CAIRO
Water Week 2021

Water, Population and Global Changes:
Challenges and Opportunities

Table of Contents

Welcome Message

Prime Minister

Dear Excellencies,

I extend my warmest greetings to the participants in the 4th Cairo Water Week (CWW) and its related activities that will take place during the period of 24th – 28th October 2021 in Cairo, Egypt. Allow me, on behalf of the Egyptians to welcome you all to this annual event, organized by the Egyptian Ministry of Water Resources and Irrigation, in collaboration with reputed national, regional, and international institutions. In the 4th edition of the CWW, further to the previous editions, we try to address all aspects of water on global and national scales.

Egypt is among the most hyper-arid countries where the annual share of water is 560 m3 per person, is very close to the international threshold “absolute water scarcity” and expected to drop below this threshold in the next five years. The whole world, particularly the middle east region, and Egypt at the forefront are facing escalating water related challenges that include climate change, water scarcity, food security, environmental extreme events, pandemics, and more. These circumstances have interrelated, direct, and indirect implications on the water cycle, availability, and quality. This Year, the CWW addresses these challenges through its main theme, “Water, Population and Global Changes: Challenges and Opportunities.”

The Egyptian Government, in its endeavors to achieve the Sustainable Development Goals (SDGs), has developed its National Vision and National Sustainable Development Strategy 2030; while giving high regards to the water sector, Egypt has developed Water Strategy 2050 and the National Water Resources Plan 2037.

The CWW 2021 will address the most crucial water issues related to through the organization of plenaries and special panels, technical sessions, and high-level side events with the participation of distinctive speakers and experts. I’m full of confidence that this event represents an excellent opportunity for all international delegates, multi-sectoral attendees, and young pioneers to share their visions, and offers a unique platform to encourage water practitioners to call for actions in order to secure one the main cornerstones of the human rights, which is the sustainable access to safe water, sanitation, and food.

On behalf of the Government of Egypt, I welcome you all to the 4th Cairo Water Week and wish you a great event and a memorable stay in the land of pharaohs, Egypt.

Dr.MostafaMadbouly
Prime Minister of Egypt.

Minister of Water Resources and Irrigation

Dear Excellences, Distinguished Delegates, and Participants,

On behalf of the Egyptian Ministry of Water Resources and Irrigation, I would like to express our great pleasure to welcome you to the 4th Cairo Water Week. The main theme of this year of CWW is "Water, Population and Global Changes: Challenges and Opportunities," covering five critical sub-themes and thirty hot topics. The world has witnessed the recent disastrous weather, heat waves, wildfires, and the significant ramifications of global warming and climate change. There is a consensus that human actions and anthropogenic activities are the main drivers of these global challenges. In addition to that, global and regional cooperation is the only lifeline to the aimed international and regional water peace.

In light of the fourth pillar of the Egyptian National Water Resources Plan (NWRP 2017-2037), Enabling Environment, the CWW schedule gathers distinct backgrounds, perspectives, cultures, sectors, and water stakeholders from all over the world into an excellent environment of knowledge sharing, innovation promotion, and support of policy making. The CWW also organizes several competitions to award the best three-minute thesis and graduation projects in hydro-sciences, encourage young innovators, and honor water-smart farmers.
At the same time, the Ministry is very keen to share Egypt's experience dealing with including and not limited to water scarcity, increasing food gap, extreme climate vulnerability in the Nile Delta, enhancing water use efficiency, the technical development in the Egyptian water management, and development of integrated management plans and resilient strategies. Through various CWW events, we will be delighted to share with you the relentless efforts by sincere Egyptian hands, apparently in constructing numerous of the worldwide largest water and wastewater treatment plants, implementing one of the largest water rationalization projects that aims at rehabilitation and lining of 7000 km of old canals, as a first stage, by 2022, in addition to the construction of more than a thousand protection structures, and desalination plants in coastal cities.

I assure you that global and regional cooperation is the only way forward to overcome the emerging global and regional water challenges. The CWW will provide an excellent platform to network, integrate global efforts, share knowledge and expertise, create cooperation opportunities, and enrich the common benefits of participants.

I welcome all participants to CWW 2021, who represent the international scientific community, industrial experts, water leaders, decision-makers, and talented youth, to explore the new pathways under our main theme of "Water, Population and Global Changes: Challenges and Opportunities".

Looking forward to meeting you in the 4th CWW in the charming city of Cairo, October 2021

Dr. Mohamed Abdel Atti,
Minister of Water Resources and Irrigation of Egypt

Head of Cairo Water Week Permanent Secretariat

Dear Excellences, Colleagues, and Honorable guests,

On behalf of the Cairo Water Week Permanent Secretariat, and the Egyptian Ministry of Water Resources and Irrigation, we are honored and delighted to welcome you to CWW 2021. The CWW will be held in the beautiful historical city of Cairo. This event is organized in collaboration with reputed international and regional organizations from all over the world. CWW is a collaborative cross-sector platform playing a transcendental role in providing an innovative and comprehensive overview of the latest developments and solutions for the sustainable management of water resources.

The event would create an environment for gathering global perspectives, with more focus on the Arab, Mediterranean, and African regions. The central theme of the CWW is “Water, Population and Global Changes: Challenges and Opportunities”.

The world is experiencing an overpopulation at its fastest pace, with estimates of 6 billion people to live in cities by 2050. Urban sprawl coupled by climate change impacts and global pandemics are adding immense pressure on water demand. Leaders and professionals have agreed that there is an eminent need for a visionary approach towards integrating water management, social and urban planning.

The five-day conference and exhibition will feature keynote addresses by world-renowned water technology ingenuity from academia and industries, sharing and discussing latest significant developments and scientific advancements related to various water issues. Water professionals are invited to present their latest findings related to the main theme. The plenary keynotes, high-level events, technical and special sessions, young water professionals’ program, investment forums, workshops, technical visits, and networking events will be organized to offer you opportunities of sharing ideas, research, and networking with delegates.

We hope that the conference fosters links between the policy makers, scientific community and industries to identify and deliver common-ground, practical, and achievable solutions to tackle the global water challenges. We sincerely invite you to join CWW 2021, as we work to make the event an exciting and memorable one. You also could visit Cairo; the beautiful city located in the heart of Egypt at the side banks of the great Nile River. It is a hospitable and attractive city of rich culture, beautiful sights, historical places, and landscapes.

We look forward to welcoming you to Cairo, Egypt!

Dr. Eman Sayed,
Head of Planning Sector, Ministry of Water Resources and Irrigation of Egypt

Higher Committee

- **Dr. Mohamed Abdel Atti,** Minister of Water Resources and Irrigation, Chairman of Cairo Water Week, Egypt
- **Dr. Ragab Abdel Azim,** Deputy minister, Ministry of Water Resources and Irrigation, Egypt
- **Dr. Eman Sayed,** Head of Planning sector, Ministry of Water Resources and Irrigation, Egypt
- **Dr. Khaled Abd El Hay,** Chairman, National Water Research Center, Ministry of Water Resources and Irrigation, Egypt
- **Prof Dr. Ragab Ragab,** President, International Commission on Irrigation & Drainage (ICID) Professor, Fellow Principal Hydrologist & Water Resources Management Specialist UK Centre for Hydrology (UK CEH) Wallingford, Oxfordshire, UK. Adjunct Professor, Soil and Water Sciences Dept., University of Alexandria, Egypt
- **Dr. Hammou Laamrani,** Senior Expert for Water, Energy, Food Security and Climate Change Nexus, Economic Sector, League of Arab States.
- **Dr. Mohamed I. Al-Hamdi,** Senior Land and Water Officer, Food and Agriculture Organization of the United Nations – Regional Office for the Near East and North Africa (FAO-RNE)
- **Dr. Bisher Imam,** Senior Programme Specialist, Regional Hydrologist, UNESCO Regional Bureau for Science in the Arab States
- **Prof. Hani Sweliem,** Director of the UNESCO Chair in Hydrological Changes and Water Resources Management at the RWTH, Aachen Un , Germany
- **Dr. Eng Mohamed A. Shehata Wahba,** Vice President Honoraria- ICID & Former Chairman - ENCID, Chairman - African Regional Working Group– ICID & Working Group of Capacity Development, Training and Education ICID, Professor Emeritus- Drainage Research Institute, NWRC, MWRI-Egypt
- **Eng. Walid Hakiki,** Head of the Central Department for Kitchener Drain Rehabilitation Component, Ministry of Water Resources and Irrigation, Egypt

Scientific Committee

Head of Scientific Committee:

- Prof. Abdelkawi A. M. Khalifa, Former Minister of Water & Wastewater Utilities, Professor of Irrigation and Hydraulics, Faculty of Engineering, Ain Shams University

Coordinator of Scientific Committee:

- Prof. Dr. Eng. Yehia Kamal, Head of the Irrigation and Hydraulics Department, Faculty of Engineering, Ain Shams University

Scientific Committee: "Sorted alphabetically"

- Dr. Ahmed El-Gendy, Associate Professor in the Department of Construction Engineering Director of the Environmental Engineering Graduate Program at the American University in Cairo
- Dr. Anas El-Molla, Professor at Al Azhar University Faculty of Engineering
- Dr. Ashraf M. Elmoustafa, Professor at the Irrigation and Hydraulics Department, Faculty of Engineering, Ain Shams University
- Dr. Eman Ragab, Head of Information Management Department and a researcher at the Research Institute for Groundwater, National Water Research Center
- Prof Dr. Enas Mohamed Aboutaleb, Professor of WastewaterTreatment Technologies. Chief Executive Officer of Egyptian Environmental Affairs Agency, Ministry of Environment (EEAA)
- Dr. Essam Mohamed, Assistant professor at the Institute of Global Health and Human Ecology (IGHHE), Technical Advisor of the Center of Excellence for Water – The American University in Cairo
- Dr. Ezzat Elalfy, Assistant professor in Irrigation and Hydraulics Department at Ain Shams University
- Prof Dr. Hesham El-Askary, Director Computational & Data Sciences Graduate Programs, Center of Excellence in Earth Systems Modeling & Observations, Schmid College of Science and Technology, Chapman University, USA
- Dr. Hussein Gamal El Dien, Head of The Experimental Fields and Pilot studies, Drainage Research Institute
- Dr. Mahmoud Roushdi, Deputy Director of Environment and Climate changes Research Institute (ECRI)
- Dr. Mohamed A. Dawoud, Professor, National Water Research Center. Director, Water Resources Department, Environment Agency – Abu Dhabi (EAD), UAEDr. Mohamed Ammar, Assistant Professor of Water Resources Management and Engineering at the Department of Irrigation and Hydraulics Engineering in Cairo University
- Dr. Mohamed Ammar, Assistant Professor of Water Resources Management and Engineering at the Department of Irrigation and Hydraulics Engineering in Cairo University
- Prof. Dr. Mohamed Shaban, Deputy director of the Drainage Research Institute (DRI), National Water Research Center (NWRC)
- Prof Dr. Mohamed Nour El-Din, Water Resources & Irrigation consultant, Professor Emeritus, Faculty of Engineering- Ain Shams University
- Prof. Dr. Mostafa Ali Abdelaal, Professor at the Civil Engineering Department Irrigation and Hydraulics Division, Faculty of Engineering, Al-Azhar University.
- Eng. Nourhan Abdelazim, Assistant Lecturer at Faculty of Engineering, Cairo University and Minister Assistant for Research and Studies, Ministry of Water Resources and Irrigation in Egypt
- Dr. Peter Riad, Associate Professor at Irrigation and Hydraulics Department, Faculty of Engineering- Ain Shams University
- Prof Dr. Ragab Ragab, President, International Commission on Irrigation & Drainage (ICID) Professor, Fellow Principal Hydrologist & Water Resources Management Specialist UK Centre for Hydrology (UK CEH) Wallingford, Oxfordshire, UK. Adjunct Professor, Soil and Water Sciences Dept., University of Alexandria, Egypt
- Prof Dr. Rasha El-Kholy, Vice President for Education and Students' Affairs, Egyptian Chinese University
- Prof Dr. Yasser Raslan, The director of Nile Research Institute, National Water Research Center
- Dr. Yehya Imam, Assistant professor in the Environmental Engineering Program at the Zewail City University of Science and Technology, Egypt

Permanent Secretariat

“Sorted alphabetically”

- Eng. Abdelrheem Yehia Mohamed, Minister’s Technical office, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Ahmed Abdel Aziz, Civil Engineer, Minister’s Technical office, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Ahmed Yassin Twofik, Water Resources Engineer, Ministry of Water Resources and Irrigation, Egypt.
- Mr. Ali El Bana, Senior Accountant, Ministry of Water Resources and Irrigation, Egypt
- Dr. Amr Fawzi, Deputy Director of Water Resources General Department, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Ashraf Ghanem, Manager of Planning Sector’s Technical Office, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Atef Kamal, Exhibition and Sponsorship Coordinator, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Ayman Ibrahim, Head of Telemetry, Information, and Assets Sector, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Bakinam Tarik Essawy, Engineer at the Ministry of Water Resources and Irrigation, certified reviewer at Earth and Space Science Journal, SoftwareX, and Computer & Geosciences Journals. Editor of the Cairo Water Week 2021 Conference
- Eng. Dalia Mahmoud Mostafa, Software Engineer, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Doaa Lasheen, Civil Engineer, General Department of Water Resources, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Mr. Mohamed Atta, General Manager, Procurement Department, Ministry of Water Resources and Irrigation, Egypt.
- Mr. Mohamed Metwally, Head of Central Department for Financial and Administrative Affairs, Water Sector- Ministry of Water Resources and Irrigation, Egypt.
- Eng. Mohamed Salah, Manager of Agreements and External Financing Department, Ministry of Water Resources and Irrigation, Egypt.
- Mr. Mohamed Shawki, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Mona Maher, Senior External Affairs and partnerships officer, Ministry of Water Resources and Irrigation, Egypt
- Eng. Nariman Abdelrahman, Civil Engineer, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Mrs. Neveen George, Accountant, Technical Office, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Ms. Noura Hussien, Project Assistant, EU-SATRS project, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Omima Abdelnasser, Architect Engineer, EU-SATRS project, Ministry of Water Resources and Irrigation, Egypt.
- Ambassador. Raffik Khalil, Minister’s Advisor, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Radwa Salah, Planning Sector, Ministry of Water Resources and Irrigation, Egypt
- Eng. Rana El-Banna, Graphic Designer, Ministry of Water Resources and Irrigation, Egypt
- Mrs. Sahar Essmat, General Manager, Public Relations Department, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Shady Ahmed Azzam, Software Engineer, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Taha Mohamed Qasem, Nile Forecasting Center, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Walaa Eldin Salah, Civil Engineer, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.

Conference venue

The Nile Ritz-Carlton Hotel, Cairo

Cairo Water Week is being held in its fourth year, where you can enjoy and attend its activities. The event will take a few steps from the Tahrir Square (main public square in downtown Cairo, Egypt) in the famous Nile Ritz-Carlton Hotel with a unique view of the Nile River. The hotel, which blends tradition and modernity, the fragrance of history, and the development of the present, offers a unique blend of urban elegance, the finest modern luxury, and distinguished architecture.

The Venue is certified by the Ministry of Tourism and the Ministry of Health as a safe venue applying all measures against Covid19.

Hotel address: 1113 Corniche El Nile, Cairo, 11221 For more details about the facilities of the hotel please visit www.ritzcarlton.com

Floor Plan

1 GARDEN
2 AL QAHIRA (A)
3 AL QAHIRA (B)
4 AL QAHIRA (C)
5 AL QAHIRA (D)
6 AL QAHIRA (E)
7 MEDIA CENTER
8 HOUSE SERVICE
9 RECEPTION
10 RITZ BAR
11 TOILET
12 ENTRY FOYER

Ground Floor

1 Maadi
2 Al Qala
3 Qasr El-Nile
4 Zamalek
5 Heliopolis
6 Abdeen
7 Alf leila we leila (A)
8 Alf leila we leila (B)
9 Alf leila we leila (C)
10 Alf leila we leila Foyer
11 Italian Restaurant
12 ENTRY FOYER
13 Treatment
14 Toilet

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Conference Overview

Demand for fresh water is rising with factors, such as population growth, land-use change, and climate variations. These factors are expected to undergo substantial changes, a complex process affected by natural processes, human activities, and climate variations. This is bound to render freshwater availability in the future uncertain. Water resources are therefore indisputably declining at an alarming rate all around the world.

Urbanization is one of the most extreme forms of human-induced land-use change resulting from the intricate actions of various physical and socio-economic factors. Urbanization leads to increased pressure on freshwater resources as people become more concentrated in one area by transforming once natural landscapes to urban water-impervious lands, limiting available freshwater resources.

Besides population growth, water demand is also expected to be influenced by economic development and projected changes in water use efficiency as urban areas grow. This is a significant concern for many developing countries that have seen their economies undergo rapid transitions from rural to urban settings during the last half of the twentieth century, especially since the world population tripled while the use of water increased six-fold in the past century. Population growth will particularly reduce the amount of water available per person. An increase in per capita water consumption driven by development will intensify water demand, straining the local water supply.

The essential first step in sustainable water use is recognizing the links between rapidly growing populations and shrinking freshwater supplies. Although there is no global water crisis, individual countries and regions must urgently deal with the challenges presented by water stress. It is imperative to treat water as a limited resource and focus on managing its demand. Integrated water resources management provides a broad framework for governments to align water use patterns with the needs and demands of different users, including the environment.

The fourth edition of the CWW series of conferences, Cairo Water Week 2021, will take place from 24th to 28th of October 2021 in Cairo – Egypt, and it will address the main theme “Water, Population and Global Change: Challenges and Opportunities.” This year, the event will discuss population issues and the impact of overpopulation on common management of transboundary rivers and climate change for the first time in this series as they directly impact the water sector. The five related sub-themes and several sub-topics will be addressed during the event through various plenary and technical sessions organized by reputed international and regional organizations interested in such topics.

CWW is an essential platform for professional engagement, exchanging and sharing ideas, learning from others, and identifying areas for partnerships and collaborations. The key events at which activities associated with the topic will be proposed are several recent events and discussions highlighting the links between water, population, and global changes.

Openning Ceremony

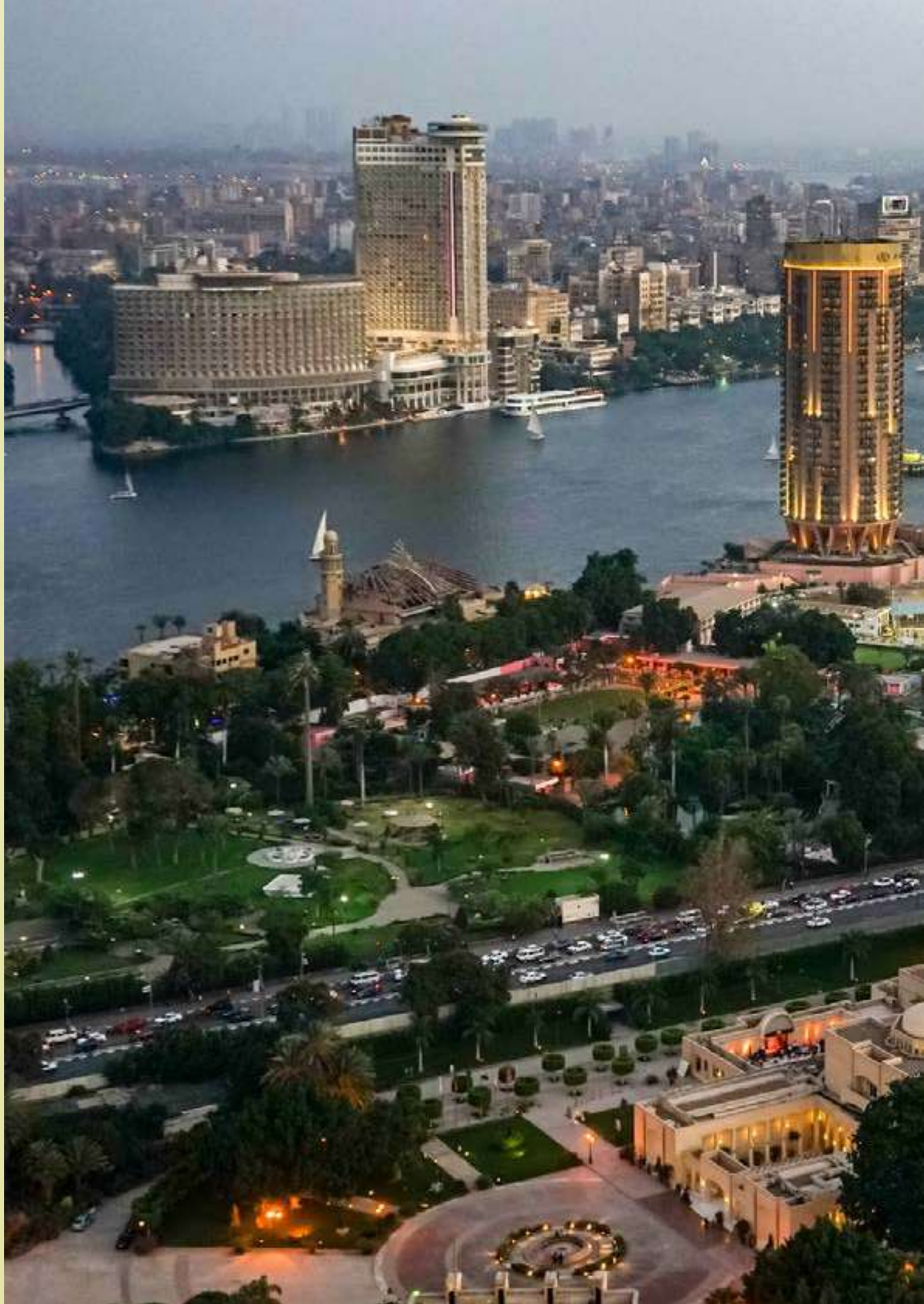
Date: October 24th, 2021

Time: 09:30- 10:30.

Hall: AL Qahira (B, C, D, E)

- H.E. Dr. Mohamed Abdel Aty, Minister of Water Resources and Irrigation, Egypt
- H.E. Mr. Serigne Mbaye THIAM, Minister of Water and Sanitation, Senegal
- H.E Mr. Abdulhakim ElWaer, Assistant Director-General and Regional Representative of FAO in the Near East and North Africa region
- H.E Oliver Varhelyi, Commissioner, Neighborhood and Enlargement, EU.
- Hon. Eve BAZAIBA MASUDI, Minister of Environment & Sustainable Development, Democratic Republic of the Congo
- H.E Mr. Áder János, President of the Republic of Hungary -***Recorded Message***
- H.E Mr. Abdel Fattah El Sisi, President of the Arab Republic of Egypt -***Recorded Message***
- **Master of the ceremony:** Ms. Raghda Mounir

Translation: English – Arabic – French



Main Themes

Water, Population and Global Changes Challenges and Opportunities

Theme 1

Regional and Sectoral Cooperation for Water Security

Competition among uses and users of water is increasing in almost all countries. This competition for water could increasingly become a source of tension and conflict between states, sectors, and communities. However, water has also proven to be a productive pathway for confidence building, cooperation, conflict prevention, and acting together toward a common end and mutual benefits. To ensure that water security and sustainability is achieved, concerted efforts must be made to promote water cooperation at river basin and local scales, including transboundary river basins, irrigation districts and cities. Cooperation is necessary to deal with major issues such as water allocation, upstream and downstream impacts of water pollution and water abstraction, construction, and management of infrastructures such as dams, dealing with illegal abstractions and overexploitation of surface and groundwater, the financing issues, and improving water-related crisis management. This sub-theme will address the importance of promoting regional and sectoral cooperation considering the following topics:

- Cooperation to promote sustainable development
- Case studies of successful regional cooperation on transboundary water
- Modern technologies for enhanced transboundary water governance
- Knowledge and information sharing between riparian countries
- Water diplomacy and Hydro-politics

Theme 2

Advances in Water Management

With the rapid population growth in many areas all over the world, the demand for scarce water resources rises, and the gap between water supplies and demands increases. There is a major challenge of meeting this demand given scarce water resources and the future climate change impacts. Country strategies to deal with water shortages depend on local conditions, including topography, the extent of water scarcity, available financial resources, and technical and institutional capacity. Overall, developing a mix of strategies that increase supply, manage demand, and reduce long-term pressures on water is urgent more than ever before, as population pressures continue to increase.

The gap between water supplies and demands may be alleviated by applying adaptive, integrated water management. A primary management objective is to improve productivity and increase water use efficiency. In the agricultural sector, this objective may be achieved using smart irrigation systems, drainage water reuse, and saline agriculture. In the urban water sector, a futuristic management approach is to apply artificial intelligence (AI) for optimization, automation, and decision-making. AI can aid in managing water loss and misuse in real-time, in designing and implementing reliable distribution networks, and in achieving financial targets. This sub-theme will address the importance of making use of advanced technologies in water management considering the following topics:

- Use of smart irrigation techniques
- Climate smart agriculture
- increasing water productivity
- Advances in water recycling/reuse
- Use of artificial intelligence in water management

Theme 3

Water and Society

The rapidly growing interest in water security and risk mitigation has been accompanied by a focus on water's relationship with society in terms of poverty and development in the context of the SDGs. The nature and sources of the global water crisis vary regionally across different patterns of demand, supply, infrastructure development, and governance. Understanding the nature of water crisis and the determinants of water insecurity are prerequisites to form a good DSS regarding institutional development and infrastructure investment. Water security is also considered as part of a web of interrelated concerns about national, energy, and food security. The links between water security and sustainability and between water security and economic growth have required indicators that account for interacting physical and human-driven hazards and causal processes. Pathways to water security consider the intervention or mix of interventions aimed at reducing the negative consequences of water-related hazards. This sub-theme will address the indispensable relation between water and society considering the following topics:

- Water management for sustainable development
- Socio-economic dimensions of water management
- Enabling environment for enhancing water management
- Water – Energy – Food Nexus
- Access to basic water and wastewater services

Theme 4

Water and Global Changes

Water demand, water stress and water scarcity are increasing due to population growth, urbanization, land use change, climate change, and other drivers. Global water demand is increasing at approximately 1% per year. Both livelihoods of rural communities and food security of a predominantly urban population are therefore at risk from water-related impacts. Measures to suppress the Covid-19 pandemic, including hand washing, self-isolating, and lockdowns assume that societies, communities, and households have sustainable access to acceptable amounts of water with adequate quality.

Various adaptation measures dealing with global change, climate variability, building upon improved land, and water management practices have the potential to create resilience to global and climate changes. They imply a good understanding of the impacts on the available water resources, agricultural systems, policy choices, investments, and managerial changes. This sub-theme will address the importance of global changes and their impacts on water management considering the following topics:

- Climate change adaptation measures in water sector
- Impact of urbanization on water resources management
- Population growth and its impact on water security
- Water scarcity and its potential impact on population
- Covid-19 pandemic and how it might affect the water sector

Theme 5

Innovation in Hydro-Sciences

The Human need to face progressive challenges of water scarcity and difficulties in managing water resources lead to historically wide varieties of innovations in hydro science and relevant technologies. Smart irrigation systems, desalination, renewable energy, water and wastewater treatment systems, and advanced control systems are few examples of such physical innovations in almost all disciplines related to water and the environment. In addition, advances in computers and information technology provide a powerful tool in developing prediction models to handle huge amounts of data and information (including satellite images) as well as artificial intelligence. These progressing advances would enable researchers to interact with water management difficulties timely, effectively in a realistic manner.

The theme covers innovations from different disciplines relevant to water resources and demands and the environment in terms of sustainability, management, as well as predicting impacts of engineering and technological interventions on social and economic environments. This sub-theme will address the importance of innovation in hydro-science and water management considering the following topics:

- Advances in desalination technologies
- Advances in hydraulic modeling and analysis
- Use of renewable energy in water management
- Innovations in water conservation and water reuse
- Low-cost wastewater treatment
- improving techniques for water monitoring

Day by Day Program

Plenary Sessions

Day 1: October 24th, 2021

PS1: Regional and Sectoral Cooperation for Water Security

(Hybrid)

Hall Name: Alf Lila w Lila A, B

Time: 15:15 - 17:15

Convener(s): Ministry of Water Resources and Irrigation, Egypt.

Moderator: Mr. Bai-Mass Taal, Former Executive Secretay AMCOW Special Adviser, Secretariat 9th World water Forum, Dakar 2022.

Panelists:

- Hon. Eve BAZAIBA MASUDI, Minister of Environment & Sustainable Development, Democratic Republic of the Congo (DRC).
- Prof. Dr. Hesham Bekhit, Professor of Water Resources, Cairo University, Egypt.
- Dr. Martina Klimes, Advisor - Water & Peace, Transboundary Water Cooperation, Stockholm International Water Institute (SIWI), Sweden.
- H.E. Mr. Yerlan A. Baidaulet, Director General of Islamic Organization for Food Security (IOFS), Kazakhstan.
- Dr. Hanan Al-Amin Muddathir, Consultant and expert in Environmental, Water at Environmental Initiative for Sustainable Development, Sudan.
- Mr. Marc Daniel Heintz: - (Online), Executive Manager, International Commission for the Protection of the Rhine (ICPR) ,Germany
- Prof. Asit Biswas: - (Online), Distinguished Visiting Professor, University of Glasgow, UK; Director, Water Management International, Singapore; and Chief Executive, Third World Centre for Water Management, Mexico.

Session Content:

Competition among uses and users of water is increasing in almost all countries. This competition for water could increasingly become a source of tension and conflict between states, sectors, and communities. However, water has also proven to be a productive pathway for confidence building, cooperation, and conflict prevention, and acting together toward a common end and mutual benefits. To ensure that water security and sustainability is achieved, concerted efforts must be made to promote water cooperation at river basin and local scales, including transboundary river basins, irrigation districts and cities. Cooperation is necessary to deal with major issues such as water allocation, upstream and downstream impacts of water pollution and water abstraction, construction and management of infrastructures such as dams, dealing with illegal abstractions and overexploitation of surface and groundwater, the financing issues, and improving water-related crisis management.

Translation: English – Arabic

Day 2: October 25th, 2021

PS2: Advances in Water Management

(Hybrid)

Time: 9:30 - 11:30

Hall Name: Al Qahira B, C, D, E

Convener(s): Ministry of Water Resources and Irrigation, Egypt

Moderator: Mr. William Oliemans, Regional Manager Latin America and Caribbean, Deltares, Netherlands

Panelists:

- Dr. Ragab Abd Elazim, Deputy of Minster of Water Resources and Irrigation, Egypt
- Dr. Ihab Jnad, Director of water resources department, ACSAD
- Mr. Francisco Rodríguez Mulero, Executive President, State Mercantile Society of Agrarian Infrastructures (SEIASA)
- Dr. Wilfried Hundertmark, Senior Irrigation & Drainage Specialist, Water Global Practice.
- Mr. Praveen Agrawal, Country Director Egypt, World Food Programme (WFP)
- Mr. Moh Tiing Liang (online), Deputy Director, Industry & Technology Collaboration Department, Singapore

Session Content:

With the rapid population growth in many areas worldwide, the demand for scarce water resources rises, and the gap between water supplies and needs increases. There is a significant challenge of meeting this demand given scarce water resources and the future climate change impacts. Country strategies to deal with water shortages depend on local conditions, including topography, water scarcity, available financial resources, and technical and institutional capacity. Overall, developing a mix of strategies that increase supply, manage demand, and reduce long-term pressures on the water is urgent more than ever before, as population pressures continue to grow. The gap between water supplies and demands may be alleviated by applying adaptive, integrated water management. A primary management objective is to improve productivity and increase water use efficiency. This objective may be achieved in the agricultural sector using smart irrigation systems, drainage water reuse, and saline agriculture. In the urban water sector, a futuristic management approach is to apply artificial intelligence (AI) for optimization, automation, and decision-making. AI can aid in managing water loss and misuse in real-time, design and implement reliable distribution networks, and achieve financial targets.

Translation: English, Arabic, Spanish

Day 3: October 26th, 2021

PS3: Water and Society

(Hybrid)

Hall Name: AlQahira B, C, D, E

Time: 9:30 - 11:30

Convener(s): Ministry of Water Resources and Irrigation, Egypt

Moderator: Mr. Péter Kovács, Head of department River Basin Management and Water protection, Hungary

Panelists

- H.E Dr. Mohamed Abdel-Aty, Minister of Water Resources and Irrigation, Egypt
- H.E Eng. Mahdi Rashid Al-Hamdani, Minister of Water Resources, IRAQ
- Mr. Topi Helle, Managing Director of Finnish Water Forum (FWF), Finland
- Dr Naeema Al Gasseer, WHO Representative Egypt and Head of Mission letter
- Dr. Salma Yosry, Urban development programme manager, UN-Habitat Egypt
- Dr. Rasem Dabbas, Business Executive Officer, Nestlé Waters Egypt

Session Content:

The rapidly growing interest in water security and risk mitigation has been accompanied by a focus on water's relationship with society in terms of poverty and development in the context of the SDGs. The nature and sources of the global water crisis vary regionally across different patterns of demand, supply, infrastructure development, and governance. Understanding the nature of water crisis and the determinants of water insecurity are prerequisites to form a good DSS regarding institutional development and infrastructure investment. Water security is also considered as part of a web of interrelated concerns about energy, national, and food security. The links between water security and sustainability and between water security and economic growth have required indicators that account for interacting physical and human-driven hazards and causal processes. Pathways to water security consider the intervention or mix of interventions aimed at reducing the negative consequences of water-related hazards.

Translation: English - Arabic

Day 4: October 27th, 2021

PS4: Water and Global Changes

(Hybrid)

Hall Name: AlQahira B, C, D, E

Time: 9:30 - 11:30

Convener(s): Ministry of Water Resources and Irrigation, Egypt

Moderator: Dr. Eelco van Beek ,expert in the field of integrated water resources management (IWRM), Deltares

Panelists

- H.E Manawa peter GATKUOTH, Minister of Water Resources and Irrigation, South Sudan
- Mr. Mohamed Abdelquader El Ramahi, Director, Asset Management of MASDAR Company, UAE
- Mr. Mario Sander, Head of the Division Middle East I and Policy Issues of Cooperation with the Middle East at the Federal Ministry of Economic Cooperation and Development, Germany
- Dr. Eng. El Arabie El kashawi, Coastal engineer, General Egyptian Shore Protection Authority, Ministry of Water Resources and Irrigation
- Prof. Mohammed Dawood, Professor at National Water Research Center, Egypt and Senior Water Resources Advisor at Environment Agency – Abu Dhabi, UAE
- Prof. Dr. Ragab Ragab, UKCEH Fellow, Hydrologist and Water Resources Management Specialist, President of the International Commission on Irrigation & Drainage, ICID President of the International Commission on Irrigation & Drainage, ICID
- Dr. Cecilia Tortajada (Online), Professor in Practice in Glasgow University

Session Content:

Growing populations, urbanization, land-use changes, and climate change increase demand for water, stress, and scarcity. There is an annual increase of approximately 1% in global water demand. Therefore, the livelihoods of rural communities and the food security of a predominantly urban population are at risk from water-related impacts. Measures to suppress the Covid-19 pandemic, such as handwashing, self-isolating, and lockdowns, assume that communities, households, and societies have sustainable access to adequate quantities and water quality. Various adaptation measures dealing with global change, climate variability, and optimizing land and water management practices create resilience to global warming and climate change. They imply an excellent understanding of the impacts on the available water resources, agricultural systems, policy choices, investments, and managerial changes.

Day 5: October 28th, 2021

PS5: Innovation in Hydro-Sciences

(Hybrid)

Hall Name: AlQahira B, C, D, E

Time: 9.30 - 11.30

Convener(s): Ministry of Water Resources and Irrigation, Egypt

Moderator: Prof. Hani Sweliem, Prof. Hani Sweliem, Professor (PhD), RWTH Rector's Delegate for Cooperation with African Countries Managing Director, UNESCO Chair in Hydrological Changes and Water Resources Management Deputy Director, Department of Engineering Hydrology RWTH Aachen University, Germany

Panelists

- Prof. Dr. Hesham El Askary, Professor, Director, Computational and Data Science Graduate Programs, Schmid College of Science and Technology, USA
- Mr. Alain Meyssonnier, President of the Mediterranean Water Institute (IME)
- Mr. Jordi Pujades, Rubicon Water General Manager - EMEA
- Prof. Marloes Mul, Associate Professor of Water Resources Management, IHE Delft Institute for Water Education, NL-Online
- Dr. Waleed Effat , Technical Manager at ESRI ,USA -Online
- Prof. Ad de Roo, Project Leader of European Commission Joint Research Centre (JRC), Italy-Online

Session Content:

The Human need to face progressive challenges of water scarcity and difficulties in managing water resources lead to wide historical varieties of innovations in hydro science and relevant technologies. Smart irrigation systems, desalination, renewable energy, water and wastewater treatment systems, and advanced control systems are few examples of such physical innovations in almost all water and environment disciplines. In addition, advances in computers and information technology provide a powerful tool in developing prediction models to handle vast amounts of data and information (including satellite images) and artificial intelligence. These advances would enable researchers to interact with water management difficulties timely and effectively in a realistic manner.

The theme covers innovations from different disciplines relevant to water resources and demands and the environment in terms of sustainability, management, and predicting impacts of engineering and technological interventions on social and economic environments.

Translation: English - Arabic

High level event

Day 1: October 24th, 2021

HLE 1.1: Policy Dialogues in Water Scarce Countries for Achieving SDGs

Hybrid

Time: 11:00 – 14:15

Hall Name: AL Qahira B, C, D, E

Convener(s): Ministry of Water Resources and Irrigation

Co-Convener(s): United Nations Economic and Social Commission for Western Asia (ESCWA), Food and Agriculture Organization (FAO), United Nations Water (UN-Water)

Moderator: Prof. Hani Sweliem, Professor (PhD),

RWTH Rector's Delegate for Cooperation with African Countries Managing Director, UNESCO Chair in Hydrological Changes and Water Resources Management Deputy Director, Department of Engineering Hydrology RWTH Aachen University, Germany

Tentative Programme:

1- Overview

- Mr. Loïc Fauchon, President of World Water Council
- H.E. Carl Hermann Gustav Schlettwein, Minister for Agriculture, Water and Land Reform Republic of Namibia, (AMCOW) President
- Ms. Rola Dashti, Executive Secretary, United Nations Economic & Social Commission for Western Asia (ESCWA)
- Dr. Yasmine Fouad, Chairman of the 32 session of Council of Arab Ministers Responsible for the Environment (CAMRE),Minister of Environment of Egypt.
- Mr. Liu ZHENMIN, Under-Secretary-General for Economic and Social Affairs, United Nations
- Mr. Gilbert F.Houngbo, Chair of UN-Water Chair, President of the International Fund For Agriculture Development
- H.E Dr. Mostafa MADBOULI, Prime Minister of Egypt

2- Highlights on Water Related SDGs

- Mr. AbdulHakim ElWaer, Assistant Director-General and Regional Representative of FAO, the Near East and North Africa region
- Ms. Maria Selin, Head of Regional Development Cooperation MENA, Councellor Embassy of Sweden, Jordon
- Ms. Catarina de Albuquerque, Chief Executive Officer, Sanitation and Water for All (SWA)
- HRH Princess Sumaya bint El Hassan, UNESCO Goodwill Ambassador for Science for Peace President of the Royal Scientific Society of Jordan

3- Plenary session topic 1: The Situation of Water Scarce Regions

- Mr. Jamal El-Din Jaballah, Director of the Department of Environment, Housing and Water Resources in the Economic Sector of the League of Arab States
- H.E Eng. Mohammed Al Najjar, Minister of Water and Irrigation, Hashemite Kingdom of Jordan
- H.E Dr. Abdulaziz Alshaibani, Deputy Minister for Water, Saudi Arabia
- H.E Mr. Mazen Ghoneim, Head of the Water Authority, Palestine
- H.E. Mr. Yerlan A. Baidaulet Director General of Islamic Organization for Food Security (IOFS), Kazakhstan
- Dr. Naser Edin Obeid, Director General, The Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD)

4- Plenary session topic 2: Water & Climate Cooperation: Best Practices and Success Stories

- H.E Dr. Mohamed Abdel-Aty, Minster of Water Resources and Irrigation, Egypt
- H.E. Eng. Mahdi Rashid Al-Hamdani, Minister of Water Resources, Iraqi
- H.E Manawa peter GATKUOT, Minister of Water Resources and Irrigation, South Sudan.
- H.E. Said Hussein Iid, Minister of Agriculture & Rural Development of Federal Republic of Somalia
- Mr. Ivan ZAVADSKY, The International Commission for the Protection of the Danube River Basin
- Prof. Owen McIntyre, Professor at the School of Law, University College Cork, Ireland

5- Plenary session topic 3: Finance: Challenges vs Opportunities

- Hon. Sam Cheptoris, Minister of Water and Environment, Republic of Uganda
- H.E Alio Abdulaye Ibrahim, Minister of Urban and Rural Water,Chad
- Dr. Mohamed Maait, Ministry of Finance, Egypt
- Mr. Maciej POPOWSKI, Director-General for Neighborhood Policy and Enlargement, European Union
- Ms. Malinne Blomberg, Deputy Director General - North Africa at African Development Bank Group
- Mr. Alfredo Abad, Head of the Regional Representation for the Near East European Investment Bank, EIB

6-Plenary session topic 4: Innovation tools for sustainable water management

- H.E Deo-Guide Rure, Ministrer of Environment and Agriculture, Burundi
- Mr. Nasser Kamel, Secretary General of the Union for the Mediterranean (UFM)
- Mr. Alain Meyssonnier, President, Mediterranean Water Institute (IME), Marseille
- Dr. Henk WJ Ovink, Special Envoy for International Water Affairs, Dutch Government, Netherlands
- Dr. Amy Khor Lean Suan, Senior Minister of State, Ministry of Sustainability and the Environment Ministry of Transport, Singapore
- Prof. Dr. Ragab Ragab, UKCEH Fellow, Hydrologist and Water Resources Management Specialist, President of the International Commission on Irrigation & Drainage, ICID
- H.E. Mr. Senzo Mchunu, Minister of Water and Sanitation, South Africa.

Session Content:

Further to the adopted UNGA Resolution A/RES/71/222, by the United Nations General Assembly, proclaiming the period 2018 to 2028 The International Decade for Action: Water for Sustainable Development UNGA Resolution 73/226 Decides to convene, in New York, from 22 to 24 March 2023, the United Nations Conference on the Midterm Comprehensive Review of "Water for Sustainable Development". UNGA resolution 75/212 indicates that the Midterm Review Conference shall be preceded by regional and global preparatory meetings and informed by existing water-related meetings at the regional and global levels. The Egyptian Ministry of Water Resources and Irrigation, on behalf of the Egyptian Government, started in 2018 the Cairo Water Week (CWW) as an annual event among many other activities to contribute in solving local, regional and global water challenges. The CWW is now one of the biggest water-related events in Africa and the Middle East, bringing together a broad range of high-level officials, experts, and other stakeholders to discuss the most recent trends related to water. It is a particularly appropriate platform for both developing and water scarce countries to present their views and discuss the particular challenges they face, as well as potential solutions. Egypt attaches great importance to the UN Decade for Action on Water and Sustainable Development (2018-2028) and the UN Mid-term Review conference in 2023, the first UN Conference on Water since 1977. This importance emanates from the indispensability of water to human life, as human beings have no source but water for life, food and agriculture. In addition, water plays a significant role in sustainable development and regional integration, among other things. The lead-up to

the 2023 Conference, the Conference itself and it follows up are absolutely crucial in building political momentum towards achieving SDG 6 and other water-related goals and targets. In this context, the Government of the Arab Republic of Egypt included Cairo Water Week's two upcoming sessions of October 2021 and October 2022 within the framework of the preparatory meetings towards the 2023 Mid-term Review Conference, in order to contribute to building consensus ahead of the Conference and providing substantive inputs.

The Egyptian Ministry of Water Resources and Irrigation, on behalf of the Egyptian Government, took the initiative and pledged a full day for a high-level segment during the 2021 Cairo Water Week titled "Policy dialogues in water scarce countries for achieving SDGs". This high- level segment will comprise focused sessions on (1) the Situation of Water Scarce Regions; (2) Water & Climate Cooperation: Best Practices and Success Stories; (3) Finance: Challenges vs Opportunities; and (4) Innovation tools for sustainable water management. These discussions seek to turn the tide on cross-sectoral implementation of the water-related goals and targets of the 2030 Agenda for Sustainable Development. The High-Level Segment of CWW 2021 will discuss these national and regional challenges and define key areas of action and potential cooperation. It will also present a number of key messages to support policy recommendations, with a view to enhancing the implementation of water related SDGs as an important contribution to the 2023 UN Mid-term Review Conference.

The sessions will gather government representatives, international and regional entities, multidisciplinary organizations and High-Level experts from all parts of the world.

Translation: Arabic – English – French

HLE1.2: Launch Arabic Edition of WWDR2021 (Valuing Water)

Physical

Time: 15:15 – 17:15

Hall Name: Al Qahira B

Convener(s): The United Nations Educational, Scientific and Cultural Organization (UNESCO)

Session Content:

The United Nations World Water Development Report (WWDR) is an annual and thematic report that focuses on different strategic water issues and aims to provide the decision-makers with the right tools to ensure sustainable use of water resources.

CWW has previously hosted the launching of the 2017 WWDR Arabic Edition Report titled "Wastewater: Untapped Resource", which denotes the excellent reputation of the CWW event.

Day 2: October 25th, 2021

HLE 2.1: “Meet the water leaders ”

Physical

(Closed Event – By Invitation)

Time: 09:30 -11:30

Hall Name: AL Qahira C

Convener(s): Ministry of Water Resources and Irrigation

Moderator: Dr. Aly El-Bahrawy, Professor of Hydraulics, Ain Shams University

Session contents

- Water challenges is common for almost every country on planet earth. As , Cairo Water Week is an excellent opportunity for water experts to meet and exchange ideas and success stories. The organizer invite CWW water leaders in a closed session “Meet the water leaders ” which is a special occasion where Ministers of Water in different countries , rigonal and international water organizations to meet and discuss common water related issues in terms of water challenges and local solutions. The output of such discussion is to intoduce innovative solutions to water challenges especially those extracted from local experience that benefit other countries with similar situations. Due to the limited time of the session and the number of Ministers, only five minutes are given to introduce panel and audience to the challenge(s) and local solution(s).

Translation: Arabic – English – French

HLE 2.2: Special Event on the Egyptian National Climate Change Strategy (NCCS)

Physical

Time: 12:00 -13:30

Hall Name: AL Qahira C

Convener(s): Ministry of Environment/Ministry of Water Resources and Irrigation

Co- Chairs:

- H.E. Dr. Yasmine Fouad, Minister of Environment Arab Republic of Egypt
- H.E.Dr. Mohammed Abdel Ati, Minister of Water Resources and Irrigation

Moderator: Dr. Mohamed Bayoumi - Environment Specialist- UNDP

Speakers:

- H.E. Ms. Patricia Espinosa, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC)
- Ms. Marina Wes, World Bank, Country Director for Egypt, Yemen and Djibouti
- Dr. Amr Osama , Advisor to the Minister of Environment for Climate Change
- Dr. Mourad Wahba, Senior Advisor to the Administrator of UNDP
- Mr. Khalid Hamza, Deputy Head of EBRD Egypt

Session contents

The National Council for Climate Change (NCCC) has taken a decision of developing National Climate Change Strategy (NCCS) for Egypt. The main objective of the strategy is to plan and govern climate change at different levels to support the implementation of Egypt Vision 2030, taking into consideration that climate change is mainstreamed into all development sectors.

To this context, the Ministry of Water Resources and Irrigation in partnership with the Ministry of Environment are organizing a 2 hour special event to inform the representatives from national, regional and international organizations on Egypt’s climate change vision. The session will shed light on the National Climate Change Strategy and its framework with focus on water related issues as well as the World Bank Climate and Development Report. The session will include response from UNDP and EBRD on support to implementation. This will promote exchange and dialogue among researchers, policy makers, and international community.

At this event, Egypt will showcase the national planning efforts for management of climate risks. Consequently, it will mobilize the national bodies towards the climate change and the international community to allocate efficient resources for the implementation of national priorities and needs in the context of climate change.

The 2 hours’ event is set to be an informal conversation between the moderator and guest panelists, and it will be divided into two fireside chats, as follows:

- Presenting National Climate Change Strategy (NCCS) and its Framework: This track will assist all audience to better understand the strategy and its framework.
- Promoting Partnership and Cooperation: This track will provide several opportunities for cooperation among the development partners and international organizations and the government of Egypt. Potential opportunities for moving the strategy forward into implementation is the main goal of this track.

Day 3: October 26th, 2021

HLE3.1: Meetings of the High Level Joint Technical Committee for Water-Agriculture of the League of Arab States

(Closed Event)

Online

Time: 12:00 -16:00

Convener: League of Arab States (LAS), Ministry of Water Resources and Irrigation (MWRI), Food and Agriculture Organization (FAO), Economic and Social Commission for West Asia (ESCWA), Arab Organization for Agriculture Development (AOAD)

Session Content:

The League of Arab States and the Arab Organization for Agricultural Development (AOAD), in collaboration with FAO and ESCWA are organizing this meeting. The High-Level Joint Water-Agriculture Technical Committee (HLJTC) is the technical arm of the Joint Water-Agriculture Ministerial Council of the League of Arab States. After its establishment by the resolution of the joint Water-Agriculture Ministerial meeting on 4 April 2019, which resulted in the adoption of the 2019 Cairo Declaration, the first meeting of the HLJTC was held in October 2019 and requested partner organizations, FAO and UNESCWA, to assist in (i) operationalizing the 2019 Cairo Declaration by developing a plan of action for the period 2021-2025 and (ii) developing guidelines for sustainable allocation of water resources for agriculture. The second meeting of the HLJTC was held virtually in October 2020 whereby a draft plan of action to implement the 2019 Cairo Declaration was presented and discussed with member countries. The HLJTC requested the joint secretariat and partner organizations to consolidate the countries' feedback on the action plan and prepare a revised version to be reviewed in this meeting. On the guidelines for sustainable allocation of water resources for agriculture, FAO and UNESCWA, in collaboration with the joint secretariat, established a working group with external senior consultants to prepare the requested guidelines. The draft guidelines will be presented and discussed during the meeting. In addition to these two documents, the agenda of this meeting will include the introduction of the use of non-conventional water resources for agriculture, identified in the first meeting of the HLJTC as a crosscutting theme between water and agriculture sectors to be jointly explored and addressed. To prepare for this agenda item, partner organizations will collaborate in preparing a background paper to identify the status of practice and areas to move forwards on this issue.

The recommendations of the HLJTC on the above-mentioned three documents will be presented in the meeting of the Joint Water-Agriculture Ministerial Council to obtain the directions and course of action on these issues through a resolution from the council.

Translation: Arabic- English- French

HLE 3.2: Building Resilient Water Systems: Learning from Best Practices

(Climate Changes: Drought and Flood Risk Assessment, and Adaptation Measures)

Online

Time: 12.00-13.30

Chair: Rebecca Carter, World Resources Institute

Convener(s): Ministry of Foreign Affairs

Co-Convener(s): Ministry of Environment

Session Content:

Climate Change is affecting everyday life for millions of people throughout the world. Whether it is through increased flooding or drought, water salinization, or ferocious cyclones, many, if not most of the impacts of climate change are manifest through changes to the water cycle. The IPCC Sixth Assessment Report (2021) warns that the water cycle has been intensifying and will continue to intensify as the planet warms. Moreover, it finds that daily extreme precipitation events will likely intensify by about 7% for every 1 degree Celsius that global temperatures rise. To combat this challenge, it is imperative that all nations understand their water resilience challenges and invest in greater water resilience.

The Adaptation Action Coalition, a coalition of 38 countries committed to accelerate global action on adaption to achieve a climate resilient world by 2030, co-chaired by Egypt and the United Kingdom, and has launched a work stream to scale up action on the ground on water resilience. This session, inaugurated by Her Excellency Yasmin Fouad, Minister of Environment, will showcase a framework to inform and support decisions and actions among stakeholders to ensure both short- and long-term water system resilience. This session will focus on international bests practice in building coastal resilience from both Bangladesh and Egypt, as well engage in a critical discussion on how to mobilize public and private finance for water resilient infrastructure, with input from global finance experts and Egypt's experience in mobilizing finance. This interactive session will allow time for audience questions, both online and in person.

Day 4: October 27th, 2021

HLE4.1: Joint Water-Agriculture Ministerial Council of the League of Arab States

(Closed Event – By Invitation)

Online

Time: 12.00 -13:30

Convener: League of Arab States (LAS), Ministry of Water Resources and Irrigation (MWRI), Food and Agriculture Organization (FAO), Economic and Social Commission for West Asia (ESCWA), Arab Organization for Agriculture Development (AOAD)

Session Content:

The Cairo Water Week is honored to announce hosting the Joint Water-Agriculture Ministerial Council of the League of Arab States. The meeting will be held virtually on the margin of the 4th Cairo Water Week in coordination with the League of Arab States to move forward in possible endorsement for HLJTC revised version of the action plan to implement the 2019 Cairo declaration, the draft guidelines for sustainable allocation of water resources for agriculture. In addition, discussing and identifying the council's agenda directions for the use of non-conventional water resources for agriculture in the Arab region.

Translation: Arabic- English- French

Technical Sessions

Day 1: October 24th, 2021

TS1.1: Innovative Research on Water Resources

Physical

Time: 11:00- 12:30

Hall Name: Abdeen

Convener (s): NWRC

Chairman: Prof. Hussam Fahmy

Rapporteur: Dr. Ramin Abdel Hady

Speakers:

- Prof. Salwa Abou El Ella
- Prof. Tarek Abdel Aziz
- Dr. Walaa Shalah ElDin
- Dr. Dalia Hassan

Session Content:

Innovative research in water science is very important to introduce new technologies and techniques to maximize the water efficiency and reduce the gap between the available water resources and water demand, Egypt is one of the countries which suffers from water resources shortage. To sustain the availability of water resources, it is mandatory to carry out innovative research in the field of water resources.

National Water Research Center (NWRC) in Egypt is extensively carrying out innovative research to deal with water resources shortage. Some of this research focus on new techniques for wastewater treatment with low cost and maintain the sustainability of water resources. In this regard, four research papers will be presented. The papers will present the new techniques used for the wastewater treatment and preserve the water courses from contaminants spills if occurs.

TS1.2: Re-water MENA Project: Achievements and Way Forward to Mainstream Reuse of Treated Wastewater in the Region.?

Physical

Time: 11.00- 12:30

Hall: Heliopolis

Convener(s): IWMI

Co-convener(s): FAO-RNE, LAS

Chairman: Dr. Amgad Elmahdi, IWMI- Head of IWMI MENA Regional Office

Moderator: Dr. Hammou Laamrani, LAS

Rapporteur: Mohamed Tawfik, IWMI MENA Office

Speakers:

-Dr. Nisreen Lahham

-Dr. Mohamed AlHamdi

- Dr. Hussein El-Atfy

-Dr. Almoayied Assayed

-Prof. Mahmoud Abu-Zeid

-Dr.Khaled AbuZeid

Session Content:

The MENA region, with scarce water resources and increasing population growth coupled with an urbanization trend, is experiencing wider water supply-demand gap. This gap is bridged through diminishing ground water and costly desalinated seawater. Usage of treated wastewater in the agricultural sector presents an untapped opportunity for saving fresh water for other uses such as drinking water for the rapidly growing population, and hence reducing the water supply-demand gap. Against this backdrop, ReWater MENA project was initiated to address the challenges that currently limit opportunities to upscale the expansion of wastewater reuse across the MENA region, as a multi-partner implemented project led by the International Water Management Institute (IWMI) and supported by the Swedish International Development Cooperation (SIDA). Through creating national and regional Learning Alliances in three countries (Egypt, Jordan and Lebanon) and drawing on experience in the region with existing wastewater reuse strategies, the project identified promising innovations and validated reuse models to resolve past management bottlenecks that constrain wastewater reuse. Plans for wastewater treatment and reuse are developed for six settlements in the three countries, in a participative manner, while mainstreaming a Gender approach. Strategic plans and roadmaps for scaling up of wastewater treatment and reuse are also produced at national and regional levels. To reach a shared regional diagnosis of the state of water reuse and of the key challenges to uncap the water reuse potential in MENA countries, with relevant policy recommendations and actionable solutions, two Science–Policy dialogues are organized on regional level. Across the MENA region, key stakeholders are engaged, trained, and connected in a network to accelerate the replication of locally viable reuse solutions, to substantially expand safe reuse of treated wastewater in the region and hence reduce water scarcity, increase resilience to climate change, and mitigate the impacts of human displacement on health and livelihoods. Present the achievements of ReWater MENA project on regional and national level (in Jordan and Egypt) to other countries in the region, and to regional and International organizations and partners.

- Identify gaps and lessons learnt from ReWater MENA project.
- Discuss the way forward for making a change in the region on mainstreaming the reuse of treated wastewater.
- Inform the design and objectives of a potential phase 2 of ReWater MENA project.The panel of this session consists of the project partners on regional level; FOA RNE and the Arab Water council (AWC) and partners on national level; Royal Scientific Society (RSS)/ Jordan, Center for Environment & Development for the Arab Region & Europe (CEDARE)/ Egypt.

TS1.3 Water Resources Management as a Tool to Cope with Water Scarcity

Physical

Time: 12:45– 14:15

Hall: Abdeen

Convener(s): NWRC

Chairman: Prof. Lotfy Nasr

Rapporteur: Dr. Mohamed Embaby

Speakers:

- Dr. Aiman El Saadi
- Dr. Talat El Gamal
- Dr. Heba Abdel Aziz
- Eng. Hossam Ashraf

Session Content:

The gap between the water resources availability and water demand is increasing exponentially worldwide. This creates water scarcity stress in many countries in the world. Egypt is located in the arid region, and it is one of the countries facing water scarcity where the water demand is much higher than the available water resources, which is mainly the Nile River. Many efforts have been done to overcome the water scarcity. National Water Research Center (NWRC), which is the research arm of the Egyptian Ministry of Water Resources and Irrigation (MWRI), have conducted a lot of research in this field to manage the water resources in such a way that to reduce the impact of water scarcity in Egypt. In this regard, four research papers will be presented. The papers will present the research done to increase the water use efficiency and maintain the water quality in a very good condition.

TS1.4: Regional and Sectoral Cooperation for Water Security

Physical

Time: 12:45 – 14:15

Hall Name: Heliopolis

Convener(s): CWW Scientific Committee

Chairman:

Prof. Dr. Hussein Alatfy

Secretary-General of the Arab Water Council and Former Minster of Water Resources and Irrigation

Moderator

Dr. Ahmed Algendy

Head of the Environmental Engineering Program, AUC

Speakers:

- Eng.Dina Zamzam
- Mr.Amr Khalaf
- Prof. Sayed Elkhouly
- Dr. Véronique Briquet-Laugier
-Dr.Mamdouh Hassan

Abstract Title: EVALUATION OF SATELLITE-BASED RAINFALL ESTIMATES OVER THE UPPER BLUE NILE BASIN (THE ABBAY BASIN), Ethiopia, **Author:** Eng.Dina Zamzam, **Co-Authors:** Tamer A. Gado, Bakenaz A. Zeidan

Abstract Title: Social History of Food in Ancient Egypt: Between humanities and Life Sciences **Author:** Mr. Amr Khalaf

Abstract Title: The Impact of Drought caused by Ressainance Dam on hydropower generiting electricity in Egypt

Author: Prof. Sayed Elkhouly, **Co-Authors:** Eman Dwidar, Sarah Afifi , Wafaa Rafaat, AbdelAziz Farahat, Ahmed Farouk, Hytham Draz

Abstract Title: Water-JPI's cooperation tools to tackle Global Challenges & Sustainable Development Goals – UN SDGs.

Author: Dr. Véronique Briquet-Lau gier **Co-Authors:** Esther Diez Cebollero, Juliette Arabi , Claire Treignier

Abstract Title: Collaborative management of the Grand Ethiopian Renaissance Dam increases economic benefits and resilience **Author:** Dr. Mohammed Basheer **Co-Authors:** Victor Nechifor, Alvaro Calzadilla , Khalid Siddig , Mikiyas Etichia , Dale Whittington, David Hulme, Julien J. Harou

Abstract Title: Bilateral Technical Cooperation with the Nile Basin **Author:** Dr. Mamdouh Hassan **Co-Authors:**

Session Content:

Water resources management issues must be addressed at the sectoral, local, national, and appropriate regional and international levels. Nourishing the opportunities for cooperation in water management at regional and sectoral levels and resolving the comprehension of the challenges and benefits of water cooperation can help achieve water security through building mutual respect among all parties. The session presents models and innovative regional and sectoral cooperation approaches to promote peace, security, and sustainable economic growth.

The session highlights the expected dangers on water and food sustainability along the Nile River from changes in river morphology through manmade structures such as dams. In addition to assessing the impacts of manmade structures, such as dams, on different water-related aspects, like hydropower. Moreover, the session is shedding light on bilateral technical cooperation in the Nile Basin countries. Along with focusing on the Danube region and highlighting the challenges raised by Transboundary Rivers, a task force was formed to address these global challenges.

Water is key to sustainable development; it has value from a social, economic, and environmental perspective and needs to be managed within a sound, integrated socio-economic and environmental framework. Fruitful water resources management can bring concrete solutions to sustain the quality and quantity of fresh water on our planet.

Day 2: October 25th, 2021

TS2.1: Action for Empowering Women in Water Diplomacy in the MENA Region

Online

Time: 9:30 – 11:30

Convener(s): Global Water Partnership - Mediterranean (GWP-Med); Geneva Water Hub

Session Content:

At the beginning of 2020, the Global Water Partnership – Mediterranean (GWP-Med) and the Geneva Water Hub joined forces and initiated a collaboration that took the form of analytical/ mapping work on the current status and challenges facing women in water diplomacy and transboundary water cooperation settings in the region and developed a Comparative Study on Empowering Women in Water Diplomacy in the MENA region.

Within this framework, this interactive session will discuss tangible ways to empower women in water diplomacy in the Middle East and North Africa (MENA) region. It will involve on the one hand, a keynote speech by a prominent female figure from the region, sharing insights on the challenges to the attainment of more women decision makers in water diplomacy and transboundary water cooperation settings in the MENA region and suggestions on how to overcome. On the other hand, the session will include a panel of female practitioners from the region, at different stages of their careers, exchanging on experiences and lessons learnt.

The female practitioners represent the Community of Practice that is part of the Initiative on Empowering Women in Water Diplomacy in the MENA region, which is institutionally coordinated and supported by the GWP-Med and the Geneva Water Hub.

The Initiative's Action Plan for 2021 foresees targeted Capacity Building, with emphasis on opportunities arising from operational synergies with partners, and a practical Mentorship Programme, involving a series of 60-Minutes sessions with prominent diplomats and transboundary water cooperation experts. Through hands-on and pragmatic support, mentoring a minimum of 50 women over a 3- year period, the Initiative aims to transform the informal network of MENA women that was created as a result of the Comparative Study's work, into a dynamic and growing Community of Practice working on Gender and Water Diplomacy in the MENA region.

The Initiative is committed to actively work for making a change in the promotion of the role of women in water diplomacy in the MENA Region. It is led by the 6 co-authors of the Comparative Study - Eng. Charafat Afiallal, Ms. Mey Al Sayegh, Dr. Anthi Brouma, Eng. Natasha Carmi, Dr. Tahani Moustafa Sileet and Ms. Maysoon Zoubi - with the institutional coordination and support of GWP-Med and the Geneva Water Hub.

TS2.2: The Impact of Increased Flash Flood Frequency and Their Corresponding Sedimentation on the Water Supply Intakes

Hybrid

Time: 12:00- 13:30

Hall: Al Qahira (D & E)

Convener (s): UNESCO Regional Bureau for Science in the Arab States (UNESCO Cairo Office)

Chairman: Dr. Bisher Imam, UNESCO Cairo Office; Officer in Charge

Moderator: Dr. Abdelaziz Zaki, UNESCO Cairo Office; Science National Officer

Speakers:

- Dr. Mahmoud Me, Water Quality expert, Water holding company
- Dr. Ahmed Helmi, Associate Professour, Faculty of Engineering, Cairo University
- Dr. Mohammed Ghareeb , Researcher, National Water Research Center
- Prof. Karima Attia, Professour, National Water Research Center

Session Content:

Drinking water intakes from surface water streams face many have to operate satisfactorily under different conditions including seasonal fluctuation in water level (high and low levels). An additional challenge, commonly facing large water treatment plants (WTPs) is the presence of sediment load (bed and suspended) at the intake, which may block (clog) the intake and result in decreasing the intake efficiency due to high water turbidity. For smaller and compacted WPTs, significant sediment load may result in full plant closure. Although occurring at rather low frequency, flash flood events over wadi-catchments that drain into the Nile River are associated with higher sediment loads and may in turn impact the efficiency and operation of drinking water intakes and treatment plans. The main objective of this session is to discuss and analyze the different problems facing drinking water intakes along the Nile towards identifying and recommending approaches to alleviate sedimentation problems and, thereby, improve the reliability of water supplies which may be impacted by damage and sediment clogging. The session will also discuss the impact of such recommendations on decreasing purification requirement, respectively.

Translation: Arabic - English

TS2.3: Advances in Water Management

Physical

Time: 12:00 – 16.00

Hall: Heliopolis

Convener(s): CWW Scientific Committee

Session 1:

Chairman:

Prof. Dr. Yasser Raslan, Director of Nile Research Institute

Moderator:

Prof. Dr. Mostafa Abdelaal, Prof. of Hydraulics, Faculty of Engineering, Azhar University

Speakers:

- Dr. Ayman Batisha
- Prof. Gamal Elkassar
- Dr. Reda Darwesh
- Eng. Ahmed Adel
- Eng. Ahmed Salah
- Dr. Samir Gadow

Abstract Title: Artificial intelligence and Sustainable water future in Arabsphere, **Author:** Dr. Ayman Batisha

Abstract Title: Precision Irrigation and Its Applicability under Egyptian Conditions, **Author:** Prof. Gamal Elkassar

Abstract Title: Heat unit and cut-off deficit irrigation effect on wheat production, **Author:** Dr. Reda K.Darwesh

Abstract Title: Flash Flood as a Non-Conventional Source for Freshwater: A Case Study from Wadi Billi, Egypt, **Author:** Eng. Omar Almasalmeh, **Co-Authors:** Ahmed Adel Saleh , Khaldoon A. Mourad

Abstract Title: Riverbank Filtration for Sustainable Drinking Water Supply in Upper Egypt, **Author:** Ahmed Salah

Abstract Title: Innovation Of Sewage Treatment Technology For Agricultural Reuse In Egypt, **Author:** Dr. Samir I. Gadow, **Co-Authors:** M. A. El-Shawadfy, Fatma H. Abd El Zaher

Session 2:

Chairman

Prof. Dr. Mohamed Shaban, Deputy Director, Drainage Research Institute

Moderator

Dr. Eman Ragab, Information Administration Manager, Groundwater Research Institute

Speakers:

- Mrs. Hana Kemeha
- Prof. Sherif M.A. ElDidy
- Prof Hala Abayazid
- Eng. Fahad Kimera
- Dr. Peter Fayez Nasr
- Mr. Saher Ayyad
- Prof. Nahla Sadek

Abstract Title: Artificial Intelligence Saves Water: Author Ms. Hana Salah Kemeha

Abstract Title: Hydrological and Hydrogeological Evaluation of Massive Salty Lagoons,(Case Study: Qattara Depression), **Author** Prof. Sherif M.A. Eldidy, **Co-Authors** H.S. Abdel Azeem, M.A. Eizeldin

Abstract Title: Flood Vulnerability Assessment Using Hydroinformatic-Based Approach: the Nile Delta Region, **Author:** Prof. Hala Abayazid, **Co-Authors** Mohammad Selim , Mahmoud A. Hassaan

Abstract Title: Efficient Utilization of Fish Wastewater for an Improved Crop Yield and Increased Water Productivity in Integrated Aquaculture Systems. , **Author** Eng. Fahad Kimera, **Co-Authors** Hani Sewilam, Walid M. Fouad , Ashraf Suloma

Abstract Title: Forward Osmosis: An Alternative Sustainable Technology and Potential Applications in Water Industry, **Author** Dr. Peter Fayez Nasr, **Co-Authors** Hani Sewilam

Abstract Title: Internet of Things Based Automated Indoor Hydroponics and Aeroponics Greenhouse, **Author** Prof. Nahla Sadek, **Co-Authors** Noha kamal, Dalia Shehata

Abstract Title: Sustainability of Agricultural Systems in the Eastern Nile Countries: Trajectories, Opportunities, and Constraints, **Author** Mr. Saher Ayyad , **Co-Authors** Muhammad Khalifa

Session Content:

Water is the most critical environmental resource for life, ecosystem services, and social and economic development. In recent years, in many regions of the world, access to water has been increasingly restricted. On the other hand, the rapid growth of population and increasing demand for water supplies pose enormous pressure on scarce water resources on our planet. Applying adaptive, innovative, integrated water management approaches can only alleviate the gap between water supplies and demands.

During the session, tools of utilizing Artificial intelligence (AI) techniques and big data to pave the road to Sustainable

Development Goals and a Sustainable water future are presented. Innovative techniques to save water and energy, such as Precision Irrigation, will be represented in the session. Flash flood as a non-conventional source of freshwater will be discussed as well as Riverbank Filtration techniques. Heat unit and cut-off deficit irrigation effect on wheat production will be addressed in the session.

TS2.4: Wastewater Reuse & Water Recycling for Agriculture in Egypt

Online

Time: 12:00 – 13:30

Convener(s): The African Development Bank (AfDB)

Coordinator/ Chairman: Prof. Dr. Abdel Kawei A. M. Khalifa

Moderator: Prof. Dr. Mostafa Moussa

Rapporteur: Dr. Mahmoud Abdel Rohman Mohana

Speakers:

- Prof. Dr. Rifaat Abdel Wahaab (Egypt)
- Dr. Maha Halalsheh (Jorden)
- Eng. Dimitris Reppas (Greece)

Session Content

The scope of the session is to openly discuss the current status of non-conventional water resources in Egypt and the legal framework affecting the water reuse to verify if it enables policy implementation adequately. In addition, the overall assessment of laws, codes, regulations, decrees, institutional framework, and other legal instruments are to be highlighted. Speaker will describe briefly the government policies and strategies with regard to the development of the water supply & sanitation sector, and wastewater reuse, desalination and other sources. Successful case studies in Egypt will be presented. Gaps & challenges will be also presented. Speakers from other MENA region will be invited to this session to present the wastewater reuse in their countries. It is worth to highlight that the main objective of the session is to get the feedback on wastewater reuse status in Egypt, learn from others to close the gap & challenges.

Translation: Arabic- English

TS2.5: Join us "On the Road to the 9th World Water Forum in Dakar, 2022"

Physical

Time: 14:30 – 16.00

Hall: Al Qahira C

Convener (s): World Water Council

Co-Convener (s): 9th World Water Forum Secretariat

Chairman: Patrick Lavarde

Moderator: Bai Mass Taal

Rapporteur: Guy Fradin

Speakers:

- Mr. Loic Fauchon
- Mr. Abdoulaye Sene
- Prof. Alioune Kane
- Prof . Rabi Mohtar
- Mr. Ababacar Ndao
- Ms. Aziza Akhmouch

TS2.6: Regional Executive Dialogue on Watering NDCs: Enhancing Water Component in Climate Policy and Practice in the Arab States

Hybrid

Time: 14:30 – 16:00

Hall: AL Qahira (D & E)

Convener(s): UNESCO Regional Bureau for Science in the Arab States (UNESCO Cairo Office)

Chairman: Dr. Bisher Imam, UNESCO Cairo Office; Officer in Charge

Moderator: Dr. Abdelaziz Zaki, UNESCO Cairo Office; Science National Officer

Speakers:

- Dr. Hammou Laamrani, League of Arab States, Egypt
- Dr. Samir Tantawi, Senior Climate change expert, MoE -UNDP- Egypt
- Mr. Rachid Tahiri, Directorate of Climate Change, Biological Diversity and Green Economy, Deputy Minister for the environment, Morocco
- Prof. Walid Al Zubari, Arabian Gulf University, Bahrain
- Dr. Akica Bahri, Former Minister, Agriculture, water and fishery, Tunisia
- Dr. Dr. Nedal Katbeh-Bader Dr. Nedal Katbeh-Bader, Minister' Advisor for climate change, Environment Affairs/ Environment quality Authority, Palestine
- Dr. Carol Cherfane Chouchani, UNESCWA, Lebanon
- Dr. Mahmoud Fathallah, Director, Environment, Climate change and Meteorology, League of Arab States, Egypt

Session Content:

Climate change is one of the greatest challenges of our time and a growing wealth of evidence shows that Arab region, especially with respect to its water resources, is likely to be hit harder than any other region worldwide. As signatories to the Paris Agreement of 2015, Parties, including the 21 Arab countries have pledged to develop their own Nationally Determined Contributions (NDCs), implement them, and progressively make them more ambitious to mitigate climate change and adapt to its impact including those affecting the water sector. This session aims to present a deep-dive analysis of the status of water in current in Arab NDCs. The session will also explore recent tools and principles designed and tested to help countries revise their NDCs to enhance water (resilience and sustainability) in the process of revising, implementing, reporting on NDCs and accessing climate finance. The session will feature both a technical presentation and a high-level panel discussion aiming to initiate a regional executive dialogue on "Watering NDCs in Arab States" to set the stage for a stronger alignment of climate and water policies and communities in the Arab Region to contribute to COP 27 that will take place in Egypt in 2023.

Translation: Arabic- English

TS2.9: The Global Observatory on Water and Peace: A Global Platform for Water Cooperation

Online

Time: 16:30 – 18:00

Convener(s): Geneva Water Hub

Co-Convener(s): Cairo University, Issam Fares Institute/ American University of Beirut, and partners to the Global Observatory on Water and Peace

Session Content:

One of the main recommendations of the Global High-Level Panel on Water and Peace (Panel) in its 2017 Report "A Matter of Survival" is to set up the Global Observatory for Water and Peace (GOWP), an inclusive network made up of entities bringing together on the one hand the analytical skills to understand the complex issues of water, and on the other hand the

diplomatic qualities to bring together stakeholders to address and collectively think about practical solutions. This session aims at encouraging further engagement with the Global Observatory on Water and Peace, as well as, advancing the water-peace agenda globally, and regionally. The joining of the University of Cairo promises to give further evidence to the value of water as an instrument of peace, not only in the Nile Basin, and the African continent per se, but to transboundary water resources globally.

TS2.10: VICMED Project Feasibility Study (Phase 2) Donors' Round Table

(Closed Session)

Hybrid

Time: 16:30 – 18:00

Hall: Al Qahira (D& E)

Convener (s): Ministry of Water Resources and Irrigation, Egypt

Moderator: Dr. Tahani Sileet, Nile Water Sector (NWS)

Rapporteurs: Eng. Marwa Khattab / Eng. Ahmed Yassin

Speakers:

- H.E. Lieutenant General Eng. Kamel El Wazer -Minister of Transport (Egypt)
- H.E. Dr. Mohamed Abdel Aty - Minister of Water Resources and Irrigation (Egypt)
- H.E. Dr. Rania A. Al-Mashat - Minister of International Cooperation (Egypt)
- Statements of Honorable Ministers from VICMED member Countries
- COMESA, Dr. Baptiste Mutabazi - Director of Infrastructure and Logistics - Infrastructure Division COMESA Secretariat
- PICI ,Dr. Mustafa Sakr - PICI coordinator
- Dr.Tahani Moustafa Sileet- Project Regional Coordinator
- Dr. Moawya Aly Khaled- General Director- Sudan Navigation Authority

Session Content:

Under the vision " One Continent-One River- One people", the "Establishment of a Navigation Line between Lake Victoria and the Mediterranean Sea (VICMED)" Project is championed by Egypt under the Presidential Infrastructure Championing Initiative (PICI) and coordinated by COMESA. The VICMED project comprises all Nile Basin countries. The project's Strategic Objectives are to connect footprint countries via a relatively low-cost natural transport route (navigational and/or multimodal) that is safe, secure and energy efficient, to provide opportunities for land-locked countries, to enhance trade and tourism, to reduce poverty and to develop socio-economic integration among Nile basin footprint countries. The VICMED Project will represent the backbone of all regional future transportation projects including highways and railways. It will also act as a prototype and successful template for other suggested mega projects in the region.

The Pre-Feasibility Study was developed in May 2015. The "Feasibility Study Phase 1" (FS-1) was funded by AfDB through a grant of 650 000 US$ in 2015 and finalized in 31 July 2019. This phase main deliverables were:

1. Institutional and Legal Framework for the project.
2. Training Needs Assessment for footprint countries.
3. TORs for the Feasibility Study (Phase 2).
4. In addition to two regional capacity building programs in the field of Inland Water Transport, and four Regional Steering Committee Meetings coordinated by COMESA

The VICMED project has been approved as a trans-regional Project in PIDA PAP2 (AU Summit February 2021). Accordingly, the Project Management Unit is exerting efforts to mobilize fund for the VICMED Project Feasibility Study (Phase 2).

The objective of this session is to mobilize resources for the Feasibility Phase 2 (FS2) and to promote for VICMED project with the presence of development partners, donors, and all the stakeholders from footprint countries. The session will also present the progress of the Project and the examples of lessons learnt from different international river basins in which Inland Water Navigation helped in fostering cooperation, benefit sharing and economic integration among riparian countries.

Translation: Arabic - English

Day 3: October 26th, 2021

TS3.1: Water and Society

Physical

Time: 12:00- 13:30

Hall: Al Qahira B

Convener(s): CWW Scientific Committee

Chairman: Prof. Dr. Hoda Sousa, Prof. of Water Resources, Faculty of Engineering, Ain Shams University

Moderator: Prof. Dr. Ashraf Almo, Prof. of Hydrology, Faculty of Engineering, Ain Shams University

Speakers:

- Dr. Esther Diez Cebollero.
- Prof. Moheb Iskander.
- Dr. Maisa Salah El-Din Ismail.
- Dr. Eman Farahat.
- Dr. Seham Omran.
- Dr.Carolina king-okumu

Abstract Title: Water Governance: Addressing Research and Innovation Gaps in the Future, **Author** Dr. Esther Diez Cebollero, **Co-Authors** Briquet-Laugier, V.; Treignier. C.; Arabi, J.; Bouc, O. ; Wiser, O.

Abstract Title: Overpopulation and Rip Current Mitigation Plan for the Egyptian Coasts, **Author** Prof. Moheb Iskander, **Co-Authors** Hassan, R.M., Almaghraby, M.M., Abd-Almonem, I.M.

Abstract Title: Environment-Friendly Herbal Extract for The Control of Corrosion and Deposition of Scale in Water Systems, **Author** Dr. E. Khamis, **Co-Authors** E. El- Rafey, A.M. Abdel-Gaber, A. El-Hefnawy, M. Salah El-Din

Abstract Title: Characterization of Chlorine-Tolerant Urinary Pathogenic Escherichia Coli in Treated Wastewater in Upper Egypt, **Author** Dr. Eman M.Farahat

Abstract Title: Sodium And Nitrate Reducing By Synthetic Analcime From the Ground Water Samples From Wadi El-Assiuti – Egypt for Drinking and Irrigation Uses As A Low-Cost and Locally Available Method., **Author:** Dr. Seham Omran Farghaly, **Co-Authors** Ahmed A. Abdelmoneim, Mohamed Abdul-Moneim, Ahmed A. Geies

Abstract Title: Tracing the Nexus Tradeoffs of Land Reclamation and Restoration Options, **Author** Dr. Caroline King-Okumu, **Co-Authors** Abdrabbo Abdel-Azim A. Shehata

Session Content:

Water is vital for the development and sustainability of all society. In recent decades the percentage increase in water use on a global scale has exceeded the population growth. This has led to more and more prominent regions in the world being subject to water stress where the current restricted rates of water use and consumption, let alone the desired rates, are unsustainable.

The session will discuss water management for sustainable development through various topics: water governance and mitigation measures for coastal areas. Water – Energy – Food Nexus will be addressed during the session for land reclamation and restoration options. With low cost and environmentally friendly techniques, advances for drinking, irrigation, and wastewater treatment will also be presented in the session.

TS3.2: Water Conservation Awareness at Rural Areas for The Use of Modern Water Resources Management Techniques Including Modern Irrigation

Physical

Time: 12.00 – 13:30

Hall: AL Qahira C

Convener(s): UNESCO Regional Bureau for Science in the Arab States (UNESCO Cairo Office)

Co-Convener(s): Ministry of Water Resources and Irrigation

Chariman: Dr. Ibraheem Mahmoud, Head of Irrigation Improvement Sector

Moderator: Dr. Moamen Elsharkawy, Head of Water Advisory Services Central Directorate

Rapporteur: Eng. Mahmoud Mostafa, Director of Technichal Office of CDWAS

Speakers:

- Dr. Abdelaziz Zaki, UNESCO
- Dr. Ibraheem Mahmoud, Head of Irrigation Improvement Sector
- Dr. Moamen Elsharkawy, Head of Water Advisory Services Central Directorate
- Eng. Mohamed Mostafa, Director of Technichal Office of CDWAS
- Mr. Salem Hamdy, BCWUA Member
- Mr. Mohamed Mostafa, BCWUA Member
- Mr. Saad Aali, BCWUA Member

Session Content:

UNESCO Regional Bureau for Science in the Arab States (UNESCO Cairo Office) is responsible for supporting Arab Member States in achieving their sustainable water resources management through the implementation of the strategic plans of the eighth phase of UENSCO Intergovernmental Hydrological Programme (IHP). This session will present an IHP relevant activity undertaken by UNESCO Bureau for Science in the Arab States in support of The Water Conservation Strategy of the Ministry of Water Resources and Irrigation in Egypt (MWRI). A major component of this activity focuses on promoting, through both demonstration and stakeholder engagement, the modernization of irrigation practices in Egypt. The activity is carried out in pilot demonstration areas with an awareness campaign in 5 governorates in Egypt, namely: Fayoum, Gharbia, Sharkia, Kafr El Shiekh, and Mounefya. The outreach campaign raised awareness among Water Users Associations and individual famers on the water saving and economic benefits of modernizing their irrigation systems and informed them about financially efficient mechanisms to achieve such modernization. The awareness campaign helped and encouraged many farmers to change their irrigation practices from flood irrigation to drip and sprinkler irrigation. Farmers from project-supported pilot areas will share their experience in shifting from flood irrigation to modern irrigation during the session.

Translation: English- Arabic

TS3.3: The National Drainage Programme 3 in The Context of The Joint Integrated Sector Approach in The Irrigation Sector (NDP3/JISA)

Physical

Time: 14:30- 16:00

Hall: AL Qahira C

Convener(s): Ministry of Water Resources and Irrigation (Egypt)

Co-Convener(s): The European Union, The German Cooperation, and KfW, with technical assistance by Mott MacDonald

Chairman: Dr. Ahmed Alhady

Moderator: Mr. Rob Nieuwenhuis

Rapporteur: Eng. Mostafa Farouk

Speakers:

- Dr. Sandra Wegner, KFW
- Eng. Mohamed El Absie, EPADP

- MSc. Rob Nieuwenhuis, Mott MacDonald
- Dr. Henk Ritzema, Wageningen University & Research
- Eng. Mokhtar Elghareib, EPADP
- Eng. Rabab Abbas, Planning Sector/MWRI

Session contents:

The project, funded by the European Union, the German Federal Ministry for Economic Cooperation and Development (BMZ) through KfW, and the Government of Egypt, and Implemented by the Egyptian Ministry of Water Resources and Irrigation, is composed of two work packages: (WP1) the National Drainage Programme Phase III (NDP3), and (WP2) the Joint Integrated Sector Approach (JISA), Phase 3.

NDP3 is a key part of the government's Water Resources Development Strategy that seeks to optimize water use as well as improve the efficiency of the drainage systems. The goal of NDP3, implemented by the Egyptian Public Authority for Drainage Projects (EPADP) of MWRI, is to achieve socio-economic development in Egypt through generating and strengthening sustainable economic activity by improving agricultural performance. NDP3 is also considered the top investment priority in the framework of the operationalization of the Joint Integrated Sector Approach (JISA), which is the main donor co-ordination mechanism aiming at enhancing investment effectiveness in the irrigation sector by means of an improved co-ordination of investment planning and implementation within the Ministry of Water Resources and Irrigation (MWRI) of the Government of Egypt. The specific objective of NDP3 is to increase agricultural production by providing adequate drainage infrastructure and enhancing the capacities of different stakeholders to rehabilitate and extend subsurface drainage network.

JISA is the main investment coordination mechanism within the Ministry of Water Resources and Irrigation (MWRI). Its initial development comprised two previous phases. The overall objective of JISA3 is to support the MWRI Planning Sector in adopting and implementing the investment planning and monitoring methodology as developed in the previous JISA phases and to improve coordination between the various implementing agencies (contracting entities) within the MWRI.

Translation: Arabic- English

TS3.4: Innovative Networks in the Nile Basin: Regional E-Collaborative Platforms for Capacity Development.

Hybrid

Time: 14:30-16:00

Hall: Alf Lila We Lila (A, B)

Convener (s): Nile Basin Capacity Building Network Foundation (NBCBN-Foundation)

Co-convener(s): IHE-Delft the Netherlands, Cap Net-UNDP

Moderator: Dr. Amel Azab

Rapporteur: Dr. Ahmed Moustafa Moussa

Speakers:

- Dr. Amel M. Azab
- Dr. Schalk Jan Van Andel
- Dr. Damian Indij
- Prof. Dr. Kitaka Nzula
- Dr. Zoltan Vekerdy
- Mrs. Botahina Osama

Session Content:

For every thematic knowledge network, it is essential to know where and what the problems are, moreover it is equally important to get access to places where relevant knowledge is generated and produced. In both cases it is necessary to get direct access to the main players in the field including: the water organizations, individual professionals active in both public and private water sector institutions and local/international capacity builders and funding partners. In other words, the success of the network depends on a sound interaction and communication between the providers and the consumers of knowledge and the funding mechanism for implementation of impact-oriented programs.

Effective networking can only be achieved if the service providers present the state-of-the-art knowledge and use the tools that fit with the present and future status of learning and education in vast changing circumstances. Here comes the added value and effective role of innovative capacity development networks and institutions that are capable to act as the catalysts that support knowledge development and sharing. In the growing demand for innovative technologies in the light of the current pandemic of COVID-19, and within a context of financial restrictions, and alarming water management issues that faces all the Nile Basin countries and beyond, knowledge networks such as the Nile Basin Capacity Building Network Foundation and other sister networks and regional organisations plays an important role to support capacity development goals through providing a wider outreach to build capacities that can deal with complicated local and transboundary water issues.

The approach to capacity development has to change to reflect the new complexity facing the water managers and policy makers as well as the opportunities modern technology has to offer. This session aims at exploring the important aspects in capacity development approaches; knowledge and capacity to tackle the inter-linkages has to be developed in all sectors and on all levels, innovation should not only be about tools but about approaches. Capacity development plans need to ensure the inclusion of young people, women, and indigenous groups as key local actors where we can bring tacit knowledge on board. On an institutional, or governmental level, clear capacity development plans need to be put in place, reflecting multidisciplinary and cross-sectoral approaches also taking into consideration future risks challenges and needs, partnerships should take place to ensure that all key players are supporting the process. The session will also highlight examples of e-collaborative platforms and innovative programs that supports research, education and training which are introduced by local, regional and international networks and partner organisations.

Day 4: October 27th, 2021

TS4.1: Strengthening the Science-Policy Interface for Improved Integrated Water Resources Management

Physical

Time: 12:00 – 13:30

Hall: AL Qahira B

Convener(s): TH Köln, University of Applied Sciences

Co-Convener(s): Ain Shams University

Chairman: Prof. Lars Ribbe

Moderator: Dr.-Ing Hassan Aboelnga

Speakers

- Prof. Dr. Lars Ribbe, TH Köln, University of Applied Sciences
- Dr.-Ing Hassan Aboelnga, TH Köln, University of Applied Sciences
- Prof. Dr. Ali Nabih El-Bahrawy, Ain Shams University
- Prof. Dr. Noha Donia, Ain Shams University
- Dr. Hussein Al-Atfy, Arab Water Council
- Dr. Ismail Abdel gailel, Arab Water Academy
- Eng. Rabab Hassan, MWRI

Session Content:

The growing focus on water security and climate change offers a significant opportunity for integrated water resources management (IWRM) among science and policy communities. IWRM aims to support countries in their efforts to tackle specific water challenges and accelerate progress towards SDG 6.5.1 (IWRM), which contributes to a range of water-related SDGs and climate objectives. Despite the need to rethink water as a connector, scientific, policy, and professional communities are still organized through sectoral and disciplinary structures.

The session aims to share experiences and solutions for strengthening the science-policy interface for achieving water security in Egypt and the MENA region. Given these opportunities, and the importance of finding interdisciplinary solutions to this issue, it will be necessary to educate and engage a new generation that can shape the future and provide holistic solutions to the complex and chronic water challenges as well as policy areas including Integrated Water Resource Management, Water, Sanitation and Hygiene (WASH), water, energy and food nexus security, and climate-resilient development.

TS4.2: Shoreline Management and Protection

Physical

Time: 12:00- 13:30

Hall: AL Qahira C

Convener(s): National Water Resource Institute, MWRI, Egypt (NWRC)

Chairman: Prof. Mostafa Gawish

Rapporteur: Dr. Abdel Hamid Khater

Speakers:

- Prof. Khaled Abdel Hai
- Dr. Sayed Dewidar
- Prof. Mohamed Rami
- Eng. Amal Osama

Session Content:

Egyptian coasts extend over 3,500 kilometers, with two-thirds along the Red Sea and the coasts of the Sinai Peninsula. The coasts along the Seas are characterized by diversified natural, environmental, and social features and are well known for the presence of coral reef communities, with their rich marine life. Major resort cities such as Dahab, Hurghada, Nuweiba, and Sharm el-Sheikh on the Red Sea are important for tourism and the national economy.

The National Water Research Center (NWRC) under the Umbrella of the Egyptian Ministry of Water Resource and Irrigation (MWRI) have conducted research in the coastal area along Red Sea and the Mediterranean Sea to preserve the national resources and minimize the negative impact of development projects on the coastal region. Four-research paper will be presented including the setback line investigation for Red Sea coastal zone and modelling the offshore coastal structures using physical models and setup of oil spill warning system for Suez Gulf which is one of the very busy waterways used by oil tankers.

TS4.3: Water Accounting and Auditing in Practice: Sharing Lessons and Proposing a Protocol for Informing Sustainable Water Use

Hybrid

Time: 12:00 – 13:30

Hall: AL Qahira (D & E)

Convener(s): FAO

Co-convener(s): IHE Delft, IWMI, MWRI, World Bank.

Coordinator/chairman: Dr. Eman Sayed, MWRI

Facilitator: Dr. Amgad Elmadhi, IWMI and Jiro Ariyama, FAO (virtual facilitation)

Rapporteur: Water specialist, Naglaa Bendary - Lauren Zielinski

Speakers:

- Poolad Karimi, Senior irrigation Specialist, World Bank
- Charles Batchelor, Senior Water accounting specialist, FAO
- Marloes Mul, Senior Water specialist, IHE Delft
- Motasem Abukhalaf, Water specialist, FAO
- Simon Tanios, Water specialist, FAO

Session Content:

In a context of growing water scarcity, any water allocation requires first a careful review of the status and trends of resources and demands. When all available water is allocated, new water demands will require difficult decisions. Water accounting is a critical approach to inform such decision setting the information basis to achieve safe and sustainable water use in the NENA region.

The Expected outcomes of this session are:

- learn from practical experiences from across the NENA region on implementing water accounting and auditing
- understand the need to complete water accounting with water governance analysis to reach working solutions
- learn about the operation protocol/guidelines on water accounting to facilitate implementation

Translation: English–Arabic

TS4.4: Early Lessons from ongoing WES DEMO Projects

Online

Time: 12:00 – 13:30

Convener (s): Water and Environment Support (WES) in the ENI Neighborhood South Region

Co-Convener(s): Oxfam, AESVT Maroc, Area Metropolitana de Barcelona (AMB), We World-GVC Onlus - WW-GVC, Istituto per la Cooperazione Universitaria Onlus – ICU, Istituto OIKOS Onlus (Italy)

Chairman: Prof. Michael Scoullos, WES Team Leader

Rapporteur: Ms. Suzan Taha, WES Water Expert

Moderator: Mrs. Sylvie Fontaine - Delegation of EU

Speakers:

- Mr. Waseem B. Mushtaha
- Ms. Senda Gharbi
- Mr. Dario Mancinelli
- Mr. Giovanni Pedron
- Ms. Imane Amzil
- Mr.Enric Corbella

Session contents:

The “Water and Environment Support (WES) in the ENI Neighbourhood South Region” project is a regional technical support project funded by the European Neighbourhood Instrument (ENI South) of the European Union. WES aims to protect the natural environment in the Mediterranean context and to improve the management of scarce water resources in the region. WES mainly aims to help countries of the Mediterranean South and East to enhance the pollution prevention and the rational use of water.

WES builds on previous similar regional projects funded by the European Union (Horizon 2020 CB/MEP, SWIM SM, SWIM-H2020 SM) and strives to create a supportive environment and increase capacity of all stakeholders in the partner countries (PCs), namely: Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Libya, Palestine, Syria and Tunisia. Part of the WES mission is to monitor and disseminate innovative approaches and successful practices in the field of integrated management of water. Within this framework, WES is assisting seven Demonstration (DEMO) projects that were awarded during 2020 through EU Calls for Proposals. The main field of intervention for the DEMO projects supported by WES is the “promotion of efficient use of water in urban and rural areas”.

The demo projects on Efficient Use of Water provide a unique opportunity to demonstrate concrete practical methods, approaches, and tools that are effective, useful, applicable and replicable, while at the same time will also play a pivotal role in providing good practices and to disseminate knowledge.

The demonstration projects, put a lot of emphasis on three critical issues: the efficient water use in agriculture/ irrigation, which is the major water consumer in the region (in most PCs ranging between 75-85%),

the badly needed reduction of water losses in distribution networks and operations

the support of water resilience in vulnerable communities

The titles of the DEMOs supported by WES and the corresponding countries implicated in each project are:

- WISPER – Efficient Innovative Solutions Portfolio for Enhancing Resilience (Tunisia, Jordan)
- Innovative irrigation systems in the Saharawi refugee camps in Tindouf (Algeria)
- Saving Water, Growing Crops - Project Data (Lebanon)
- Promotion of integrated water resource management in an oasis environment (Morocco)
- Resilience of vulnerable communities through efficient water solution (Palestine)
- GAZA H2.O: Innovation and water efficiency (Palestine)
- ValEURGabes: Valorisation of urban water through innovative actions and instruments (Tunisia)

TS4.5: Water and Global Changes

Physical

Time: 14:30 – 16:00

Hall: AL Qahira B

Convener(s): CWW Scientific Committee

Chairman: Prof. Dr. Noha Donia Dean, Faculty of graduate studies and environmental researches, Ain Shams University

Moderator: Dr. Peter Hany Sobhy, Assoc. Prof. Faculty of Engineering, Ain Shams University

Speakers:

- Dr. Noha Kamal
- Dr. Hossam Elsersawy
- Dr. Marlene Tomaszkiewicz
- Eng. Elaf Seif
- Eng. Hassan Aboelnga
- Eng Abdelhamid Ads

Abstract Title: Flood Risk Management and Assessment Of Its Impact On Nile River Zone, **Author** Dr. Noha kamal, **Co-Authors** Heba Sersway, Nahla Sadek

Abstract Title: Evaluation of Degradation & Aggradation Downstream Large Dams in Alluvial Rivers , **Author** Dr. Hossam Elsersawy

Abstract Title: Seasonal Drought and Climate Change Impacts Across the Arab Region, **Author** Dr. Marlene Tomaszkiewicz

Abstract Title: Climate Change Effect on Qarun Lake’s Water Temperature and Evaporation, **Author** Eng. Elaf Seif, **Co-Authors** Yasmeen Diab, Adhm M. Youssef, Mohammed Sharaf Eddeen, Hamad Shokr, Yehya E. Imam

Abstract Title: Urban Water Security in Challenging World: Application of the Integrated Urban Water Security Index to Water Scarce Cities, **Author** Eng. Hassan Aboelnga

Abstract Title: Effect of Climate Change on Reference Evapotranspiration at the Sub-National Scale: Case Study of Egypt, **Author** Eng. Abdelhamid Kh. Ads, **Co-Authors** Santosh M. Pingale, Deepak Khare

Session contents:

Global water demand is increasing at approximately 1% per year. As a result, some 1.1 billion people worldwide lack access to water, and a total of 2.7 billion find water scarce for at least one month of the year. Global change is a complex process; many interconnected factors can be regarded as either causes or consequences.

During the session, some of these factors will be discussed through presented papers. Climate change adaptation measures studies will be presented, along with flood management. The impact of urbanization on water resources management through development of new evaluation tools and indices will be presented in the session for water scare cities. Water structures such as Dams have impacts on river morphology and fluvial processes. During the session, several frameworks assessing river reactions downstream of dams, and these approaches may vary in their quantitative and qualitative predictions will be discussed.

TS4.6 Water Productivity Improvement in Practice from Remote Sensing Data at Multiple Geographical Scales

Hybrid

Time: 14:30- 16:00

Hall: AL Qahira (D & E)

Convener(s): FAO

Co-Convener(s): IHE Delft, eLeaf, Metameta, Wageningen University & Research

Chairman: Livia Peiser

Moderator: Virginie Gillet

Rapporteur: Ms. Alyne Spencer

Speakers:

- Mr.Karin Bremer
- Dr.Ahmed Helmi
- Ms. Naglaa Elbendary

Session contents:

The session will explore a range of water productivity indicators based on remote sensing data for possible improvement at various geographical scales. At country level, gross biomass water productivity indicators were compared to actual and reference evapotranspiration, sourced from remote sensing water data for a 12 years period (2009-2020) for 20 countries in the NENA region from the FAO WaPOR portal. This analysis highlights that half of the countries have increased their water productivity and biomass production in particular in irrigated areas, although this is mostly done at the expense of an increase in water use. The majority of the countries have an increase in actual evapotranspiration and interception. At irrigation scheme level, water productivity monitoring through the real time water data (temporal resolution of 10 days) enables a practical increase in agricultural production and reduced water consumption. Specific smartphone applications can be built to propose advice directly to farmers, not only for irrigated agriculture, but a wider range of farming systems. Priorities of the phase 2 of the WaPOR project, started in January 2021, will report the identified applicable solutions, which have been prioritized for Egypt, one of the 10 countries of the project.

Translation: Arabic- English- French

TS4.7: Just Climate Adaptation for Resilience in Agriculture and Food Security in a Transboundary Perspective

Online

Time: 14:30 – 16:00

Convener(s): International Centre for Water Cooperation (ICWC), Stockholm International Water Institute (SIWI), Stockholm Environment Institute (SEI)

Chairman: Mats Eriksson

Moderator: Martina Klimes

Speakers:

- Ms. Frida Lager
- Dr. Richard Klein

Session Content:

The session intends to highlight the need to just transition lens on climate adaptation for resilient future agricultural production, in Africa as well as trans-continental. For this purpose, agricultural productivity needs to increase. In climate- and water-stressed basins and regions, including the Nile River basin, trade of agricultural products between basin states will be an important factor to ensure just transition when investments for climate resilient food production is made.

Day 5: October 28th, 2021

TS5.1: Remote Sensing Determination of Evapotranspiration: Outcomes from the FAO Webinar Series

Online

Time: 9:30 – 11:30

Convener(s): FAO

Co-Convener(s): ICARDA, Sida

Chairman: Mohamed AlHamdi, FAO

Moderator: Mohamed Abdallah

Rapporteur: Jiro Aryiama

Speakers:

- Dr. Pasquale STEDUTO

Session contents:

Quantifying evapotranspiration (ET) in space and time is extremely relevant for water resources management, particularly in regions of scarce water resources like the Near East and North Africa (NENA). Several methods for ET determination have been developed at field scales that are, however, complex, expensive and prohibitive in costs when attempting to scale them up. Therefore, for large scales (e.g., irrigation schemes, watershed, sub-national, national and basin scales) the only feasible and affordable methods for ET determination are through satellite Remote Sensing (RS). In fact, thanks to the progress and advances in availability of moderate resolution earth observation over recent years, and evolution of sophisticated algorithms, determination of the spatial distribution of ET is now possible. Several RS models have been developed, each with its own specific advantages and limitations, spatial and temporal resolutions, strengths and weaknesses, uncertainties and best-fitting domains of application. Furthermore, most of these RS ET models have been used to generate ET databases over different time series that have been made available through the public domain and accessible from the web.

Confronted with this quite ample and diversified offer of RS ET models and databases, users require clarity on, among others, the possible uncertainty (or accuracy) associated to the ET data, on how to conduct error analyses and understanding the limits of errors that can be acceptable for specific applications, on how to possibly test the RS ET against other methods (including field measurements), and on how to know which ET data sources best fit one's purpose.

Therefore, the FAO Water Scarcity Initiative (WSI) of the NENA Region, with the support of the Swedish International Development Cooperation Agency (Sida), and in consultations with various countries' stakeholders in the NENA Region, partners, and major experts in this domain, has elaborated a plan of webinars to address these various pending issues.

During this Technical Session, key outcomes and insights from the RS ET webinar series will be reported.

The expected outcomes of this Technical Session include: (i) updating the knowledge regarding RS ET determination, from the most common and adopted models to the latest advances; (ii) providing more clarity on the assessment of RS ET uncertainty and related acceptable limits for their field of application; and (iii) building awareness on the strengths, limitations and fits-for-purpose for the range of RS ET models and databases available.

Translation: English – Arabic - French

TS5.2: Household Water Insecurity Experiences (HWISE) Way forward for applications in the Arab region

Hybrid

Time: 12:00- 13:30

Hall: AL Qahira (D & E)

Convener(s): UNESCO

Co-Convener(s): UNESCO Regional Bureau for Science in the Arab States, Northwestern University - USA, West University of England - UK

Chariman: Dr. Bisher Imam, UNESCO Cairo Office; Officer in Charge

Speakers:

- Prof. Chad Staddon, Professor, Resource Economics and Management Department of Geography and Environmental Management University of West,y UK
- Dr. Sera Young, Associate Professor, Institute for Policy Research Northwestern University, USA
- Dr. Matthew BULLOCK, Water and Environment Support Project (WES)
- Dr. Suzan TAHA, WES Project Key Water Expert
- PHD. Scholar Ellen Cunningham, University of Glasgow
- Research affiliate Zeina Jamaluddine, Center for Research on Population and Health American University of Beirut (AUB)

Session Content:

This session introduces the Household Water Insecurity Experience (HWISE) index, a cross-culturally validated way of assessing water security and insecurity at the household scale. The HWISE index enables scientists, program developers, and community leaders to determine the magnitude of water insecurity, track its change over time, measure the effectiveness of various interventions, and inform the development and implementation of effective policies and programs particularly for vulnerable communities. This index has been applied in more than 30,000 households in 20 countries in Africa, Middle East and North Africa, South America and Asia Pacific. It is increasingly being used as a tool for programme effectiveness review by WaSH NGOs including Oxfam, Water Witness International and Water Harvest. Through the session we will discuss the construction of the HWISE tool, its applications and support available for adopters.

Translation: Arabic- English

TS5.3: Innovation in Hydro-Sciences

Physical

Time: 12:00- 13:30

Hall: Heliopolis

Convener: CWW Scientific Committee

Chairman: Prof. Dr. Iman Mahmoud Elazizy, Vice President of Student Affairs. October 6 University

Moderator: Dr. Yehia Emad Hamdy, Assoc. Prof., Environmental Program, Zewail City

Speakers:

- Eng. Salah El Sadi
- Dr. Shaimaa Khalaf
- Eng. Mohamed Abdel-Ghani
- Eng. Menna Ahmed
- Eng. Fatma Samir
- Dr. Heba Elsersawy

Abstract Title: Removal of Nitrates From Water Through the Use Chia Seed, **Author** Eng. Salah El Sadi, **Co-Authors** Hassan Tammous , Khamis Al Mahllawi.

Abstract Title: Fluvial Islands Evolution in Nile River Based on Hydrodynamic Numerical Simulation, **Author** Dr. Heba Elsersawy, **Co-Authors** Shaimaa Elserbini Khalaf

Abstract Title: Feasibility Study for Different Configurations of PV Panels Coupled With RO Desalination Systems, **Author** Eng. Mohamed G. Abdel-Ghani, **Co-Authors** F. M. Elsayed, H. A. Seif , M. A. Moustafa Hassan

Abstract Title: Analyzing, Simulating, and Formulating the Hydraulic Aspects of Hydro-Pneumatic Tank in Irrigation Systems, **Author** Eng. Menna F. Ahmed, **Co-Authors** Amira A. A. Radwan

Abstract Title: Three Dimensional Modeling of Flow Pattern in Nile River Confluences , **Author** Eng. Fatma Samir , **Co-Authors** Neveen Badway, Hossam Elsersawy

Abstract Title: Three Dimensional Modeling of Flow Pattern in Nile River Confluences , **Author** Eng. Fatma Samir , **Co-Authors** Neveen Badway, Hossam Elsersawy

Abstract Title: Hydrodynamic Modeling of Proposed New Port on the Nile River, **Author** Dr. Heba Elsersawy, **Co-Authors** Hossam Elsersawy.

Abstract Title: Investigating sustainable management of desalination brine through concentration using forward osmosis, **Author** Eng.Hossam El Zayat, **Co-Authors** Dr.Peter Naser, Dr. Hani sewliam

Session Content:

With the increasing challenges facing water science and the global population posing increasing pressure on limited freshwater resources, innovations in hydro-science are considered the sole solution to the rising challenges. Smart irrigation systems, desalination, renewable energy, water, wastewater treatment systems, and advanced control systems are few examples of such physical innovations in almost all water and environment disciplines.

The session will cover innovations in different hydro-science disciplines. Advances in hydraulic modeling and analysis will be presented during the session. Studies on numerical hydrodynamic modeling of the Nile River will be presented. Advances in desalination technology will be tackled in the session by discussing solar energy in reverse osmosis and innovations in water treatment and removing nitrate from drinking water.

TS5.4: Measured and Remote Sensing-based ET determinations: Results, learning and applications.

Online

Time: 12:00- 13:30

Convener(s): ICARDA

Co-Convener(s): FAO, SIDA

Chairman: Vinay Nangia

Moderator: Ajit Govin

Rapporteur: Rania Gamal

Speakers:

- Dr. Ajit Govind
- Dr. Naem Mazahrih
- Dr. Ihab Jomaa
- Eng. Ehssan El Meknassi Youssoufi
- Mr. AlaaMosad
- Dr. Rim Zitouna-Chebbi

- Dr. Chandrashekhar Biradar

Session Content:

Enhancing Water Productivity (WP) is strategic - being one of the most influential climate adaptation options in arid regions - and the FAO Regional Water Scarcity Initiative has been instrumental in this context. Improving water productivity can be mainly through understanding the evapotranspiration (ET) phenomena which is the most important water flux in arid regions. It has largely been recognized that large-scale determination of ET can only be feasible through spatial modeling of the hydrological processes that greatly uses information retrieved using satellite-borne sensors and the remote sensing (RS) technology. Therefore, the FAO Water Scarcity Initiative (WSI) for the NENA Region and ICARDA conceived and established an ET-Network for the NENA Region (NENA-ETNet) with the objective of coordinating specialized institutions and instrumentation, within the countries of the Region, to conduct field measurements of actual ET (ETa), over selected crops and for different seasons using field methods.

The expected outcomes of this Technical Session include: (i) providing a common understanding and methodology on the field vs RS ET testing; (ii) increasing awareness on the uncertainties related to the methodology adopted; and (iii) draw preliminary inferences on the accuracies of the RS ET model adopted and RS ET databases tested.

Translation: Arabic- English- French

Sides Events

Day 1: October 24th, 2021

SE1.1: The Center of Excellence for Water *(Closed Event by Invitation Only)*

Physical

Hall Name: Alf Lila We Lila C

Time: 11:00 to 17:15

Convener (s): The Center of Excellence for Water

Co-Convener (s): The American University in Cairo, USAID, Alexandria University

Session Content:

The Center of Excellence for Water is a major project funded by the USAID which started in 2019 addressing critical water challenges in Egypt, consistent with Egypt's Vision 2030 which could be traced as well in the Egyptian Sustainable Development Strategy 2030. The Grant aims at creating a Center of Excellence for Water at Alexandria University – Egypt. It is worth mentioning that the project is managed by The American University in Cairo (AUC) and has multiple partnerships and stakeholders (Universities, Public Institutions, and Industries). The duration of the project is 5 years (2019 – 2024) with a total allocated budget of 30 million USD. The main goal of the session is to present the current activities and outcomes of the Center and to explore all future opportunities and activities.

Day 2: October 25th, 2021

SE2.1: The 2021 EU-UfM Water Investment Policy Forum

(Closed Event by Invitation Only)

Hybrid

Time: 9:30- 16:00

Hall: Alf Lila We Lila (A, B)

Convener (s): EU

Co-Convener (s): UFM, MWRI

Chairman: Dr. Ayman Ayad, Mr. Almotaz Abadi

Moderator: Mr. Roberto Martin Hurtado

Rapporteur: Mr. Roberto Martin Hurtado

Session Content:

In 2019, the European Union (EU) and the Union for the Mediterranean (UfM) joined forces to promote sustainable water investments in the Southern Mediterranean. The UfM had just launched in January 2019 the UfM Water Agenda and UfM Financial Strategy for Water, and the EU Delegation in Egypt identified an opportunity to organise a joint event in the framework of Cairo Water Week 2019.

The first EU-UfM Water Governance and Business Forum took place on 20-21 October 2019 including a high-level segment and four technical sessions that discussed: capacity development and institutional strengthening; water and climate; financial sustainability (with a focus on public-private partnerships); and coordination of development partners.

In 2020, the EU and UfM agreed to continue their collaboration and jointly organised the second edition of the EU-UfM Water Governance and Business Forum in the framework of Cairo Water Week 2020. The event took place on 19th October 2020 in a hybrid format and included a high-level segment and two technical sessions that discussed sustainable water financing and investments: and the water-energy-food-environment (WEFE) nexus.

In 2021, the EU and the UfM have re-committed to jointly organise an annual regional forum to discuss water investment issues in the Southern Mediterranean in the framework of Cairo Water Week on 25th October 2021.For future editions, the event has been re-labelled as the EU-UfM Water Investment Policy Forum.

The overall objective of the EU-UfM Water Investment Policy Forum is to support progress towards achieving water security in the Southern Mediterranean by providing an annual platform for policymakers and stakeholders to discuss how to further improve water investment policies in Southern Mediterranean countries.

The specific objectives of the 2021 EU-UfM Water Investment Policy Forum are:

1. To identify ways to enhance the integration of water investments in post-COVID19 recovery packages and development support programmes .
2. To share lessons learned in the development and implementation of large water investment plans in the context of climate change, with a focus on desalination investments.
3. To start developing a regional roadmap for improving water investment policies by discussing regional priorities and how different stakeholders can contribute to achieving them.

Translation: Arabic - English

SE2.2: 4th African Young Water Professional Forum

(Closed Event by Invitation Only)

From 25 to 27 October, 2021

from 9:30- 16:00

Online

Sub-Session 2.2.1: Opening Session

Moderator: Dr. Mohamed Wahba, Vice President Honoraria and Chairman of African Regional Working Group (AFRWG), ICID

Speakers

- ICID Secretary General
- Chair of AFRWG-ICID
- ICID President
- Government of Sweden
- ACSAD Director General
- Mr. Ziad Khayat, ESCWA

Sub-Session 2.2.2: Climate change Assessment to Inform Adaptation

Convener (s): ESCWA-ACSAD-Sida

Co-Convener (s): ICID

Chairperson: Carol Chouchani Cherfane

Moderator: Carol Chouchani Cherfane

Speakers

- Mr. Jamal Saghir
- Dr. Marlene Tomaszkiewicz

Session contents

The session will review the climate change adaptation challenges and opportunities in Africa and the Arab regions, drawing upon the forthcoming 2021 State and Trends in Adaptation Report being prepared by the Global Center for

Adaptation. Focus will be placed on global efforts and partnership being undertaken to promote adaptation ambition, action and access to climate finance.

This overview will frame the discussion on the key findings generated by the United Nations-League of Arab States Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR). RICCAR is implemented under the auspices of the Arab Ministerial Water Council and has been coordinated by ESCWA since 2009 with a dozen regional and global partners. Funding for RICCAR is provided by the Swedish Government and partner contributions. RICCAR has generated regional climate modelling outputs for the Arab Domain and Mashreq Domain, which has been used to inform hydrological modeling, integrated vulnerability assessments and case studies at the regional, national and sub-national levels, which are available on an open access Regional Knowledge Hub (www.riccar.org)

Sub-Session 2.2.3: Using AquaCrop to Assess Climate Change Impacts on Agricultural Productivity

Convener (s): ESCWA, ACSAD, Sida

Co-Convener (s): ICID

Chairperson: Carol Chouchani Cherfane, ESCWA

Moderator: Mr. Ziad Khayat, ESCWA

Speakers

- Dr. Marlene Tomaszkiewicz
- Dr. Ihab Jnad

Session contents

The session will review selected tools for extracting climate data for assessing climate change impacts on agriculture drawn from experience in implementing the Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR) and the affiliated project on "Promoting Food and Water Security through Cooperation and Capacity Development in the Arab Region," which are coordinated by ESCWA and implemented in collaboration with ACSAD with funding provided by the Swedish Government. Tools reviewed will include Panoply, R, CDO as well as ArcGIS tools and extensions that can facilitate access and use of climate modeling data for agriculture and water-related analyses. The session will then introduce how AquaCrop can be used to inform irrigation management.

Sub-Session 2.2.4 Adaptation Measures: Full and Deficit Irrigation

Convener (s): ESCWA-ACSAD-Sida

Co-Convener (s): ICID

Chairperson: Ms. Reem Nejdawi, ESCWA

Moderator: Ms. Reem Nejdawi, ESCWA

Speakers

- Dr. Ihab Jnad

Session contents:

The session will review how AquaCrop can be used to inform adaptation measures, particularly for full and deficit irrigation. The session will build upon the prior sessions that have presented tools and methodologies developed under RICCAR and the project on "Promoting Food and Water Security through Cooperation and Capacity Development in the Arab Region." The session is also based on work funded by the United Nations Development Account project implemented by ESCWA on "Enhancing resilience and sustainability of agriculture in the Arab region." This project builds upon prior work conducted within the scope of the aforementioned project on food and water security.

Sub-Session 2.2.5: Adaptation Measures: Deficit and Supplementary Irrigation

Convener (s): ESCWA-ACSAD

Co-Convener (s): ICID

Chairperson: Ms. Reem Nejdawi, ESCWA

Moderator: Ms. Lara Geadah, ESCWA

Session contents:

The session will review how AquaCrop can be used to inform adaptation measures, particularly for deficit and supplementary irrigation. The presentations are based on work funded by the United Nations Development Account project implemented by ESCWA on "Enhancing resilience and sustainability of agriculture in the Arab region." The project builds upon prior work conducted under RICCAR and the Swedish-funded project implemented by ESCWA in collaboration with ACSAD on "Promoting Food and Water Security through Cooperation and Capacity Development in the Arab Region."

Sub-Session 2.2.6:Challenges facing irrigation and drainage in Africa and the way forward

Convener (s): ICID

Co-Convener (s): ICID & AFRWG-ICID

Chairperson: Dr. Ragab Ragab, President, International Commission on Irrigation & Drainage (ICID) Professor, Fellow Principal Hydrologist & Water Resources Management Specialist UK Centre for Hydrology (UK CEH) Wallingford, Oxfordshire, UK. Adjunct Professor, Soil and Water Sciences Dept., University of Alexandria, Egypt

Moderator: Dr. Mohamed Wahba, VPH-ICID

Session contents:

The session will review challenges facing irrigation and drainage in Africa towards achieving the sustainable irrigation agricultural and food security. A dialog will be carried out between experts about existing challenges, potential solutions, lessons learned and the way forward for future needs for utilizing all available resources and maximizing the benefits of Irrigation and drainage systems. Through the targeted interventions and the discussion, the session also aims to identify future actions for enhancing the role of irrigation and drainage in Africa. An opportunity for discussion will be provided for young professionals and experts.

Sub-Session 2.2.7: Mobilizing youth for a gender transformative approach to water, climate and development in Africa

Convener (s): Global Water Partnership – Mediterranean (GWP-Med) & Global Water Partnership Africa Coordination Unit

Chair/Moderators: Dr. Anthi Brouma and Mr. Kidanemariam Tiruneh

Rapporteur: Ms. Andiswa Nyongwana

Speakers:

- Ms. Dhikra Elhidri
- Dr. Mkhuzo Chongo
- Mr. Gerald Kairu
- Mr. Yaovi Kogbe
- Ms. Murielle Elouga
- Ms. Shamil Tumisang Agosi
- Mr. Emmanuel Uguru
- Mr.Paseka Lesolang

Session content:

The session will discuss ongoing activities and further ways to enhance the mobilisation of youth for a gender transformative approach to water, climate and development in Africa.

Highlights and experiences will be shared from the African Water Investment Programme (AIP) - Water, Climate, Development, and Gender Investments (WACDEP-G), through its implementation at regional and country level across the continent.

Furthermore, the session will discuss policies and operational regional frameworks supporting youth in Africa, while also share practical and hands-on work carried out at the Pan-African level.

Through the targeted interventions and the discussion, the session also aims to identify operational synergies and collaboration opportunities with the African Young Water Professionals Forum, so as to enlarge the impact of activities and strengthen the call for action.

Session 2.2.8: IsDB's Water and Agricultural Projects in Africa: A New Model of Engagement

Convener (s): Islamic Development Bank

Chair/Moderators: Dr. Nizar Zaied

Rapporteur: Dr. Nizar Zaied

Speakers: Dr. Nizar Zaied

Session contents

The session will discuss ongoing IsDB›s Water and Agricultural Projects in Africa: a new model of engagement.

SE2.3: Finnish Egyptian Water Evening

Physical

Time: 16:30 -18:00

Hall: Alf Lila We Lila (A, B)

Convener (s): Finnish Water Forum

Co-convener (s): The European Union Delegation to Egypt

Chairman: Eng Karim Ali, MENA Regional Manager, Finnish Water Forum

Speakers:

- H.E Pekka Voutilainen, Ambassador of Foreign Trade and Cooperation, Ministry of Foreign Affairs of Finland
- Dr. Topi Helle, Managing director, Finnish Water Forum
- Mr. Gary Conway, Head of Utility Sales MEA, Nokia Corporation
- Mr. Janne Salokangas, Managing Director Africa and Middle East, ASSA ABLOY Global Solutions
- Mr. Jalmari Talola, CEO, Soil Scout
- Mr. Riku Granberg, CEO, Dewaco Ltd
- Petri Vänska, Director, Lamor Ltd

Session Content:

The Finnish Egyptian Water evening seminar's target is to strengthen the relationship between Finnish Water companies and Egyptian partners. During the seminar, Finnish Water companies will showcase their solutions and technologies.

The seminar will bring together relevant decision-makers from Egyptian authorities and key representatives of industry from private and international development sectors.

Day 3: October 26th, 2021

SE3.1: Joint Cooperation in Applied Research Programme – Water. Egypt and the Netherlands

Convener(s): Deltares

Co-Convener(s): MWRI-PS, SDC-ZC, SWERI, WUR, NCEA

Chairman: Dr. Eman Sayed and Mr. Harm Duel

Moderator: Stephanie Janssen

Speakers:

- Minister Mohamed Abdel-Ati, Minister of Water Resources and Irrigation
- Mr. Ambassador Han-Maurits Schaapveld, Ambassador of the Netherlands to Egypt
- Mr. Henk Ovink, Dutch Special Envoy for Water
- Dr. Eman Sayed, Head of Planning Sector of Ministry of Water Resources and Irrigation
- Mr. William Oliemans, Programme Manager JCAR
- Professor Eelco van Beek, Strategic advisor IWRM
- Ron Passchier and Klaas-Jan Heeringen, Senior Hydrologist – IWRM expert
- Stephane Janssen
- Dr. Emad Mahmoud, MWRI
- Dr. Gert-Jan Wilbers, Senior researcher WUR (WEnR)
- Dr. Stijn Reinhard, Senior researcher WUR (WEcR)

Session Content:

In 2021 the Joint Cooperation in Applied Research (JCAR) Programme on Water between Egypt and the Netherlands has officially started. The program launch event takes place in a one-day event during the Cairo Water Week 2021.

The JCAR is a -4years programme, funded by the Embassy of the Kingdom of the Netherlands in Egypt, to be implemented by knowledge partners from Egypt and the Netherlands. From Egypt: the Sustainable Development Centre of Zewail City (SDC-ZC), and the Soils Water and Environment Research Institute (SWERI). From the Netherlands: Wageningen University and Research (WUR), the Netherlands Commission for Environmental Assessment and Deltares, who leads the implementation of the programme.

The objective of the JCAR is two-fold. Firstly, to support the Ministry of Water Resources and Irrigation (MWRI) to prepare a clear path and agenda for Egypt to deal with current and emerging water management issues in order to prepare for future water challenges. And, to support the integrated planning, development, and management of the water resources in Egypt. In addition, contribute to improving the environmental assessment and strategy development in the water sector. In general, JCAR will also support Egypt meet the SDGs. Secondly, the JCAR aims to reach a well-developed capacity in egypt in general, to support the implementation of the National Water Resources Plan (NWRP). It also aims to create partnerships between Egypt and Netherlands institutes to address the knowledge questions that stems from the NWRP 2037. This is meant to enhance the state-of-the-art and the knowledge-base of all agencies involved, and to strengthen the capacity in Egypt to plan, develop, and manage its water resources now and in the future.

During the JCAR launch event, the programme will be introduced by officials of the Netherlands and Egypt. Moreover, this event is also meant to establish connections with the knowledge clients, IFIs and Doners. The opening session shall be followed by interactive discussion sessions focusing on knowledge priorities to support the implementation of the National Water Resources Plan (NWRP) and funding opportunities for projects in the water sector in Egypt.

Translation: English- Arabic

SE3.2: Regular Meeting of The Joint Authority of the Nubian Sandstone Aquifer System (NSAS JA)

Physical

Time: 12:00 -16:00

Hall: Abdeen

Convener (s): The National Water Research Center (NWRC), MWRI, Egypt

Session Content:

The riparian countries have created a promising institutional environment for mutual cooperation in use of the NSAS. They have institutionalized this cooperation through a Joint Authority. Hence, all the NSAS countries are members of the Joint Authority and mutually acknowledge the significant role of having such a regional transboundary management organization.

The mandate of the Joint Authority is to collaborate and develop co-operative activities for the sustainable mutual development of the NSAS, including monitoring the status of utilization of the Aquifer, and evaluation of the progress and activities enacted on the regional and national levels.

The Joint Authority for the Study and Development of the Nubian Sandstone Aquifer System (JASAD-NSAS) is managed through a Board of Directors, where each country appoints three ministerial-level members to the Board. Each Member State chairs the Board of Directors on rotational basis. Meetings of the Board of Directors are held on regular basis, and extraordinary meetings may be held at the request of a Member State.

Day 4: October 27th, 2021

SE4.1: EU-AFDB Water Investment Forum *(Closed Event- By Invitation Only)*

Hybrid

Time: 09:30 -16:00

Hall: Alf Lila We Lila (A, B)

Convener (s): European Union

Co-Convener (s): AFDB

Chairman: Dr. Ayman Ayad, Dr Yasser Elwan

Rapporteur: Mr. Omar El Badawy

Session contents:

The EU-African cooperation has been a cornerstone in the EU external relationship mandate. In this regard, since the Joint Africa-EU Strategy signature in 2007; the EU-Africa relations rely on a more formal footing, moving away from the donor-based model towards long-term cooperation on jointly identified, mutual and complementary interests. Five priority areas were identified, including sustainable and inclusive development and growth. In this area, agriculture and water resources management has a crucial role to play.

The EU-AFDB Water Investment Forum is a key milestone high-level meeting aiming to set a structured dialogue platform between the EU, AFDB, Egyptian authorities and the private sector to improve the investment climate and the business environment in the water sector in Egypt. In addition, promote discussion and build consensus across a range of public, private authorities, and stakeholders on the strengths and weaknesses of systems and the ways forward to incentivize private sector participation and cost recovery in the water sector. Furthermore, identify the role that each can play to contribute to positive spillovers in the water sector and the “who can do what” to improve financial management.

This high-level event is organized in cooperation between EU and AFDB. The event shall present EU, AFDB vision and plan to achieve sustainable development and especially sustainable finance in Egypt’s water infrastructure and strengthen the regional cooperation on water resources management and development. In addition, the event shall discuss topics such as the water food nexus. Finally, presenting the EU External Investment Plan (EIP), the European Fund for Sustainable Development (EFSD), and the AFRICA-EUROPE Alliance on Sustainable Investment and jobs, focusing on the water sector, shall be among the priorities.

Translation: Arabic - English

SE 4.2: Towards a Common Path for Sustainable Agriculture Management in Egypt

Physical

Time: 9:30 to 16:00

Hall: Alf Lila We Lila C

Convener: American University in Cairo

Session Sub-title: The Role of the EU in Advancing the SDGs agenda in Egypt:

The case of the DeVilag project: Main objectives, achievements & outputs (Panel 1)

Moderator: Dr. Nabila Makram, Egyptian Minister of Emigration -

Prof. Hani Sweliem, Professor (PhD), RWTH Rector›s Delegate for Cooperation with African Countries Managing Director, UNESCO Chair in Hydrological Changes and Water Resources Management Deputy Director, Department of Engineering Hydrology RWTH Aachen University, Germany

Session contents:

The session will include a representative from the EU delegation and the Erasmus+ National Coordinator. Each of which will shed the light on how the EU is helping advance the SDG agenda in Egypt through different projects. Specifically focusing in the Devilag project’s objectives, achievements and outputs. Prof. Hani Sewilam will be moderating the session.

Session Sub-title: Challenges of Sustainable Agriculture Development in Egypt (Panel 2)

Moderator: Ms. Victoria Timpe Heliopolis University

Speakers:

- Prof. Azza El Bendary, Sustainable agriculture, and rural migration
- Ms. Yomna El-Awamri, Assessment of the needs and required skills for sustainable agriculture and rural development
- Dr. Mohamed Abdelhameed Mohamed, DeVilag Service Offices
- Prof. Mohamed Nawar - Center of rural Development

Session Sub-title: Education for Sustainable Development (Panel 3)

Moderator: Ms. Yomna El-Awamri

Speakers:

- Prof. HeribertNacken
- Georgiou, E. Kyriakos
- Dr. Valérie BEYSSAT

Session Sub-title: Opportunities for Sustainable Agriculture Development (Panel 4)

Moderator: Prof. Boshra Salem

Speakers:

- Prof. Mohamed Yousri Hashem

Workshops

Day 4: October 27th, 2021

WS2.3: Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project (ECCADP). The GCF project in Egypt – Where we got to?

Physical

Hall Name: AL Qahira B

Time: 14:30- 18:00

Convener(s): Green Climate Fund, MWRI

Co-Convener(s): UNDP, SPA

Chairman: Dr. Ragab Abdel Azeem – First Undersecretary - MWRI

Moderator: Dr Mohamed Ahmed – ECCADP Project manager

Rapporteur: Dr Taher Osman – ECCADP officer

Speakers:

- Dr. Mohamed Ahmed, Project Manager, ECCADP
- Eng.Elarraby elkashawy, Head of reseach and desgin dircotrate - Shore Protection Authority (SPA)
- Mr. Jan Dietrich, Integrated Coastal Zone management (ICZM) study team leader
- Dr Taher Osman, ICZM officer – ECCADP project
- Dr Nabil El-Hady, Landscape consultant
- Dr Mohamed Bayoumi, UNDP

Session Content:

The Enhancing Climate Change Adaptation in the North Coast and Nile Delta regions in Egypt Project (ECCADP) is one of the key adaptation projects in Egypt. It is funded by the Government of Egypt, Green Climate Fund and the United Nations Development Program and aims to enhance the resilience of the Egyptian government and societies to Climate Change impacts in the coastal zones, in particular, the northern coasts in Egypt.

As the project approaches its midterm, this session aims to presenting the progress that was made so far to enhance adaptation efforts in Egypt through promoting and upscaling Nature-Based coastal protection measures and developing an Integrated Coastal Zone Management (ICZM) Plan for Mediterranean coasts in Egypt.

The session starts by the showing project rationale, objectives, partners and overall progress. This is followed by presentations that detail the progress made so far including:

1- The Shore protection experience with Nature-Based solutions based on the work that is currently on going to protect 5 hot spots in the Delta region from severe sea storms and sea level rise.

2- The road map to develop an ICZM plan in Egypt.

3- Project community development efforts in the areas affected by severe sea storms and sea level rise in the Delta area (Kafr El-Sheikh example).

4- Improving the view of the coastal protection works by adding the landscape beauty to them.

5- The various UNDP adaptation related efforts in Egypt such as the development of a National adaptation Plan and a curriculum to under and post graduate students

Translation: Arabic - English

WS 2.1: Project ATLANTIS - Sewage Treatment Plants as a Resource For Water, Energy and Nutrients

Physical

Hall Name: AL Qahira B

Time: 12:00 -16:00

Hall: Abdeen

Convener (s): Technical University Berlin, German Water Partnership e.V.

Co-Convener (s): Kleine Solutions GmbH, p2m Berlin GmbH

Chairman: Prof. Dr.-Ing. Sven-Uwe Geißen, Technical University Berlin

Moderator: Julia Braune, General Manager, German Water Partnership e.V., Prof. Dr.-Ing. Sven-Uwe Geißen, Technical University Berlin

Rapporteur: Dr.-Ing. Johannes Wellman

Speakers:

- Dipl.-Ing. Thomas Gester
- Ahmed Haggag
- Markus Leidinger
- Martin Gräsl
- Hassan Ragab
- Dipl.-Ing. Paul Engelke
- Fahri Savas Ekinci
- Prof. Dr. Ahmed Mowad

Session Content:

The project ATLANTIS, funded by the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety, aims at creating the groundwork for sustainable and energy-efficient optimisation of wastewater treatment plants. The project focuses on a feasibility study for the conversion of (existing) plants to a resource for water, energy and nutrients. Taking the example of Egypt's wastewater treatment plants, the project addresses the increasing water consumption and higher energy demand for water supply and disposal in the country. Energy costs are a central cost factor in wastewater treatment and are expected to rise in the near future. Inefficient technologies and processes at existing wastewater treatment plants also cause rising CO2 emissions. Furthermore, the availability of ground and surface water will decrease. The same is expected for nutrients like nitrogen and phosphorus for agricultural fertilisers. If the current situation does not change, the availability of water, energy and nutrients will deteriorate. The workshop aims at demonstrating the potentials for zero-energy wastewater treatment plants and showing smart solutions and best practice examples from energy consumption to energy production, by focusing on biological treatment, sludge management, and plant control and operation.

WS 2.2: COE Governance & Strategic Planning (Closed Workshop- by Invitation)

Physical

From 25 to 29 October, 2021

Hall: Qalaa

Time: 12:00 -18:00

Lead Convener : Washington State University

Name of Organizing : Alexandria University

Coordinator : Dr. Jonathan Yoder & Dr. Mohammed Yasser M. Khalil

Facilitator : Dr. Julie Padowski

Session Content:

Participants will actively participate to: 1. Develop the AWR-CoE mission statement; 2. Discuss administrative and staffing needs as well as policies and procedures to successfully and sustainably pursue the Center's mission; 3. Identify key elements required for a strong short- and long-term strategic plan; 4. Exchange ideas, tools, and methods for governing centers and pursuing collaborative research and education projects; 5. Develop agreements for partner institution cooperation, resource sharing, and shared governance.

Translation: English- Arabic

Day 3: October 26th, 2021

WS3.1: Financing Water Projects: Challenges and Opportunities

Hybrid

Time: 9:30 -13:30

Hall: Alf Lila We Lila (A, B)

Convener (s): EIB

Co-Convener (s): The EU Delegation to Egypt, AFD, KfW

Chairman: Ms. Flavia Palanza, Director of Lending Operations in EU Neighbouring Countries, EIB

Moderator: Mr. Alfredo Abad, Project Leader for EIB-EBRD-EU's Kafr El Sheikh Wastewater Development Program

Speakers:

- Mr. Francesco Tottaro, Senior Loan officer, EIB
- Mr. Frédéric Maurel, Deputy Head of water and sanitation division, AfD
- Dr. Jörg Dux, Head of Division Water and Wastewater North Africa, KfW
- Ms. Malinne Blomberg, Country Manager for Egypt, African Development Bank
- Dr. Mamdouh Raslan, Holding Company for Water and Wastwater
- Mr. Alfredo Abad, Head of the EIB Regional Representation to the Near East, EIB

Session contents

Sustainable financing for water and wastewater roundtable

The investment needs of the Egyptian National Water Resources Plan (2037-2017) are very large. The roundtable will discuss issues linked to the implementation of the plan. The ministry of Housing and the Holding Company for Water and Wastewater play an important role in the implementation of the planned projects in the water, sanitation and desalination subsectors. European and International financial institutions support the implementation of the plan by providing part of the investment needs. PPP and innovative financing are additional tools to pool more financing to the sector. The European financing mostly comes with grants for advisory services to help with the implementation

process from the planning to the operation. The projects' sustainability and measures to ensure the social price of water and wastewater is also an important issue of the implementation of the plan. Speakers will discuss these issues with the Moderator to share their views and present their contribution to the implementation of the ENWRP (-2017 2037).

Translation: Arabic - English

WS3.2: Water JPI Workshop - Strengthening EU-Africa Cooperation in Water RDI: Opportunities and Challenges

Hybrid

Time: 16:00 -12:00

Hall: AL Qahira (D & E)

Convener (s): Water Joint Programming Initiative

Co-Convener (s): Partnership for Research & Innovation in the Mediterranean Area, PRIMA & the Academy of Scientific Research and Technology, ASRT

Chairman: Véronique Briquet-Laugier (Water JPI, ANR, Agencenationale de la recherche)

Moderator: Salma Essawi (ASRT) - Adrian Healey (Uni. Cardiff)

Rapporteur: Véronique Briquet-Laugier (Water JPI, ANR, Agencenationale de la recherche)

Speakers:

- Dr. Mohamed El-shinawi (PRIMA)
- Prof. Dr. Mahmoud Sakr, President of the Academy of Scientific Research and Technology (ASRT), Egypt
- Eng. Majed Elsadek (Phemac project)
- Dr. Gustavo Pereze (Nex-Labs)
- Ms. Nienke Buisman EC International cooperation DGRTD
- Dr. Octavi Quintana (PRIMA)

Session Content:

The aim of this Water JPI workshop is to explore opportunities for collaboration between Europe and Africa in water Research, Development and Innovation, RDI. It will mainly target the development banks, research funding agencies, international organisations dealing with water management and capacity development as well as research operators. It is structured around two high-level panel discussions on:

1. Alignment of RDI programmes between Africa and EU
2. Social innovation: the social debate on competing use of water in some regions of Africa, and how to increase capacity development and stakeholders and private sector participation in water RDI.

Day 4: October 27th, 2021

WS4.1: Dam Safety and Risk Management

Physical

Time: 14:30 -16:00

Hall: AL Qahira C

Convener (s): National Water Research Center (NWRC)

Session Content:

Dam failure, either earth or concrete dams, occur due to natural disasters or man fault. A low probability risk can result in catastrophic consequences in lives, property and environment. Dam surveillance and instrumentation provide data for monitoring the safe dam performance during the various phases of a dam's life. The baseline data included design and construction stage, first filling of the reservoir, evaluation of long-term in-service performance (normal operation), and manage or predict unsatisfactory performance. For the purpose of minimizing and manage the risks of a Dam some of instrumentation for monitoring the performance of a dam, is widely accepted as a cautious component of a successful dam safety program. A well designed and executed instrumentation and surveillance-monitoring program can provide the essential information for understanding the ongoing performance of a dam and may help detect early warning signs of trouble, which may occur.

The NWRC have made significant progress to set up the foundation for standard dam safety practice and reduce the risk of dam failure in order to ensure the safety and continued economic performance of the dams.

This workshop will discuss the dam safety issues and measures to monitor the dam performance to avoid any unexpected damage which may occur.

Closing Ceremony

Date: 28th October, 2021

Time: 14:00- 16:00.

Hall: AL Qahira (B, C, D, E).

- Entertainment show represented by the Baby Home language School students.
- Key Outcomes of Cairo Water Week 2021 and Way Forward to CWW2022
- Honoring the winners of CWW2021 competitions.
- Closing Speech, H.E Dr. Mohamed ABDEL-ATI, Minister of Water Resources and Irrigation, Egypt.

Master of the ceremony: Ms. Raghda Mounier

Translation: (English-Arabic)

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CWW 2021 Competitions

The Cairo Water Week (CWW) 2021 is hosting four competitions. Special sessions will be convened to present the work of the top ranked teams/individuals and the winners will be honored during the Cairo Water Week closing cermony. These competitions are: The Best Graduation Project, the Three-Minute Thesis (3MT), the Fourth National Water Conservation Competition for Farmers and the Young Water Inventors.

Three-Minute Thesis (3MT)

Day 3: October 26th, 2021

Physical

Time: 14:30- 16:00

Hall: AL QAHIRA B

Convener: European Investment Bank (EIB)

Co- convener: European Union (EU), MWRI

Chairman: Dr. Eman Sayed, MWRI

Moderator: Eng. Ahmed Yassen, MWRI

Description:

The 3MT competition was developed by the University of Queensland to encourage researchers to communicate their findings. The 3MT is considered an international competition that is held in more than 200 universities annually. This competition is open for postgraduate students (masters and Ph.D.'s) to represent their research within three minutes (~180 seconds) to the general audience (with no background in the research area). This competition aims to assist postgraduate students in developing their capabilities to explain and present their work clearly in only three minutes.

The competition is organized by the CWW in collaboration with the European Investment Bank (EIB). About 20 researchers applied to the CWW 3MT. The researchers were from different national and international universities such as: Ain Shams, Alexandria, Assiut, Banha, Cairo, Helwan, Lund, Menia, Mansoura, and Menoufia universities. Each researcher had the chance to present their research in front of a scientific committee, in which the top 10 were selected to present their work during the activities of the CWW.

During the CWW, the top ranked three researchers will win the 3MT competition based on their performance and ability to explain and present their research in only three minutes. The prizes will be 4000 L.E for the first place, 3000 L.E for the second place, and 2000 L.E for the third-place winner.

The Best Graduation Project

Day 5: October 28th, 2021

Hall Name: AL Qahira B

Time: 12:00 to 13:30

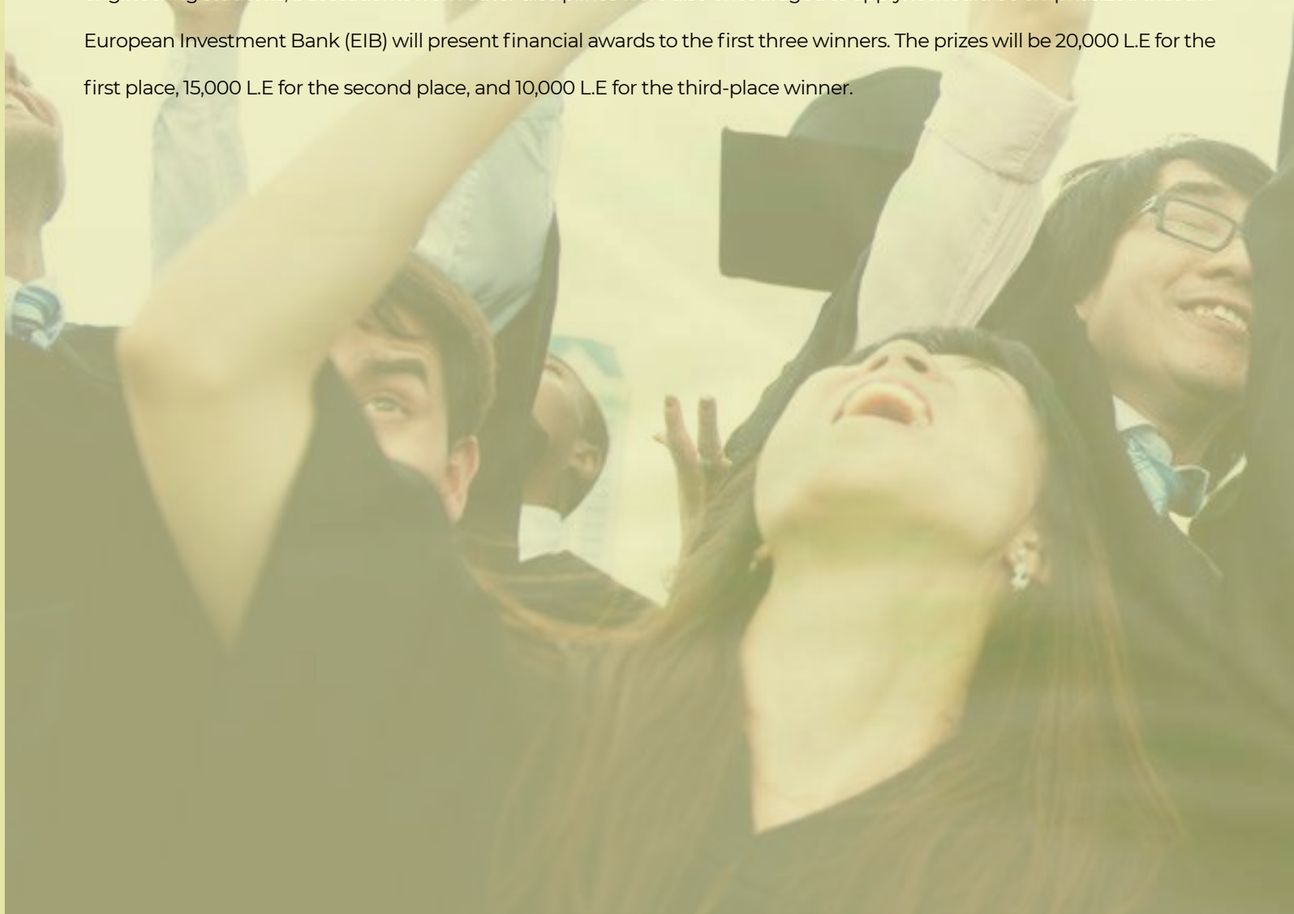
Convener: European Investment Bank (EIB)

Co- convener: European Union (EU), MWRI

Chairman: Prof. Abdelkawi A. M. Khalifa, Former Minister of Water & Wastewater Utilities

Description:

The Best Graduation Project competition is intended to inspire creativity in students for their graduation projects and provide an opportunity for them to shine and win prizes as they participate in the water management process. Twenty-nine graduation projects were submitted to the CWW Best Graduation Project competition. Students from national and private universities (six public and five privates with a total of eleven universities) with graduation projects related to water management and related fields were encouraged to submit their projects. This competition was not only limited to engineering students, but students from other disciplines were also encouraged to apply. It should be emphasized that the European Investment Bank (EIB) will present financial awards to the first three winners. The prizes will be 20,000 L.E for the first place, 15,000 L.E for the second place, and 10,000 L.E for the third-place winner.



Young Water Inventors STEM School

Day 5: October 28th, 2021

Physical

Hall: Abdeen

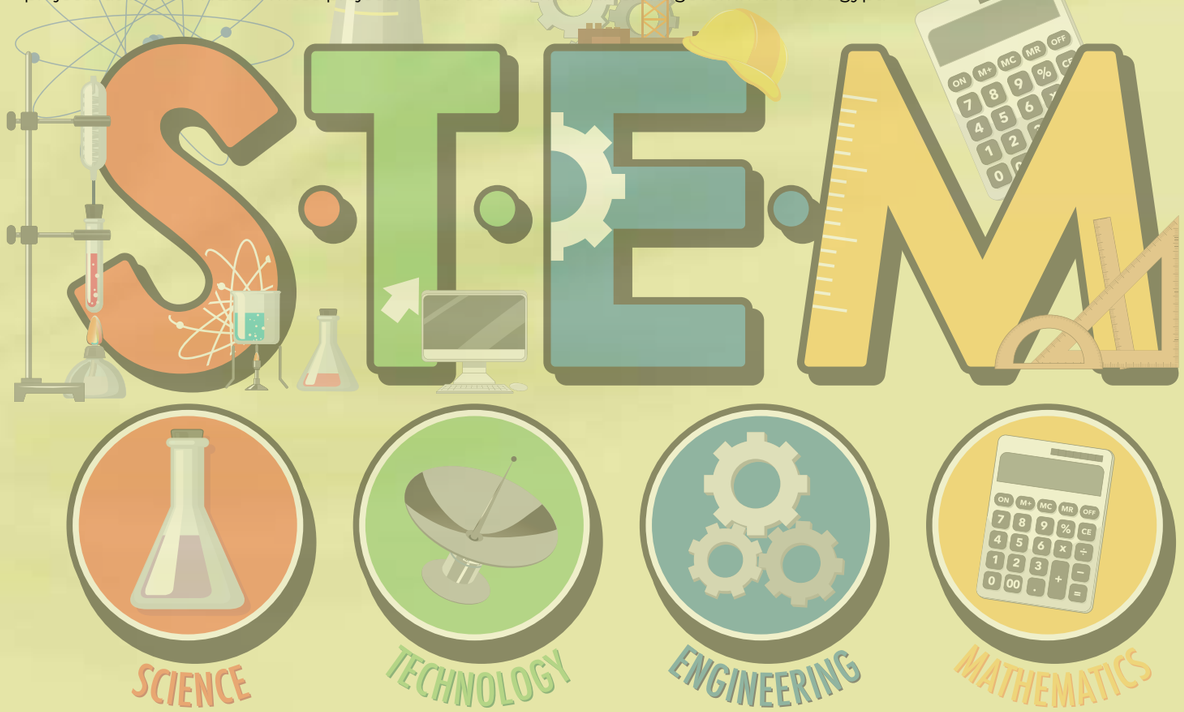
Time: 12:00- 13:30

Convener: European Investment Bank (EIB)

Co- convener: European Union (EU), MWRI, Ministry of Education

Description:

The Young Inventor competition is held during the CWW 2021 activities, in cooperation with the Ministry of Education and sponsored by the European Investment Bank (EIB). This competition aims to encourage youth enthusiasm for water issues. This competition targets the high school students who have completed water-related science projects. High school students are encouraged to participate, as this competition will allow students not only to think critically but also to work independently or even to work in teams to strengthen their collaboration and social skills. The Young Inventor competition is open to students aged 15 to 19 years. Participant student should be from the STEM (Science, Technology, Engineering, and Math) schools in Egypt. The CWW2021 received more than 70 projects. Only the top 10 will be selected to present their projects at the CWW2021. These projects were received from different governments in Egypt.



The 4th National Competition for Water Conservation Best Practices / Farmer's

Day 5: October 28th, 2021

Convener: EU

Co- convener: MWRI

Description:

The National Water Conservation Farmers competition is being held for the fourth consecutive year under the patronage of the Ministry of Water Resources and Irrigation. It's one of the tools for promotion and raising awareness of water conservation and improving its efficiency. Thus, it is conducted with a critical target group that can significantly contribute to achieving such targets, farmers, since they consume the highest amount of water in the agriculture sector. Compared to previous years, the competition has gained more significant popularity this year, which indicates its success in raising farmers' awareness. This year 267 farmers applied from different regions of the country. The top ranked ten farmers will be the winners in this competition. Each winner will be awarded with tools of smart irrigation to use within his/her farm.

Back to Back Event

The Nile Marathon

Observing October 6 as the day of Victory, the Cairo Yacht Club organized a tournament in memory of the martyred pilot Zakaria Kamal, who was martyred in the first aviation fight during the war.

This tournament is held alongside the Cairo Water Week (CWW) activities. Among the prominent guests who attended the tournament was his Excellency, the Minister of Water Resources and Irrigation, and His Excellency, the Minister of Communications and Information, Eng. Amr Abu Al-Saud, President of Al-Sheraa Federation. These tournament prizes were handed by His Excellency, the Minister of Communications and Information, Eng. Amr Abu Al-Saud.

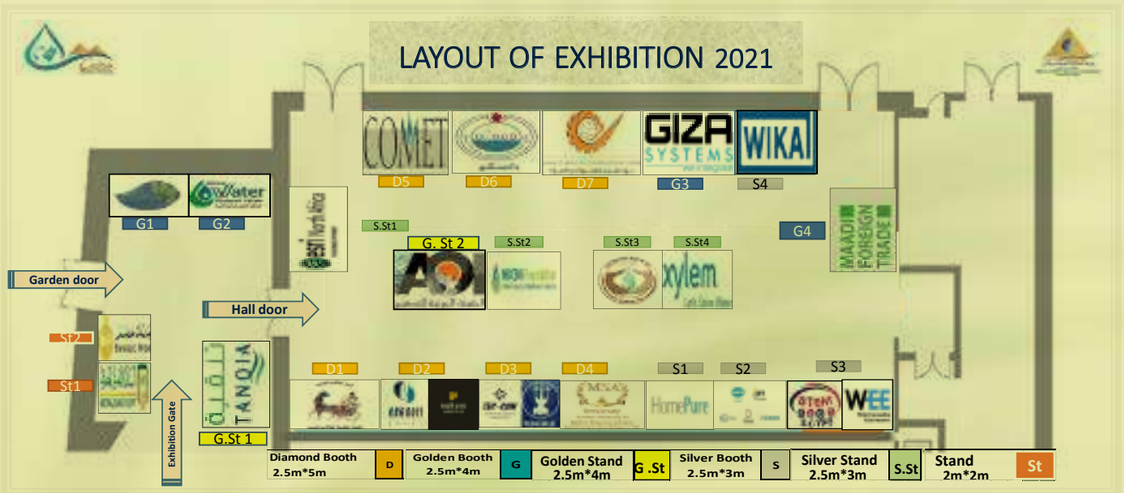
More than 50 women and men represented ancient yacht clubs at the tournament, such as the Egyptian Yacht Club in Alexandria, the Suez Canal Authority Club in Ismailia, the Maadi Yacht Club, the Egyptian Rowing Club, and the Arab Contractors. This tournament added a new page to the story of our immortal river, emphasizing its importance as a lifeline to Egypt over thousands of years.

Floor Plan Exhibitors

CWW2021 Expo will be organized in parallel with the Cairo Water Week activities during the period October 24th – 28th, 2021, at the same venue of the conference. It will be a unique opportunity for all public and private institutions in the water sector and related businesses & industries to display their activities, programs, and products and present modern ideas & advanced technologies in the water-related fields such as desalination, renewable energy, wastewater treatment, and water conservation technologies.

Please visit our website to know more about the exhibition.

https://www.cairowaterweek.eg/exhibition/



D1	National Organization For Military Production	G2	National Water Research Center	S.St2	Nile Basin Capacity Building Network Foundation (NBCBN- Foundation)
D2	Bahadii Group (Nijhuis Water Technology B.V)	G3	GIZA SYSTEMS CO.	S.St3	Permanent Joint Technical Commission for Nile Waters (PJTC)
D3	Technical Erection & Construction Company (Tec-Com) & Sigmainvest Czech Republic	G4	Maadi foreign Trade Co.	S.St4	GIGA SYSTEMS CO.
D4	October University for Modern Sciences and Arts (MSA)	G.St1	TANQIA ENVIRONMENT Co.	St1	National Bank of Egypt
D5	Comet for Trading and Engineering Works (COMET) Co.	G.St2	Arab Organization for Industrialization	St2	Banque Misr
D6	National Egyptian Drilling & Petroleum Services Co. (DASCO)	S1	Home Pure Co.		
D7	Lewaa El Hamd For Constructions & Trading	S2	Danaher Water Quality Platform Co.		
G1	Sky Light for Agricultural Investment and General Contracting	S3	(STEM Schools) & (Water Engineering &Environment)		
		S4	WIKA Near East Ltd Co.		
		S.St1	Esri North Africa Co.		

Ground Floor

Diamond Exhibition

COMET

Gold Exhibition

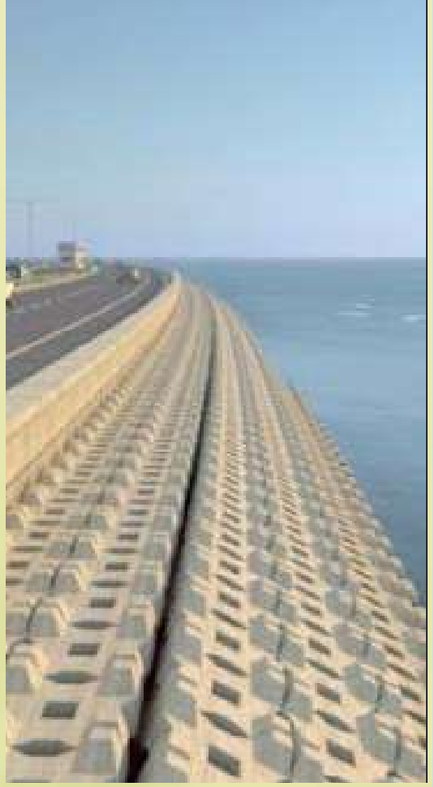
Silver Exhibition

Gala Dinner

On the historian's paradise and an architect's dream, Cairo!

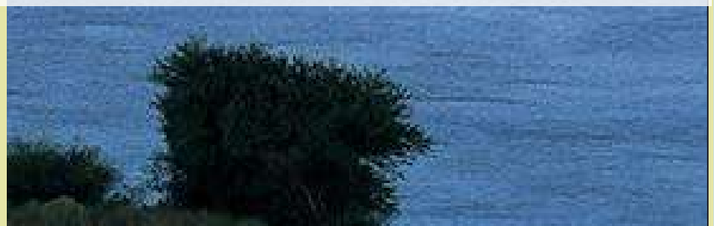
You are cordially invited to join CWW 2021 Gala Dinner at The National Museum of Egyptian Civilization, where you will be surrounded by the heritage as the area is located at the crossroads of Egyptian history, and it includes many Coptic churches and monasteries, the Coptic Museum, the Ibn Ezra Temple, and the first mosque in Egypt, the Amr Ibn Al-Aas Mosque. You can also see The Citadel of Saladin from the museum's outdoor spaces, which are designed to emphasize the unique location overlooking Lake Ain El-Sira, the last natural lake in Cairo.

the dinner will be held on Sunday 24th of October 2021. We do hope you can attend and share this evening with us !



Technical Tours and Excursion

Cairo water Week 2021 is offering several technical tours that will be organized during the week. These tours will enable the participants to experience and learn more about water projects in Egypt. For reservation, please contact the CWW information desk during the event with your CWW participation code.



Day3
October 26th, 2021

The Nile Forecast Center (NFC):

Location: Ministry of Water Resources and Irrigation Cairo, Egypt

The Nile Forecast Center NFC was established as part of the planning Sector of the Ministry of Water Resources and Irrigation in 1992. The general aim of the NFC is to provide a real-time hydro-meteorological forecasting system for the Nile River Basin. the center is an example of lateral cooperation projects between MWRI and development partners. NFC provides tools to utilize the available hydrological and meteorological data and seeks additional data to forecast the annual Nile inflow to Lake Nasser to help decision-makers decide on the release policy for the coming year.

Telemetry:

Location: Ministry of Water Resources and Irrigation Cairo, Egypt.

A vital department within the MWRI is the telemetry sector. The telemetry sector operates data-logger-based stations on River Nile and irrigation / drainage network to monitor inflows and outflows at different locations, communicate with the HAD operators the required release, and monitor pump stations parameters. Data sensors and loggers are available at locations of irrigation structures and pumping stations. At irrigation structures, the system provides real or near real-time information on water levels and flows. In addition to monitoring water level data at the pumping stations, the system monitors changes in pump status, operating hours, and flow. Some data loggers also monitor water quality parameters (pH, conductivity, and dissolved oxygen) at some sites.

The National Water Research Center (NWRC)

Location: Shoubra El-Kheima, Cairo, Egypt

The Ministry of Water Resources and Irrigation (MWRI) research arm is a center of excellence that possesses the knowledge and expertise in water resources, dedicated to conducting applied research at the highest water policy-making level. NWRC is an interdisciplinary research center dedicated to fostering an environment that encourages primary and applied research planning in both traditional water-related disciplines and non-traditional and emerging disciplines. Based on this, NWRC is mandated to provide innovative solutions and communicate them to the end-users, enhancing research uptake. NWRC's organization consists of twelve research institutes.

Nilometer

Location: Cairo, Egypt

An ancient instrument was used to measure the waters of the Nile, so Egyptian farmers would know whether to expect drought or flood. Nilometers were used for measuring water level as early as 5,000 years ago. The Nilometer on Rhoda Island dates to 861 when it was built, where an older Nilometer had been, based on a design by Alfraganus, a famous astronomer. The massive measuring stick had markings on it to indicate where the water level.

Day4:
October 27th , 2021

Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project (ECCADP) - Field Trip

Location: Nature Based Solutions for Coastal Protection, Kafr Elsheikh

Nature-based solutions are getting more and more common in many sectors including coastal protection. They are usually low cost and environment-friendly which gives double benefits in terms of spending budget efficiently and also protecting the environment. This trip introduces two examples of Nature-Based Solutions for coastal protection in the Delta area (Kafr Elsheikh governorate). The first example is a pilot that was constructed in 2016 using local materials such as sand and wooden fences. The structure is fascinating, and the visit will show how dynamic is the structure and how can this help to minimize the impacts of sea-level rise on the people, land, and infrastructure. The second site is recently constructed as part of the Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project (ECCADP) which is funded by the Government of Egypt, Green Climate Fund, and the UNDP. The trip will be an enjoyable experience. We encourage you to participate as places are limited.

The Enhancing Climate Change Adaptation in North Coast and Nile Delta Regions in Egypt project (ECCADP) aims at supporting the adaptation efforts in Egypt, particularly in Nile Delta, which the Intergovernmental Panel on Climate Change (IPCC) identifies as one of the world's "extremely" vulnerable deltas in the world.

Half Day Tours

Cairo Water Week is not only a wonderful opportunity to increase your knowledge, you could also enjoy your stay in Egypt during and after the event period through various leisure and touristic trips.

for reservation, please contact Blue Sky Travel

Contact Person: Mr. Amr Gheith

Amr-gheith@blueskygroup.net

+201022166785

Pyramids Visit:

- **Pyramids area+ Bus + Guide: USD 37 /EGP 550 Per person**
- **Great Pyramid ticket only add to price of pyramids tour: USD 26 / EGP 400**
- Start our Tour In Giza Area With the Great Pyramid of KHUFU taking the car to pass by the second pyramid the KHAFRE and third on of MANKAURE.
- Visit the panorama area where the view of the three pyramids in one line. In Panorama area is a good place for riding Camels or horses.
- Visit the last area of Sphinx and the Temple of KHAFRE.

Egyptian Museum:

- **Cairo Museum Entrance + Bus + Guide: USD 37 /EGP 550 Per person**
- **Mummy room- ticket only add to price of pyramids tour: USD 13 / EGP 200**
- Start the Egyptian museum tour with the First floor.
- Start with Pre-Historic period Monuments Then the Old Kingdom.
- Old Kingdom and pyramid Builder kings monuments. Section of the coffins and mummification tools.
- Take our way to the young Pharaoh Collection TUT ANKH AMEN.
- Visit the showroom of the Gold Mask of TUT ANKH AMEN and his tomb.

Sound and Light Show in Pyramids +Dinner at Mena house :

- **Sound and Light Show +Guide + Bus: USD 27 / EGP 400**
- Visit Pyramids area by night to Attend sound and Light show
- Dinner at Mena house hotel

Khan el-Khalili:

- Visit El-Moezz St., and the Mosque of Fatimid and Mamluk
- Walking in Khan El-Khalili for the hand Made souvenirs
- Visit Al-Hussein and Al-Azhar Mosque
- Collection

Citadel:

- **Citadel Entrance fees+ Bus + Guide: USD 37 /EGP 550 Per person**
- Visit the citadel of Saladin and the outer walls
- Visit the famous mosque of Mohamed Ali – the alabaster Mosque
- Visits the police museum and the prison

Dinner at Nile Cruise :

- **Dinner at Nile Cruise +Bus + tour Leader: 60 USD /900 EGP**
- Visit Pyramids area by night to attend sound and Light show
- Dinner at Mena house hotel
- Start City Nile Cruise for 2 hours
- Dinner Set menu excluding Beverages

Old Cairo:

- **Sakkara+ Bus + Guide**

  USD 37 /EGP 550 Per person
- Visit the famous churches there
- Visit the Hanging Church
- Visit the Coptic museum
- Visit Synagogue
- Visit Amr IBN El- AAS Mosque

Full Day Tours

Tours in SHARM El Sheikh:

Snorkeling in Ras Mohamed By boat :

- Start move from hotel heading to Marina
- Start tour by boar to Ras Mohamed with 3 snorkeling Stops .
- Soft drinks + Light Lunch at boat
- 5:00 Pm return to hotel
- Visit the last area of Sphinx and the Temple of KHAFRE

Snorkeling in Ras Mohamed By bus :

- Start move from hotel heading to Ras Mohamed Island (10 KM from Sharm El shikeh)
- Start tour by bus in Ras Mohamed with 3 snorkeling Stops one of them in Magic lake
- Soft drinks + Light Lunch at island
- 5:00 Pm return to hotel
- Visit the showroom of the Gold Mask of TUT ANKH AMEN and his tomb
- Collection

Bedouin in Night:

- Move from hotel heading to Desert By bus At 2:00 PM (19 KM from Sharm El sheikh)
- Start Buggy ride for 45 Minutes
- Camels Ride for 15 Minutes
- Soft drinks + Dinner
- Tanoura + African show + fire Show
- Return with Buggies for 30 minutes
- Return to hotel by bus .

Dinner boat Night :

- Move from hotel heading to Marina at 5:00 PM
- Start tour by boat for 2 hours
- Special show
- Soft drinks + Dinner

Tours in Aswan :

- **Philae Temple + The Obelisk + high Dam :**

City tour at Aswan temples and high Dam + guide + Bus: USD 40 / EGP 600

- Move from hotel to Visit Aswan sightseeing
- Start with Philae temple
- Then the Obelisk
- Then finish with High Dam

Nubian Village + Philae Temple Sound and light show:

- Nubian Village + sound and light Show at Philae + Guide + Bus: USD 43 / EGP 650
- Move from hotel to Visit Nubian village by motor boat At 2:00 PM
- Take our light lunch there
- Enter Nubian Houses
- Then return by motor boat
- Take bus to Visit Sound and Light Show at Philae Temple

Tours in Luxor :

Karnak Temple + Luxor Temple:

- Karnak Temple + Luxor Temple +guide + Bus: USD 40 / EGP 600
- Move from hotel to Visit Karnak Temple for 2 hours
- Then go to Luxor temple to Visit it for 1 and half hour
- Then return to hotel , we can start it at 2:00 PM.

Hatshepsut Temple + Kings Valley:

- Hatshepsut Temple + Kings Valley + guide + Bus: USD 33 / EGP 500
- Move from hotel to Visit Hatshepsut Temple for 2 hours
- Then go to Kings Valley to Visit it for other 2 hours
- Then return to hotel .

Sound and Light Show at Karnak:

- Sound and Light Show at Karnak +Guide + bus USD 30 / EGP 450
- Move from hotel to Visit Karnak Temple by night
- Sound and Light show for one hour
- Then return to hotel .

Tours in Soma bay and Hurghada

Boat trip to orange Island :

- Snorkeling by boat to Orange Boat+ Transportation and Lunch+Equipment of Snorkeling: USD 45 / EGP 650
- Start move from hotel heading to Marina
- Start tour by boar to Orange Island with 3 snorkeling Stops .
- Third stop at orange island and Take our lunch there
- 5:00 Pm return to hotel

Bedouin Night +Mega Safari:

- Bedouin Night With Beach buggies+ Transportation , dinner , camels and Buggies USD 45 / EGP 650
- Move from hotel heading to Desert By bus At 12:00 PM By jeeps
- Start Buggy ride for 45 Minutes
- Then Spiders Cars Ride for 15 Minutes
- Soft drinks + Dinner
- Tanoura + African show + fire Show
- Return with Jeeps to hotel

General Information

CWW 2021 Safety Measures Against

The Egyptian government has taken precautions against the Coronavirus after its outbreak and implemented them strictly to prevent virus spread there. In this respect, CWW 2021 permanent secretariat is very keen to secure your safety by taking all essential precautions, such as measuring temperature for participants, assuring physical distancing, wearing face masks, keeping meeting rooms well ventilated, avoiding crowds, and hand sterilization. Face mask-wearing is mandatory in closed public spaces, including government buildings, private offices, malls, retail outlets, and public transport, including private taxis. Legal penalties could be applied for non-compliance. It is noteworthy that the travellers to Egypt must present a negative PCR test or travellers with a COVID-19 vaccination certificate stating complete vaccination at least 14 days before travel are exempted from testing. Accepted vaccines are AstraZeneca, Johnson, Moderna, Pfizer, BioNTech, Sino pharm, Sinovac, and Sputnik V.) More information about travel restrictions is available at the following link:

https://www.egyptonlinevisa.com/travel-restrictions/#EgyptPCR-test-requirement

Free PCR Test at the Conference Venue for Travelling Official Delegations

we are delighted to announce that there will be a free PCR test at the conference venue for traveling official delegations only. Noting that you will need to contact the CWW2021 information desk during the event with your CWW2021 participation code, passport, and flight ticket (proof of travel) to schedule your PCR test.

AIRPORT

The Cairo International Airport (code: CIA) is Cairo's main international airport; it is located in the north-eastern part of the city, about 15 kilometers from the City's business area; it functions as the main hub for most Airlines. The meeting venue (The Nile Ritz Carlton) is around 19 kilometers away from Cairo International Airport. For more information please visit:

http://www.cairo-airport.info/

Accommodation

Different options for accommodation preferences in neighboring hotels to the venue of the conference have been announced on our website on the following link:

https://www.cairowaterweek.eg/conferencevenue/

Please note that you will not obtain the special rates of these hotels unless you mention your registration confirmation code. The registration team will send the confirmation code to you when they receive a copy of your payment document.

Registration

Registration is required for all participants and accompanying persons. Registration fees and online registration procedures are available on the CWW website at www.cairowaterweek.eg/register/

Please note that online registration allows you to attend online sessions/events only.

Currency Exchange

Exchange rate is around 1 USD = 15.665 EGP and 1 EURO = 18.077 EGP as of date 07/10/2021. The Central Bank of the Arab Republic of Egypt provides the most recent exchange rate values on its website: http://www.cbe.org.eg.

The daily published exchange rates can be used to exchange foreign money at the airport, hotels, currency exchange businesses, and all banks. ATMs can be found in supermarkets, shopping malls, and even on the streets, in addition to banks. The quantity of foreign currency that can be brought in is limited and should not exceed US$ 10,000.

Weather

The average temperature in Cairo during October reaches a high of around 30°C (86°F) during the day and falls below 19°C (64°F) at night.

Local Time

Cairo is GMT + 2 hours ahead of GMT.

Telephone Calls

In case of an emergency, please contact the registration or information desk, or number 122 for police, 123 for ambulance service, and 180 for fireman service.

Electricity

Egypt's electrical current is 220 volts with a 50-cycle alternating current (AC). Continental-style plugs with two circular prongs are accepted by wall outlets.

About Egypt

The Land of the Pharaohs, Secrets, and Magic

Egypt is an African country in the northeastern part of the continent. Egypt is very popular with its famous civilizations in the ancient Middle East, and one of the world's first urban and intellectual cultures flourished in Egypt's heartland, the Nile River valley and Delta. For over 3,000 years, Pharaonic Egypt flourished.

Since the Sinai Peninsula joins southwest Asia through the land, it is often known as a Middle Eastern country. Egypt is considered a transcontinental country that can influence Africa, the Middle East, the Mediterranean, and the Muslim world.

Deserts and the Nile, one of the world's longest rivers, define the country. The Nile flows north from central Africa, passing through Upper (southern) Egypt and Lower (northern) Egypt to the Mediterranean Sea, with a hilly desert to the east, a rolling drier desert to the west, and the huge Sahara to the south.

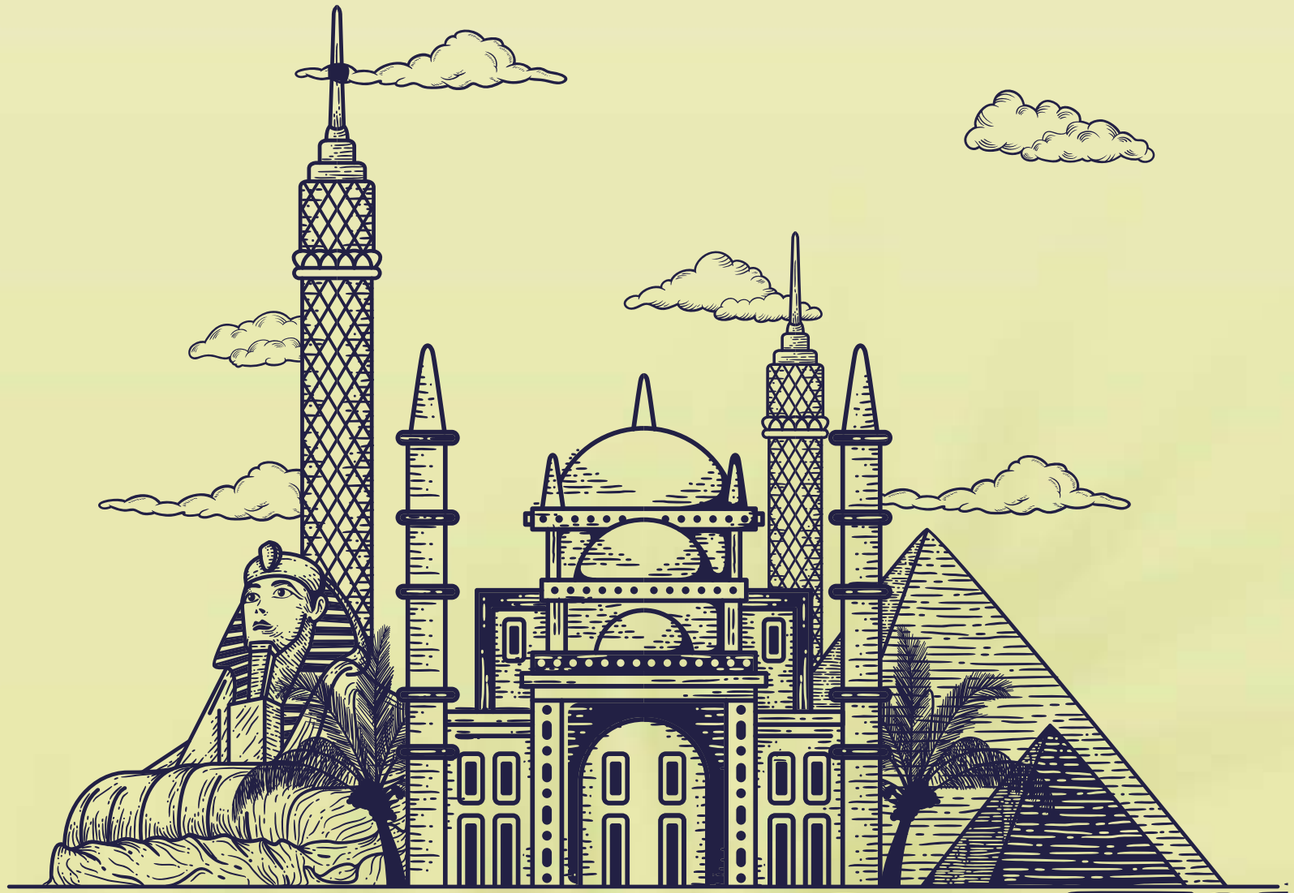
The tombs of the Theban Necropolis within the Valley of the Kings across the Nile from Luxor, as well as the temples of Abydos, Dendara, Karnak, Esna, Edfu, KomOmbo, Philae, and Abu Simbel, the delight of taking in the riverscape from the luxury of a felucca (small sailboat) is shared by locals and visitors alike. In Aswan, this is simple to organize, and larger Nile cruise vessels may provide an even more luxurious experience. As the Nile River flows upwards past populous cities and temples, it branches out into a flower-shaped creation known as the Nile delta, stretching 240 km along the Mediterranean coast.

From Ancient Egypt through the Roman Empire, Islamic dynasties to modern history, Egypt offers a fascinating contrast of historical aspects. During the last decade, Egypt has developed into Africa's contemporary hub, with numerous airports, ports, modern marinas, and major cities connected by a network of freshly constructed highways. Moreover, telecommunications and Internet services in Egypt are booming, providing the needed infrastructure for the constant development of the country.

Like the Nile, the Red Sea shoreline was once a microcosm of the world that welcomed seafarers from far regions. There are tons of endless mountains, and turquoise waves break against rocky capes and windswept beaches. To the south, the magnificent island reefs in Hurghada and the smaller towns of Port Safaga, El-Quseir, and MarsaAlam are a great attraction here, especially for non-locals. The entire region has experienced a significant transition within the last two decades, fueled by an influx of annual tourists. The most remarkable development is the upcoming construction of Egypt's new capital city near this coastline.

When it comes to tourists looking for adventure, these destinations have a lot to offer; golf courses, private beaches, open-air movies, nightlife, snorkeling, and kitesurfing.

The Egyptian environment is incredibly excellent, especially when considering it's a country primarily made of sand and dust, and it's a monument to its mysterious beauty.



CAIRO IN WORDS

Cairo, the city that witnessed the historical parade of ancient monarchs pass through it, “the city of a thousand minarets,” Egypt’s capital with a population of more than 25 million people, is one of Africa’s and the Middle East’s largest populated cities.

Cairo, located on the Nile River, is known for its history, conserved in Old Cairo’s magnificent medieval Islamic city and Coptic antiquities. The Egyptian Museum in the heart of town, with its wealth of Ancient Egyptian antiquities, is a must-see, as is shopping in the Khan al-Khalili bazaar. No trip to Cairo would be complete until seeing the Giza Pyramids and the surrounding Saqqara Pyramid Complex, where tourists may witness Egypt’s first step pyramid, constructed by the architect Imhotep for the third dynasty Pharaoh, Djoser.

Cairo, while rich in tradition, is nevertheless home to a thriving modern society. Tahrir Square is very close to the Nile River east bank, in the heart of downtown Cairo. The Egyptian Museum, the modern Umar Makram Mosque, and the Arab League headquarters are among the many attractions in the broad and open area, focusing on tourist activity.

Corniche, Cairo’s central street, extends along the east bank of the Nile from north to south. A short strip of land known as Garden City, one of the city’s newer residential districts, is located nearby. The river island of Zamalek (also known as Jezerah, which means “island”) is located in the city’s center. It has an upmarket residential and commercial neighborhood known as Zamalek, the Cairo Opera House (established in 1869), and the Cairo Tower (1961). A felucca ride on the Nile is an excellent way to enjoy your time in the Nile River.

Egyptian Cuisine:

Koshary is a very well known traditional cuisine that consists of rice, lentils, pasta, tomato sauce, chickpeas, crispy onions, and a garlic sauce. Tamiya, a bean paste, is one of the most famous Egyptian meals. Molokhia is a typical Egyptian dish made of a soup cooked from a nutritious green leaf high in antioxidants.

Stuffed pigeons, kebabs, and kofta are among Egypt's most famous meat and poultry dishes. Egypt's cuisine also features a variety of fish and shellfish.

Shopping and Malls:

Khan El Khalili Market

The market of Khan El Khalili (Traditional market and bazaar) A visit to Khan Al-Khalili is a must for any traveler to Cairo. The bazaar is raucous, busy, colorful, and fascinating, with various items and sparkling souvenirs. The customary tourist items can be found here. The Za'afran Market dates to the 14th century, when Emir Dajaharks Al-Khalili constructed a massive marketplace, where it is located on the site of the Za'afran Tomb previously served as the burial location for Egypt's Fatimid kings. Khan El Khalili is 12 kilometers from Cairo's downtown. The Khan El Khalili market is part of a triangle of markets that extends south to Bab Zuwayla and west to Azbakiyyah. Khan Al Khalili's narrow streets resemble a medieval shopping center. This jumble of stores, many of which are located around small courtyards, sells everything from soap to semiprecious stones, as well as kitschy toy camels and alabaster pyramids. Most businesses and vendors are open from 9 a.m. to well after nightfall (except Friday morning and Sunday). The market has been considerably modified in recent years, but areas of it still retain the old Mamluk style architecture, which included enormous archways and vaulted ceilings. If you decide to take a break from shopping, check out one of the restaurants and cafes scattered throughout the market. The oldest café in Cairo, Al Fishawy, is decorated with antiques.

Shopping and Malls

As in many other megacities, the construction of new shopping malls and recreational areas has altered Egypt's public space in the recent decade. This went hand in hand with the gentrification of specific Cairo neighborhoods. Every district in Cairo has at least one mall, such as the Mall of Egypt, Cairo Festival City Mall, Citystars Mall, City Center Almaza, and The First Mall.

Unmissable Attractions in Egypt

Giza Pyramids

Giza's Pyramids are among the last surviving examples of the ancient world's Seven Wonders, making them arguably its most iconic structure. The Pyramids of Cheops (Khufu), Chephren (Khafre), and Mycerinus (Menkaure) are among the top tourist attractions in Egypt, and visitor are most interest to see when they first arrive to Egypt. These memorials to deceased pharaohs, which lay on the outskirts of Cairo's sprawl, are still awe-inspiring sights and an unmissable highlight of any Egypt vacation.

Luxor Karnak Temple and Valley of the Kings:

The famous things that Luxor is popular with is the Valley of the Kings, Karnak Temple, and Hatshepsut Memorial Temple. Luxor City is located on the Nile River in Upper Egypt and has many attractions. This is the ancient Thebes, the power base of the Pharaohs of the New Kingdom, with more attractions than most people can see in one visit. Luxor's east bank has a modern city and a vibrant open-air market; Karnak and Luxor are two temples; and museums; the lush farmland and barren cliffs of the west bank are the vast majority of Luxor. The location of tourist attractions, the mausoleums, and temples with so many views is known as the world's largest open-air museum.

Abu Simbel:

Even in a country full of temples, Abu Simbel is very special. This is the great temple of Ramses II, the exterior is decorated with giant statues of guards, and the interior is decorated with magnificent murals.

Egyptian Museum:

Pharaonic World Treasure, the Egyptian Museum of Cairo, is one of the beautiful museums in the world. The colorful rose mansion from the Cairo center has several exposed exhibits. It is higgledy-piggledy where the order of offers and the time series is almost insufficient, but it is half of the previous attraction. The two outstanding aspects of the museum are the gold transport that receives from the Tutankhamen tomb, a charming exhibition hall.

The National Museum of Egyptian Civilization

The National Museum of Egyptian Civilization (NMEC) is located in Fustat, Egypt's first capital after the Arab Islamic conquest; it was a logical choice for the museum since the area is incredibly wealthy in Coptic churches and monasteries, including the Coptic Museum, the Ibn Ezra Temple, and Egypt's first mosque, the Amr Ibn Al-Aas Mosque. The Saladin Citadel can also be seen from the museum's outdoor spaces, which were built to highlight the museum's unique location overlooking Lake Ain El-Sira, Cairo's last natural lake. Also, it is considered Egypt's only museum that provides visitors with a comprehensive overview of Egypt's various historical periods.

Diving the Red Sea:

Beneath the surface of the Red Sea, there is a world as fascinating as the temples and tombs on land exist. Scuba divers go to the Red Sea's coral reefs for both the soft corals and the diversity of sea life, which comprises all from multicolored reef fish and nudibranchs to sharks, dolphins, turtles, rays, and even dugongs. The most well-known town for divers is Sharm el-Sheikh, which is located on the Sinai Peninsula and is closest to the reefs of Ras Mohammed National Park.

Siwa Oasis:

Siwa is a calm tonic to the hustle-bustle of Egypt's cities, sitting in solitude in the western corner of the Western Desert. The Western Desert is considered as the most attractive area, where charming natural oasis, which dates palm farms flank, and numerous hot springs. The Fortress of Shali, a massive mud-brick fortress that dominates the view, is centered on Siwa town, while several temple pieces, including the Temple of the Oracle.

The New Alamein city:

The New Alamein City, which will be the first-ever city in the region, is located on the North Coast. It was designed to meet the high requirements of a fourth-generation city. The New Alamein City North Coast is expected to house millions of people, marking a new high point for the region. Also, it is part of a new concept for an open-to-the-public tourism city on the North Coast, which differs from the private resorts that border the coast.

We are committed to leading
The Regeneration of local water cycles
and create a positive impact
By 2025.

In Egypt we are committed to :

1. Increase access to safe drinking water through the delivery of water treatment, filtration and pipeline infrastructure for the municipal water supply in Benha. We have collaborated with governmental authorities to renovate the water station and expand the water pipe network to ensure clean quality water access to all residents in the community where we are operating. Our role will be to replace the old water storage tank with a new bigger tank, improve the well pumping efficiency, install a new filtration system to ensure water quality and to expand the piping network that feeds the homes.

ALLIANCE FOR
WATER STEWARDSHIP

2. Protecting, safeguarding and promoting sustainable water resource management through external certification Nestlé Waters Factory is the first manufacturer in Egypt that certified by Alliance for Water Stewardship (AWS). This is an international certification that sets rigorous criteria for managing water in ways that are environmentally, socially and economically beneficial. This is an important step for Nestlé Waters Egypt to be recognised as a responsible water user by the local community and global stakeholders.

3. Invest 25Mm EGP for the rehabilitation of the Senaity Water Canal. We have collobrated with the Ministry of Irrigation, Qalyubia Governorate and Road Directorate to clean and reinforce the canal with cement to prevent leakage and improve flow of water for the irrigation of agricultural land.

Consistency in analyzing water management activities, all our community projects are measurable using the World Resources Institute's Volumetric Water Benefit Accounting (VWBA) methodology. This aids us in addressing any current of future shared water challenges.

List of Abbreviations

Abbreviation	Abbreviation Description
ACSAD	Arab Center for the Study of Arid and Drylands
AFD	Agence Française de Development
AFDB	African Development Bank
AFRWG	The African Regional Working Group
AF-YWPF	The African Young Water Professional Forum
AI	Artificial Intelligence
AMB	Area Metropolitana de Barcelona
AOAD	Arab Organization for Agriculture Development
AUC	American University in Cairo
ASRT	Academy of Scientific Research and Technology
AWC	Arab World Committee
BMZ	German Federal Ministry for Economic Cooperation and Development
CEDARE	Center for Environment & Development for The Arab Region & Europe
COMESA	Common Market for Eastern and Southern Africa
COP	Conference of The Parties
CWW	Cairo Water Week
DSS	Decision Support System
EAD	Environment Agency – Abu Dhabi
EBRD	European Bank for Reconstruction and Development
ECCADP	Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project
ECRI	Environment and Climate changes Research Institute
EEAA	Egyptian Environmental Affairs Agency
EFSD	European Fund for Sustainable Development
EGP	Egyptian Pound
EIB	European Investment Bank
EIP	European Investment Plan
ENCID	Egyptian National Committee on Irrigation and Drainage
EPADP	Egyptian Public Authority for Drainage Projects
ESCWA	Economic and Social Commission for West Asia
ESRI	Environmental Systems Research Institute
EU	European Union
ET	Evapotranspiration
ETa	actual Evapotranspiration
EU	European Union
FAO	The Food and Agriculture Organization of the United Nations
FAO_RNE	Food and Agriculture Organization of the United Nations – Regional Office for the Near East and North Africa
FECU	Faculty of Engineering, Cairo University
FS	Feasibility Study
GCF	Green Climate Fund
GIS	Geographic Information Systems
GOWP	the Global Observatory for Water and Peace
GWP-Med	Global Water Partnership – Mediterranean
HLE	High Level Event
HLJC	High Level Joint Committee
HLJTC	High-Level Joint Water-Agriculture Technical Committee
HWISE	Household Water Insecurity Experience
IFIs	International Financial Institutions
ICARDA	International Center for Agricultural Research in the Dry Areas
ICID	International Commission on Irrigation and Drainage
ICWC	International Centre for Water Cooperation
ICZM	Integrated Coastal Zone Management
IGHHE	Institute of Global Health and Human Ecology
IHP	Intergovernmental Hydrological Program
IPCC	Intergovernmental Panel identifies on Climate Change
IWMDs	Integrated Water Management Districts
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
IWT	Inland Water Transport
ISDB	Islamic Development Bank
JASAD-NSAS	Joint Authority for the Study and Development of the Nubian Sandstone Aquifer System
JCAR	Joint Cooperation in Applied Research
JISA	Joint Integrated Sector Approach
KFW	German government-owned Development Bank
LARI	Lebanese Agricultural Research Institute
LAS	League of Arab States
MENA	Middle East and North Africa
MWRI	Ministry of Water Resources and Irrigation
NBCBN	Nile Basin Capacity Building Network
NCCC	National Council for Climate Change
NCCS	National Climate Change Strategy
NDCs	Nationally Determined Contributions
NDP III	The National Drainage Programme Phase III
NCEA	Netherlands Commission for Environmental Assessment
NENA	Near East and North Africa Regional
NEPAD	New Partnership for Africa's Development
NFC	Nile Forecast Center
NMEC	National Museum of Egyptian Civilization
NWRC	National Water Research Institute
NWRP	National Water Resource Program
NWS	Nile Water Sector
PCs	Partner Countries
PICI	Presidential Infrastructure Championing Initiative

PIDA_PAP	Program for infrastructure Development in Africa, Second Priority Action Plan
PMU	Project Monitoring Unit
PRIMA	Partnership for Research & Innovation in the Mediterranean Area
RICCAR	Regional Initiative for the Assessment of Climate Change
RSS	Royal Scientific Society
SDC-ZC	Sustainable Development Centre of Zewail City
SDGs	Sustainable Development Goals
SE	Side Event
SEI	Stockholm Environment Institute
SLU	Swedish University for Agriculture Sciences
SIDA	Swedish International Development Cooperation Agency
SIWI	Stockholm International Water Institute
SPA	Shore Protection Authority
SWERI	Soils, Water and Environment Research Institute of the Agriculture Research center
TORs	Terms of References
TS	Technical Session
UfM	The Union for the Mediterranean
UK CEH	UK Centre for Hydrology
UN	United Nations
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USD	United States Dollar
Water JPI	Water Joint Programming Initiative
WASH	Integrated Water Resource Management, Water, Sanitation and Hygiene
WEFE	Water Energy Food Environment
WP	Water Productivity
WS	Workshop
WSI	FAO Water Scarcity Initiative
WTPs	Water Treatment Plants
WUR	Wageningen University & Research
WWDR	World Water Development Report
3MT	Three Minutes Thesis

Ministry of Water Resources and Irrigation
Arab Republic of Egypt

WORLD WATER COUNCIL

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A MUBADALA COMPANY

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ESCWA

European Investment Bank
The EU bank

NATIONAL BANK OF EGYPT

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Union for the Mediterranean

Technische Universität Berlin

German Water Partnership

GREEN CLIMATE FUND

NBCBN-Foundation

Technology Arts Sciences
TH Köln

NDP3
JISA
National Drainage Programme 3

IWMI
International Water Management Institute

FINNISH WATER FORUM

AFRWC

ICID·CIID

Global Water Partnership
Africa

IsDB
Islamic Development Bank

WATER HUB

ICARDA

Water and Environment Support

SIWI

SEI Stockholm Environment Institute

United Nations Educational, Scientific and Cultural Organization

International Centre for Water Cooperation

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CANAL SUGAR

- We are the largest private integrated agro-industrial project since 1950.
- Our Project incorporates a large-scale desert land of 181k feddans (76K hectare/189K acres) for reclamation and cultivation; a sugar beet processing factory built on an area of 240 feddans (100 hectare/247 acres) with a capacity of up to 950,000 of premium white sugar/year in Minya governorate with a total investment cost of US$ 1 billion.
- Our goal is to transform arid desert into fertile arable land through the application of modern technology in land reclamation and growing much needed strategic food crops.
- We aim to bridge the US$ 10 billion food/feed supply gap in Egypt through competitively producing essential commodities by means of an efficient vertically integrated supply chain and bulk storage facilities.
- Our ambition is to turn Egypt from a consistent net importer to a potential net exporter while introducing new technologies and elevating conventional methods to set new standards while maintaining safe work environment and positively contributing to our community.

BANQUE MISR WILL REMAIN EGYPT'S LUCKY CHARM

THE SACRED SCARAB FORMS A PART OF OUR LOGO AS A POTENT AMULET THAT SYMBOLIZED PROTECTION AND RESURRECTION TO THE ANCIENT EGYPTIANS

- Banque Misr is a pioneer in projects, structured finance and acquisitions for numerous large-scale transactions
- The bank has funded key projects over the past 100 years and contributed to the establishment of 157 companies in various sectors through offering a wide range of banking activities, with a specific focus on arranging highly structured, debt-based financing transactions
- The bank offers a versatile range of products and services catering to a wide client base
- Banque Misr was named the 'Best Provider of Money Market Funds in Africa and the Middle East' for the years 2009 and 2010 and the 'Best Provider of Money Market Funds in the Middle East' for the years 2008, 2012, 2013, 2014 and 2015. The bank was also named the 'Best Provider of Money Market Funds and Short-Term Investments in the Middle East' in 2015, 2016, 2017, 2018, 2020, 2021 and in Africa and the Middle East in 2019
- The bank offers a full range of Sharia-compliant products and services through 44 Islamic branches
- The bank has a strong regional and international presence, with branches in the UAE, Lebanon, Germany and France, as well as representative offices in China, Russia, South Korea and Italy
- The bank has one of the largest banking networks in Egypt and the Middle East, with about 700 branches
- Banque Misr became a member of the UN Global Compact for the years 2016, 2017, 2018, 2019 and 2020 and is the first state-owned bank to issue an annual sustainability report in accordance with the internationally-recognized Global Reporting Initiative (GRI) for the fifth year, in addition to joining the United Nations Environment Programme Finance Initiative (UNEP FI) "Principles for Responsible Banking "

Thank You

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BM Phone 19888 بي إم فون

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