

Host and Venue

Egypt is the hosting country of this Regional workshop. Regarding the important experience of Egypt for brackish water use in agriculture production, a field visit will be an added value for participants. There are many systems of drainage water reuse practices which would contribute to the overall resilience of the Nile Delta agricultural and livelihoods system. Three types of reuse practices can be distinguished in Egypt as follows:

- Gravity reuse of drainage water, which takes place in canals or river branches that receive drainage water by gravity. This takes place for instance in the Nile Valley, where nearly all drainage water returns to the Nile River. Also in the Nile Delta, in few locations drainage water is returned to the Nile branches.
- Official reuse is the practice of pumping part of the drainage water flow into the irrigation water system. Physically, official reuse occurs by lifting specified amounts of drainage water for mixing with better water quality canals.
- Unofficial reuse is practiced by individual farmers who decide when and how drainage water will be used for supplementing their irrigation water. Unofficial reuse of drainage water normally takes place near the tail ends of the irrigation canals.



Formal definition >>>

Saline water is formally defined as water containing greater than 1,000 milligrams per liter (mg/l) total dissolved solids (TDS) (U.S. Public Health Service, 1962). Saline waters are further classified by TDS content as follows (USBOR, 2003): These definitions are used by the industry for desalination applications:

1. Mildly brackish 1,000 - 5,000 mg/l
2. Moderately brackish 5,000 - 15,000 mg/l
3. Heavily brackish 15,000 - 35,000 mg/l
4. Seawater and Brine > 35,000 mg/l

Participants

The Regional workshop is primarily designed for Near East and North Africa country representatives. It aims to bring together experts from the 9 pilot countries (Algeria, Egypt, Iraq, Iran, Jordan, KSA, Morocco, Tunisia and Yemen) and key water resources and irrigation specialists from the member countries, practitioners, WUAs and researchers to discuss practical world applications and innovative techniques for coping with negative impacts of the brackish water use in agriculture production.

In other words, the workshop will be attended by delegates from FAORNE member countries including senior officials from decision-making or technical level involving in water resources and irrigation fields. These delegates will be supported by the participation of the nine national consultants identified by FAORNE; authors of country studies on the Use of Brackish Water for Agricultural Production: Status and New Developments in the NENA region.

The expected total number of 50 participants distributed as follows:

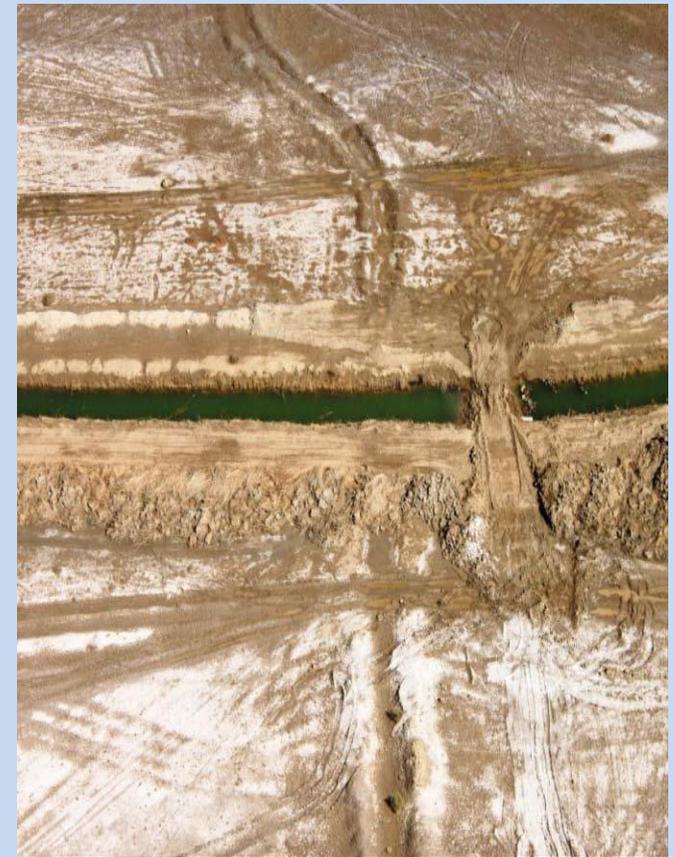
- Key water resources and irrigation specialists from each member country;
- National consultants responsible for country reports;
- FAO and its partners:
 - ICARDA;
 - AWC;
 - International Center for Biosaline Agriculture ICBA, UAE;
 - Ministry of Water Resources and Irrigation, Egypt;
 - Ministry of Agriculture and Land Reclamation, Egypt;
 - Ministry of State of Environment Affairs, Egypt;

The workshop is open to participants from Egyptian Institutions, Professional associations, WUAs involving in land, water and environment sectors:

For Contact >>>

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Regional Workshop

“Use of Brackish Water for Agricultural Production”

Status, Good Agricultural Practices and New Developments in the Near East and North Africa

Cairo – Egypt 10-12 June 2013



Background and rationale



The Near East and North Africa region (NENA) covers 19 countries where water scarcity is one of the major challenges. This constraint is causing the degradation of important irrigated areas and limiting the increase of food production to cope with population increase. Water demand management is the most suitable approach to increase productivity of the available water resources, particularly in areas such as the Near East and North Africa where most of the renewable resources have already been harnessed for use. The supply side also offers avenues, albeit limited, such as small scale water harvesting, water recycling, particularly the reuse of treated domestic wastewater for agricultural production, and the use of low quality waters such as brackish water. The use of brackish water for agricultural production has a long history in the NENA region. Because of their physical and climatic conditions, most countries are endowed with important reserves of brackish ground and surface waters. Some of these reserves are renewable while the rest is essentially fossil or very slowly renewable. However, little is known about the use of these resources and their management, with the exception that the prevailing practices are generally inappropriate and have led to quality degradation of land and groundwater quality throughout the region. The provision of support on suitable and more sustainable use of these waters has also been very limited. In addition, there is evidently a need to fill this gap as expressed by participants to FAO Agriculture and Land and Water Use Commission for the Near East (ALAWUC), during its previous sessions of 2008, 2010 and recently in 2012. In particular, the need to develop guidelines for the safe use of these resources for agricultural production seems to be pressing. FAO conducted recently in 2012 a study on Status and New Developments on the Use of Brackish Water for Agricultural Production in the Near East including 9 selected pilot countries (Algeria, Egypt, Iraq, Iran, Jordan, KSA, Morocco, Tunisia and Yemen). The main goal of this study is to carry out an assessment of these resources, with due consideration to both quantity and quality, and of the practices and experiences regarding their use for agricultural production in the NENA region. The country reports will also serve for the preparation of a consolidated profile on brackish water and their use at the regional level.



Addressing Good Agricultural Practices Related to Brackish Water Use for Agriculture Production in NENA region...

This is within the framework of the **Regional Water Scarcity Initiative** launched by FAO RNE in 2013 for one year action plan that builds on the FAO Water Platform and FAO's "Coping with Water Scarcity: an Action Framework for Agriculture and Food Security". The two major outcome of this Regional Initiative are: (i) a Regional Collaborative Strategy on sustainable agriculture water management for increasing the level of food security, and (ii) a Regional Partnership to support countries in the implementation of the collaborative strategy.

Objectives >>>

The regional workshop aims at the following specific objectives:

- Providing a picture of the current situation, the status and new developments regarding brackish waters and their use for agricultural production in the NENA region;
- Updating and developing information and data on brackish waters and their use for agricultural production;
- Discussing and exchanging best practices, lessons learned and experiences as well as of limitations and drawbacks related to the use of these resources in the region;

- Providing recommendations for addressing the needs of the region with regard to advisory and technical support for improving the productivity of these resources, with due consideration to sustainability and environmental protection;
- Identifying support needs to assist member countries in managing brackish water resources along the lines of the proposed recommendations.

Expected outcomes >>>

Senior national experts in the field of water resources management and irrigation from the nine pilot

countries, as well as representative of member countries will be invited to prepare the state-of-the-art discussion papers to address Good Agricultural Practices related to brackish water use for agriculture production in their respective countries (Fisheries and aquaculture are not included). It is expected to produce a synthesis of GAPs for brackish water use in the NENA region in addition to the 9 pilot country studies that will be published after discussed and endorsement.

The main expected results of the workshop will be as following:

- 1) Related information exchanged;

- 2) Data base and country reports updated;
- 3) Countries' knowledge and gaps highlighted;
- 4) Valuable experiences and GAPs to be replicated or scaled up identified;
- 5) Regional Gaps for brackish water use for agricultural production initiated.
- 6) Increased usage of Good Agricultural Practices;
- 7) Increased awareness among national decision-making and technical staff.



Tentative dates, Schedule and Topics >>>

The workshop is planned to be held during three working days **10-11 and 12 June 2013**. Three main different sessions will be organized: i) Status, ii) Good Agricultural Practices and iii) New Developments of the use of brackish water in for agricultural production in the NENA region.

A working groups are planned to develop GAPs and a regional project profile for elaboration of guidelines for brackish water use. A field visit will be also organized. The programme for the meeting will be designed to engage all the participants in discussions on each papers and develop a Regional Framework for the improvement and promotion of the use of brackish water in agriculture production in the Near East and North Africa region that could facilitate to produce Regional GAPs to better manage brackish water use risks.

For each country, the following items will be presented and discussed:

- Status on the use of brackish waters for agricultural production
- Good Agricultural Practices
- Constraints and factors that could affect the scaling-up of use
- Policies, regulations and institutions
- Impacts, opportunities and constraints