounding the six indicators the project is to deal with.

Consensus has been attained that project is filling an important gap and that it should focus on data regarding agricultural water management in the larger framework developed under the GIRWI project.

Annexes

Annex 1: Workshop Schedule

Venue and Date: Ministry of Water Resources, 17 December 2008

Facilitator: Girma Gebremedhin (Dr.)

Time	Activity	Responsible
8:30-9:00	Registration of participants	Project
9:00-9:10	Workshop Objective and Programme	Facilitator
9:10-9:20	Speech	H.E, Adugna Jebessa, State Minister, MoWR
9:20:9:30	Key Note Address	FAO SRC and FAOR Representative
9:30-10:10	Presentation of the Project	Benjamin Kiersch, FAO
10:10-10:30	Coffee break	
10:30-11:00	General Methodological Approach	Yibeltal Tiruneh, FAO
11:00-12:15	Discussion on General Issues	Facilitator
12:15-12:30	Group formation*	Facilitator
12:30-13:30	Lunch Break	
13:30-15:00	Group Discussion	Group Leaders
15:00-15:20	Coffee Break	
15:20-16:00	Group discussion (continued)	Group Leaders
16:00-16:10	Group 1 presentation	Group Leader 1
16:10-16:20	Group 2 presentation	Group Leader 2
16:30-17:15	Discussion	Facilitator
17:15:17:20	Wrap up and Closing of Workshop	

*Both Groups discussed the following:

1. Review of the indicators identified by GIRWI which are relevant to the agricultural water management: Definition, calculation and available data sources
2. Review of the methodology of the baseline survey and the data base

Annex 2: Opening Speech

By Adugng Jebessa
State Ministry of Water Resources

On
The Launching Workshop

"Strengthening National Water Monitoring Capacities, with Emphasis on Agricultural Water Management"

Ministry of Water Resources
17 December 2008

Dear Ladies and Gentlemen

It is a pleasure for me in welcoming you all to this workshop to launch the project on "Strengthening National Water Monitoring Capacities, with Emphasis on Agricultural Water Management" which is being implemented by the Ministry of Water Resources with technical support from Food ad Agricultural Organization of the United Nations (FAO).

Water is the mainspring of civilization and civilizations and water management have co-evolved. Water shortages are nothing new, and throughout history various solutions have been implemented to overcome water scarcities and enhance water security. Such solutions were always short lived – a temporary relief - because the social and cultural consequences of each solution led to a gradual, cumulative increase in the demand for water. Human societies have devised ingenious methods to harvest, transport, and store rainwater, spring water, groundwater, and even air moisture. But the cost of procuring water is a function of the combined cost of extraction/harvesting, transportation, treatment, storage, and delivery. There is thus inevitably an economic aspect of water availability.

Ladies and gentlemen, I hope you don't deviate from me that water should be properly managed if it is to be used in a sustainable manner giving us good harvests, health, prosperity, and ecological abundance, and its fragmented development for short-term needs can cause disease, environmental degradation and human conflict.

As you all know, many Ethiopians face acute water problems. Yet the potential of water investment as a tool for reducing poverty and building sustainable livelihoods has not been realized fully. The Water and Poverty Initiative is Ethiopia's collective effort to improve food and water security for the poor. Measuring the performance and impact of complex water-related programmes or initiatives is also an essential task.

The prerequisite for the sustainable water resources development is the knowledge and the availability of water related information and data stored in friendly database system that is easily accessible by the public for development activities. In this view, maybe you know already, ladies and gentlemen that there are different similar ongoing initiatives being implemented. These include:

- Global Initiative for Rationalizing Water Information (GIRWI)-UN Department for Economic and Social Affairs (UN-DESA)-financed by Italian Government
- Knowledge Management Project financed by African Water Facility
- Water Supply, Sanitation and Hygiene (WaSH), M&E and MIS-financed by World Bank
- National Groundwater Information System

I believe that this project together with other ongoing initiatives completes the whole water sector monitoring programme in Ethiopia.

Ladies and gentlemen, this Workshop is an important milestone in setting directions towards achieving our goals of establishing agricultural water management database which is an integral and probably the most crucial part of water sector monitoring system, and developing methodological procedures for operation and updating of the database.

Finally, I would like to take this opportunity to thank the Italian Government for financing the project and FAO for its technical support in implementing this project.

With this brief remark and wishing you a successful meeting and a pleasant day I declare the opening of the Workshop on "Strengthening National Water Monitoring Capacities, with Emphasis on Agricultural Water Management".

Thank you for your attention.

Annex 3: Key Note Address

By Mr Mafa Chipeta
Subregional Coordinator and FAO Representative to Ethiopia, ECA and EU
On
The Launching Workshop

"Strengthening National Water Monitoring Capacities, with Emphasis on Agricultural Water Management"
Ministry of Water Resources
17 December 2008

Dear Ladies and Gentlemen

It is my pleasure to make this key note speech on this important occasion where the foundation of agricultural water management system is to be laid out.

Irrigation has an important role to play in contributing to food security and poverty alleviation. Consequently, many countries in Africa and elsewhere are planning to increase irrigated agriculture as a contribution to attaining the Millennium Development Goals. The Commission for Africa has proposed a doubling of the area of arable land under irrigation by 2015 while the World Water Development Report calls for "substantial increases in investment in rural areas, where water management plays a central role in raising the productivity of agriculture". However, in situations of growing water stress and with increasing awareness of the importance of environmental protection to ensure sustainability, the need for improved water resources management to secure and maximize the benefits from water, is widely recognized.

The recurrent droughts coupled with erratic water supplies have served as a reminder that water is a limited resource which must not be taken for granted. The additional threat of climate change augments the need to understand the diversities and sensitivities of our water resource system so it can be managed wisely. In order to meet the needs of water demand while maintaining the sustainability of aquatic ecosystems, a sustainable framework for water allocation in country or basin is essential. Reliable data on both water supply (source, abundance and water quality) as well as on demand from water users are key pieces of information on which public policy decisions concerning the use and management of surface and groundwater resources must be based.

Accordingly, governments are increasingly called to put in place a uniform and consistent system to monitor the impacts of water-related initiatives. Moreover, it is ever more important that political and strategic decisions on water resources be based on accurate data regarding water availability and demand. The Food and Agriculture Organization of the United Nations (FAO) has worldwide experience in creating and managing water-related databases and information management systems such as

AQUASTAT, its global information system on water and agriculture. However, AQUASTAT only provides aggregated data on the national level, which is not detailed enough in order to make decisions about water resources management at the river basin or local scale.

In view of this, FAO in collaboration with the Ethiopian Government has initiated this project "Strengthening National Water Monitoring capacities emphasizing on agricultural water management, with financial assistance of the Government of Italy. The present project is a pilot project dealing with Ethiopia and Benin only, but it is expected that the Government of Italy will fund a larger follow-up project which will build on the outcomes of the present project, and which will be formulated during the course of this project.

The project will contribute to sustainable water resources management, in particular agricultural water management, due to a better knowledge of the water resources situation through improvement of the national and regional water monitoring capacities and water knowledge base with regard to data collection, interpretation and dissemination, and monitoring as well as increased knowledge of laws, institutions and policy options in agricultural water management.

It is my ardent belief that this workshop will pave the right direction of the project in order to achieve the desired objectives. I am also confident that all the stakeholders including government at all levels, communities, donors and NGOs will contribute to the successful implementation of this pilot project and the preparation of a larger follow-up project which may serve to apply the methodology developed and lessons learned under the project at a larger scale, benefiting other regions of Ethiopia, and other countries in the region.

Thank you.

Annex 4: Findings of the working group deliberations

Working group I

Review of Indicators

Indicator 1 is relevant but there are areas (small scale & traditional irrigations) that cannot be measured

Indicator 2 is relevant but the areas (small scale & traditional irrigations) vary from year to year

Indicator 3 is appropriate but the indicator should be limited to small scale farmers

Indicator 4 is relevant by type of technology

Indicator 5is relevant but needs more elaboration

Indicator 6 is not clear, requires clarification

Review of the data base

Location is very important Regional/Federal/ River basin authority

Responsibility of updating and uploading of data should be guaranteed (Location)

Question 7
With some limitations combined approach of both point and spatial data mapping will be appropriate

Question 8
Combined approach is needed

Question 9
Collection of relevant information should be carried out by regional offices

Working Group II

Review of indicators

Indicator 1 appropriate

#2 ?
Improved rainwater agriculture

#3
Yield is an appropriate Indicator than income

Indicator 1 appropriate

#3
Yes it is measurable

#3
Indicator 3 Is it an indicator???

Advanced #4
Modern
Traditional

#4
Advanced practices?

#4
Define modern practice

Expert skill control and conveyance structure

Surface system

Define advanced practice #4

High-tech automated and mechanized #4

Indicator 1 appropriate

Sprinkler and drip #4

#6 Yes it is indicator #6

#6
Constraints: Appropriate material, logistics skilled manpower

Define traditional #4

Surface system
Temporary structure

Beneficiaries' knowledge, labor and other resources

#5 watersheds developed

Variables Q5
Management skills, Area, yield, climate data, hydrology, topography, soil type

Q 8 Combination of Scheme based + Satellite

500 ha based on the national guide line (MoARD)

Review of data base

Database
MoWR
↑
Regional WB

Annex 5: List of workshop participants

No	Name of Participants	Region/City	Organization
1.	Abdulaziz Schiff	Addis Ababa	Central Statistics Office
2.	Abdul-Jabbar Abdulsemed	Dire Dawa	Agricultural Development Office
3.	Abebaw Gizaw	Addis Ababa	Urban Agricultural Development
4.	Abubeker Ali		Food and Agriculture Organization
5.	Assefa Hirpasse	Afar	Awash Basin Authority
6.	Assefa Siltanu	Addis Ababa	Ministry of Agriculture and Rural Development
7.	Badre Lanedri	Addis Ababa	World Bank
8.	Bekele Guta	Benshangul-Gumuz	Bureau of Agriculture and Rural Development
9.	Benjamin Kiersch		Food and Agriculture Organization
10.	Birhane Kebebew	Oromia	Oromia Water Resources Bureau
11.	Chuol Biel	Gambella	Water, Mines and Energy Development Bureau
12.	Feyera Senbeta	Addis Ababa	Addis Ababa University
13.	Frew Abebe	Afar	Awash Basin Agency
14.	Gashu Kebede	Addis Ababa	Ministry of Water Resources
15.	Giovanni Canitano		UN-DESA, GIRWI Project
16.	Girmaw Gezachew	Addis Ababa	National Meteorology Agency
17.	Jean Michel Chene		UN-DESA, GIRWI project
18.	Legesse Admassu	Addis Ababa	Ministry of Agriculture and Rural Development
19.	Lemma Degasso	SNNPR	Water Resources Development
20.	Lemlem T.medhin	SNNPR	Bureau of Agriculture and Rural Development
21.	Michele Paba		Italian Development Cooperation
22.	Michael Abebe		Ministry of Water Resources
23.	Mikias Sisay		Food and Agriculture Organization
24.	Minilik Wube	Benshangul-Gumuz	Water, Mines and Energy Development Bureau
25.	Moges Ayele		Water Resources Development
26.	Mulugeta Geni		Ministry of Agriculture and Rural Development
27.	Muluken Lakachew	Amhara	Bureau of Agriculture and Rural Development, Irrigation and Drainage Development Core Process
28.	Nigusie Teklei	SNNPR	Arba Minch University
29.	Semunesh Golla	Addis Ababa	Ministry of Water Resources
30.	Sileshi Bekele	Addis Ababa	International Water Management Institute
31.	Solomon Belete		UN-DESA, GIRWI Project
32.	Tafesse Andargie	Oromia	Oromia Water Resources Bureau
33.	Taidor David	Gambella	Bureau of Agriculture and Rural Development
34.	Tesfaye Kebede	Dire Dawa	Water, Mines and Energy Development Bureau
35.	Teshome Atnafie	Addis Ababa	Ministry of Water Resources
36.	Wubshet Demeke	Addis Ababa	Ministry of Water Resources
37.	Yalew Belete	Addis Ababa	Ministry of Agriculture and Rural Development
38.	Yibeltal Tiruneh		Food and Agriculture Organization
39.	Yohannes Tesfaye		Food and Agriculture Organization