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Economic and Social Commission for Western Asia (ESCWA)

Report

Online Training Webinar on “Addressing the Water-Energy-Food (WEF) Nexus in the Context of Climate Change and Sustainable Development”

VOL. II: Governance, Regulations and Integrated Approaches including Financial Mechanisms

21 October 2020

Summary

The European Union and the Gulf Cooperation Council (EU-GCC) and the Environmental Center for Arab Towns (ECAT), in association with the UN Economic and Social Commission for Western Asia (ESCWA), the Middle Eastern Desalination Research Center (MEDRC), the Swedish International Development Cooperation Agency (Sida), and the Embassy of the Kingdom of the Netherlands in the UAE organized an online training webinar on 21 October 2020 titled “Addressing the Water-Energy-Food (WEF) Nexus in the Context of Climate Change and Sustainable Development” on “Vol. II: Governance, Regulations and Integrated Approaches including Financial Mechanisms”. The webinar was aimed at supporting the development of the water-scarcity struggle within the Arab region by assessing different approaches, governmental regulations, and financial techniques to improve the energy and water sectors and mitigate climate change.

The webinar enabled the participants representing various institutions to engage in constructive discussions focused on the presentation and analysis of different approaches and strategies for the energy transition within the Arab region, highlighting the necessary governmental and financial actions. This resulted in the identification of the key barriers and challenges faced and paved the way for the formulation of solutions. Activities throughout the MENA region such as agricultural water management, improving water productivity, drought treatment, and direct and indirect wastewater treatment were thoroughly discussed with focus on the strategies, challenges, and solutions required for a successful operation.

The webinar concluded with a series of recommendations that address the challenges faced in the water, energy and food sectors. All of which work in an integrated manner to achieve the targeted sustainable development goals (SDGs). Some key recommendations all speakers touched upon are good governance, defining the scale of nexus projects, and the creation of dialogue and relations in the way data is collected and shared throughout different sectoral levels and across all relevant stakeholders.

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I. Introduction

1. The European Union and the Gulf Cooperation Council (EU-GCC) and the Environmental Center for Arab Towns (ECAT), in association with the UN Economic and Social Commission for Western Asia (ESCWA), the Middle Eastern Desalination Research Center (MEDRC), the Swedish International Development Cooperation Agency (Sida), and the Embassy of the Kingdom of the Netherlands in the UAE organized an online training webinar on 21 October 2020 titled “Addressing the Water-Energy-Food (WEF) Nexus in the Context of Climate Change and Sustainable Development” on “Vol. II: Governance, Regulations and Integrated Approaches including Financial Mechanisms”.
2. The main objective of the webinar was to support the development of the water, energy and food struggle within the Arab region by assessing different solutions through governmental and policy frameworks, the nexus approach, and financial mechanisms.
3. The webinar was attended by a variety of participants representing various local key partner organizations, government and financial institutions and relevant governmental regional organizations, national experts, representatives from private sector, NGOs, academia and local communities.
4. The webinar was divided into two sessions.

II. RECOMMENDATIONS

5. The webinar concluded with the following recommendations:

The International Water Management Institute’s program expects the following outcomes:

- a) Produce an additional 2 million tonnes of food.
- b) Reduce water consumption by more than 760 million litres.
- c) Reach energy savings of 12.5% in the food value chain.
- d) Leverage innovations through partnerships and collaborations.

In order to develop the capacity of ESCWA member countries’ response to the Water-Energy Nexus, three initiatives are needed:

- e) The generation of electricity from micro-hydro systems in a water transmission system-Tunisia.
- f) The use of photovoltaic solar systems for groundwater pumping in The Syrian Arab Republic.
- g) The use of photovoltaic solar systems for water pumping in agriculture in Egypt.

The Global Risks Report 2020 by the World Economic Forum concludes:

- h) The water crisis is serious and can cause major societal risks. Such risks are interconnected and require a system of thinking and investment in environment to innovate.
- i) Between 2020 and 2050, the population is targeted to increase by 44%, the water demand by 21%, and water shortage by 78% (28% of the 2050 demand).

III. MAIN TOPICS OF DISCUSSIONS

6. Presentations and discussions are summarized in the following sections which are organized according to the substantive sessions of the webinar.

A. SESSION I

7. The session opened with a presentation covering the International Water Management Institute’s project aims and objectives, current activities in the MENA region, the main challenges faced in the water, energy, and food sectors, and the strategies and solutions used to overcome them.
8. The main challenges related to water are categorized into three aspects: food: with needed improvement in food security and the conservation of ecosystems and water resources; climate: to adapt to and mitigate climate change; and growth: to promote sustainable growth and achieve gender equality. These problems can be solved through digital innovation, governance and equality, and economics and incentives.

9. A main topic of discussion was the significance of good governance in solving many of the issues at hand, yet it still requires the integration of openness, transparency and integrity, performance orientation, and effective collaboration.

10. The next presentation focused on the new generation of experts and their role throughout the sectors. New experts should be equipped with interdisciplinary skills to interlink with other professionals in correlated fields to optimize planning, execution, transparency, efficiency and outcomes. The possibility of linking sectors can only be achieved through flexible regulatory and institutional frameworks and policies that allow bridging.

11. The final presentation of the first session covered UN ESCWA's REGEND project which was introduced and presented with its Water-Energy-Food Nexus aspects highlighted and its contributions towards the SDGs specified. The REGEND project, implemented in Tunisia, Jordan and Lebanon aims to increase the livelihood, economic development, social inclusion and gender equality in rural areas throughout the hosted countries. The direct and indirect processes related to water and energy for food were covered along with the regional policy toolkit's aim of building the capacity of ministries and public service providers to adopt the nexus approach and address water and energy issues in an integrated manner.

12. The participants concluded that the main challenges of integrating the nexus approach are the lack of coherence and communication, data gaps, and technological barriers; all of which can be solved by creating dialogue and the inclusion of all relevant stakeholders, promoting the use of quantitative methods and clear indicators, creating relations between the methods used for collecting and sharing data, and building upon current scenarios rather than using substitutional methods.

B. SESSION II

13. A presentation on the Dutch diamond approach and agricultural sector was presented. The interlinkages between water supply, energy and food security is of high significance and should be approached from a nexus perspective for optimum efficiency. The Dutch diamond approach relates governmental entities to knowledge institutions, civil society organizations, and the private sector. All these relationships are crucial for the Netherlands to successfully set up an innovation centre catered towards the production of more food using less water.

14. The final presentation discussed the interactions within and across the sectors at different scales. Trade-off tools and analytics, as catalysts for inclusive dialogue, were also a core factor presented. A 3-filter STEP framework for vetting WEF nexus scenarios was explained and recommended.

15. The participants discussed and shared the same view that different solutions should be accounted for including governmental and policy frameworks, the nexus approach, and financial mechanisms. The presence of good governance requires the integration of openness, transparency and integrity, performance orientation and effective collaboration. This needs to be well aligned with the nexus projects' scale definition and market mechanisms to facilitate the creation of quantitative methods and inclusion of all relevant stakeholders.

C. CLOSING SESSION

16. The webinar sessions were closed by the moderator, Dr. Hammou Laamrani, Senior Expert in the League of Arab States (LAS). The closing statement emphasized the fruitful discussions during the webinar and the intention to continue coordinating and collaborating with the represented stakeholders.

IV. ORGANIZATION OF WORK

A. DATE AND VENUE

17. The webinar was organized online on 21 October 2020.

B. OPENING

18. The webinar was formally opened by Dr. Jauad El Kharraz, Head of Research in Middle East Desalination Research Centre (MEDRC).

C. PARTICIPANTS

19. The webinar was attended by a wide variety of participants representing various local key partner organizations, government and financial institutions and relevant governmental regional organizations, national experts, representatives from private sector, NGOs, academia and local communities.

D. AGENDA

20. Presentations and discussions were made over two sessions. The agenda of the webinar is summarized below:

- a) Session I
- b) Session II

ANNEX I: AGENDA

Agenda

Session I:

Moderator: Dr. Jauad El Kharraz, *Head of Research, Middle East Desalination Research Center (MEDRC)*

Speakers:

- Dr. Hammou Laamrani, *Senior Expert - League of Arab States, Cairo, Egypt*
- Mr. Ziad Khayat, *Economic Affairs Officer, Water Resources Section, Sustainable Development Policies Division (SDPD), UN-ESCWA, Beirut, Lebanon*
- Dr. Amgad Elmahdi, *Director of MENA Region, IWMI, Cairo, Egypt*

Break: 5 min

Session II

Moderator: Dr. Hammou Laamrani, *Senior Expert - League of Arab States, Cairo, Egypt*

- Ms. Tessa Terpstra, *MENA Regional Envoy for Water and Energy Security, Counsellor, Embassy of the Kingdom of the Netherlands,*
- Dr. Bassel Daher, *Assistant Research Scientist, Texas A&M Energy Institute, Texas A&M University, USA*

Q&A and Wrap Up