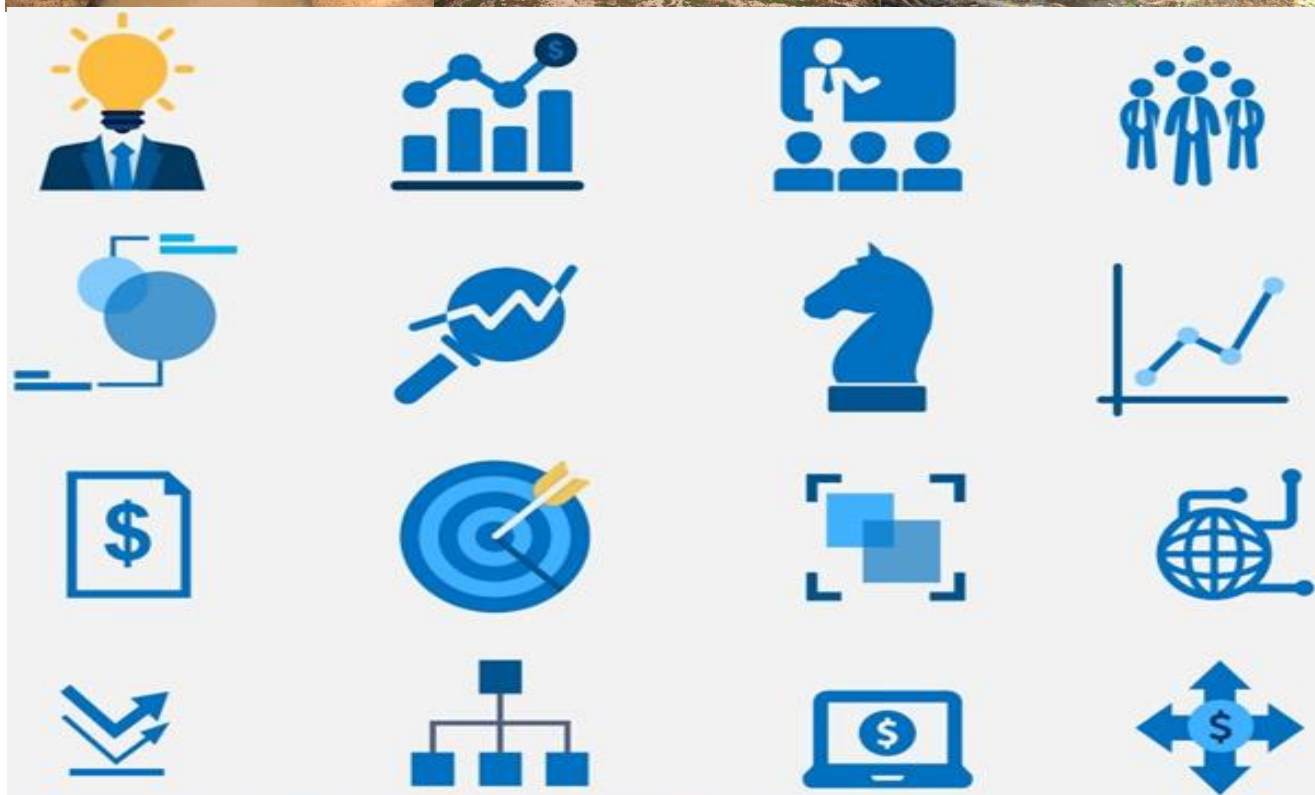




Food and Agriculture
Organization of the
United Nations



Webinar Series for Unlocking the Potential of Treated Wastewater and Drainage Water for Agriculture Development



Webinar # 6:

Wednesday - February 24th, 2021
11:00 AM – 1:00 PM (Tunis, Tunisia time)

Cost-Benefit Analysis for Treated Wastewater and Drainage Water Reuse Projects for Agricultural Development

[Click here to register](#)

WEBINAR SERIES

for improved regional cooperation between countries in the field of non-conventional water reuse for agricultural development

FAO Sub-regional Office for North Africa, 1 Rue du Lac Winnipeg, Tunis, Tunisia. FAO-SNE@fao.org

Concept note and Agenda

Introduction

Within the framework of the Regional Water Scarcity Initiative (WSI), FAO and its partners are continuing to support - more than ever before - countries in the Near East and North Africa region in addressing their most pressing challenges: assessing food and water security for sustainable economic and social development. To prevent acute water shortages, the use of non-conventional water resources for agricultural production is emerging as a priority for most countries.

Despite the potential of non-conventional water resources that provides a unique opportunity for not only enhancing supply but also improving both the productive and allocative efficiency, it remains so far untapped. The role of these resources in strengthening water security is still undervalued. Nowadays, treated wastewater and drainage water reuse have been identified as an important resource that could contribute to alleviating the water scarcity that is moving into water deficit in the Near East and North African countries. Freshwater resources are being released to other competing sectors which are often given higher priority as drinking water for the increasing population and needs. The costs and benefits of such treated wastewater and drainage water reuse projects need to be investigated. While there has been strong emphasis on the cost aspects of the treated wastewater reuse projects, the benefits for agricultural development have not been comprehensively analysed.

An imperative broad framework is needed with a holistic regional approach for how to apply the Cost-Benefit Analysis for treated wastewater and drainage water reuse projects for agricultural development. In other words, institutionalized quantitative and analytical tools should be developed and used to estimate costs and benefits, including farm profitability, health, environment, market, institutions, and policy failures...etc.

Within this framework, FAO, and its partners - ICBA, IWMI, WHO, and IME - joined forces to organize a webinar series for improved regional cooperation between countries in the field of non-conventional water reuse for agricultural development. These webinars will enhance knowledge and information on the safe and sustain use of treated wastewater and drainage water in agriculture. Some of them will focus on policy dialogue for strategies and initiatives promoting non-conventional water reuse in the region.

The webinar #6 will focus on Cost-Benefit Analysis applied to Treated Wastewater and Drainage Water Reuse for Agricultural Development. There is a large literature dealing with finance of wastewater reuse in agriculture, but less research and attention has been allocated to economic assessment including environmental and socio-economic factors, clearly analyzing the costs and benefits.

Discussion questions

The following questions will be discussed:

- ✓ *What are the policy dimension and economic framework to unlock the potential of Treated Wastewater and Drainage Water Reuse for Agricultural Development?*
- ✓ *The importance of cost-benefit analysis for the development of investment plan?*
- ✓ *What are the gaps and needs to build a useful approach of cost-benefit analysis?*
- ✓ *How cost-benefit analysis could facilitate the formulation and recommendation of the optimal options to unlock the potential of treated wastewater and drainage water for agriculture considering the social, economic, ecological, and managerial/operational dimensions?*
- ✓ *What is the process for evaluating the economic efficiency and performance indicators of treated wastewater and drainage water reuse projects through systematic prediction and evaluation of all costs and benefits?*

WEBINAR SERIES

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Audience

Webinar #6 is designed for national multidisciplinary teams, including policymakers and stakeholders from ministries of agriculture, water, environment and health and other authorities, research and development sectors, civil societies, and private sector entities involved and interested in the non-conventional water sector.

Technical specifications – Registration

Webinar #6 will use Zoom technical platform with simultaneous translation provided (French/English). All needed materials, documentation, and presentations will be made available to all registered participants. Participants will have the opportunity to ask questions, make comments, and share relevant information and material through a chat function.

Webinar #6 will be recorded and made available along with the associated materials and documents to participants.

Registration in advance for this webinar #6 is compulsory. The zoom link will be sent automatically upon registration.

Agenda

Wednesday February 24 th , 2021	
	<u>Moderator of the Webinar:</u> • Mr. Alain Meyssonier , President of the Mediterranean Water Institute (IME)
11:00 - 11:10	<u>Opening remarks:</u> • Mr. Abdourahman Maki , Land and Water Officer (FAO)
11:10 - 12:25	<u>Presentations of the Keynote Speakers:</u> <ol style="list-style-type: none"> 1. <i>“Treated Wastewater and Drainage Water for irrigation – Policy Dimension and Economic Framework”</i> by Mr. Mahmood Ahmad, Professor Practice, WIT, Lahore University of Management Sciences (LUMS), Lahore, Pakistan. 2. <i>“Cost-Benefit Analysis for Treated Wastewater and Drainage Water Reuse for Agricultural Development projects”</i> by Mr. Kamel Chaabane, Senior Agro-economy Expert, Tunis, Tunisia. 3. <i>Combining cost-benefit and life cycle analysis to identify best options for a TWR project in a rural area near Marseilles”</i> by Mrs. Agata Sferratore, Environmental Expert and Mr. Jacques Béraud, Agronomist Engineer in the Société du Canal de Provence, France
12:25 - 12:45	<u>Discussion with the Keynote Speakers</u>
12:45 - 12:55	<u>Questions and answers with participants</u>
12:55 - 13:00	<u>Closing remarks:</u> • Mr. Faycel Chenini , Project Coordinator (FAO)

Keynote Speaker



- **Mr. Mahmood Ahmad, Professor Practice, Professor Practice, Center for Water Informatics and Technology (WIT), Lahore University of Management Sciences (LUMS), Lahore, Pakistan.**

Dr. Ahmad is internationally renowned expert on agriculture and water policy. He did his PhD from the University of Massachusetts in Resource Economics (1979). He carries an experience of around 40 years, including 24 years with the Food and Agriculture Organization of the United Nations, working in more than 15 countries. He carries extensive experience in water policy issues with focus on water demand management. Dr. Ahmad is presently working as Professor of Practices at Water Informatics Centre, Lahore University of Management Science in Pakistan. Leading the center in undertaking innovative research on economics of developing climate smart agriculture and water development including carbon balance. Provided leadership in developing FAO program on agriculture policy preparation and implementation under water scarce conditions for the Near East countries. Also lead the capacity building program with FAO HQ for the Near East region (38 countries) in agriculture and water policy reforms. Also supported member countries in developing agriculture strategies and policy advise with donor support. Published large set of papers and chapter author in three books and now editor for Preparing for Springer 16 chapter book on water policy in Pakistan, including four chapters related to policy and institutional aspects non-conventional water use, this is part of series of Books on Water Policy for 26 Countries lead by University of California.





- **Mr. Kamel Chaabane, Senior Agro-economy Expert, Tunis, Tunisia.**

Mr. Kamel CHAABANE is a Senior agro-economist graduated from the National Agronomic Institute of Tunis (INAT-Tunisia) and the Mediterranean Agronomic Institute of Montpellier under the International Center for High Mediterranean Agronomic Studies in France.

He has more than 30 years of professional experience in conducting agro-socio-economic, agronomic, and economic and financial evaluation studies of rural development projects; and he has acquired a proven experience of the agricultural services of the administration, rural NGOs, extension units (surveys, various local agro-socio-economic studies), and organizations integrating private and public sectors.

He has been the project manager of numerous missions and complex studies and coordinated complex studies on similar themes. In addition, he has already worked in several countries of the Maghreb (Tunisia, Algeria, Mauritania), the sub-Saharan region (Guinea, Senegal, Togo, Mali, Benin, Niger, Burkina Faso, Cote d'Ivoire) and East Africa (DRC, Burundi, Rwanda).

	<p>• Mrs. Agata Sferratore, Société du Canal de Provence, France</p> <p>Mrs. Agata Sferratore is an environmental expert (PhD in geosciences and natural resources management) in charge of impact assessment of water infrastructure development projects within SCP. She is involved in projects related to water supply, and her role is to ensure sustainability of the latter, using different environmental assessment methods, like life cycle assessment (LCA). This method is a powerful tool to evaluate and compare the feasibility of different scenarios.</p> <p>Agata is currently applying LCA to water-for-agriculture supply schemes (e.g. TWWR versus pumping underground raw water). The LCA analysis helps decision making on the basis of several environmental parameters such as GHG emissions, energy and raw material consumption, water stress.”</p>
	<p>• Mr. Jacques Beraud, Société du Canal de Provence, France</p> <p>Jacques BERAUD is an agronomist engineer, senior project manager in charge of leading wastewater reuse studies within Société du Canal de Provence (SCP), a French regional hydraulic operator and engineering consulting company.</p> <p>He is involved in TWWR R&D projects implementation, feasibility studies, and technical assistance, in France as well as in MENA countries, such as Morocco, Palestine, Tunisia and Algeria. Recently he was involved in a multi thematic and participative assistance mission for two TWWR irrigated perimeters in Tunisia, on behalf of Mediterranean Water Institute (IME). He is convinced cost-benefit analysis combined with environmental assessment are important tools to prepare and operate successful TWWR schemes.”</p>