



CWW 2019

RESPONDING TO WATER SCARCITY

20th - 24th October, 2019, Cairo - Egypt



www.cairowaterweek.org



Cairo Water Week



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CONFERENCE BOOKLET



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WELCOME

LETTERS



Welcome message by the Minister of Water Resources and Irrigation

Dear Excellencies, Colleagues and Friends

On behalf of the Ministry of Water Resources and Irrigation, It is my pleasure to welcome you to the forthcoming Cairo Water Week (CWW) 2019, which will be held in Cairo during the period 20 – 24 October 2019.

The main theme of CWW 2019 is “Responding to Water Scarcity” which will be covered through five interrelated topics: Achieving SDGs under Water Scarcity, Cooperation in Water Sector, Research and Innovation in Facing Water Scarcity, Climate Change Impacts, Mitigation and Adaptation, and Non-Conventional Water Resources Use under Scarcity Conditions.

In September 2015, world leaders met at the United Nations and made a commitment to achieve 17 Sustainable Development Goals over the period 2015-2030. It is obvious that achieving universal access to water and disposal of wastewater and enhancing the water management is a key goal that will contribute to achieving many of the other SDGs.

The Middle East and North Africa is the world's most water-scarce region and the situation is worsening due to the impacts of climate change.

Egypt, as many other countries in the region and in the world, faces serious challenges in terms of water scarcity resulting from the increased water demands and limited water resources. Experiences from around the world demonstrate that countries that have achieved regional water cooperation have prospered together and have avoided the threat of conflict a distant possibility.

Recently, further to the water use rationalization and efficiency raising programs pursued by the country, Egypt is widely practicing the reuse of drainage water and treated domestic wastewater to fulfill the gap between the water resources and demands. The rainwater harvesting is a policy measure to benefit from every water drop, besides the adopted policy of increasing the dependency on desalinated seawater in coastal cities. Nevertheless, investment in innovative policies and practices is crucial as research, and technology development and transfer would enable further improvements in water resources management, water use efficiency and crop productivity.

The CWW is now providing an excellent platform for sharing knowledge, experiences, technologies and ideas to promote sustainable development through enhanced and integrated water resources management.

Water leaders, experts, and decision makers representing more than 100 countries are going to participate in CWW 2019 with high-level official delegations to discuss and share their ideas on common arising water scarcity problems and how to face them.

On behalf of the Government of Egypt, Please accept my best wishes for a productive event and a memorable visit to Cairo.

Looking forward to welcoming you in CWW in October, 2019.

Dr. Mohamed Abd El-Aty
Minister of Water Resources
and Irrigation of Egypt

A Message from the Organizing Committee

Dear Excellencies, Colleagues and Honorable guests,

On behalf of the Organizing Committee, it is my truthful pleasure to welcome you for the Cairo Water Week which will be organized from 20th to 24th October, 2019 in Cairo, Egypt. The main theme of the week, "Responding to Water Scarcity", will be tackled through main five subthemes that will cover all Water-Related topics as part of the international and regional obligation from Egypt to Middle East and Africa. The week will comprise high-level meetings, plenaries and technical sessions that will allow multiple opportunities for in-depth discussions on topics of your interest; in addition, social activities and an exhibition will also take place.

Cairo Water Week (CWW) is considered one of the biggest water-related events at the national, regional and international levels. It is an annual event organized by the Egyptian Ministry of Water Resources and Irrigation, under the patronage of H.E. Mr. Abdel Fatah El-Sisi, President of the Arab Republic of Egypt, in collaboration with national, regional and international partners. It aims to promote water awareness and foster innovative approaches to face the most pressing water-related challenges, keep updates on global movements to address water challenges and identify modern tools and techniques for managing water resources. The conference theme, "Responding to Water Scarcity", has been carefully chosen to mark such a milestone of our world.

The CWW is an imperative platform for professional engagement, the exchange and sharing of ideas, learning from others and identify areas for partnerships and collaborations. We have an exciting program this year that will allow members to reflect upon and celebrate the accomplishments, extend their networks, and jointly explore current and future research directions. We hope that you will have a productive and fun-filled time at this very special conference. The rich program, wide experience and multitude of perspectives of our speakers, along with interesting field visits and a sound social program, guarantee that the Conference is interesting, fruitful and enjoyable.

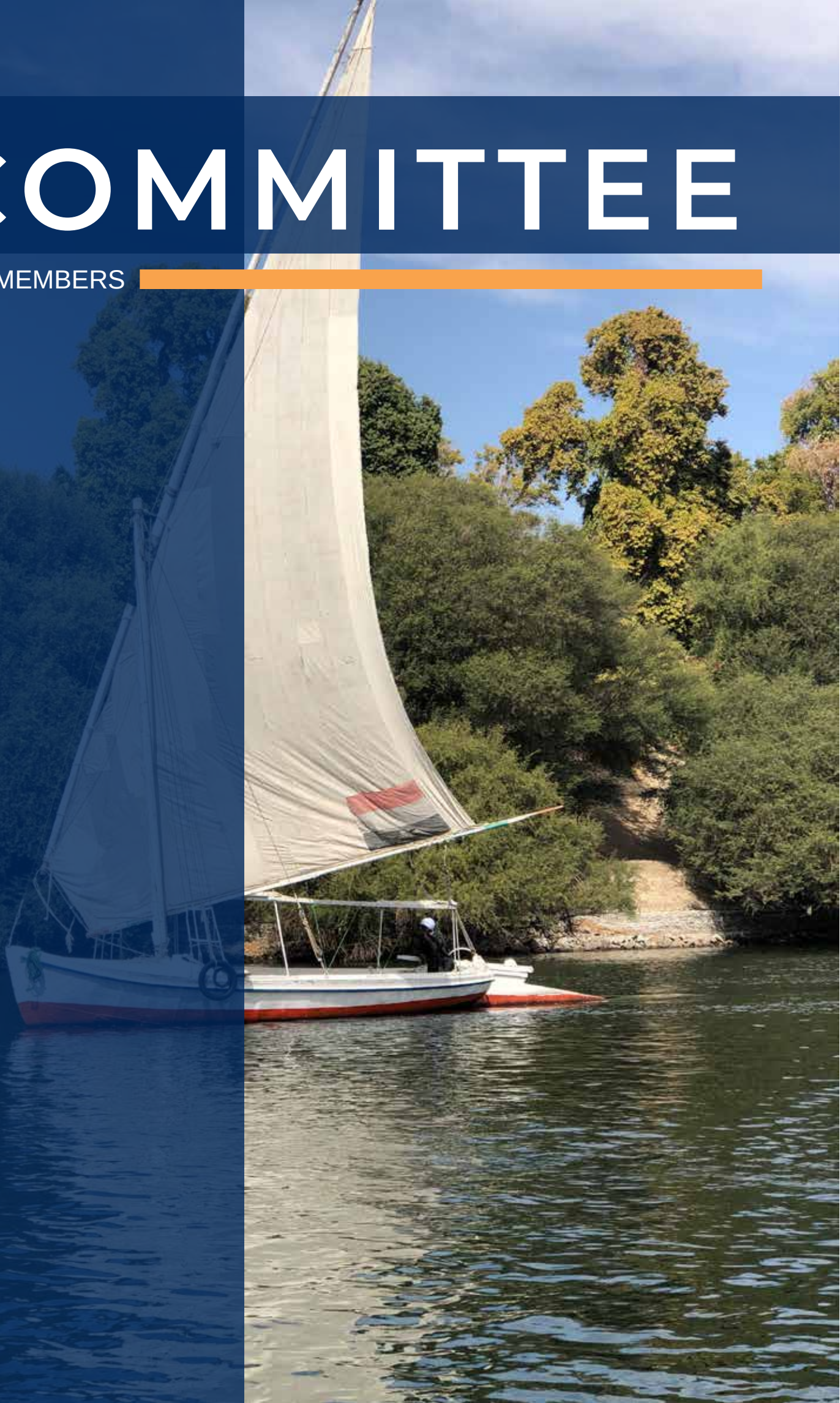
It is definitely an honor and privilege to welcome you to Cairo Water Week 2019, which we see as an event of significance!

Looking forward to seeing you in the charming and inspiring city of Cairo!

Dr Ragab Abdel Azim
Head of CWW Organizing
Committee

COMMITTEE

MEMBERS



CWW 2019 Higher Committee

- H.E. Dr. Mohamed Abd El-Aty, 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.
- H.E. Dr. Charafat Afailal, Former Minister in Charge of Water, Morocco.
- Dr. Fadi Georges Comair, Director General of Hydraulic and Electric Resources, Ministry of Energy and Water, Lebanon.
- Prof. Eng. Felix Reinders, President of international commission on irrigation and drainage (ICID).
- Dr. Chaith H. Fariz, Director, UNESCO Regional Bureau for Sciences in the Arab States.
- 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. Sven Geissen, Head of the Environmental Process Engineering Chair, Department of Environmental Technology, Technical University of Berlin.
- Dr. Mohammed Tawfik, UN International Consultant, Water Resources Expert.
- Dr. Karima Attia, Emeritus Professor, National Water Research Center, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Mohamed S. Wahba, International Visiting Scientist - Chinese Academy of Science.
- Eng. Walid Hakiki, Head of the Central Department for Water Resources and Uses, Ministry of Water Resources and Irrigation, Egypt.

CWW 2019 Scientific Committee

- Prof. Dr. Safwat Abd El Dayem, Emeritus Professor at the National Water Research Center and Chairman of the Scientific Committee, Egypt.
- Prof. Dr. Bayoumi Bayoumi Attia, The President of Resources Technology Bureau & Engineering Consultancy (RTB), Egypt.
- Prof. Dr. Hani Sewilam, Academic Director of the Department of Engineering Hydrology and the Managing Director of the UNESCO Chair in Hydrological Changes and Water Resources Management at the RWTH Aachen University in Germany.
- Prof. Dr. Yasser Raslan, Director of Nile Research Institute, National Water Research Center, Ministry of Water Resources and Irrigation, Egypt.
- Prof. Dr. Rifaat Abdel Wahaab, Professor of W/WW Treatment Technologies, National Research Centre; and Head of Research & development (R & D) at the Holding Co. for Water and Wastewater, Egypt.
- Prof. Dr. Mohamed Nour El-Din, Water Resources & Irrigation consultant, Professor Emeritus, Faculty of Engineering, Ain Shams University, Egypt.
- Prof. Dr. Enas Mohamed Aly Aboutaleb, Prof. of Wastewater Treatment Technology and Environmental Studies, National Research Center, Egypt.
- Prof. Dr. Pasquale Steduto, Senior Water Advisor.
- Prof. Dr. Ragab Ragab, Principal Hydrologist & Water Resources Management Specialist, Centre for Ecology and Hydrology, CEH, UK.
- Prof. Dr. Stefan Uhlenbrook, Strategic Program Director for Water, Food and Ecosystems, International Water Management Institute (IWMI).
- Prof. Dr. Aris P. Georgakakos, Professor and Director, Georgia Water Resources Institute, USA.
- Prof. Dr. Rasha El-Kholy, Vice President and Dean of Faculty of Engineering, Heliopolis University for Sustainable Development, Egypt.
- Dr. Yehya Imam, Assistant professor in the Environmental Engineering Program at the Zewail City University of Science and Technology, Egypt.
- Dr. Eman Ragab, Researcher, Research Institute for Groundwater, National Water Research Center, Ministry of Water Resources and Irrigation, Egypt.
- Prof. Dr. Hesham Bekhit, Professor at the department of Irrigation and Hydraulics, Faculty of Engineering, Cairo University, Egypt.
- Prof. Dr. Amr Fadlelmawla, Former Director, Research Institute for Groundwater, National Water Research Center, Ministry of Water Resources and Irrigation, Egypt.

CWW 2019 Organization Committee

- Dr. Ayman Ibrahim, Head of Telemetry, Information, and Assets Sector, Ministry of Water Resources and Irrigation, Egypt.
- Ambassador. Raffik Khalil, Minister's Advisor, Ministry of Water Resources and Irrigation, Egypt
- Dr. Tareq Abdelaziz, Director of the Survey Research Institute, National Water Research Center, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Tahani Sileet, Head of Central Department for External Cooperation, Nile Water Sector, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Nader El Masri, General Manager, External Cooperation Department, Ministry of Water Resources and Irrigation, Egypt.
- Mr. Mohamed Metwally, Head of Central Department for Financial and Administrative Affairs, Ministry of Water Resources and Irrigation, Egypt.
- Mrs. Sahar, Essmat, General Manager, Public Relations Department, Ministry of Water Resources and Irrigation, Egypt.
- Mr. Mohamed Atta, General Manager, Procurement Department, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Dalia Al-Saiid, External Affairs Specialist, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Atef Kamal, Exhibition and Marketing Coordinator, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Shady Ahmed Azzam, Software Engineer, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Abo Bakr Taha Moustafa, Water Resources Engineer, Nile Forecasting Center, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Gehad Hassan, Civil Engineer, Water Resources and Hydrology Specialist, Nile Forecasting Center, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Jane Emad, Civil Engineer, Water Resources, Nile Forecasting Center, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Dalia Mahmoud Mostafa, Software Engineer, Planning Sector, 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. Nariman Abdel Rahman, Engineer, Technical Office, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Mohamed Magdy, Civil Engineer, Planning Sector, Ministry of Water Resources and Irrigation, Egypt .
- Eng. Rana El-Banna, Senior Graphic Designer, Central Directorate of Awareness and Water Media, Ministry of Water Resources and Irrigation, Egypt.
- Eng. Omima Abdelnasser, Architect Engineer and Graphic Designer, EU-SATRS project, Ministry of Water Resources and Irrigation, Egypt.
- Mrs. Neveen George, Accountant, Technical Office, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.
- Mr. Ali El Bana, Senior Accountant, Ministry of Water Resources and Irrigation, Egypt



OVERVIEW

Egypt's water sector is facing drastic challenges, as Egypt is located in arid zone and 97% of the fresh water is coming from rivers, originate from outside its borders and require additional basin perspective, due to their geographical position. Similar to Most of countries in arid zones; Egypt suffers from water scarcity and is vulnerable to climate change impacts.

Water resources are the most important pillar for achieving national security. The comprehensive sustainable development plans in all fields are linked to the state's ability to provide the necessary water resources to implement these plans, and for that , was the decision of the State to organize the “Cairo Water Week”. the first Cairo Water Week (CWW) which was held in October, 2018; where five Sub-themes were tackled among more than 1,000 participants and 70 international experts from different nationalities through 50 technical sessions in cooperation with more than 50 national, regional and international organizations; Moreover, 25 companies participated in the exhibition. The 1st CWW has successfully established an effective platform for all stakeholders for better policy making process and to support governmental and non-governmental efforts to face water scarcity challenges.

The second round of the Cairo Water Week will address the main theme “Responding to Water Scarcity” through five sub-themes overarching a broad spectrum of the water scarcity issues and sustainable development goals. Under each sub-theme, variety of topics could be covered for the sake of the countries development. Furthermore, CWW 2019, as a prestigious regional event, will present multiple opportunities and actions to promote and enhance interactions and knowledge sharing between members of the water community and stakeholders.



Theme 1: Achieving SDGs under Water Scarcity

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs and from that prospective sustainable development calls for concerted efforts to build a resilient future for our societies. Water is at the core of sustainable development and is critical for socio-economic development, healthy ecosystems and for human survival itself. It is vital for reducing the global burden of disease and improving the health, welfare and productivity of populations. It is central to the production and preservation of a host of benefits and services for people. Interlinkages between water, energy, food and environment would also contribute to sustainable development. This sub-theme will focus on water for sustainable development considering the following topics:

- Promoting efficiency in domestic, agricultural and industrial water use.
- Mitigating water quality degradation and pollution clean up.
- Coping with water scarcity to achieve food security.
- Water accounting for optimum water management.
- Making clean water and safe sanitation accessible and affordable.
- Interlinkages between water, energy, food and environment.
- Managing water to alleviate poverty and hunger.
- Progress towards achieving Goal 6 of the SDGs.
- Public-private partnership (PPP) in water management.

Theme 2: Cooperation in Water Sector

Cooperation over shared water resources is crucial for climate change adaptation, regional stability and economic growth. It could create new opportunities for riparian states to sustainably develop their common water resources and assist decision-makers and practitioners to reduce conflict, and increase economic development. Despite that, about two-thirds of the world's transboundary rivers do not have any cooperative management framework. Shared water resources must be seen as a tool for cooperation and for promoting equitable allocation of water resources and their benefits. Regional cooperation in a transboundary context is considered a key solution towards achieving water security. This sub-theme will address the importance of promoting regional cooperation considering the following topics:

- Water scarcity & benefit sharing.
- Case studies of regional cooperation on transboundary water.
- Knowledge sharing and exchange between riparian countries.
- Transboundary water governance.
- Water diplomacy and Hydro-politics.

Theme 3: Research and Innovation in Facing Water Scarcity

Science and Innovation are the pillars to achieve effective progress for any nation`s development. Innovations in water development and management open new horizons and bring new opportunities to face water scarcity. The research and innovation sub-theme will focus on the up-to-date applications of scientific and technological innovations in water management to help countries tackle their water challenges and ensure sustainable development. The sub-theme aims at encouraging sharing of information and technological action tools for imminent water challenges considering the following topics:

- Methods and tools for better water management
- Smart water management for productivity
- Agriculture research for water saving
- Managing multi-objective infrastructures
- Nanotechnology applications in water
- Using of remote sensing for water management
- Youth innovations for maximizing water benefits

Theme 4: Climate Change Impacts, Mitigation and Adaptation

The Earth's climate has changed throughout history but these days the rate is unprecedented and radically affects all aspects of Life. Climate change is a vital player for the future of our planet, as it has drastic impact on water resources, human health and wellbeing, wild life, ecosystem services, food security and on the environment in general. Extreme events such as floods and droughts have significant impacts on societies. This sub-theme will focus on two questions: "how will climate change affect the water cycle" and "what are the key mitigation and adaptation strategies for reducing the environmental risks". Considering the impact of climate change on quality of life, health and food security, the sub-theme will consider the following topics:

- Adaptation and mitigation measures under severity conditions.
- Adaptation to CC impact on water, environment and ecosystems.
- Adaptation to CC impacts on agriculture and crop production.
- Flood and drought risk management.
- Sea level rise and integrated coastal zone management.
- Vulnerability of arid regions to CC.

Theme 5: Non-Conventional Water Resources Use under Scarcity Conditions

With natural water supplies no longer meeting the growing demand in several countries throughout the region, non-conventional water resources, such as treated wastewater reuse and desalination, are increasingly becoming an additional contributor to water availability. Related environmental, energy, health and other impacts need to be carefully considered while defining the potentials and limitations of such options. Improving non-conventional options demands better planning and regulation; coordinated investment; monitoring of operations; building managerial capacity; and, where relevant, mitigating their negative impacts including along the coastline. Overall, where development of non-conventional options is necessary, it should be combined with water demand management actions. In relation and beyond these, a strong demand for integrated urban water management, including through blue-green approaches and practices, has emerged. Moreover non-conventional water resources could offer great potentials but also include many challenges. The sub-theme will address the enabling environment for non-conventional water resources development and operation through the following topics:

- Low cost sewage water treatment & utilization.
- Role of non-conventional water in water scarce environment.
- The latest in desalination technology and development.
- Economic use of brackish water for agriculture and aquaculture.
- Nature based methods for polluted drainage water treatment.
- Reuse and recycling of treated wastewater and agricultural drainage water.

Moreover, on the regional and international dimensions the week will host high level events. This year, The Ministry of Water Resources and Irrigation will host the "OIC Water Council" meeting that will be held on 21st and 22nd of October 2019 under the umbrella of Organization of Islamic Cooperation (OIC). In addition, the week will host the Presidential Championing Infrastructure Initiative – Inter-Ministerial Committee Meeting. The meeting will consider the Technical Report of the Technical Task Team Project Status Report (TTT), and the ministers will also present all hindrances and constraints that might encumber the smooth project implementation. And on the Arabian side, The Cairo Water Week will host the meeting of the Joint High-Level Committee between water and Agriculture under the umbrella of League of Arab States (LAS). Furthermore, the Week will host the Egyptian Dutch Water Advisory Panel Meeting and other several important side events as will be illustrated in the booklet.

The event will take place at Al-Manara International Conference Center, located in New Cairo area, with extensive hard work, passion and attention to the finest details this outstanding venue was built on more than 30,000 square meters of multi-purpose space divided into 13 unique and world class halls. Al Manara is only 25 minutes from Cairo International Airport, about 10 minutes from The Fifth Settlement and 10 minutes from Nasr City.

Venue address: El-Moshir Tantawy Axis, New Cairo, Cairo, Egypt

For more details about the facilities of the Venue and other information please visit <https://www.nc-iec.com/>

The conference official language is English. Instantaneous translation will be available for some sessions in Arabic, and French languages.



PROGRAM

Day 1 - Sunday, 20th October 2019

Registration (8:30 -15:30)

09:30 - 12:00	PS1 Achieving SDGs under Water Scarcity (English-Arabic- French)			SE05 Water Governance and Finance in Water Sector (EU-UJFM) (Closed - By Invitation) (English-Arabic- French)	SE08 Promoting Urban Nexus In the MENA Region Workshop (NDP- GIZ, LAS) (Closed - By Invitation) (English-Arabic)	Poster Session
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Coffee Break

Exhibition Opening

12:30 - 14:00	TS47 Supporting Smallholders for Resilient Food Security System (WFP, MALR) (English-Arabic)	TS42 Climate Change Impact and Adaptation in the Water Sector" (WMO) (No Translation)	TS44 The Household Water Insecurity Experiences Scale: a Simple Questionnaire for Generating High-resolution Data on Water Security (Northwestern University, US, University of Western England, UNESCO) (No Translation)	TS32 Observation, monitoring and assessment of SDGs Scientific Conference (CWW) (No Translation)	SE05 Water Governance and Finance in Water Sector (EU-UJFM) (Closed - By Invitation) (English-Arabic- French)	SE08 Promoting Urban Nexus in the MENA Region Workshop (NDP- GIZ, LAS) (Closed - By Invitation) (English-Arabic)	Poster Session
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Lunch Break

14:00 -15:00						
15:00 - 16:30	TS34 Actions towards Achieving SDGs Scientific Conference (CWW) (No Translation)	SS46 Competencies towards Entrepreneurship and Employability Opportunities CEO - Integrated Water Resources Management Cologne University of Applied Sciences TH Köln, Ain Shams University (No Translation)	SS43 Energy Efficiency and Renewable Energy for Food and Water Security in the Arab Region (RCREEE, LAS, GIZ) (English-Arabic)	SE05 Water Governance and Finance in Water Sector (EU-UJFM) (Closed - By Invitation) (English-Arabic- French)	SE08 Promoting Urban Nexus In the MENA Region Workshop (NDP- GIZ, LAS) (Closed - By Invitation) (English-Arabic)	Poster Session

Official Opening of CWW2019 (English-Arabic- French)

17:00 - 18:00



Day 2 - Monday, 21st October 2019

Registration (8:30 -15:30)

Registration (8:30 -15:30)										
09:30 - 12:00	PS 2 Cooperation in Water Sector (English-Arabic-French)				HLE01 Second Meeting of the OIC Water Council (OIC, MWRI) (Closed - By Invitation) (English-Arabic- French)	HLE02 Presidential Championing Infrastructure Initiative Inter-Ministerial Committee Meeting (PCI – IMC) (MWRI, NEPAD) (Closed - By Invitation) (English- French)	SE01 2 nd African Young Water Professional Forum (2 nd AI-YWPF) (MWRI, AFRWG of the ICID, ENCID, ICID and ESCSWA) (Closed - By Invitation) (No Translation)	SE05 Water Governance and Finance in Water Sector (EU-UFM) (Closed - By Invitation) (English-Arabic- French)	SE10 water art gallery	
12:00 - 12:30	Coffee Break									
12:30 - 14:00	TS33 Cooperation in Shared Water is No Option Scientific Conference (CWW) (No Translation)	TS08 Water Productivity as the Cornerstone of Water-Limited Food Production (FAO, University of Cordoba -CSIC-Spain) (English-Arabic)	SS05 Preparatory Session for 9 th WWF Secretariat, (MWRI) (No Translation)	TS09 Networks for Capacity Development and Knowledge Sharing: Tools to Cope with Water Scarcity (NBCBN, IHE-Delft Institute for water Education-Netherlands, SciDev-Net, Cap-Net UNDP) (No Translation)	HLE01 Second Meeting of the OIC Water Council (OIC, MWRI) (Closed - By Invitation) (English-Arabic- French)	HLE02 Presidential Championing Infrastructure Initiative Inter-Ministerial Committee Meeting (PCI – IMC) (MWRI, NEPAD) (Closed - By Invitation) (English- French)	SE01 2 nd African Young Water Professional Forum (2 nd AI-YWPF) (MWRI, AFRWG of the ICID, ENCID, ICID and ESCSWA) (Closed - By Invitation) (No Translation)	SE05 Water Governance and Finance in Water Sector (EU-UFM) (Closed - By Invitation) (English-Arabic- French)	SE10 water art gallery	
14:00 -15:00	Lunch Break									
15:00 - 16:30	TS04:Supporting Sustainable Water Management in Newly Reclaimed Areas (FAO, MWRI, NWRC) (English-Arabic)				HLE01 Second Meeting of the OIC Water Council (OIC, MWRI) (Closed - By Invitation) (English-Arabic- French)	HLE02 Presidential Championing Infrastructure Initiative Inter-Ministerial Committee Meeting (PCI – IMC) (MWRI, NEPAD) (Closed - By Invitation) (English- French)	SE01 2 nd African Young Water Professional Forum (2 nd AI-YWPF) (MWRI, AFRWG of the ICID, ENCID, ICID and ESCSWA) (Closed - By Invitation) (No Translation)	SE05 Water Governance and Finance in Water Sector (EU-UFM) (Closed - By Invitation) (English-Arabic- French)	SE10 water art gallery	

Exhibition

Day 3 - Tuesday, 22nd October 2019

Registration (8:30 -15:30)

09:30 - 12:00	PS3 Research and Innovation in Facing Water Scarcity (English-Arabic)				HLE01 Second Meeting of the OIC Water Council (OIC, MWRI) (Closed - By Invitation) (English-Arabic- French)	SE01 2 nd African Young Water Professional Forum (2 nd Af-YWPF) (MWRI, AFRWG of the ICID, ENCID, ICID and ESCWA) (Closed -By Invitation) (No Translation)	HLE05 League of Arab States Meeting of the restricted Committee on Guidelines for Cooperation on Shared Water Between Arab Countries (LAS, ESCWA) (Closed - By invitation) (No Translation)	Poster Session	
12:00 - 12:30	Coffee Break								
12:30 - 14:00	TS11 The Egyptian- Dutch Cooperation in the Water Sector through the High- level Panel on Water Management (MWRI, Netherlands Water Partnership) (No Translation)	TS13 Challenges and Opportunities of Solar Power Irrigation System in the Near East and North Africa Region (FAO, MWRI, Ministry of Agriculture, Water Resources and Fisheries – Tunisia, LAS, GIZ) (English-Arabic)	TS14 Innovative Solutions to Improve Agricultural Production in Marginal Environments (ICBA, Environment Agency Abu Dhabi, Abu Dhabi Agriculture and Food Safety Authority) (No Translation)	TS15 Non-Conventional Water Resources (NWRC) (No Translation)	TS35 Role of Space Technology in Water Management Scientific Conference (CWW) (No Translation)	HLE01 Second Meeting of the OIC Water Council (OIC, MWRI) (Closed - By invitation) (English-Arabic- French)	SE01 2 nd African Young Water Professional Forum (2 nd Af-YWPF) (MWRI, AFRWG of the ICID, ENCID, ICID and ESCWA) (Closed -By Invitation) (No Translation)	HLE05 League of Arab States Meeting of the restricted Committee on Guidelines for Cooperation on Shared Water Between Arab Countries (LAS, ESCWA) (Closed - By invitation) (No Translation)	Poster Session
14:00 -15:00	Lunch Break								
15:00 - 16:30	SS12 Towards Identifying Key Elements and Priority of the Arab Water Under Occupation Network Future Strategic Plan (LAS, PWA, UNDP) (English-Arabic)	TS18 TThe Role of Media in Raising Public Awareness for Valuing Water under the Current Challenges (Arab Water Academy- Arab Water Council, Sinal University, Capital International University) (No Translation)	TS36 Innovative Research In Water Resources Scientific Conference (CWW) (No Translation)	TS19 Research and Innovation in Water Resources (NWRC) (No Translation)	TS17 Sharing Water Accounting Experience in the Near East and the World (FAO, EU Water STARS Project – MWRI, IHE, IWMI) (English-Arabic)	HLE01 Second Meeting of the OIC Water Council (OIC, MWRI) (Closed - By invitation) (English-Arabic- French)	SE01 2 nd African Young Water Professional Forum (2 nd Af-YWPF) (MWRI, AFRWG of the ICID, ENCID, ICID and ESCWA) (Closed -By Invitation) (No Translation)		Poster Session



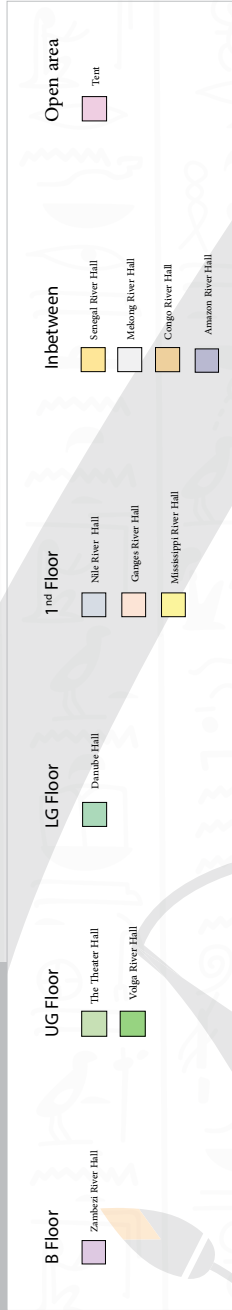
Day 4 - Wednesday, 23 rd October 2019					
Registration (8:30 -15:30)					
09:30 - 12:00	PS4 Climate Change Impacts, Mitigation and Adaptation (English-Arabic)				
12:00 - 12:30	Coffee Break				
12:30 - 14:00	TS37 Dealing with Climate Change Impact on Water Scientific Conference (CWW) (No Translation)	SS20 Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project (ECCADP) (part 1) (Green Fund/UNDP) (English-Arabic)	TS21 Climate Induced Water Hazards drives Human Insecurity in the Eastern Nile River basin (SWI) International Centre for Water Cooperation (ICWC) under the auspices of UNESCO (No Translation)	TS23 Vulnerability of Water Resources to Climate Change (NWRRC) (No Translation)	HLE03 Expert Meeting of the Egyptian - Dutch Advisory Panel on Water Management (MWRI, Egyptian - Dutch Advisory Panel on Water Management) (Closed - By Invitation) (No Translation)
14:00 -15:00	Lunch Break				
15:00 - 16:30	SS38 Three Minutes Thesis Competition (3MT) Scientific Conference (CWW) (No Translation)	SS25 Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project (ECCADP) (part 2) (Green Fund/UNDP) (English-Arabic)	TS28 Young Innovators STEAM (MWRI, Ministry of Education) (No Translation)	TS26: Dam Break Risk Assessment (NWRRC) (No Translation)	HLE03 Expert Meeting of the Egyptian - Dutch Advisory Panel on Water Management (MWRI, Egyptian - Dutch Advisory Panel on Water Management) (Closed - By Invitation) (No Translation)
			SE01 2nd African Young Water Professional Forum (2nd AI-YWPF) (MWRI, AFRWG of the ICID, ENCID, ICID and ESCWA) (Closed - By Invitation) (No Translation)	HLE04 Meeting of the High Level Joint Committee of Agriculture and Water in the Arab Region (FAO-LAS, ESCWA, AOAD) (Closed - By Invitation) (English-Arabic)	SE02 Kids Hub (MWRI, EU, Ministry of Culture, Ministry of Youth and Sports, Ministry of Education)
			SE01 2nd African Young Water Professional Forum (2nd AI-YWPF) (MWRI, AFRWG of the ICID, ENCID, ICID and ESCWA) (Closed - By Invitation) (No Translation)	HLE04 Meeting of the High Level Joint Committee of Agriculture and Water in the Arab Region (FAO-LAS, ESCWA, AOAD) (Closed - By Invitation) (English-Arabic)	SE02 Kids Hub (MWRI, EU, Ministry of Culture, Ministry of Youth and Sports, Ministry of Education)
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Exhibition

Registration (8:30 -15:30)

Exhibition					
09:30 - 12:00	PS5 Non-Conventional Water Resources Use under Scarcity Conditions (English-Arabic)				
	HLE03 Expert Meeting of the Egyptian - Dutch Advisory Panel on Water Management (MWRI, Egyptian - Dutch Advisory Panel on Water Management) (Closed - By Invitation) (Field Visit)	HLE04 Meeting of the High Level Joint Committee of Agriculture and Water in the Arab Region (FAO-LAS, ESCWA, AOAD) (Closed - By Invitation) (English-Arabic)	SE02 Kids Hub (MWRI, EU, Ministry of Culture, Ministry of Youth and Sports, Ministry of Education)	SE09 The 20 th Meeting of the Joint Authority for the Study and Development of the Nubian Sandstone Aquifer System (NSAS-JA, NWRC) (Closed - By Invitation) (No Translation)	SE03 Status Quo of the Egyptian Water Higher Education, Research and Training: The Center of Excellence (AUC, Alexandria University, Ain Shams University, Beni Suef University, Zagazig University, Assiut University, Suez Canal University, University of California at Santa Cruz, Washington State University) (No Translation)
	SE04 Advanced Water Accounting: Training for Analyst (FAO, IHE, IWMI, MWRI-WA Unit) (Closed - By Invitation) (No Translation)				
12:00 - 12:30	Coffee Break				
12:30 - 14:00	TS40 Converting Low Quality Water into Usable Water Resource Scientific Conference (CWW) (No Translation)	TS39: Saline Water Desalination Scientific Conference (CWW) (No Translation)	HLE03 Expert Meeting of the Egyptian - Dutch Advisory Panel on Water Management (MWRI, Egyptian - Dutch Advisory Panel on Water Management) (Closed - By Invitation) (Field Visit)	SE09 The 20 th Meeting of the Joint Authority for the Study and Development of the Nubian Sandstone Aquifer System (NSAS-JA, NWRC) (Closed - By Invitation) (No Translation)	SE03 Status Quo of the Egyptian Water Higher Education, Research and Training: The Center of Excellence (AUC, Alexandria University, Ain Shams University, Beni Suef University, Zagazig University, Assiut University, Suez Canal University, University of California at Santa Cruz, Washington State University) (No Translation)
	SS27 Farmers' Best Practices in Water Conservation (MWRI, UNESCO Cairo office) (No Translation)	SS29: Best Graduation Projects Competition (MWRI) (No Translation)	SE04 Advanced Water Accounting: Training for Water Accounting Analyst (FAO, IHE, IWMI, MWRI-WA Unit) (Closed - By Invitation) (No Translation)		
	SE06 WWC Board of Governors Meeting (2023- October, 2019) (WWC) (Closed - By Invitation) Triumph Hotel				
14:00 - 14:30	Break				
14:30 - 16:30	Closing Ceremony (English-Arabic)				
	SE07: Training Course Program on Integrated Water Resources Management (2024- October, 2019) (NWRC/OIC) (Closed - By Invitation) National Water Research Center				
	SE06 WWC Board of Governors Meeting (2023- October, 2019) (WWC) (Closed - By Invitation) Triumph Hotel				
16:30 - 17:30	Lunch Break				

Al-Manara International Conference Center





OPENING CEREMONY

20th of October 2019

17:00 - 18:00

Al-Manara Conference Center (Theatre Hall)

- H.E. Mr. Serigne Mbaye THIAM, Minister of Water and Sanitation, Senegal – on behalf of the 9th World Water Forum “Dakar 2021”.
- H.E. Mr. Loïc FAUCHON, Honorary President, World Water Council.
- H.E. Mr. Abdessalam Ould AHMED, FAO Assistant Director-General and Regional Representative for the Near East and North Africa, FAO.
- H.E. Mr. Maciej POPOWSKI, Deputy Director-General for Neighborhood and Enlargement Negotiations, European Union.
- H.E. Prof. P.TAALAS, Secretary-General, World Meteorological Organization.
- H.E. Dr. Yusuf Bin Ahmed ALUTHAYMEEN, Secretary-General of the Organization of Islamic Cooperation
- H.E. Dr. Mohamed ABDEL-ATI, Minister of Water Resources and Irrigation, Egypt.
- H.E. Dr. Mostafa MADBOULI, Prime Minister of Egypt.

Master of the ceremony: Ms. Raghda Mounier.

Translation: (English-Arabic-French)

DAY BY DAY

PROGRAM

DAY 1: 20TH OF
OCTOBER 2019

09:30 - 12:00

Al Manara - The Theater

Plenary Session

(PSI): Achieving SDGs under Water Scarcity

Convener (s): Ministry of Water Resources and Irrigation

Moderator: Dr. Pasquale Steduto, Chief of the Water Resources, Development and Management Service (FAO)

Session Content:

We know that in our Near East and North Africa Region, there is one major resource whose scarcity would prove the largest obstacle to the achievement of the SDGs: Water.

We know that in our Region, agriculture is the major consumer of water, and makes it is easy to realize the link between SDG6 – to 'Ensure availability and sustainable management of water and sanitation for all' – and the SDG2 on food security, which in turn links with the SDG1 on poverty reduction. It is evident through its links to food security, nutrition and health, rural development and growth, and the environment, that agriculture is a major driver in the attainment of the SDGs.

Meanwhile, further links can also be seen with energy where the nexus between food, energy and water is one of the classic examples of water dependency. Similarly, water is strongly related to SDG11, which focuses on sustainable cities and communities.

The list could continue to show the many water-related linkages across all of the SDGs, and it is with this awareness of strong dependency on water that this session has been elaborated. Water scarcity, in fact, poses an enormous challenge in the achievement of the SDGs and more broadly the Agenda as a whole. How should this challenge be addressed? Which 'measures' need to be implemented, or to be enforced, in order to accelerate the achievement of the SDGs under this particularly constraining condition?

The panelists of this session bring broad perspectives to respond to these questions. They will address different domains, spanning urban development, energy and agriculture, along with different spheres of interventions, including policy, institutions, investments and practices. Some evidence at country-level will be illustrated as well.

After the interventions by the panelists, the session will open to questions from the audience

Keynote Speaker(s):

- H.E. Dr. Bianca Nijhof, Director of the Netherlands Water Partnership, Board Member of the Amsterdam International Water Week, The Netherlands.
- H.E. Dr. Mohamed Abd-El Aty, Minister of water resources and irrigation, Egypt.
- Eng. Yousef El Aytan, ASG for Water Operation & Governorates Affairs/Water Authority of Jordan
- H.E. Mohamed Bin Jarsh Al Falasi, Undersecretary of the Abu Dhabi Department of Energy (DoE).
- Dr. Felix Reinders, President of the International Commission on Irrigation and Drainage (ICID).
- Eng. Aly Abousabaa, Director General, The International Center for Agricultural Research in the Dry Areas (ICARDA).
- Mr. Manuel Sapiano, Chief Executive Officer at The Energy and Water Agency, Malta.

Translation: (English-Arabic-French)

Hall: (Ganges River Hall)**Technical Session****(TS47): Supporting Smallholders for Resilient Food Security System**

Convener (s): United Nation – World Food Programme (WFP) Egypt

Co-convener (s): Ministry of Agriculture and Land Reclamation, United Nation – World Food Programme (WFP) Egypt.

Chairman: Dr. Ali Hozayen, Ministry of Agriculture and Land Reclamation.

Facilitator: Dr. Ithar Khalil, WFP.

Reporter: Ms. Christine Hanna, WFP.

Session Content:

Smallholders of Upper Egypt rural communities are vulnerable for many reasons, with heavy reliance on meagre income they generate from fragmented areas of land being the most prominent. The session will have present what the Ministry of Agriculture and Land Reclamation has done in partnership with the World Food Programme to support these smallholders. It will present the different interventions under this support and how these interventions helped smallholders increase their production, and thus income, and enhance the efficiency of managing their water and land resources. It will also how digital solutions and financial inclusion are used as tools for enhancing smallholders access to financial and non-financial resources. The expected outcomes of the session:

- Reasons behind smallholders' vulnerability explained.
- Models for successful smallholders' support and resilience building shared.
- Experiences for improved irrigation management shared.
- Innovations for digital solutions and financial inclusion in agriculture and irrigation presented.

Translation: (English- Arabic)

Hall: (Volga River Hall)**Technical Session****(TS42): Climate Change Impact and Adaptation in the Water Sector**

Convener (s): The World Meteorological Organization (WMO)

Co-conveners: Global Water Partnership (GWP), Alliance Internationale pour les Objectifs de Développement Durable (AIODD).

Chairman: Hon. Sam Cheptoris, Minister of Water and Environment, Uganda.

Co-Chair: Hon. Simon Kiprono Chelugui, Cabinet Secretary, Ministry of Water and Sanitation, Kenya.

Keynote Speaker / Moderator: Dr Johannes Cullmann, Director, Climate & Water Department, WMO, "Hydrological Information for Climate Change Adaptation in water".

Reporter: Eng. Mohamed Tawfik, Senior UN Consultant, Water Resources Development and Management.

Session Content:

During the session, the speakers, will highlight the importance of water for supporting sustainable socio-economic development at national and regional levels. It will emphasize the role of National Hydrological Services to support climate change adaptation project for the whole water sector. It will present challenges facing water management - including flood and drought - in Africa and the role of international and regional cooperation to strengthen national capacities in this emerging domain. The speakers will present concrete case studies from Kenya and Uganda, which will allow to address how to improve Water Strategy and Resource Mobilization for better implementation of the SDG's. It is expected that the session main outcome will be political messages at the highest level to concerned countries to develop appropriate policies, strategies and tangible achievements in the water sector to adapt and cope with Climate Change.

Panelists:

1. Prof. Seifeldin Hamad Abdalla, ex. Water Resources Minister, Sudan, "Climate Change Impact and Adaptation in the Water Sector in Africa".
2. Dr. Jerome Priscoli, Chair of GWP Technical Committee "GWP role to strengthen the national and regional capacity to Adapt to Climate Change in the Water Sectors".
3. Mr. Sewagudde Soweddi, Ag. Commissioner Water Resources Management "The Ugandan Measures for Climate Change Adaptation in the Water Sector".
4. Ms. Pascale Fressoz, President of the International Alliance for the Sustainable Development Goals (AIODD) "Improving Water Strategy and Resource Mobilization for better implementation of the SDG's".
5. Mrs. Gladys Wekesa, , Director of Trans-boundary Water Resources, Ministry of Water and Sanitation , Kenya "Climate Change Impact and challenges in the Water Sector in Kenya".

Translation: (N/A)

Hall: (Zambezi River Hall)
Technical Session

(TS44): The Household Water Insecurity Experiences Scale: a Simple Questionnaire for Generating High-resolution Data on Water Security

Convener (s): Northwestern University

Co-convener (s): University of the West of England, unesco cairo office.

Chairman: Sera L. Young (Professor, Northwestern University).

Co-Chair: Chad Staddon (Professor, University of the West of England, Bristol).

Moderator: Sera L. Young.

Keynote Speaker(s): Sera L. Young & Chad Staddon.

Session Content:

The Household Water Insecurity Experiences Scale (HWISE) Scale is a simple 12-item survey that measures universal experiences of household water insecurity across low- and middle-income countries. Its development ushers in the ability to quantify the prevalence, causes, and consequences of household water insecurity. As such, it can contribute an evidence base for clinical, public health, and policy recommendations regarding water.

This session will briefly describe the development of the HWISE Scale, illustrate how measuring household water insecurity can help track progress towards a number of SDGs, and what implementation in 30+ countries to date has revealed. We will conclude with a brief hands-on learning lab in which participants are trained on the use and analysis of the HWISE Scale.

Translation: (N/A)

Hall: (Mekong River Hall)
Technical Session

(TS32): Observation, Monitoring and Assessment of SDGs - Scientific Conference (CWW)

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

Chairman: Dr Bassam Hayek, Chief of Technology and Development, Royal Scientific Society.

Co-Chair: Prof.Dr. Abdel Aziz Ibrahim, Professor of Water Resources, National Planning Institute .

Session Content:

The first speaker in this session, is going to present an interesting talk about improving accessibility to existing data as well as increasing temporal and geographic coverage of observational data in the Mediterranean through an innovative earth observation model for monitoring the SDGs. A second presentation will attempt to assess irrigation performance in terms of adequacy, efficiency, dependability, and equity after implementing irrigation improvement projects in areas with high intensity paddy cultivation in Northern Nile Delta. The third presentation will examine flash floods as opportunities and risks for managing aquifer recharge in the Eastern Desert of Egypt. The next speaker will discuss different scenarios for better groundwater management to optimize the capabilities of power-plants. The last speaker will discuss the impacts of design, construction and operation of buildings on environment and natural resources. He calls for green operation practices to reduce resource use and pollution while increasing the value derived from each resource used.

- Dr.Ghada El Serafy, "ODYSSEA - Earth Observation for monitoring SDGs in the Mediterranean Sea", Deltares
- Dr.Mohamed Farig, "Comprehensive analysis of irrigation performance under paddy cultivation in Nile Delta", National Water Research Center
- Dr.Uwe Troeger, "Flash floods - opportunities and risks for managing aquifer recharge in the Eastern Desert of Egypt", Study -Dean of Water Engineering TU Berlin Campus Elgouna
- Dr.Wedad Saad Morsy, "Groundwater Management towards Increasing the Capabilities of Power Plant", National Water Research Center
- Dr.Ahmed K. Abd El-Hameed, "Egypt: Water Issues & Efficiency Practices in Buildings", Ain Shams University.

Translation: (N/A)

Hall: (Ganges River Hall)
Technical Session

(TS34): Actions Towards Achieving SDGs - Scientific Conference (CWW)

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

Chairman: Prof. Dr. Mohamed Safwat, Emeritus Professor at the National Water Research Center and Chairman of the Scientific Committee, Egypt.
Co-Chair: Prof. Dr. Abdallah Sadek Bazaraa, Professor of Water Resources & Irrigation Faculty of Engineering- Cairo University, Egypt.

Session Content:

In this session the audience will hear in the first presentation about sustainable use of solar pumping through lessons learnt from Tunisia, Morocco and India. It is going to be followed by an interesting presentation about optimizing allocation of limited water resources in the Gash River basin in eastern Sudan. The next speaker will discuss how water consumption for irrigation of the orange crop can be rationalized by developing an optimal pricing policy for irrigation water. The audience will also enjoy a talk in the following presentation about bank filtration which has gained widespread interest in recent years as an economic alternative for traditional drinking water treatment in arid countries. The last presentation in the session will also include an interesting talk about the use of environmental indicators and socioeconomic factors related to food security and community resilience in Palestine.

Keynote Speaker:

- Dr.Hana Altom A. Mohammed,"Water Resources Allocation in the Gash River Basin", Eastern Sudan "ITT - Cologne University of Applied Sciences, Cologne, Germany
- Dr.Heba Fahmy Mohamed, "Pricing Irrigation Water Of The Orange Crop", Agricultural Research Center, Egypt.
- Dr.Hanadi Bader,"Water Quality, Food Security, and Community Resilience in Palestinian Rural Area", Palestinian Water Authority
- Dr Khalil Ammar,Principal Scientist in Hydrology / Hydrogeology, ICBA
- Prof. Dr. Hassan Aly Ibrahim Shams El Din Head of On Farm Irrigation Development Projects Management Unit (PMU)

Translation: (N/A)

Hall: (Volga River Hall)
Special Session

(SS46): Competencies towards Entrepreneurship and Employability Opportunities CEO - Integrated Water Resources Management

Convener (s): Cologne University of Applied Sciences, TH Köln, Ain Shams University.

Chairman: Prof. Dr. Lars Ribbe and Prof. Dr. Aly Bahrawy
Facilitator: Eng. Hassan Aboelnga, PMP.

Session Content:

The session will tackle important topics regarding the globally competitive knowledge economy, and growing water challenges, where change is an everyday reality, the importance of employability in water sector is generally agreed-upon by policy makers and academia. Water and jobs are inextricably linked on various levels, whether we look at them from an economic, environmental or social perspective. Water employability is interconnected with job opportunities in many sectors such as agriculture, energy and industry. According to a UN report, an estimated three out of four jobs that make up the global workforce are either heavily or moderately dependent on water. Which means that water shortages and problems of access to water and sanitation could limit economic growth and job creation in the coming decades.

Keynote Speaker:

- Prof. Dr. Lars Ribbe, Founding Dean of faculty "Spatial Development and Infrastructure Systems" at TH Köln, Professor for Integrated Water and Land Management , former director of ITT.

Panelists:

- Prof. Dr. Lars Ribbe, Founding Dean of faculty "Spatial Development and Infrastructure Systems" at TH Köln, Professor for Integrated Water and Land Management , former director of ITT.
- Prof. Dr. Aly Bahrawy, Professor for Civil Engineering Specialist Integrated Water Resources Management, Director Teacher Support and Development Center (TSDC).
- Dr. Ismail Abd El Galil Hussein , Chair of Arab Water Academy, former chairman of the Desert Research Center (DRC) in Egypt
- Dr. Bisher Imam, Senior Programme Specialist Water Sciences of UNESCO
- Dr. Eman El Sayed, Head of the Planning sector in MWRI, Egypt.

Translation: (N/A)

Hall: (Mekong River Hall)**Special Session****(SS43): Energy efficiency and Renewable Energy for Food and Water Security in the Arab Region****Convener (s):** Regional Center for Renewable Energy and Energy Efficiency, LAS, GIZ.

Moderator: Eng. Ahmed Khalil, Environmental Expert, RCREEE

Reporter: Ms. Sarah Al-Akbari, Intern, RCREEE.

Session Content:

Energy department in league of Arab states jointly with the Regional Center for Renewable Energy and Energy Efficiency (RCREEE) and GIZ is seeking to organize a side event titled “Energy efficiency and Renewable energy for Food and Water Security in the Arab Region” within the CWW 2019.

Many Arab countries suffer from several problems related to water and food security, many of which depend on energy-consuming desalination plants. Technological development and declining prices for solar systems and reverse osmosis desalination systems offer significant opportunities for increased reliance on renewable energy in desalination. On the other hand, there is a big challenge in the correlation between food prices and rising fossil fuel prices as a result of the liberalization of energy markets in many countries, which means the importance of shifting agriculture and irrigation systems to food production to the model of “smart energy consumption”.

In respect to the national and global concerns about food security and the interrelationship between water, energy and food, solar energy applications are very attractive and even required, particularly in places not connected to the electricity grid or relatively far from urban areas. In which, it is recommended that Arab countries adopt an integrated program in coordination between the ministries of energy, agriculture and water resources, including the replacement of traditional irrigation machines with solar pumps or hybrid

systems or encouraging new farmers to install solar pumps in the new lands to avoid the use of larger amounts of water than naturally replenished quantities, otherwise water sources will become actual non-renewable resources.

Keynote Speaker(s):

- Dr. Ahmed Gaber, “Water, Energy and Food Security Nexus State of Art”, CEO, Chemonics Egypt
- Dr. Khaled Elfarra, “Renewable energy technologies in water Sector (Solar pumping technologies)”, Energy Expert, Tarsheed Egypt.
- Dr. Hisham El Sherief, “Energy Potentials of Agriculture waste (Challenges and Opportunity)”, CEO, ECARU.
- Dr. Waleed Abd El Azeim, “Waste water energy based technologies (Bio- digesters)”, Waste Water Treatment Expert.

Translation: (English- Arabic)

*Al Manara – Nile River Hall**Plenary Session***(PS2): Cooperation in Water Sector***Convener (s): Ministry of Water Resources and Irrigation.*

Moderator: Dr. Hani Sweliem, Academic Director of the Department of Engineering Hydrology and the Managing Director of the UNESCO Chair in Hydrological Changes and Water Resources Management at the RWTH Aachen University, Germany.

Session Content:

The UN Water indicated that 263 transboundary lake and river basins cover almost half the Earth's surface. 145 States have territory in these basins, and 30 countries lie entirely within them. There are approximately 300 transboundary aquifers, helping to serve the 2 billion people who depend on groundwater. These transboundary waters create social, economic, environmental and political inter-dependencies that make cooperation a precondition to sustainable development and peace. Such cooperation is essential, especially in areas of water scarcity and/or vulnerable to the impacts of climate change. Lack of cooperation and unilateral actions mainly from upstream countries regarding shared watercourses can cause international tension if the impacts are felt more keenly by the downstream countries. Establishing modes of cooperation over water requires mechanism and takes time due to implications of conflictive countries' interests.

Therefore, this session will be structured to present and discuss possible triggers for conflict over water sharing and what implications that has on the livelihoods of ordinary communities. Evaluate the role of institutions; how countries can come to consensus and compromise; what are the challenges and opportunities in different good-practice cases. The first half of the session will start by presenting one of the most serious examples for transboundary river challenges. The case of the eastern Nile basin will be presented as a serious challenges facing the region. The impact of constructing the Grand Ethiopian Renaissance Dam (GERD) on the downstream countries mainly Egypt will be illustrated in details. The recently developed Egyptian proposal for filling and operation of the GERD will be presented and discussed. There will be also a presentation on international water law focusing on law of treaties and riparian law considering the case of Nile basin mainly Sudan and Egypt.

The second half of the session is devoted to present and discuss different models/examples of cases that countries have used to manage the competition for water resources. The case of Senegal and France will be presented as good practice for transboundary cooperation in two different settings in Africa and Europe.

Keynote Speaker(s):

- Dr. Elco Van Beek, Team leader of the Study of GERD impact on Egypt.
- Dr. Hesham Bekhit, Professor department of irrigation Engineering and hydraulics.
- Dr. Mohamed Helal, Assistant Professor of Law – Moritz College of Law, The Ohio State University.
- Mr. Brahim H'Meyade (High Commissioner adjoint (pour la mise en valeur du fleuve Senegal (OMVS))
- Dr Eric TARDIEU, Executive Director of IO WATER.

Translation: (English-Arabic-French)

Hall: (Ganges River Hall)**Technical Session****(TS33): Cooperation in Shared Water is No Option - Scientific Conference (CWW)****Convener (s): Ministry of Water Resources and Irrigation.**

Chairman: H.E. Dr. Mahmoud Abu-Zeid, President of the Arab Water Council - Former Minister of Water Resources and Irrigation, Egypt.

Co-Chair: Dr. Ahmed Bahaa, Head of Nile Water Sector, Ministry of Water Resources and Irrigation, Egypt.

Session Content:

The global community agreed during the second world water forum in 2002, that water is the business of everyone. This wise understanding makes it disastrous to let any party sharing water resources act alone. It takes away great benefits from everyone and brings instead conflicts and lost opportunities.

Keynote Speaker(s):

- Dr. Julien J. Harou, "Reservoir system expansion scheduling under conflicting interests", Chair in Water Engineering, School of Environment, Education and Development, University of Manchester, UK
- Dr. Prof. Adly Sedaawy, Dean of Institute for Nile States Strategic Studies & Researches.
- Dr. Osama M. Sallam, "Water footprints as an indicator for the equitable utilization of shared water resources (Case study: Egypt and Ethiopia shared water resources in Nile Basin)", Environment agency, Abu Dhabi, UAE
- Dr. Nader Nour El Deen, Professor of Water Resources, Faculty of Agriculture, Cairo University
- Dr. Wondwosen Michago Seide, "Has Nile Basin Initiative institutionalized empathy? Political Psychology Analysis", Lund University.
- Counselor Dr. / Mosaed Abd el atty Shtaiwi, Counsel on behalf of the Administrative Prosecution, Professor of International Law.
- Ambassador Marawan Badr, former assistant minister for African affairs

Translation: (N/A)**Hall: (Nile River Hall)****Technical Session****(TS08): Water Productivity as the Cornerstone of Water-Limited Food Production****Convener (s): Food and Agriculture Organization (FAO).****Co-convener(s): EU Water STARS Project –Ministry of Water Resources and Irrigation Egypt, IHE, IWMI.**

Chairman: Mr. Issam Nofal, Director General for Agricultural Water & Irrigation, Ministry of Agriculture, Palestine

Moderator: Mr Pasquale Steduto, FAO.

Session Content:

The session will first explore the crop water productivity gaps that could be bridged (ex. for the basis of our food basket), then will analyze the economic water productivity in light of recent social and institutional changes (ex. issues that affect WP such as access to water and water rights, sustainability, equity, changes along the value chain, the impact of food waste on WP), and will finally explore how to inform the society on actions needed addressing the consumer and societal perceptions of the water needs for producing food and discuss the pros and cons of available indicators (ex. water footprint).

Keynote Speaker(s):

- Dr. Atef Swelam, senior scientist, (ICARDA), "Improving Water Productivity: options at farm level"
- Dr. Amgad Elmahdi, Director of the Middle East and North Africa (MENA) Office of the International Water Management Institute (IWMI), "Water Productivity at basin scale with water accounting and ICT Applications".
- Dr. Clemens Breisinger, senior research fellow and IFPRI's country program leader (IFPRI), "Options for improving economic irrigation water efficiency for sustainable agricultural development".
- Eng. Karl Morteo, Digital Solution provider, Food and Agriculture Organization of the United Nations (FAO), "RNE-knowledge platform: visualizing water productivity"

Translation: (English-Arabic)

Hall: (Volga River Hall)
Special Session

(SS05): Preparatory Session for 9th World Water Forum

Convener (s): Executive Secretariat of the 9th World Water Forum

Co-convener (s): OMVS

Chairman: Abdoulaye SENE, Co-chair of the 9th World Water Forum International Steering Committee.

Facilitator: Bai Mass TAAL, Special adviser and member of the 9th World Water Forum International Steering Committee.

Reporter: Dr Mohamed CBC Diatta.

Session Content:

The Executive Secretariat of the 9th World Water Forum that hosts the National organizing committee of the Dakar 2021 Water Forum would organize a special session on the Dakar Forum.

The main objective of the special session is to inform participants the state of preparedness of the form; to present the different subthemes of the priority areas; to present the modality of contributing to the different Working Groups; probably to one or more Working Groups meeting at the sidelines of Cairo Water week.

Panelists/Keynote Speaker(s):

- H.E. Bai-Mass Taal , Special advisor to the preparatory committee of the 9th World Water Forum, Republic of Senegal.
- H.E. Eng. Abdoulaye Sene, President of the National Organizing committee for the 9th World water Forum , Dakar 2021, Ministry of Hydraulics and Sanitation, Republic of Senegal.
- Eng.Fawzi Bedrine, Member of the 9th World Water Forum International Steering Committee.
- Eng.Patrick Lavarde, Co-chair of the 9th World Water Forum International Steering Committee.

Session plan:

- Opening OMVS/OMVG High Commissioners.
- Presentation of 9th World Water Forum Dakar 2021 by Abdoulaye Sene (Co-chair of the 9th World Water Forum International Steering Committee).
- Presentation of Bassin cooperation for peace and development By ROAB.
- Panel discussions: OMVS, INBO, NBI, UNECE, WWC.
- Closing remarks: Patrick Lavarde, Co-chair of the 9th World Water Forum International Steering Committee.

Translation: (N/A)

Hall: (Mississippi River Hall)
Technical Session

(TS09): Networks for Capacity Development and Knowledge Sharing: Tools to Cope with Water Scarcity

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

Co-convener (s): IHE-Delft Institute for Water Education, the Netherlands, SciDev.Net, CapNet-UNDP, WYN.

Chairman/ Moderator: Dr. Amel Moustafa Azab, Nile Basin Capacity Building Network (NBCBN).

Reporter: Dr. Al Sayed Diwedat.

Session Content:

This session aims at showing the role of different existing knowledge networks working in technical knowledge production and collaborative research activities in solving transboundary water related problems such as water scarcity. The session also highlights the important role of water diplomacy and youth networks programmes in bringing innovative dimensions for transboundary cooperation. The focus is on engagement of all stakeholders for achieving better cooperation and benefits with case studies from the Nile basin. The session is expected to provide an opportunity to learn about multidisciplinary approaches and joint programmes of knowledge sharing and partnerships supporting capacity development.

Keynote Speaker(s):

- Dr. Amel Azab, Nile Basin Capacity Building Network, NBCBN
- Prof. Dr. Siddig Ahmed, UCWR Director General, Sudan.
- Dr. Deogratius Mulungu, University of Dar Es Salam, Tanzania.
- Eng. Eid Hosny, HRI, Egypt.
- Mr. Roger Anis- Photojournalist, Egypt.
- Ms.Rehab Abd Al Mohsen- Freelance Journalist.
- Ms. Anna Goubert, Water Youth Network, WYN.

Panelists:

- Dr. Schalk Jan Van Andel, IHE-Delft.
- Mrs. Bothaina Ossama, SCiDev.Net.
- Mrs. Anna Goubert, WYN.

Translation: (N/A)

Hall: (Nile River Hall)
Technical Session

(TS04): Supporting Sustainable Water Management in Newly Reclaimed Areas

Convener (s): Food and Agriculture Organization of the United Nations (FAO).

Co-convener (s): Ministry of Water Resources and Irrigation (MWRI) and National Water Research Center (NWRC).

Moderator: Dr. Mohamed Al-Hamdi (FAO-RNE)

Reporter: Dr. Ibrahim Mahmoud (MWRI) /

Dr. Waleed Hassan (FAO-EGYPT).

Session Content:

A key challenge for the agriculture sector in Egypt is achieving food security within an environment of growing demand for the limited water resources and increasing trade deficit. Moreover, in some areas, overdraft of water resources has led to water quality degradation and or extensive drawdown of groundwater levels. This raises the question of groundwater sustainability and thus the future of irrigated agriculture in these areas.

Considering the finite character of the groundwater resources and the uncertainties associated with exploitable storage, it becomes essential to enhance water use efficiency and increase water productivity within the sustainable limits of such aquifers. Furthermore, efficiency and financial gains associated with irrigation improvement systems are considered the driving incentive for investing in such systems, especially in water scarce countries like Egypt. The aim is to decrease water losses while increasing yield and water productivity. With different limitations to expand modern systems like old trees root distributions, high initial cost of construction of modern irrigation systems, salinity hazards, energy resources, it becomes essential to re-plan horizontal expansion program considering these limitations.

Keynote Speaker(s):

- Dr.M. 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.R. Ragab, "International Integrated Irrigation System Management - Fully Automated and Integrated", UK.
- Dr. Eman Sayed , " Potentiality of irrigation modernization in old and newly reclaimed areas in Egypt (MWRI Policy)", Head of Planning Sector ,MWRI.
- Dr. Saad Nassar, "Future of agriculture in the newly reclaimed areas in Egypt (MALR Policy)", Adviser to the Minister of Agriculture and Land Reclamation.

Translation: (English-Arabic)

Hall: (Mississippi River Hall)
Technical Session

(TS22): Water Accounting for Enhanced Water Productivity and Drought Management

Convener (s): the International Water Management Institute (IWMI).

Co-Convener (s): Food and Agriculture Organization of the United Nations (FAO), United States Agency for International Development (USAID).

Chairman: Dr.Amgad Elmahdi, Director of the Middle East and North Africa (MENA) Office of the International Water Management Institute (IWMI).

Moderator: Dr. John Wilson.

Session Content:

This session will introduce approaches to assess the productive use of water including water accounting frameworks and techniques and their use in water resource planning and policy development under normal and drought conditions. It will highlight examples from around the world with a particular focus on the MENA region bringing insight into:

- Water accounting applications in water resource planning and management.
- Water accounting and drought management.
- Water productivity assessments.

Keynote Speaker(s):

- Dr. Lisa-Maria Rebelo - Water productivity assessments – from field to national scales.
- Dr. Christopher Neale - Satellite-Based Daily Evapotranspiration for Water Accounting and Water Productivity Applications.
- Eng. Karim Bergaoui - Water accounting for drought management in the MENA region.

Panelists:

- Dr. Amgad Elmahdi , Director of the Middle East and North Africa (MENA) Office of the International Water Management Institute (IWMI).
- Dr. Rachael McDonnell, Head of Climate Change Modeling Adaptation Section, Research & Innovation, ICBA.
- Dr. Domitille Vallée, Independent Consultant , Land&Water Management.
- Dr. Makram Belhaj Fraj, Senior Scientist in Agronomy, Research & Innovation, ICBA.
- Representative from the Ministry of the Agriculture.

Translation: (N/A)

*Al Manara – Nile River Hall**Plenary Session***(PS3): Research and Innovation in Facing Water Scarcity***Convener (s): Ministry of Water Resources and Irrigation*

Moderator: Prof.Hesham El Askry, Professor of Remote Sensing and Earth System Science, Schmid College of Science and Technology, USA.

Session Content:

Research and innovation are nowadays, key transversal means to societal challenges that need to be addressed through an integrated approach. Ongoing global climate change, water scarcity, prolonged droughts, growing population, overexploitation of water resources, constructions on rivers, coastal and marine pollution, biodiversity decrease, development of blue economy and the intensification of economic activities are all pressing issues that affect water resources and cross different spatial and temporal scales. These water-related issues are becoming limiting factors for sustainable economic growth and require a collaborative and interdisciplinary approach, to foster innovative solutions. The cross-area nature of research and innovation theme is unique and important, hence should be utilized in current and future directives and policies to ensure better life for all and to achieve different sustainable development goals related to water resources. In this session we will touch on approaches for digital agriculture, telemetry and monitoring systems, recent advances in big data/machine learning in water related issues, predictive power on atmospheric phenomenon, how research and innovation is being used to evaluate and mitigate impacts of climate change on water resources, bridging of water, energy and food ecosystems in support of interconnected polices and international agreements and how remote sensing, earth observations and modeling can be used in coherency with other approaches and innovations.

Keynote Speaker(s):

- Dr. Giovanni del santi, Director , JRC institute, Italy.
- Dr. Ayman ElSayed, Head of Monitoring, communication, information, and assets sector, MWRI, Egypt
- Dr. Elga Salvador, Lecturer and Water Accounting Expert, Delft IHE for water education , The Netherlands.
- Dr. Thomas Piechota, Vice President for Research, Professor of Environmental Science and Policy, Schmid College of Science and Technology, USA.
- Dr. Daniel J. Howes, Project Manager, irrigation training and Research center, California polytechnic state university, USA.

Translation: (English-Arabic)

Hall: (Mississippi River Hall)**Special Session****(Closed Meeting - By Invitation)****(SSTI): Cooperation – Netherlands Egypt: From Policy Dialogue to Innovative Projects: recent developments in NL-EG Cooperation in the Water Sector****Convener (s): Netherlands Water Partnership, Ministry of Water Resources and Irrigation.**

Chairman/Moderator: H.E. Dr. Henk Ovink, Special Envoy for International Water Affairs, The Netherlands.
Co-Chair: Eng. Walid Hakiki, Head of the Central Department for Water Resources and Uses, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.

Session Content:

- Egypt and the Netherlands have many things in common, they are both densely populated countries where most of the economic activities, including agriculture, take place in the delta of an important river system. Adequate land and water management is therefore crucial for the development of both countries, which have some problems in common, including land drainage.
- The Egyptian- Dutch cooperation evolved with time to include many aspects in water management including: Water resources policy, planning and strategy, Participatory approach in water management, Environmental aspects and water quality management, Public-private partnerships for water resources infrastructure management, Information transfer and public awareness, Capacity development, Institutional development, Socio-economic aspects, and Climate change and coastal zone protection
- From policy dialogue to innovative projects: recent developments in EG-NL cooperation in the water sector', The Egypt - Netherlands Water Panel provides a platform for both policy dialogue and formulation of innovative projects. During this interactive session moderated by the Dutch Water Envoy Henk Ovink three promising tracks for innovative projects will be presented and discussed. Namely, enhancing drainage systems, waste management and saline farming

Translation: (N/A)**Hall: (Nile River Hall)****Technical Session****(TS13): Challenges and Opportunities of Solar Power Irrigation System in the Near East and North Africa Region****Convener (s): FAO, MWRI, GIZ**

Moderator: Dr. Mohamed Al-Hamdi, FAO-RNE.

Reporter: Dr. Nisreen Lahham, GIZ.

Session Content:

The session will highlight and review current practices, identify strengths and weaknesses that help develop future directions on SPIS in Egypt and Tunisia. In mitigating the risks associated with the expansion of groundwater irrigation resulting from the availability of subsidized renewable energy sources, data availability and the analytical capacity of concerned institutions become a central element of groundwater management. Moreover, the concept of solar powered irrigation systems need to be discussed within the overall socio-economic and political setting, where, the national policies on renewable energy, financial and economic incentives as well as the engagement of the private sector become pivotal in the future direction and development of solar energy use for agriculture.

Panelists:

- Dr. Ragab Abdel Azim, Deputy Minister, MWRI
- Dr. Saad Nassar, Advisor to the Minister of Agriculture, MALR
- Mr. Ridha Gabouj, Ministry of Agriculture, Water Resources and Fisheries, Tunisia
- Representative, Private sector (Eng. Shamel El Nomany).

Keynote Speaker(s):

- Dr. Mohamed Al-Hamdi, "Monitoring requirements for SPIS", FAO-RNE.
- Mr. Isam Hashem Hasan, "Small scale groundwater supplementary irrigation using SPIS in Asyut, Egypt".
- Mr. Salem Hezek, "SPIS application in South Tunisia", Regional Commission for Agricultural Development in Tataouine.

Translation: (English-Arabic)

Hall: (Ganges River Hall)**Technical Session****(TS14): Innovative Solutions to Improve Agricultural Production in Marginal Environments**

Convener (s): International Center for Biosaline Agriculture (ICBA)

Co-convener(s): Environment Agency Abu Dhabi, Abu Dhabi Agriculture and Food Safety Authority

Session Content:

The session will discuss the new innovative technologies /solutions and approaches that are used to improve agricultural production while sustaining natural resources in marginal environments particularly in countries that face water scarcity like the United Arab Emirates.

ICBA and Partners will present several case studies on the research achievements that has been done to improve allocation of water to different crops and better estimates of crop water requirements using lysimeters and sensors techniques which can help in saving groundwater resources and reduce over pumping, integrated farming system that uses brine water generated from RO desalinated plants in aquaculture and for irrigating halophytes like Salicornia which can reduce the environmental impact of the brine (zero discharge) and increase agricultural production, other case studies on using remote sensing and sensors to have a better estimates of crop water use and agricultural productivity will also be presented.

Translation: (N/A)

Hall: (Volga River Hall)**Technical Session****(TS15): Non-Conventional Water Resources**

Convener (s): Ministry of Water Resources and Irrigation

Co-convener (s): National Water Research Center (NWRC)

Chairman: Prof.Dr. Safwat Abd Eldayem, Emeritus Professor - NWRC

Co-Chair: Prof.Dr. Ahmed Rashed, Director RIGW

Reporter: Dr. Reham El-Korashy

Session Content:

Due to exponential increase in population and so the ambitious development plans in many countries in the region, the available fresh water resources are not satisfying the water demands. The main strategic choice to fulfil the gap between water resources availability and water demand is the use of the non-conventional water resources. Treated drainage water, rainfall harvesting and, desalination of seawater and brackish water are examples of such non-conventional water resources. The use of non-conventional water is on the top of research priorities of the NWRC to maximize the efficiency of such resources.

NWRC will present success stories in this research area including the use of wetland and natural materials for drainage water treatment and, mitigation measures used for rainfall harvesting. Consequently, the use of desalination technology in sea water will be presented.

Keynote Speaker(s):

- Dr. Beshr Imam, UNESCO.
- Prof. Dr. Gamal Kotb, WRII.
- Dr. Mohamed Shaban, DRI.
- Dr. Ahmed El-Hawary, DRI.

Translation: (N/A)

Hall: (Ganges River Hall)**Technical Session****(TS35): Role of Space Technology in Water Management - Scientific Conference (CWW)****Convener (s): Ministry of Water Resources and Irrigation.**

Chairman: PROF. DR. MOHAMED ZAHRAN, President of National Authority for Remote Sensing and Space Science.
Co-Chair: Eng. Tarek El Sayed, Vice Chairman of Shore Protection Authority (SPA), Ministry of Water Resources and Irrigation, Egypt.

Session Content:

This session will focus on the role of remote sensing techniques in improving water resources management. A first presentation will show how to increase agricultural water productivity and efficiency in Egypt through an open-access WaPOR database providing continuous and unbiased data on water and crop production. The second presentation is about use of spectral satellite imagery in detecting water losses in urban freshwater distribution network in Gulf Countries. The third presentation will discuss application of numerical approach in determining the effectiveness of low technology aquifer recharge structure and impacts of these structures on aquifers in Sinai, Egypt. The fourth speaker will show how remote sensing data can be utilized to assess the spatial and temporal performance of large scale irrigation schemes in Egypt and Sudan. The fifth speaker will show the utilization of advanced technology for leaks detection in urban fresh-water distribution networks, using satellite mounted sensors. The final speaker will present the role of remote Sensing, geographic information system, and multi-criteria decision analysis in identifying suitable groundwater recharge sites in Iraq.

Keynote Speaker(s):

- Dr. Adil Meselhy, "Manufacturing Of Machine For Crop Cultivating Under Rainfed Conditions", Desert Research center
- Dr. Faez Hussein Buraihi Al Ganem, "Delineation of Groundwater Recharge potential sites by Using Remote Sensing and GIS Techniques", Ministry of Water Resources in Iraq
- Dr. Osama M. Sallam "Flash Floods Water Harvesting Using Low Technology Aquifer Recharge Structures (Case Study: Wadi Watir, South Sinai, Egypt)", Environment agency, Abu Dhabi, UAE
- Dr. Nadir Elagib, "Satellite-based assessment of the performance of main irrigated schemes in the Nile Basin", Böckingstr Germany
- Dr. Christopher, "Role of Spectral Satellite Imagery in Reducing Non-Revenue Water", Water Vision Technology.
- Eng. Abdelrahman Ahmed Ali, "Modelling and analysis of rainfall-runoff processes in the Wadi Bili catchment in Egypt", TU-berlin el gouna.

Translation: (N/A)**Hall: (Mississippi River Hall)****Special Session****(SS12): Towards Identifying Key Elements and Priority of the Arab Water Under Occupation Network Future Strategic Plan****Convener (s): League of Arab States (LAS); Palestinian Water Authority (PWA).****Co-convener(s): United Nations Development Programme (UNDP).**

Chairman: Minister Eng. Mazen Ghunaim, Head of the Palestinian Water Authority.

Moderator: Dr. Hammou LAAMRANI, Senior Expert, Water, Energy, Food Security and Climate Change Nexus, Economic Sector, League of Arab States.

Reporter : Mr. Hayitham Amro, Ms. Asmaa Salameh.

Session Content:

The session generally aims at developing set of strategic recommendations about the needed steps that should be considered in order to activate the working mechanism of Arab Water under occupation Network including the future work plan of the Network at regional and international levels; and to define certain working measures and orientations with reference to international laws and conventions. Accordingly, the session will be an important step towards setting priorities and to agree on the international platforms that will be approached including related studies and researches, and how to use the advanced technology in monitoring of transboundary water resources.

Keynote Speaker(s):

- Dr. Charafat Afailal, native from Morocco, the former minister in charge of water in the Moroccan government between 2013 and 2018 and is currently an expert on water and climate.
- Dr. Khaled Abu Zaid, Chair of Regional Chairs, Global Water Partnership (GWP), Director, Technical Programs, Arab Water Council (AWC), Chair of Global Water Partnership - Eastern Africa (GWP-EA), Secretary General, Egyptian Water Partnership (EWP).
- Eng. Deeb Abdulghafour: Water Resources General Director, PWA.
- Representative from INBO.

Translation: (English-Arabic)

Hall: (Nile River Hall)
Technical Session

((TS18): The Role of media in raising public awareness for valuing water under the current challenges

Convener (s): Arab Water Academy, Arab Water Council, Sinai University (Arish- Kantara), Capital International University.

Chairman: Dr. Hassan Rateb, Chairman of the Board of Trustees of Sinai University.

Co-Chair / Moderator : Dr. Ismail Abdelgalil, Director of the Arab Water Academy.

Session Contact:

Egypt faces a rapid population growth while agricultural land water resources are not much available at the same rate which leads to critical water scarcity. The UN predicts that Egypt will be approaching a state of "absolute water crisis" by 2025 and that the nation is already below the United Nations' water poverty threshold. As such, Egypt's standing is below the level of water poverty. However, the population is depending mainly on the River Nile for drinking water, municipal water, and agricultural water. However, the painful reality is the fact that the river has been polluted by harmful chemical industrial waste, sewage leakages, municipal wastes, and dumping of dead animal carcasses, which has been causing a significant risk to humans, animals and also agricultural production. Water availability is an issue that is continuously growing in Egypt every day with the climate being expected continually gets drier and hotter over time.

To face the above-mentioned challenges, raising public awareness has become vital for better water resources use in a rational and sustainable manner.

Keynote Speaker(s):

- H.E. Dr. Yasmine Fouad, Minister of Environment.
- H.E. Dr. Mahmoud Abu-Zeid, President of the Arab Water Council, President of the Arab Water Academy.
- Dr. Hossam Moghazy Former Minister of Irrigation Professor and head of the Department of Irrigation and Hydraulics Engineering, Faculty of Engineering, Alexandria University.
- Dr. Mofid Shehab Professor of International Law, Cairo University Former Minister of Higher Education and Scientific Research.
- Dr. Hassan Kamel Rateb, Chairman of the Board of Trustees of Sinai University, Vice President of the Arab Water Academy.
- Dr. El Sayed flefel, Member of Parliament, Former Dean of the African Research and Studies Institute
- DR. Ismail Abdelgalil, Former President of the Desert Research Center, Director of the Arab Water Academy.

Translation: (N/A)

Hall: (Ganges River Hall)
Technical Session

(TS36): Innovative Research in Water Resources - Scientific Conference (CWW)

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

Chairman: Prof. Dr. Rasha El-Kholy, Vice President and Dean of Faculty of Engineering Heliopolis University for Sustainable Development, Egypt

Co-Chair: Dr. Eman Ragab, Researcher, Research Institute for Groundwater, National Water Research Center, Ministry of Water Resources and Irrigation, Egypt.

Session Content:

This session will show how to make use of advanced technology for solving wide range of water issues. The first speaker will present an analysis of rainfall-runoff processes in the Wadi Bili catchment, western desert in Egypt, using the STORM software. A second presentation will examine available sediment management options that can restore part of the lost capacity of Sennar Dam (in Sudan) and extend its useful life. The third speaker will talk about improving water stress tolerance of wheat genotypes by using high throughput precision phenotyping to screen for enhanced water stress tolerance. The fourth speaker will present a case study to investigate actual water use in a sprinkler irrigation system at the Yonekawa Land Improvement District in Japan. The fifth speaker will present river channel bathymetry hydraulic modeling at the basin scale for estimating floods and assessing geomorphologic processes. A final presentation will speak about evaluation of deep-water culture and sand-bed aquaponics systems for lettuce production and water consumption at a pilot-scale setting in Egypt.

Keynote Speaker(s):

- Dr.Younis Gismalla, "Assessment of Sediment Management Options for Sennar Reservoir on the Blue Nile", Ministry of Water Resources & Electricity, Wad Medani – Sudan.
- Dr.Magdi Elsayed,"Field high-throughput phenotyping to improve tolerance of wheat genotypes to water stress", National Research Centre.
- Dr.Hiroki Uchida, "An investigation of actual water use in a sprinkler irrigation system: A case study of Yonekawa Land Improvement District",Tottori University, Japan.
- Dr.Heba Mohamed Elsayawy, "Development River Channel Bathymetry at the Basin Scale for Hydraulic Modeling", NWRC.
- Speakers from IFAD.
- Dr.Lobna Salem,"Deep-Water Culture and Sand-Bed Aquaponics Systems Evaluation for Lettuce (Lactuca Sativa) Production and Water Consumption in a Pilot-scale Setting in Egypt", American University in Cairo.

Translation: (N/A)

Hall: (Volga River Hall)**Technical Session****(TS19): Research and Innovation in Water Resources****Convener (s): National Water Research Center (NWRC)**

Chairman: Prof.Dr. Hussam Fahmy, Emeritus Professor - NWRC

Co-Chair: Prof.Dr. Salwa Abo El-Ela, Director CMRI

Reporter: Dr. Rameen Abdelhady, NWRC

Session Content:

Research and innovation are very significant for water sector due to the continues necessities for improvement of the water efficiency of the irrigation and drainage network systems and likewise of the hydraulic structures.

The session will present innovated solutions to produce biogas from the aquatic weeds and water hyacinth in an efficient technique. This technique was successfully implemented in Uganda. Correspondingly, innovates to improve the efficiency and functionality of regulators on the water streams will be presented.

Keynote Speaker(s):

- Prof.Dr. Salwa Aboul El-Ela, CMRI.
- Dr. Yasser El Hakam, CRI.
- Dr. Safaa Ezaat, CLEQM.
- Dr. Noha Kamal, NRI.

Translation: (N/A)**Hall: (Zambezi River Hall)****Technical Session****(TS17): Count and account for scarce water: Build a sustainable water future (sharing country water accounting experience)****Convener (s): FAO, EU Water STARS Project**
Co-convener (s): MWRI, IHE, IWMI

Chairman: Dr. Eman Sayed, Head of Planning Sector, MWRI

Moderator: Dr. Domitille Vallee, FAO

Session Content:

The session will raise awareness on the feasibility of using water accounting for planning, and reporting in the NENA water-scarce region and its usefulness to inform the sustainable development needs. Various countries in the NENA region started implementing 'rapid water accounting' as a first step in their aim to use standardized approaches but tailor them to their realities. The session will then be able to take a closer look at the state of art developments on Water Accounting in the region while illustrating it with concrete examples from countries. The discussion should highlight the most common issues (data, tools, scaling up) and the approach to address them.

Keynote Speaker(s):

- Dr. Domitille Vallee , "Water Accounting Overview and FAO's Experience", FAO.
- Dr. Poolad Karimi , "Water Accounting + from the Urmia Basin", IHE.
- Dr. Jiro Ariyama , "Comparison of the Different WAs in the World: from FAO's WA Webinar Series", IHE
- Dr. Amgad ElMahdi , "Institutionalizing Water Accounting", IWMI.

Translation: (English-Arabic)

*Al Manara – Nile River Hall**Plenary Session***(PS4): Climate Change Impacts, Mitigation and Adaptation***Convener (s): Ministry of Water Resources and Irrigation.*

Moderator: Dr. Mohamed Ahmed, Project Manager of “Adaptation to Climatic Change in the Nile Delta Through Integrated Coastal Zone Management” Project, Egypt.

Session Content:

Climate Change has become a fact in our life nowadays. Its impacts such as reduction of water resources, flooding of low land in coastal zones and the decline in agriculture productivity are felt in the various aspects of our daily activities. Therefore, there is an urgent need to mitigate and adapt to those impacts. This session focuses on presenting a number of applied Climate Change adaptation and mitigation practices worldwide. Experiences from the UK, Morocco, the Netherlands, France and the World Meteorological Organization will be presented to share knowledge, lessons learned and also success stories that can be replicated in other parts of the world.

Keynote Speaker(s):

- Dr. Ragab Ragab, Principal Hydrologist & Water Resources Management Specialist, Centre for Ecology and Hydrology, CEH, UK.
- H.E.Dr. Charafat Afailal, former Minister in Charge of Water, Morocco.
- H.E. Dr. Henk Ovink, Special Envoy for International Water Affairs for the Kingdom of the Netherlands, The Netherlands.
- Dr. Johannes Cullmann, Director, Climate and Water WMO, German.
- Mr. Rémi Touron, Agence de l'eau Rhône Méditerranée Corse, France.

Translation: (English-Arabic)

Hall: (Mississippi River Hall)**Technical Session****(TS37): Dealing with Climate Change Impact on Water - Scientific Conference (CWW)****Convener (s): Ministry of Water Resources and Irrigation.**

Chairman: Prof. Dr.Bayoumi Bayoumi Attia, The President of Resources Technology Bureau & Engineering Consultancy (RTB), Egypt.

Co-Chair: Dr. Mamdouh Antar, President - Regional Water Resources Training Center, Ministry of Water Resources and Irrigation, Egypt.

Session Content:

The session concentrates on some important aspects of climate change impacts illustrated in 5 studies. One of these studies will try to understand and predict how climate change would affect soil water and soil salinities and henceforth agricultural production Other study will stresses that a local accurate and up-dated terrestrial DEM is more accurate and crucial for risk assessment of sea level rise (SLR) in Egypt. Other study in this session evaluates the impact of the combined effect of SLR and storm surges on the low lands of the Nile delta of Egypt. A third study aims to fill the gap in these practices by investigating the applicability of SUDS in arid regions taking the case of DAMMAM city in Saudi Arabia. The session includes also an important study focused on opportunities to improve global and national hydrological systems to monitor drought risk status and outlooks in drought –affected countries especially in Africa.

Keynote Speaker(s):

- Dr.Robert Smit, "Climate change impact on the deltaic soils and crop yields", Wageningen Environmental Research
- Dr.Gomaa Dawod, "DEMs and Reliable Sea Level Rise Risk Assessment in Nile Delta", National Water Research Center
- Dr.Ahmed ElKut, "Impacts of Sea Level Rise and Storm Surge on the Nile Delta Egypt", National Water Research Center
- Dr.Amr Ghazal, "Urban Flood Mitigation in Arid Regions Using SUDS", Technische Universität Berlin
- Dr.Caroline King-Okumu, "Opportunities for International Cooperation to Manage Hydrological Drought Risk", International Development Opportunities Manager Center for Ecology and Hydrology.

Translation: (N/A)**Hall: (Nile River Hall)****Special Session****(SS20/25): Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project (ECCADP)****Convener (s): Ministry of Water Resources and Irrigation, Green Climate Fund, United Nations Development Program**

Chairman: Dr Ragab Abdel Azim - First undersecretary of the Ministry of Water Resources and Irrigation

Co-Chair: Mr Tom Twining-Ward – UNDP regional technical advisor

Moderator: Dr Mohamed Ahmed – Project Manager of the Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt project (ECCADP)

Reporter: Dr Taher Osman – ECCADP ICZM officer.

Session Content:

This session focuses on presenting the previous/on-going efforts in Egypt to adapt to the sea level rise impacts on Egypt and to develop and Integrated Coastal Zone Management (ICZM) Plan for the Mediterranean Coast in Egypt.

Part 1: of the session starts by the showing the global picture of climate changes adaptation issues and application of ICZM worldwide. Two key adaptation projects are then presented, namely, the completed GEF/UNDP Adaptation to Climate Change in the Nile Delta Though ICZM (ACCNDP) and the ongoing GCF/UNDP Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt project (ECCADP).

Part 2: of the session starts with a detailed presentation of the adaptation coastal protection work that was undertaken as part of the ACCNDP and is currently being undertaken with the ECCADP. An overview of the national efforts to establish the ICZM strategy and develop an ICZM plan in Egypt will be also presented. Session will conclude number of recommendations for the future of adaptation efforts and ICZM establishment in Egypt and worldwide.

Keynote Speaker(s):

- H.E. Dr.Mohamed Abdel-Aty, Minister of Water Resources and Irrigation, "Opening speeches"
- H.E. Dr.Yasmin Fouad, Minister of Environment, "Opening speeches"
- Mr. Tom Twining-Ward , UNDP resident representative, "Opening speeches"
- EEAA representative, "Climate Change impacts on Egypt – A social and economic perspective , ICZM strategy of Egypt"
- Dr. Mohamed Ahmed Ali, ECCADP project manager, "An overview of the GEF/UNDP and ECCADP Projects".
- Mr. Tom Twining-Ward , UNDP resident representative, "Global Climate Change adaptation issues, and support to Egypt "
- Eng. Ashour Ragheb, Shore Protection Authority Chairman
- Mr. Hans Pos, Egyptian Dutch panel representative" Benefits and challenges of applying ICZM with worldwide examples "

Translation: (English-Arabic)

Hall: (Ganges River Hall)**Technical Session****(TS21): Climate Induced Water Hazards drives Human Insecurity in the Eastern Nile River basin****Convener (s): SIWI****Co-convener (s): International Centre for Water Cooperation (ICWC)**

Chairman: Dr. Mats Eriksson.

Co-Chair: Dr. Aly Nabih El-Bahrawy.

Moderator: Dr. Mats, Eriksson.

Reporter: Eng. Said Hashmat Sadat .

Session Content:

The session will demonstrate how climate driven hazards pose risks to human security in a basin wide context. It will facilitate discussion on how key actors in fields such as water resource management, climate policy and development planning can apply the climate security lens to identify and reduce insecurities and build long-term resilience. The participants will have an improved understanding on the linkages between climate and security where water hazards provide the main bridge. Examples from the Eastern Nile River Basin will be provided.

Keynote speakers/ Panelists:

- Dr. Kevin Wheeler, Centre for the Environment , Oxford University.
- Dr. Aly Nabih El-Bahrawy, Faculty of Engineering , Ain Shams University.
- Eng. Khalid Elnoor Ali Hassaballah , Ministry of Irrigation and Water Resources, The Hydraulics Reaesch Center,Sudan.

Translation: (N/A)**Hall: (Volga River Hall)****Technical Session****(TS23): Vulnerability of Water Resources to Climate Change****Convener (s): National Water Research Center (NWRC)**

Chairman: Prof.Dr. Maha Tawfik, Emeritus Professor - NWRC.

Co-Chair: Prof.Dr. Mohamed Rami, Director of ECRI.

Reporter: Dr. Mahmoud Rushdi. ECRI.

Session Content:

Climate change and its impacts on water resources is a hot issue worldwide. Climate change can cause periods of unexpected floods or draughts and eventually sea level rise.

World deltas is subjected to land subsidies due to climate change. Nile delta is one of the deltas that is vulnerable to climate change. Draughts affect the availability of fresh water while floods can cause losses in lands, properties and lives. Research on climate change vulnerability is taking place over the globe for better understanding and impact mitigations.

Tools and models used to forecast the climate change and its impacts on rainfall and sea level rise will be presented considering the research conducted on the Nile delta. Innovates using friendly measures to protect Nile delta from floods due to climate change will be also presented.

Keynote Speaker(s):

- Prof.Dr. Khaled Khereldin, CORI.
- Dr. Doaa Amin, WRII.
- Dr. Mahmoud Rushdi, ECRI.

Translation: (N/A)

Hall: (Mississippi River Hall)**Special Session****(SS38): Three Minutes Thesis Competition (3MT) - Scientific Conference (CWW)****Convener (s): Ministry of Water Resources and Irrigation.**

Chairman: Prof. Dr. Yasser Raslan, Director of Nile Research Institute, National Water Research Center, Ministry of Water Resources and Irrigation, Egypt.

Panel Committee:

- Prof Dr. Rasha El-Kholy, Vice President and Dean of Faculty of Engineering Heliopolis University for Sustainable Development, Egypt.
- Dr. Eman Ragab, Researcher, Research Institute for Groundwater, National Water Research Center, Ministry of Water Resources and Irrigation, Egypt.
- Dr. Yehya Imam, Assistant professor in the Environmental Engineering Program at the Zewail City University of Science and Technology, Egypt.

Session Content:

The Three Minute Thesis (3MT) is an initiative of the Australian university sector. Cairo water week will be one of the first events in the middle east and Africa to host a 3MT competition. It encourages graduate students to practice and develop effective communication skills. Participants have just three minutes to explain the breadth and significance of their research project to a non-specialist audience.

Translation: (N/A)**Hall: (Ganges River Hall)****Technical Session****(TS28): Young Innovators STEM schools (MWRI, Ministry of Education)****Convener (s): The Ministry of Education and Technical Education - Ministry of Water Resources and Irrigation, Egypt**

Chairman: Dr.Redha Abo Serey , Manager of STEM Schools Project, The Ministry of Education and Technical Education, Egypt

Co-Chair: Mr.Yousry Fouad Sweires, Science Advisor - Head of Central Administration for Basic Education, the Ministry of Education and Technical Education, Egypt

Session Content:

Young innovators can play a significant role in the future of water resources management, in accordance with their evolving capacities and increasing autonomy, to be engaged in the future decision-making processes.

In CWW 2019, we worked alongside young innovators to make sure their participation in the conference and have their voices heard. The session will present the STEM school's students innovations in the field of Water Resources conversation.

The STEM school was founded on September 17, 2011 in the Global Village. It was established to equip the children with the skills needed to excel in the global economy. The core components of the rigorous curriculum ensure a community of STEM educated students who are problem-solvers, innovators, logical thinkers and technologically literate.

Keynote Speaker(s):

- Mr.Yousef Suleiman, " Cultivation A TO Z" , 6 October STEM School
- Mr.Zeiad Ayman Mohamed, "Complementary Treatment " , Asyut STEM School.
- Ms.Omiama Abdel-Razeq, " Waste water treatment based on Jojoba and Moringa desert plants" , Asyut STEM School.
- Ms.Nada Ahmed Mahmoud, " H.S.S." , Ismailia STEM School.
- Ms.Israa Ahmed, " Hyacinth-RO filter" , Menofeya STEM School.
- Ms.Ayat-Allah Nady, "Green Choices Filtration" , Maadi STEM School.

Translation: (N/A)

Hall: (Volga River Hall)

Technical Session

(TS26): Dam Break Risk Assessment

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

Chairman: Prof.Dr. Mostafa Gawish, Emeritus Professor - NWRC.

Co-Chair: Prof.Dr. Sami Abdel Fatah, Director of HRI.

Reporter: Dr. Mohamed Bahgat, HRI.

Session Content:

Dam failure, either earth or concrete dams, occurs due to natural disasters or man fault. Consequently, the failure causes losses of lives and, economic drawdown due to uncontrolled flooding. Research on dam failure/break is very crucial for predicting the negative impacts and accordingly for the necessary measures of mitigating such impacts. NWRC will present the large scale experiments that conducted, using the large facilities that is available in the NWRC, for studying the breach of earth dams due to overtopping or piping. Research and studies will be presented on concrete dams break and its impact downstream using numerical modeling techniques and risk management analysis.

Keynote Speaker(s):

- Prof. Ashraf Elashaal, CRI.
- Prof. Ahmed Elbelasy, HRI.
- Dr. Mohamed Abdellatef, HRI.
- Dr. Abd Elhamed Khater, HRI.

Translation: (N/A)



Al Manara – The Theater Hall***Plenary Session*****(PS5): Non-Conventional Water Resources Use under Scarcity Conditions*****Convener (s): Ministry of Water Resources and Irrigation***

Moderator: Prof. Dr. Alaa El Zwahry, Faculty of Engineering, Cairo University, Egypt

Session Content:

The integrated water resources management is based on two main different but interrelated sides, the supply and demand. The supply side addresses the water resources and its availability. The water resources is always classified as conventional (surface water and groundwater), and non-conventional water resources. The non-conventional term includes several sources such as brackish ground water, desalination, rain harvesting, flood harvesting, reuse of treated wastewater, reuse of drainage water, reuse and recycling of treated industrial water, cloud seeding, and others. In this session, the respectful speakers will address the non-conventional water resources experiences in different location in the world. The experience of water resources management in Palestine, using desalination and reuse of wastewater will be shared and addressed. The development and application of integrated technological and management solutions for wastewater treatment and efficient reuse in agriculture (MADFORWATER) in three different basins (Tunisia, Morocco and Egypt) will be shared. The selection of adequate wastewater treatment level and technology for the purpose of reuse is important in order to balance between the cost and achieving the target. This topic will be addressed and discussed with its application on the Nile delta. The Jucar River Basin (49.22 m³/s, and 509 km), Spain situation regarding non-conventional resources, as well as the integration of such resources within the drought management plans will be addressed.

Keynote Speaker(s):

- Prof.Dr. Redouane Choukr Allah Representative of MAD4WATER project, FAO.
- Representative, Ministry of Housing, Utilities and Urban Communities, Egypt.
- Dr.ir. Jules van , Sanitary Engineering, University of Technology, TU Delft.
- Ms. Laura Tanco ,(EU), Jucar River Basin Authority.
- Dr. Yuehu Kang, Chinese Academy of Science.
- H.E. Eng. Mazen Ghunaim, Head of the Palestinian Water Authority, Palestine.

Translation: (English-Arabic)

Hall: (Nile River Hall)
Special Session

(SS27): Farmers' Best Practices in Water Conservation

Convener (s): Ministry of Water Resources and Irrigation (MWRI), UNESCO Cairo Office

Chairman: Dr. Ghaith H. Fariz. Director of UNESCO Regional Bureau for Sciences in the Arab States, Egypt and Sudan.

Co-Chair: Dr. Ibrahim Mahmoud, Head of Irrigation Development Sector (MWRI).

Session Content:

- The Ministry of Water Resources and Irrigation launched the Second National Competition to Rationalize the Consumption of Water "Save it... to get it" in February 2019 and concluded in September 2019.
- The competition objectives are raising the awareness of farmers about the importance of practicing rationalization of water consumption especially with the water scarcity challenges facing Egypt, encouraging farmers to use modern irrigation techniques, and motivating other farmers to use modern irrigation systems through showing the savings and the added value resulted from applying modern by the winners in the competition.
- The session will include presentations of the best practices of farmers in Water Conservation. Selected farmers will present their practice and are going to give details about successful models and lessons learned from practical side. The session aims to encourage the positive and best practices of farmers through water user associations to conserve water in quantity and quality.

Keynote Speaker(S):

- Mr. Moahmed Ali Salem, "Dripping Irrigation", Gharbeya Governorate.
- Mr. Safy Abdelsalam, "Surface Irrigation", Giza Governorate.
- Mr. Mohamed Abdelshakoor, "Sprinkler Irrigation", Menya Governorate.
- Mr. Awad Mahmoud, "Dripping Irrigation", Fayoum Governorate.

Speech by Talented Farmer: Mosaad Sayed AbdelGelel, "Ways of Dissemination for the Best Practices", Giza Governorate.

Translation: (N/A)

Hall: (Mississippi River Hall)
Technical Session

(TS40): Converting Low Quality Water into Usable Water Resource - Scientific Conference (CWW)

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

Chairman: Prof. Dr. Rifaat Abdel Wahaab, Professor of W/WW Treatment Technologies, National Research Centre; and Head of Research & development (R & D) at the Holding Co. for Water and Wastewater, Egypt.

Co-Chair: Prof. Dr. Enas Mohamed Aly Aboutaleb, Prof. of Wastewater Treatment Technology and Environmental Studies, National Research Center, Egypt.

Session Content:

This session will address issues related to drainage water, domestic wastewater and brackish and saline groundwater. The first speaker in this session will report on the assessment of drains water quality along El-Salam Canal Western Suez using the Canadian Environment Water Quality Index based on the Egyptian law 48/1982. The next Speaker will present the case of BOD5 removal process in the free water surface of constructed wetland using a first-order Variable Residence Time (VART)-based model. A third speaker will show the impact of wastewater irrigation on soil, plant and human health and offers recommendations to minimize probability of contamination. This will be followed by a speaker discussing the management of untreated brackish Groundwater for aqua-agriculture systems in the Western Nile Delta. Along the same objective, another speaker will discuss the management of saline groundwater for irrigation of Date Palm in the hyper arid climate of the UAE.

Keynote Speaker(S):

- Dr. Abdrabbo Shehata, "Management of Using Untreated Brackish Groundwater for Integrated Food Systems", National Water Research Center.
- Dr. Mohamed Abdel Hamyd Dawoud, "Management of Using Saline Groundwater for Irrigation of Date Palm in the Hyper Arid Regions", MWRI.
- Dr. Safaa M. Ezzat, "Impact of wastewater irrigation on soil, plant and human health", National Water Research Center.
- Dr. Ahmed El-Hawary, "BOD5 removal process in the free water surface constructed wetland", Drainage Research Institute, National Water Research Center.
- Dr. Seham Omar, "Removal of Fe²⁺ and Mn²⁺ from ground water of Wadi Qena by using Synthetic Zeolite as a low-cost adsorbents", Assiut University, Egypt.

Translation: (N/A)

Hall: (Volga River Hall)**Special Session****(SS29): Best Graduation Projects Competition - Scientific Conference (CWW)****Convener (s): Ministry of Water Resources and Irrigation.**

Chairman: Prof. Dr. Mohamed Nour El-Din, Water Resources & Irrigation consultant, Professor Emeritus, Faculty of Engineering- Ain Shams University, Egypt.

Co-Chair: Eng. Walid Hakiki, Head of the Central Department for Water Resources and Uses, Planning Sector, Ministry of Water Resources and Irrigation, Egypt.

Session Content:

This session is a part of the Best Graduation Projects competition that was held under the umbrella of Cairo Water Week. All graduation projects, of the academic year 2018/2019, from Governmental and Private Universities were encouraged to apply, provided that, their projects fall under the areas of the competition.

The Scientific Committee of Cairo Water Week has selected the best three projects and the will be presented as the following:

- Integrated Water Projects for the Development of Water Scarce Areas
- (Al Shalateen Coastal Area, Egypt), Ain Shams University
- Flood Protection, Storm Drainage Network & Ground Water Management for Shalateen City, Ain Shams University.
- Agriculture Greenhouse Automatic Control System Based on Hydroponic Technique, Faculty of Electronic Engineering, Menoufia University.
- Household Water Treatment Unit for Shallow Underground Water In Delta Region, Zewail City of Science And Technology.

Translation: (N/A)**Hall: (Ganges River Hall)****Technical Session****(TS39): Saline Water between Softening and Desalination - Scientific Conference (CWW)****Convener (s): Ministry of Water Resources and Irrigation.**

Chairman: Dr. Ragab Abdel Azim, Deputy Minister, Ministry of Water Resources and Irrigation, Egypt.
Co-Chair: Dr. Yehya Imam, Assistant professor in the Environmental Engineering Program at the Zewail City University of Science and Technology, Egypt.

Session Content:

In this session issues related to saline groundwater, desalination and wastewater treatment will be discussed. The first speaker in this session will be about fast softening of salty water using nano-sized zeolite by affordable process to solve the problem of water hardening. A second speaker will present the case of removing iron and manganese from groundwater of Wadi Qena by using Synthetic Zeolite as a low-cost adsorbent. A third speaker will discuss the application of Pervaporation Technique in the Desalination of Saline Water as novel, cost-effective, simple and more efficient technologies than the current techniques. The fourth speaker in this session will present non-conventional decentralized wastewater treatment Plants (DWWTP) as an alternative for small communities in Palestine and reuse of the treated water for domestic and agricultural purposes. Another presentation in this session will discuss the potential of desalination powered by solar energy based on techno-economic analysis for modular multi-scaled desalination units in Egypt.

Keynote Speaker(S):

- Dr.Omneya Samir,"Application of Pervaporation Technique in the Desalination of Saline Water", Al Beheira Water And Drainage Company
- Dr.Kamal Medan,"Assessment Drains Water Quality along El-Salam Canal Western Suez Canal", Head of El-salam canal Directorate for water resources and Irrigation
- Dr.Safaa El-Nahas, "Fast softening of salty water using nano-sized zeolite by affordable process", Chemistry Department, Faculty of Science, South Valley University, Qena
- Dr.Jawad A.Shoqeir,"Non-Conventional Decentralized Wastewater Treatment Plants as an Alternatives", Al-Quds Uni
- Dr.Seif osman , "Desalination powered by solar Energy - potential in Egypt", Technische Universität Berlin
- Dr. Nisreen Lahham , "GIZ- Nexus Dialogue Programme, Coordinator of the MENA"

Translation: (N/A)



CLOSING CEREMONY

24th of October 2019

14:30 - 16:30

Al-Manara Conference Center (Theatre Main Hall)

- Show by the student of the Baby Home language School.
 - Key Outcomes of Cairo Water Week 2019 and Way Forward to CWW2020, Dr. Eman Sayed, Executive Director of CWW2019 .
 - Short Film.
 - Honoring the winners of the different competitions .
 - Best Graduation Projects.
 - Best Applied Research Competition.
 - 3 Minutes Thesis Competition.
 - The National Competition of Water Conservation (Farmers Best Practices competition.
 - STEM School Students (Young Innovators)
 - Head of CWW Scientific Committee (on behalf of the Scientific Committee)
 - Closing Speech, H.E Dr. Mohamed ABDEL-ATI, Minister of Water Resources and Irrigation, Egypt.
- Master of the ceremony: Ms. Raghdha Mounier.

Translation: (English-Arabic)

HIGH LEVEL

EVENTS

HLE01: Second Meeting of the OIC Water Council

21st – 22nd of October 2019

09:30 to 16:30

Hall: (Amazon River Hall)

(Closed Meeting – By Invitation)

Convener (s): Organization of Islamic Cooperation (OIC), Ministry of Water Resources and Irrigation (MWRI).

Description:

The meeting will be held on 21st and 22nd of October 2019 on the sidelines of the Cairo Water Week 2019.

The OIC Water Council aims at activating cooperation among the OIC member states in the field of water, in addition to following up the efforts and progress achieved in this regard. The second meeting of the council is considered an attempt to put countries on the right track to implement their national water strategies under the general framework of the OIC vision. The meeting hopes to produce concrete conclusions and recommendations focusing on shared priorities that will work as guidelines for countries in cooperation.

The program of the second meeting of the OIC Water Council includes a meeting of senior officials of the member states of the Council on the 21st of October 2019, to discuss the most important issues of shared interest and concern such as capacity building, monitoring networks, water saving in agriculture sector as well as resources mobilization to enhance cooperation. This will be followed by a one-day meeting on the 22nd of October, for the ministers to come up with important decisions on motivating cooperation among OIC member states.

The meeting would provide an opportunity for OIC organizations to introduce their most important activities, related to OIC water vision contributing to the development of programs to activate cooperation among countries in the field of water. The meeting will be attended by some international organizations as observers to come up with definite programs for enhancing cooperation among the OIC countries.

Translation: (Arabic - English - French)

HLE02: Presidential Infrastructure Championing Initiative, Africa Wide Inter Ministerial Meeting

21st of October 2019

09:30 to 16:30

Hall: (Zambezi River Hall)

(Closed Meeting – By Invitation)

Convener (s):

- Arab Republic of Egypt.
- PICI-NEPAD.

Co-convener (s): Republic of South Africa

Chairman: Dr. Mohamed Abdel Atty, Minister of Water Resources and Irrigation (Egypt)

Co-Chair: Mr. Jackson Mthembu, Minister in the Presidency (South Africa).

Reporter: Dr. Nader El-Masry

Description:

The meeting will consider the Technical Report of the Technical Task Team Project Status Report (TTT). The ministers will also present all obstacles and constraints that might hinder the smooth project implementation. Inter-Ministerial Project Status Report will be developed to be presented to the PICI Head of states.

Keynote Speaker(s):

- Mr. Mustapha Kouraba, Minister of Public Works and Transport (Algeria), Missing Link of the Trans-Sahara Highway.
- Mr. Mustapha Kouraba, Minister of Public Works and Transport (Algeria), Optic Fibre Project (Algeria-Niger-Nigeria).
- Mr. Modeste B Lukwebo, Minister of Planning (DRC), Kinshasa-Brazzaville Bridge Road and Rail Project.
- Dr. Mohamed Abdel Atty, Minister of Water Resources and Irrigation (Egypt), Navigational Line from Lake Victoria to the Mediterranean Sea.
- Mr. James Macharia, Minister of Transport, Infrastructure, Housing and Urban Development (Kenya), LAPSET (Lamu Port, South Sudan and Ethiopian Transport).
- Mr. Chidi Izuwah, PICI Focal Point, Trans-Saharan Gas Pipeline Project.
- Ms. Paula Ingabire, Minister for ICT, Unblocking of ICT Broad Band and Optic Fiber Projects.
- Ms. Gnounka diouf, (Senegal), Dakar-Ndjamena-Djibouti Road and Rail Project.
- Mr. John Mutorwa, Minister of Works and Transport (Namibia), International Logistics Hub.
- Mr. Jackson Mthembu, Minister in the Presidency, (South Africa), North-South Road and Rail Corridor.

Panelists:

- Dr. Mohamed Abdel Atty, Minister of Water Resources and Irrigation (Egypt).
- Mr. Jackson Mthembu, Minister in the Presidency (South Africa).
- Dr. Ibrahim Assane Mayaki, CEO of the AUDA NEPAD Agency.

Translation: (English - French)

HLE03: Egyptian Dutch Water Advisory Panel Meeting

23rd – 24th of October 2019

09:30 to 16:30

Hall: (Zambezi River Hall)

(Closed Meeting – By Invitation)

Convener (s): Egyptian Dutch Water Advisory Panel.

Description:

The meeting will be held on 23rd – 24th of October 2019 on the sidelines of the Cairo Water Week 2019 and it will tackle the follow up of the panel activities and the new cooperation programme between Egypt and the Netherlands.

The Egyptian-Dutch Advisory Panel on Water Management has a long history of supporting and promoting the cooperation between the two governments since it was established in 1976. The panel is chaired by the Egyptian Minister of Water Resources and Irrigation and the Dutch Minister of Infrastructure and Water. It includes members from different ministries relevant to water sector on both Egyptian and Dutch sides.

Egypt and the Netherlands have many things in common; they are both densely populated countries where most of the economic activities, including agriculture, take place in the delta of an important river system. Adequate land and water management is therefore crucial for the development of both countries, which have some problems in common, including land drainage.

The Egyptian - Dutch cooperation evolved with time to include many aspects in water management including: Water resources policy, planning and strategy, Participatory approach in water management, Environmental aspects and water quality management, Public-private partnerships for water resources infrastructure management, Information transfer and public awareness, Capacity development, Institutional development, Socio-economic aspects, and Climate change and coastal zone protection.

The objective of the Meeting includes: to continue the dialogue on the progress of the partnership and provide an update on completed and/or running activities, studies and projects; to exchange information and knowledge regarding the three themes of the Memorandum of Understanding signed between the two ministries, namely, Integrated Coastal Zone Management (ICZM), Rural Sanitation and Wastewater Management, and Water and Agriculture and; to discuss future actions and the plans of the panel for 2019/2020.

Translation: (N/A)

HLE04: Meeting of the High level Joint Committee of Agriculture and Water in the Arab Region

23rd – 24th of October 2019

09:30 to 16:30

Hall: (Senegal River Hall)

(Closed Meeting – By Invitation)

Convener (s): *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).*

Coordinator: Dr. Hammou Laamrani.

Description:

The meeting will be held on 23rd – 24th of October 2019 on the sidelines of the Cairo Water Week 2019.

The League of Arab States and the Arab Organization for Agricultural Development (AOAD), in collaboration with FAO and ESCWA are organizing the first meeting of the High Level Joint Committee for Water and Agriculture in the Arab Region in response to the resolution of the First Arab Joint Ministerial Council of Water and Agriculture, which adopted the Cairo Declaration and was held along the Land and Water Days Regional Conference on 4 April 2019. The high level joint committee is the technical arm of the joint Ministerial Council of Water and Agriculture that elaborates regional policies and programs to ensure proper coordination and coherence between water and agriculture policies. Aside from establishing the policy action framework and programming priorities for the water-agriculture nexus in the Arab region, the high level joint committee will develop an action plan for the five years to come. The thematic focus of the first meeting will be “Mechanisms for sustainable water resources allocation for the agricultural sector in the Arab region”. The debate will be inspired by sharing of experiences and a regional policy paper on sustainable and innovative mechanisms of water allocation. The ultimate objective is to achieve food security and water resources sustainability through coordination, coherence and integration between sectorial water and agriculture policies in the Arab region.

Translation: (English - Arabic)

HLE05: League of Arab States Meeting of the Restricted Committee on Guidelines for Cooperation on Shared Water between Arab Countries

22nd of October 2019

09:30 to 14:00

Hall: (Danube Hall)

(Closed Meeting – By Invitation)

Convener (s): League of Arab States (LAS), Economic and Social Commission for West Asia (ESCWA).

Description:

The meeting will be held on 22nd of October 2019 on the sidelines of the Cairo Water Week 2019.

The event is an intergovernmental meeting of high level representatives of three countries, Egypt, Kingdom of Saudi Arabia and Sudan. The meeting objective is to discuss the draft guidelines of cooperation between Arab countries on shared water. The meeting is a follow up on the decision of the Arab Water Ministerial Council and is supported by ESCWA.

Translation: (N/A)

SIDE EVENTS

SE01: 2nd African Young Water Professional Forum

21st – 23rd of October 2019

09:30 to 16:30

Hall: (Mekong River Hall)

(Closed Meeting – By Invitation)

Convener (s): AFRWG of the ICID, ENCID, ICID, ESCWA, Ministry of Water Resources and Irrigation (MWRI).

Description:

The meeting will be held on 21st to 23rd of October 2019 on the sidelines of the Cairo Water Week 2019.

Owing to the success of the 1st Af-YWPF, the forum has grown to attract more than 570 members from all African countries, thus becoming an important platform at the African continent for capacity building of Africa's future leaders in water-related sectors. Thus, keeping in mind the importance of the Af-YWPF, the MWRI of Egypt, AFRWG of the ICID, ENCID, ICID and ESCWA are working collaboratively to organize the 2nd Af-YWPF at the CWW 2019. The proposed five-day forum will include the forum meeting, three days training workshop and two days to converge with activities of the Cairo Water Week to give YP's the opportunity to engage with experts and stakeholders in the water sector. The Forum catering for Young Water Professionals of diverse backgrounds including utility, government, research, and private consulting and industry engagement will be an action-packed 26 hours, spread over a 3-day period. During this span, key eminent (and experienced) resource persons, drawn from the academics and the professions, will be invited to have 15 hrs. of contact/training/interactive sessions with Af-YWP; split into different hands-on-training workshops and seminars.

Translation: (N/A)

SE02: Kids` Hub “Young Water Ambassadors”

22nd – 24th of October 2019

09:30 to 16:30

Hall: (Outside Area)

Convener (s): Ministry of Water Resources and Irrigation (MWRI), Ministry of Culture, Ministry of Youth & Sports, Ministry of Education, European Union (EU).

Description:

The meeting will be held on 22nd to 24th of October 2019 on the sidelines of the Cairo Water Week 2019.

The children can play a significant role in the future of water resources management, in accordance with their evolving capacities and increasing autonomy, to be engaged in the future decision-making processes.

When children learn to communicate opinions, take responsibility and make decisions, they develop a sense of belonging, justice, responsibility, and cooperation.

In CWW 2019, we worked alongside kids to ensure their active participation in the conference and to have their voices heard. The Ministry of Water Resources and Irrigation will organize the 2nd edition of the “Kids Hub” this year, in cooperation with Ministry of Culture, Ministry of Youth & Sports, Ministry of Education and European Union. The event aims to raise the children awareness on water challenges; and to encourage them to disseminate the water conservation messages to the children everywhere. Many activities and competitions related to water will take place on the margin of the forum: lectures, a literary workshop, painting activities and puppet shows.

SE03: Status Quo of the Egyptian Water Higher Education, Research and Training: The Center of Excellence for Water

24th of October 2019

09:30 to 16:30

Hall: (Congo River Hall)

Convener (s): American University in Cairo (AUC).

Co-convener (s): Alexandria University, Ain Shams University, Beni Suef University, Zagazig University, Aswan University, Temple University, Utah State University, University of California at Santa Cruz, Washington State University.

Chair: Prof. Hani Sewilam, Lead Scientist, Center of Excellence for Water

Co-Chair: Prof. Kirti Rajagopalan, Washington State University

Facilitator: Prof. Yasser Elshayeb, Chief of Party, Center of Excellence for water

Reporter Prof. Walid El Barki, Associate Director, Center of Excellence for Water

Description:

The Center of Excellence for Water aims at boosting Egyptian Higher Education, Research and Training, in the field of Water Sciences and Engineering. Since its start, the CoE partners (more than 20 partners from Government, Universities, Research Centers, Private Sectors and Foundations) have been working to study the status-quo and capacities of the Egyptian Higher Education and Research Institutions. An in depth needs assessment has been carried out by the CoE and its results reveals interesting facts, potentials, and needs for Higher Education curricula, Research Grants, and Training (Capacity Building).

The workshop will be divided into two main sessions, the status-quo of Higher Education, research and capacity building, and challenges in relation to the Egyptian Water Strategy within the Egyptian Strategy for Sustainable Development, and the way forward for the Center of Excellence to address those challenges and filling the gaps

Opening:

The opening session will start by two presentations from the Lead Scientist and Chief of Party of the Center Water of Excellence for Water on the water challenges in Egypt and the concept of the COE.

Session I:

The second session is devoted to introducing the components of the COE and how the COE will be a platform of cooperation between university, industry, private and public sectors in research, education and capacity building. The session will include four presentations and open panel discussion.

- Representative of the US universities
- Acting Director of the COE
- Two Egyptian university professors

Session II:

The first session has the objective of highlighting the gaps between academia and industry in terms of research and education. This session will include four presentations and open panel discussion. The speakers are:

- Representative of the private sector.
- Representative of the public sector.
- Two university professors.

Translation: (N/A)

SE04: Advanced Water Accounting: Training for Water Accounting Analyst

24th of October 2019

09:30 to 16:30

Hall: (Mekong River Hall)

(Closed Meeting – By Invitation)

Convener (s): Food and Agriculture Organization (FAO)

Co-convener (s): IHE, IWMI, MWRI-WA unit

Description:

Water accounting (WA) refers to the systematic study of the hydrological cycle and the current status and future trends in both water supply and demand. Beyond the simple accounting of volumes and flows, it also focuses on issues relating to accessibility, uncertainty and governance of water. Therefore, WA is a critical tool to support any initiative aiming at addressing the challenges of water scarcity. Water auditing goes a step further than water accounting by placing trends in water supply, demand, accessibility and use in the broader context of governance, institutions, public and private expenditure, laws, and the wider political economy of water in specified domains. (FAO, 2016). FAO regional project funded by Sida on “Implementing the 2030 agenda for water efficiency/productivity and sustainability in the NENA region” (hereafter Sida-NenaAgwaterSustain project) under the Near East and North Africa Water scarcity initiative is using WA to inform strategic planning.

The training targets people already familiar with Water accounting and aims to introduce advanced water accounting to practitioners who will be responsible of the analysis and packaging of information to decision makers.

A typical water accounting team should have analysts who can interpret the information revealed by the water accounting and what it means for problems/opportunities in management and policies. This training targets WA analysts of water accounting teams and is the first of a series of training –face to face and virtual- that aim to provide them with the tools for their role.

In the training, some of the water accounting results produced in the context of the SIDA-Nena Agwater Sustain project will be used as practice materials. The participant will discuss the results from different type of water accounting exercises, how they facilitate the understanding problems/opportunities and inform management or policy implications. This review will also help decide and frame the next phase of water accounting.

This activity will start in the context of the Cairo Water Week, with a first introductory and will be completed for the project participants with practical's in Egypt in the following few days.

Translation: (English-French)

SE05: Water Governance and Finance in Water Sector

20th - 21st of October 2019

09:30 to 18:00

Hall: (Senegal River Hall)

(Closed Meeting – By Invitation)

Convener (s): European Union (EU).

Co-convener (s): The Union for the Mediterranean (UfM).

Description:

Keynote Speeches

- H.E. Ambassador Nasser Kamel Water (AMCOW).
- EU representative.
- H.E. Dr. Mohamed Abd El-Aty , Minister of water resources and irrigation of the Arab Republic of Egypt.

The proposed event shall be a high level event to discuss Mediterranean & Egyptian files including UfM vision and plan to achieve sustainable development and issues related to sustainable finance in water infrastructure, and mainly focusing on EIP, EFSD and possible Cooperation between EU and AFIs. The event shall serve as a technical follow up /spinoff event to the UfM Ministerial Conference on Water. Finally, the event shall be an excellent opportunity to promote the Foreign Affairs Council conclusion on sustainable water finance.

Day 1

- Sustainable Financing for the Mediterranean Water Sector:

Based on the UFM Ministerial declaration on Water, an agreement to engage in new operational and innovative partnerships, including with the private sector, in order to promote the implementation of this UfM Water Agenda, is achieved.

Indeed, in most Mediterranean countries issues related to “insufficient local contractors/consultants capacities to operate the required level of investments”, and “lack of interest from international/European contractors” to engage in these investments worth looking at, and addressing. Also, the water sector in many African countries is undergoing a transitional phase with several structural reforms and interest for Private sector participation, yet very little PPP (or other similar schemes) are successful in Africa. This requires a strategic and direct discussion with the private sector , investors , and international Financing Institutions to discuss the required means to cover the financial gap , key challenges in financial , legal , and institutional terms, means to support Public-Private sector Partnership in the water sector , and the required actions to create an enabling environment to foster local and international partnerships. The Role of EU EFSD/ EFSD+ could be discussed.

Day 2

- Strengthening adaptive capacity building and institutional frameworks:

Based on the UFM Ministerial declaration on Water, a consensus on the importance of the sustainable access to, provision and use of water, and related sanitation arrangements, are key challenges toward sound socio-economic development and environmental protection in the Mediterranean. Therefore, diagnosing the key governance and capacity building bottlenecks leading to a consensual regional water policy framework that offers a means for substantial and measurable

positive impacts towards achieving sustainable livelihood, and to support the development of consensual action plans based on international good practices, is an absolute must. In particular, a need for urgent attention from all stakeholders to address the need to mainstream efforts towards meeting the Sustainable Development Goals and Targets, in particular SDG 6 on Water. To what extent are Governments -overwhelmed by new realities? What are their most challenging technical/ regulatory issues? How can inter-country collaboration at the national level be improved to deal with such multidisciplinary issues towards achieving water related SDGs?

• Development Partners coordination and Harmonization for optimal Water Resources Management:

Based on the UFM Ministerial declaration on Water, a consensus on the importance of the sustainable access to, provision and use of water, and related sanitation arrangements, are key challenges toward sound socio-economic development and environmental protection in the Mediterranean. Therefore, diagnosing the key governance and capacity building bottlenecks leading to a consensual regional water policy framework that offers a means for substantial and measurable positive impacts towards achieving sustainable livelihood, and to support the development of consensual action plans based on international good practices, is an absolute must. In particular, a need for urgent attention from all stakeholders to address the need to mainstream efforts towards meeting the Sustainable Development Goals and Targets, in particular SDG 6 on Water. To what extent are Governments -overwhelmed by new realities? What are their most challenging technical/ regulatory issues? How can inter-country collaboration at the national level be improved to deal with such multidisciplinary issues towards achieving water related SDGs?

• Ensuring Water Security and Climate resilience for All:

Promoting integrated Water Resources Management and effective sustainable and integrated water governance is an essential element to ensure adequate water management. Strengthened water governance at all levels is essential for long term stability. It requires appropriate institutions, reliable data, capacity building, awareness raising and funding. It should foster sustainable, durable, climate resilient water management as well as the consideration of interlinkages between water, energy, food security and ecosystems. Therefore, active cooperation between regional and international institutions and organizations, national and local authorities, communities and civil society to this end, including by drawing on existing best practice and initiatives, is an absolute must. Indeed, the EU could be a potential key supporter in this regards.

Translation: (English-Arabic-French)

SE06: World Water Council – 70th Board of Governors Meeting

20th – 23rd of October 2019

09:30 to 16:30

Hall: (Triumph Hotel)

(Closed Meeting – By Invitation)

Convener (s): World Water Council (WWC).

Description:

The World Water Council, the honorary sponsor of CWW, decided to organize its 70th Board of governors meeting in Cairo on the sidelines of CWW2019. The meeting will be held during the period from 19-23 October 2019 and will include the Task Force meeting, the ISC meeting, the Bureau meeting and the 70th BOG Meeting.

The World Water Council is an international multi-stakeholder platform organization whose mission is to mobilize action on critical water issues at all levels, including the highest decision-making level, by engaging people in debate and challenging conventional thinking. The Council focuses on the political dimensions of water security, adaptation and sustainability. The World Water Council catalyses collective action during and in between each World Water Forum – the world's largest event on water.

SE07: Training Course Program on Integrated Water Resources Management

20th – 24th of October 2019

09:30 to 16:30

Hall: (National Water Research Center)

(Closed Meeting – By Invitation)

Convener (s): Ministry of Water Resources and Irrigation (MWRI), Organization of Islamic Cooperation (OIC).

Description:

This training course in Integrated Water Resources Management is designed to overcome the lack of capacity to manage the water in integrated manner. It allows the present and future managers to share the understanding and demonstrating principle, practice and tools used in designing and evaluating the responses to water resources management problems. This course is conducted under the framework of the Organization of Islamic Cooperation (OIC) water vision kicked off in 2009 to strengthen the collaboration of the Islamic member states to address water challenges faced by the Islamic world. The Egyptian Minister of Water Resources and irrigation Mohamed Abdel-Atty announced this training course during the Fourth Session of the Islamic conference held in Egypt in October 2018 as a contribution from Egypt to Implement the OIC water Vision. The course will be organized by the National Water Research Center, the Research entity of the Ministry of Water Resources and Irrigation in Egypt. The main objectives of the course are:

- Increase knowledge about different concepts and tools for IWRM and evaluation.
- Develop skills and knowledge required for urgent needs in the water resources sector.
- Support and stimulate the application of Integrated Water Resources Management (IWRM) in the applicants' home countries of the Islamic world
- Allow present and future managers from the Islamic member states to effectively communicate as experts from different disciplines to share knowledge and best practices.

SE08: Promoting Urban Nexus in the MENA Region

20th of October 2019

09:30 to 16:30

Hall: (Mississippi River Hall)

(Closed Meeting – By Invitation)

Convener (s): Nexus Dialogue Programme/ GIZ.

Co-convener (s): The League of Arab States.

Chairman: Dr. Nisreen Lahham, NDP, Coordinator of MENA Region.

Co-Chair: Dr. Hammou Laamrani, Senior Expert at LAS.

Reporter: Mohammad Ali/ GIZ.

Keynote Speaker(s):

- Mr. Ruth Erlbeck, GIZ Cairo Office - Cluster Coordinator- Presentations on Urban Nexus Approach.
- Dr. Nisreen Lahham, GIZ- Nexus Dialogue Programme, Coordinator of the MENA Region: Presentation on the Nexus Dialogue Programme.
- Eng. Muhieddin Tawalbeh, Manager of Energy Efficiency & SolarThermal Division, National Energy Research Center/ Royal Scientific Society, Jordan- Presentation on MINARET Project.
- Dr. Jauad El- Kharraz, Head of Research, MEDRC Water Research- Presentation on Urban Nexus Project.
- Dr. Almotaz Abadi, UfM, Managing Director, UFM Secretariat- Presentation on Urban Nexus Project.

Panelists:

- Dr. Dalia Sakr, Executive Director, Green Building Council.
- Dr. Maged Mahmoud, Technical Director, RCREEE.
- Dr. Hasan Mouelhi, Research associate, TU Berlin- El-Gouna.
- Mr. Hasan Allam Holding-private sector/Egypt
- Dr. Karima Attia, MWRI (Egypt)

Description:

The objective of this workshop is to discuss the way forward to apply Urban Nexus approach in the MENA region at local government level, through reforming governance structure and developing favorable framework conditions.

This is to be achieved through providing basic knowledge on the Urban Nexus Approach, presenting good practice case studies from Asian cities and from within the MENA region and suggesting a general framework for reforming governance structure and developing favorable framework conditions to apply Urban Nexus in the region.

This workshop targets high level executives from Egyptian governmental entities of: water, energy and urban planning, representatives of governorates/municipalities and relevant professional from Academia and the private sector. Besides, representatives of International organizations working on Urban Nexus projects will present these projects with lessons learnt from these projects.

Translation: (English-Arabic)

SE09: The 20th Meeting of the Joint Authority for the Study and Development of the Nubian Sandstone Aquifer System

23rd of October 2019

09:30 to 15:00

Hall: (Zambezi River Hall)

(Closed Meeting – By Invitation)

Convener (s): Joint Authority for the Study and Development of the Nubian Sandstone Aquifer System (NSAS-JA, NWRC), National Water Research Center (NWRC).

Description:

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.

Translation: (N/A)

SE10: Fine Art Gallery

21st of October 2019

09:30 to 16:30

Hall: (Outside Area)

Description:

The Cairo Water Week Fine Art Gallery is a gathering of distinguished artists who promotes a consistent artistic direction by curating a contemporary expression that conveys an optimistic and colorful view of life. The Gallery is conducted under the auspices of H.E. the Minister of Water Resources and Irrigation and will include more than 30 pieces of Art related to water and environment.

EXHIBITION

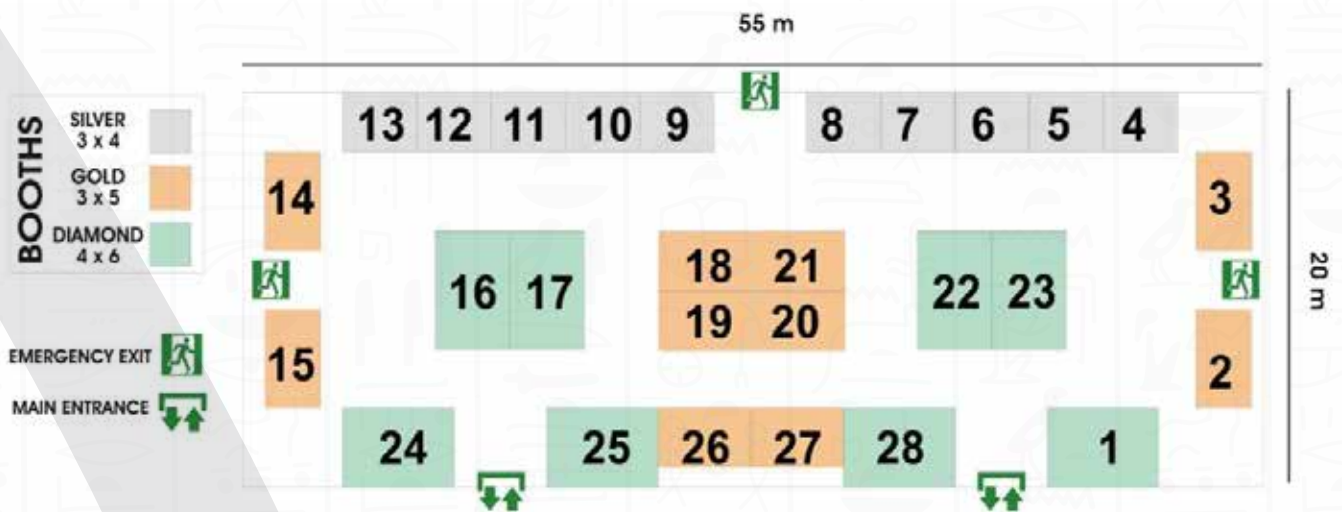
Exhibition hours

The Exhibition is located in the ground floor level, at **Hall: (Outside Area)**.

Welcome you to visit the booths during the following times:

Sunday **12:00 - 18:00**

Monday, Tuesday, Wednesday, Thursday **09:30 AM - 16:00 PM**



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Diamond

1. Home Pure Co.
2. Allweiler Farid Hassanein Pumps Co.
3. Technical Erection & Construction Company (Tec-Com) & Sigmainvest Czech Republic
4. Itqan Trading Agencies Co.
5. The Food and Agriculture Organization (FAO)
6. Field Irrigation Development Project Management Unit (PMU)
7. Planning Sector – MWRI

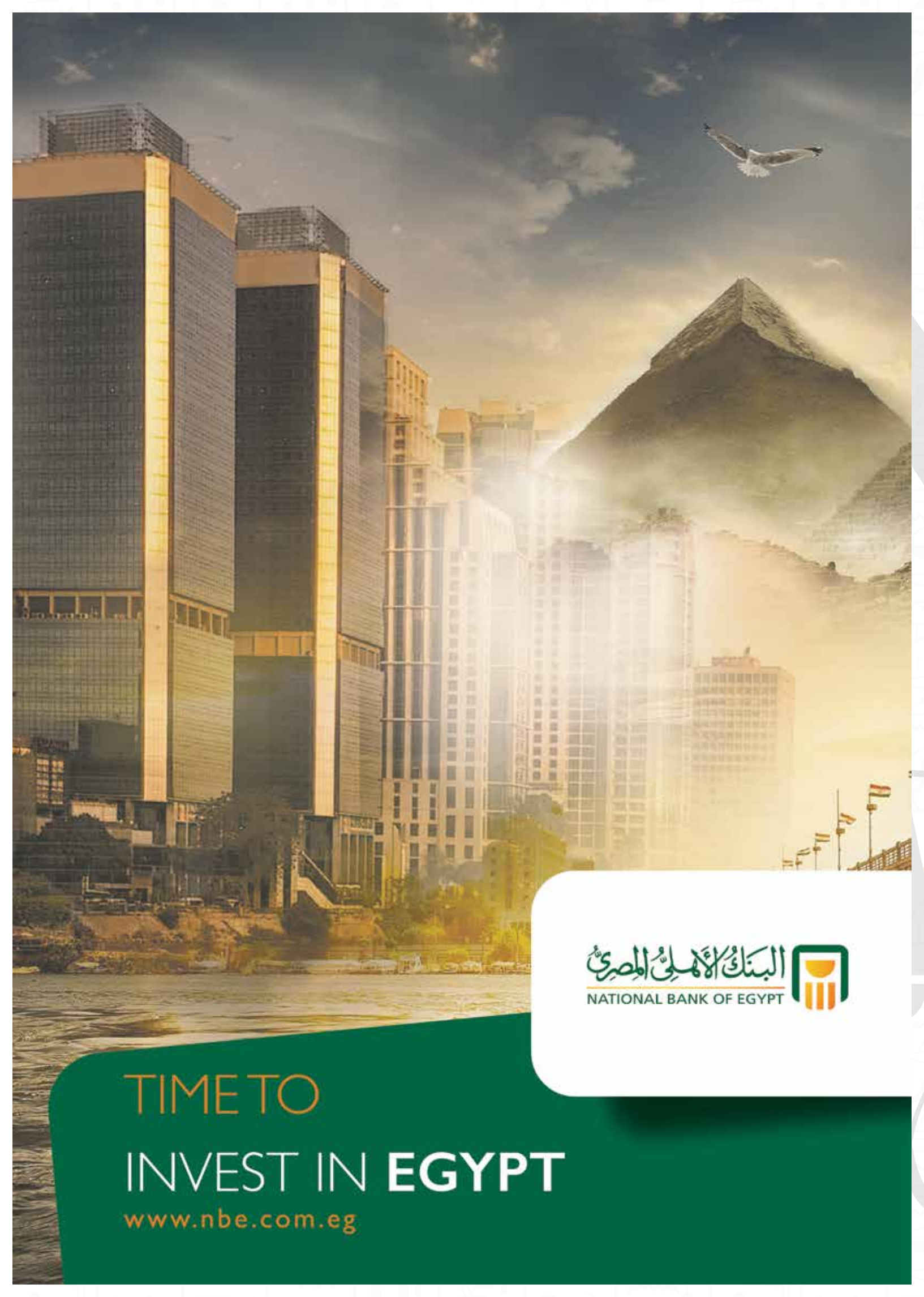
Gold

1. Edge Pro for Information Systems Co.
2. Ningbo Yaofeng Hydraulic Electrics CO.,LTD (China)
3. The National Water Research Center (NWRC)
4. Giga Systems Co.
5. World Meteorological Organization (WMO)
6. National Organization for Military Production
7. Netherlands Water Partnership (NWP)

Silver

1. The Arab G-Wadi Network for Water Resource Management (MUSCAT - OMAN)
2. Firnas Shuman Co.
3. Nile Basin Capacity Building Network (NBCBN)
4. The Permanent Joint Technical Commission (PJTC)
5. Archimarine for contracting Co.
6. Shira for Trade and Agencies Co.
7. October University for Modern Sciences and Arts (MSA)
8. Maadi foreign Trade Co.
9. Alwasail Industrial Co.
10. Stem Schools.





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TECHNICAL TOURS

Cairo Water Week 2019 is offering a number of Technical visits that will be organized during the event. These visits will enable the participants to experience and learn more about the water projects in Egypt. The description of the technical study tours is as follows:



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. NFC is examples of lateral cooperation projects between MWRI and development partners. NFC provides tools to utilize the available hydrological and meteorological data and seek additional data in order to forecast the annual Nile inflow to Lake Nasser to help decision-makers decide on the release policy for the coming year.

2- Telemetry

Location : Ministry of water resources and irrigation Cairo, Egypt

An important department within the MWRI is the telemetry sector. The telemetry sector operates data-logger based stations in River Nile to monitor inflows and outflows of the Integrated Water Management Districts (IWMDs), 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 provided real or near real time information on water levels and flows. At the pumping stations, in addition to monitoring water level data, the system monitored changes in pump status, operating hours, and flow. Some data loggers also monitor water quality parameters (pH, conductivity, and dissolved oxygen) at some sites.

3- The National Water Research Center (NWRC)

Location: Shoubra El-Kheima, Cairo, EGYPT

The research arm of the Ministry of Water Resources and Irrigation (MWRI), is a center of excellence that possesses the knowledge and expertise in water resources, dedicated to conduct applied research at the highest water policy-making level. NWRC is an inter-disciplinary research Center dedicated to fostering an environment that encourages basic and applied researches planning both traditional water-related disciplines, as well as non-traditional and emerging disciplines. Based upon, NWRC is mandated to provide innovative solutions and communicate them to the end users; therefore, enhance research uptake. NWRC's organization consists of twelve research institutes.

4- Nilometer

Location: Cairo, Egypt

An ancient instrument used to measure the waters of the Nile so Egyptian farmers would know whether to expect famine or flood.

Nilometers were used for measuring water levels as early as 5,000 years ago. The nilometer on Rhoda Island dates

back to 861, when it was built where an older nilometer had been, based on a design by Afraganus, a famous astronomer. The massive measuring stick had markings on it to indicate where the water level was at any given time, information the priests would use to determine what conditions the future held: drought, which would mean famine; desirable, which would mean just enough overflow to leave good soil for farming; or flood, which could be catastrophic.

5- GABAL EL ASFAR WWTP

Location: Cairo, Egypt

The plant will have a treatment capacity of 500,000 cubic meters per day and will cater to the needs of the eastern part of the Egyptian capital, equivalent to a population of about 8 million people.

After construction of this new facility is completed, the Gabal Al Asfar complex will have a treatment capacity of 2.5 million cubic meters per day and will become the largest WWTP in Africa and the Middle East, and the third largest in the world.

6- Seyla, Fayoum

Location: Fayoum, Egypt

The Fayoum, located less than a hundred kilometers from Cairo and with its rich heritage of flora and fauna and archaeology.

In seyla ,Fayoum the government is planning a radical conversion from the usage of traditional irrigation systems to modern ones like a field irrigation system and center pivot irrigation, aiming to bring down the costs of agricultural production and to promote the cultivation of crops that can be grown with much less water.

7- North Coast and Nile Delta

Location: Nile delta, EGYPT

The Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project (ECCADP) aims at supporting the adaptation efforts of Egypt in the North coast and in particular the Nile Delta which is identified by the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report as one of the world's three "extremely" vulnerable deltas in the world.

A study tour to a number of field sites where nature-based techniques were used to adapt to flooding impacts of sea level rise and extreme weather events. Sites are in Kafr Elsheikh governorate.



EXCURSIONS

Cairo Water Week is not only a wonderful opportunity to increase your knowledge and technical experiences, you could also enjoy your stay in Egypt during and after the event period through various leisure and touristic trips for half day or full day as well as the trips that you could enjoy after the conference.



HALF DAY

TOURS

Tour will depart from Al-Manara International Conference Center at 09:00 and return at 14:00

For any questions: Please contact Karnak Travel at: events@karnak.egyptair.com

Note: Minimum group size for the half day is 2 persons .

If less than 2 participants, the cost will increase by \$15 US

(Special prices for groups more than 15 persons)

For reservation, please send an e-mail to: events@karnak.egyptair.com

Or call to inform us the credit card details by phone (+202 26738145 – +202 26738146)

Please refer to your Cairo Water Week participation code in the email.

Great Pyramids & Sphinx

\$50 USD per person

We drive to the Giza Plateau, where the only remaining Wonder of the Ancient World, the Pyramids of Giza still stand. Visit the Pyramids and enjoy panoramic views from the Western Plateau, then continue down the valley where the guardian of this Mortuary complex, the mighty Sphinx lies.

Citadel & Mohamed Ali Mosque

\$45 USD per person

This visit includes the Citadel of the great leader Salah Eldin Al Ayoubi. Explore the ancient Citadel of Salah El Din with its magnificent medieval architecture and the Mohamed Ali mosque.

The Egyptian Museum

\$45 USD per person

The visit will Start at Tahrir Square, in the heart of down town Cairo, where the Egyptian Museum, which holds the greatest collection of Egyptian antiquities in Cairo.

Cairo Coptic Churches & Islamic Mosques

\$35 USD per person

This visit takes you to Old Cairo to view its ancient Islamic, Coptic and Jewish heritage. Stops include the Ben Ezra Synagogue, the hanging church and Abu Serga, the 4th century church believed to be Cairo's oldest church and the spot where the Holy Family, rested at the end of their journey into Egypt.

El Moez Le Din Allah street

\$25 USD per person

El Moez Street in Islamic Cairo, Egypt is one of the oldest streets in Cairo, approximately one kilometer long. The street (shari'a in Arabic) is named for Al-Mu'izz li-Deen Allah, the fourth caliph of the Fatimid dynasty. It stretches from Bab Al-Futuh in the north to Bab Zuweila in the south. The

area around Muizz Street as well as the main street itself contain many historical buildings ranging from the era of Amr Ibn El As to the Tulunid Period, the Fatimid, Ayyubid, Mamluk, Ottoman over to the Mohamed Ali.

Dinner Cruise

Nile cruise – Nile Maxim

\$60 USD per person

Embark on a Nile River Steamer for an open buffet or set menu dinner accompanied by the band, folkloric and belly-dancing show. This is one form of entertainment that should not be missed on a visit to Egypt. The band is great and plays traditional music from the Middle East. The final act of the night was rendered by this young man who showed how a whirling dervish performance. This one should not be missed by all means

Sound & light show at Giza

\$45 USD per person

The Sound and Light Show at the Great The one-hour show begins with the illumination of the Sphinx, who narrates the history of the pyramids and their builders.

Using laser beams and light projections on the walls of the Mummification Temple, desert sands, pyramid walls and the Sphinx itself, a condensed story of Egypt unfolds. The accompanying soundtrack complements the surroundings and the voice of the Sphinx is suitably dramatic and mysterious! After the show your driver/guide will meet you at the gates of the complex to escort you back to your hotel.

Cairo at night

\$25 USD per person

Whether conventional or chic, there are a wide variety of places to have a drink in Cairo by night. Nearly every street in the city also supplies access to a traditional coffee house, which has served as a common male social gathering that dates back hundreds of years.

FULL DAY

TOURS

For any questions: Please contact Karnak Travel at: events@karnak.egyptair.com

Note: Minimum group size for the half day is 2 persons.

If less than 2 participants, the cost will increase by \$15 US

(Special prices for groups more than 15 persons)

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Please refer to your Cairo Water Week participation code in the email.

Egyptian Museum, Giza Pyramids & Sphinx

\$70 USD per person (lunch included)

Buses will depart from Al-Manara International Conference Center at 9:00 and return at 17:00pm

First stop is Tahrir Square, in the heart of down town Cairo.

Next stop is the the Egyptian Musuem, which holds the greatest collection of Egyptian antiquities in Cairo. Lunch will be in a typical Cairo restaurant.

After lunch, we head to the Giza Plateau, where the only remaining wonder of the Ancient Worlds still stands, the Pyramids of Giza. The tour continues to the Western Plateau and concludes with the mighty Sphinx, guardian of the mortuary complex.

Citadel and Khan El khalili Bazaar

\$65 USD per person (lunch included)

Buses will depart from Al-Manara International Conference Center at 9:00 and return at 17:00.

This visit includes the Citadel of the great leader Salah Eldin Al Ayoubi. Explore the ancient citadel of Salah El Din with its magnificent medieval architecture and the Mohamed Ali mosque.

Lunch will be in a typical Cairo restaurant.

After lunch, we head the narrow streets of the Khan El Khalili bazaars, the most popular market in Egypt.

Overday Visit to Alexandria

\$100 USD per person (lunch included)

Buses will depart from Al-Manara International Conference Center at 8:00 and return at 20:00.

The second largest city in Egypt, Alexandria has an atmosphere that is more Mediterranean than Middle Eastern; its ambience and cultural heritage distance it from the rest of the country although it is actually only 225 km from Cairo.

Founded by Alexander the Great in 331 BC, Alexandria became the capital of Greco-Roman Egypt, its status as a beacon of culture symbolized by Pharos, the legendary lighthouse was one of the Seven Wonders of the World. The setting for the stormy relationship between Cleopatra and Mark Antony, Alexandria was also the

center of learning in the ancient world. But ancient Alexandria declined, and when Napoleon landed he found a sparsely populated fishing village.

This tour includes visits to The Roman Theater; Catacombs & Pompey's Pillar; The Greco-Roman (National) Museum; Fort Qaitbey; The Mosque of AL Mursi Abu Al Abbas; Montazah palace and gardens; and the Alexandria Library

Al Fayoum trip & Wadi Al Rayan Falls (Overday)

\$80 per person (lunch included) for min. 2 persons

At 08:00am pick up from Al-Manara International Conference Center and transfer to Wadi Al Rayan, Fayoum

'Wadi El Rayan' is a unique nature protectorate in Faiyum Governorate, Egypt

It is located about 65km southwest of Faiyum city and 80km west of the Nile River. The Wadi has been used for man-made lakes from agricultural drainage which has made a reserve of the two separate Wadi El-Rayan Lakes. The reserve is composed of a 50.90km² upper lake and a 62.00km² lower lake, with waterfalls between the two. Among the springs, there are three sulphur springs at the southern side of the lower lake, with extensive mobile sand dunes. Wadi El Rayan Waterfalls are considered to be the largest waterfalls in Egypt.

In the Pharaonic era, the city now called Medinet el Fayum (City of Faiyum) was called Shedet. It was the most significant centre of the cult of Sobek, the crocodile-god. Faiyum is the source of some famous death masks or mummy portraits painted during the Roman occupation of the area. The Egyptians continued their practice of burying their dead, despite the Roman preference for cremation. While under the control of the Roman Empire, Egyptian death masks were painted on wood in a pigmented wax technique called encaustic—the Faiyum mummy portraits represent this technique. [12] While commonly believed to represent Greek settlers in Egypt, the Faiyum portraits instead reflect the complex synthesis of the predominant Egyptian culture and that of the elite Greek minority in the city.

POST CONFERENCE

TRIPS

For any questions: Please contact Karnak Travel at: events@karnak.egyptair.com

For reservation, please send an e-mail to: events@karnak.egyptair.com

Or call to inform us the credit card details by phone (+202 26738145 – +202 26738146)

Please refer to your Cairo Water Week participation code in the email.

Hurghda

Spanning over 40 km of pristine coastline, Hurghada City has year-round sunshine, incredibly beautiful coral reefs and dozens of exciting attractions in a laid back, relaxed atmosphere. Even though it's known as a top-three diving destination on the planet, it still has something for everyone, even the non-divers: beach fun, extreme water sports, clubbing and golfing are only some of the options you have to choose from. You can also enjoy an amazingly relaxing holiday by booking a treatment or two at one of Hurghada's best Spas. Hurghada is a luxury resort town divided by Sigala, El-Dahar and El-Memsha. Sigala is where you find many seaside resorts, mid-range hotels and plenty of restaurants. South of Sigala, you find luxury resorts. El-Dahar is the older charming part of town with its bountiful bazaar. El Memsha, which means the village road, is the modern part of the city. There are numerous luxury locations nearby, visit Soma Bay, Makadi Bay, and Sahl el Hashish. Considered the capital of the Red Sea Riviera, Hurghada is south of Suez and 550 km from Cairo. You can reach Hurghada by ferry from Sharm-el-Sheikh, the road from Luxor and by the Hurghada International Airport. The temperature is lovely all year round, with Hurghada dry desert climate you should expect large differences in the temperature between night and day, days are hot, while nights can get pretty cold especially during winter months. Temperature can reach highs of 18 C and lows of 42 C.

Price in USD / per night & Egyptian pound / per night

SGL (standard room) 120 \$ 1450 L.E.

P/P in DBL (Standard room) 75 \$ 1015 L.E.

P/P in TPL (Standard room) 73 \$ 900 L.E.

Ticket CAI/HRG/CAI — LE 3600.00

Sharm El Sheikh

With sunshine and warm waters all year round, Sharm El Sheikh is the closest destination to Europe where you can soak up sun, dive amazing corals reefs, and enjoy the sea any time you need a break from routine. The climate is lovely and dry all year long with temperatures ranging between 20Â° and 25Â° C in the winter months, whereas in summer the temperatures go up a little reaching highs of 30 to 35Â° C. Sharm El Sheikh boasts the widest array of fun, exciting and even crazy water and extreme sports: besides diving, snorkeling, sailing, wind and kite-surfing, you can even try sky diving or parachuting from a helicopter on your next holiday in Sharm El Sheikh. Moreover, from Sharm El Sheikh, you can easily book trips and safaris into the nearby Sinai desert and discover the amazing St Catherine Monastery, or the majestic Sinai Mountains. You can also head to Sharm for a wellness and pampering holiday; the town is home to Egypt's most famous and professional Spas in Egypt. Add to that endless nights spent at local bars, nightclubs and beaches dancing the night away or the magic of an existing safari into the mountainous Sinai desert landscape and you will know why Sharm is ranked among the best vacation destinations in the world. Sharm El Sheikh has it all to make your holiday an unforgettable experience. Sharm El Sheikh is located on the Gulf of Aqaba, about 300 km from Suez and 19 km from Ras Mohammed National Park. Inside Sharm, Naama Bay is where the action is to be found whereas the Old Town is where you should head for your daily shopping and souvenirs. If you are in the market for some serenity Hadaba (near Ras Um Sid) would be your choice, here you find calm hotels and resorts. To explore the Ras Mohammed National Park and Nabq Protectorate, or to go on diving and snorkelling trips head down to the marina or to one of the town docking ports.

Price in USD / per night & Egyptian pound / per night

SGL (standard room) 175 \$ 2250 L.E.

P/P in DBL (Standard room) 120 \$ 1300 L.E.

P/P in TPL (Standard room) 115 \$ 1000 L.E.

Ticket CAI/SSH/CAI — LE 3700.00

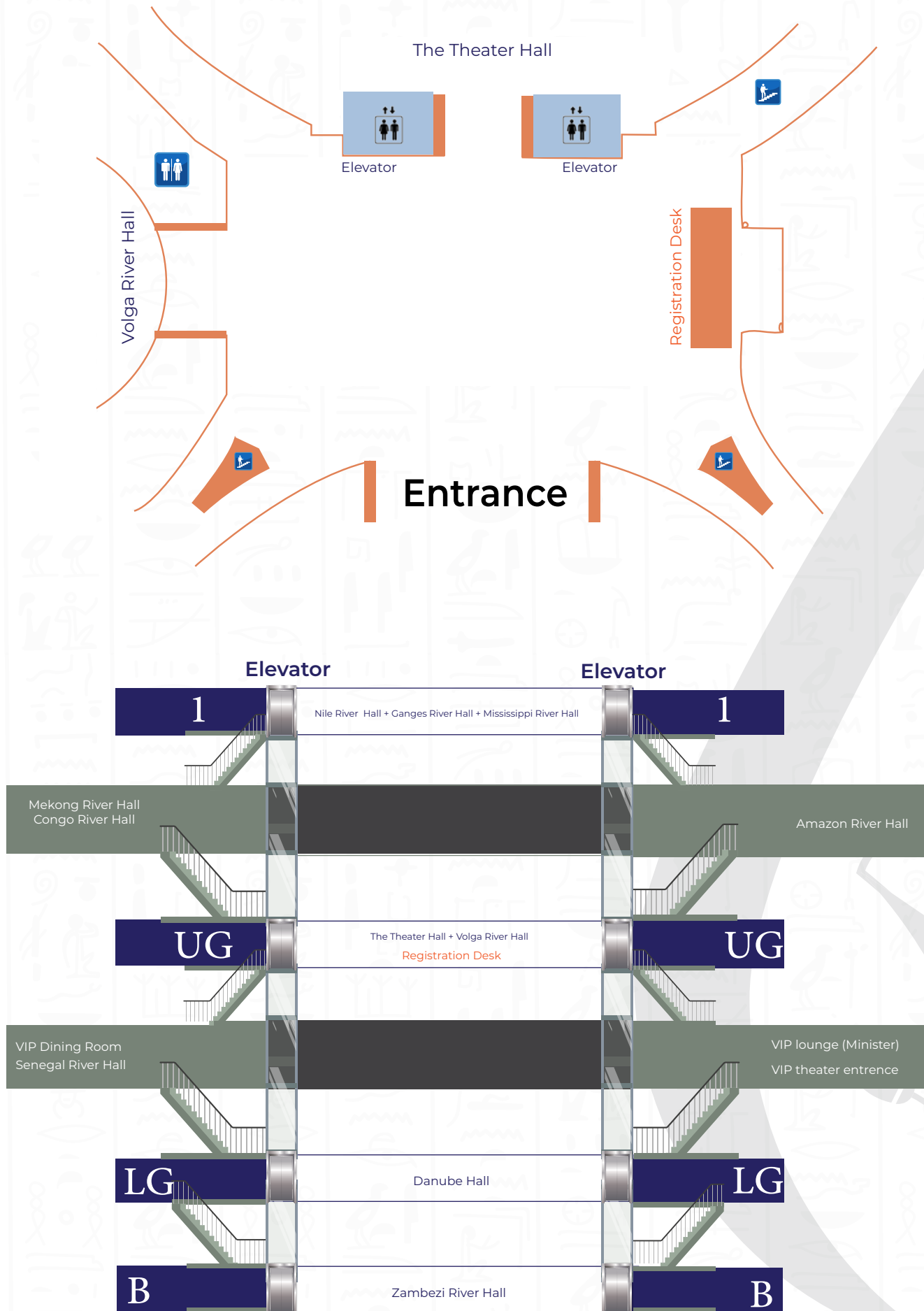


GENERAL INFORMATION

Al Manara International Conference Centre



Entrance F



Cairo International airport

Cairo International Airport (code: CIA) is the main international airport of Egypt, located in the north-eastern part of Cairo city and about 15 kilometres from the heart of the City's business area; it functions as the main hub for the most Airlines. The venue of the meeting (Al-Manara) is around 19 kilometres away from Cairo International Airport. The trip from Cairo International Airport to the conference venue costs approx. EGP100 by taxi. . For more information, please visit: <http://www.cairo-airport.info/>

Airlines

In order to ensure safety and comfort for CWW2019 participating delegations, EGYPTAIR was selected to be the air carrier of the event. EGYPTAIR is one of the world's pioneer airlines. Established in May of 1932, it became the seventh carrier in the world. On July 17th 2008, EGYPTAIR joined the Star Alliance network, the largest airline alliance in the world, to offer its customers better flight connections and more comfortable travel.

To enjoy our discount for your flight tickets on Egypt Air, please send us an email on register1@cairowaterweek.eg including your full name and registration code, a user name and password will be sent to you, then you could use the following link to book your ticket and obtain CWW2019 discount

<https://www.egyptair.com/en/Corporate/Pages/default.aspx>.

This discount is offered for the flights to and from Cairo during the period of the event.

Currency and Exchange

Exchange rate is around 1 USD = 16.31 EGP and 1 EURO = 17.85 EGP.

The most recent exchange rate values may be accessed at the website of the Central Bank of the Arab Republic of Egypt (<http://www.cbe.org.eg>).

Foreign currency can be exchanged at the airport, hotels and currency exchange shops as well as at all banks in accordance with the daily announced exchange rates at that time. ATMs are found not just in banks, but at supermarkets, shopping malls and on the streets.

There is a limit to the amount of foreign currency that one may bring in and should not exceed US\$ 10,000.

Climate

The average temperature in Cairo still reaches a high of 30°C (that is about 86°F) during the day and dip now lower than 18°C (about 64°F) at night.

City information

As well as Uber, many areas in Cairo are easily and inexpensively accessible via the Cairo's Metro system (local metro map depicted on in the following).

Cairo is widely known to be the home of some of the world's richest history and offers endless opportunities to visitors to get closer to history when visiting places such as the Pyramids of Giza, the Egyptian Museum, and Old Cairo famous for “The Complex of Religions” and the historic Khan El Khalili Market.

More detailed information about the sites, can be found online

<https://www.lonelyplanet.com/egypt/cairo/attractions/a/poi-sig/355225>

<https://thingstodoeverywhere.com/visit-cairo-attractions.html>

Local time

Local time in Cairo is GMT + 2 hours.

Telephone calls

In case of emergency, you are requested to contact the registration or information desk or dial 122 for police, 123 for the ambulance and 180 for firefighter service. There are a number of pharmacies throughout the city. Look for the sign "Pharmacy". They are usually open 24-hour.

Electricity

The electrical current in Egypt is 220 volts, 50 cycles alternating current (AC). Wall outlets take Continental style plugs with two round prongs.



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 99 years and contributed to the establishment of 158 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 and in Africa and the Middle East in 2019.
- The bank offers a full range of Sharia-compliant products and services through 38 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 and Russia
- The bank has one of the largest banking networks in Egypt and the Middle East, with more than 620 branches
- Banque Misr became a member in the UN Global Compact for the years 2016, 2017, 2018 and 2019, 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 fourth year



ABOUT EGYPT

Egypt's official name is the Arab Republic of Egypt. The country is situated in the north-east part of Africa, although the Sinai Peninsula forms a land bridge with south-west Asia, and so Egypt is also called a Middle East country. Therefore it's a transcontinental country, which helps it in being a major power in Africa, the Middle-East, the Mediterranean, and the Muslim world.

The country is defined by the deserts and the Nile, the longest river on Earth. The Nile flows north out of central Africa, cascading over cataracts (waterfalls) through Upper (southern) Egypt and Lower (northern) Egypt to the Mediterranean Sea with a mountainous desert to the east, a rolling drier desert to the west, and the vast Sahara to the south.

Egypt is bordered by the Gulf of Aqaba to the east, the Red Sea to the east and south, Sudan to the south and Libya to the west.

With over 100 million inhabitants two-thirds of which are below 29 years, Egypt is Africa's third most populous country after Nigeria and Ethiopia, and it has the highest population in the Arab world. About 95 percent of Egyptians live along the Nile on less than 5 percent of Egypt's territory making the Nile Valley one of the world's most densely populated areas, especially in greater Cairo, Alexandria and other major cities in the Nile Delta.

In Egypt, you will find the contrast of historical layers that range from Ancient Egypt to the Roman Empire, Islamic dynasties to the modern history. In Cairo and most of Egypt's major cities, you'll find high-rise buildings, highways, international hotels, restaurants, mass advertising, western clothing, local clothing, ancient monuments, historical mosques, Coptic churches, and traditional souks; all blending together into the unique mosaic that is modern Egypt. Over the past decade, Egypt has grown to become the modern hub of Africa; the country boasts numerous airports, ports and modern marinas, and major cities are connected through a network of newly built highways. Moreover, telecommunications and Internet services in Egypt are booming, providing the needed infrastructure for the constant development of the country.

Egypt History in words

Ancient Egypt grips the imagination touches the soul and inspires the uninspired. You simply can't escape over 7000 years of historical influence Ancient Egypt enjoys.

The legacy of Ancient Egypt, with names like Ramses, Nefertiti and Tutankhamen and places like the Great Pyramids of Giza and the Sphinx echoes in art, literature and popular culture. When Alexander the Great conquered Egypt, Ancient Egyptian priests proclaimed him pharaoh.

Ptolemy I, one of Alexander's generals, succeeded Alexander as pharaoh and established the Ptolemaic dynasty.

Cleopatra, a direct descendant of Ptolemy I, was the last Greek ruler of Egypt.

During a Roman civil war, Augustus put an end to centuries of the Ptolemaic rule when Cleopatra sided with Marc Anthony against Augustus. After winning the war, Augustus made Egypt a province of Rome. Respecting the tradition of the house of Ptolemy, the Caesars of Rome continued to honor Ancient Egyptian religion.

The continuous homage offered by Greek and Roman rulers to the local traditions of Ancient Egypt is the essence of Greco Roman culture in Egypt. Greco Roman art, architecture and ruins attest to the importance of Egypt in their regard. After the collapse of the Roman Empire, Greco Roman Egypt became a part of the Byzantine Empire until the Arab Muslim conquest.





CAIRO

IN WORDS

Cairo “The City of a Thousand Minarets” is the capital of Egypt and with a total population in excess of 16 million people, one of the largest cities in both Africa and the Middle East. It is also the 19th largest city in the world, and among the world’s most densely populated cities.

On the Nile River, Cairo is famous for its own history, preserved in the fabulous medieval Islamic city and Coptic sites in Old Cairo. The Egyptian Museum in the center of town is a must see (few meters from the conference venue), with its countless Ancient Egyptian artifacts, as is shopping at the Khan al-Khalili bazaar. No trip to Cairo would be complete, for example, without a visit to the Giza Pyramids, and to the nearby Saqqara Pyramid Complex, where visitors will see Egypt’s first step pyramid built by the architect Imhotep for the third dynasty Pharaoh, Djoser.



Though firmly attached to the past, Cairo is also home to a vibrant modern society. The center of downtown Cairo is in Tahrir Square, which is located along the east bank. A hub of tourist activity, the vast and open square contains numerous attractions, including the Egyptian Museum, the Arab League headquarters, and the modern Umar Makram Mosque. Cairo's main thoroughfare, Corniche, extends from north to south along the east bank of the Nile. Located nearby is the narrow strip of land known as Garden City, one of the city's newer residential areas. In the center of the city is the river island of Zamalek (also called Jezerah, meaning "the island"), which contains an upscale residential and commercial neighborhood also known as Zamalek, the Cairo Opera House (founded in 1869), and the Cairo Tower (1961). Three bridges link the island of Zamalek with both banks of the river. The island of Al-Rodah, located to the south, is linked to the mainland by two additional bridges, while another bridge to the north carries road and rail traffic across the Nile. A felucca ride on the Nile is a good way to escape from the busy city, as well as a visit to Al-Azhar Park.



Famous tourists' attractions in Cairo

Cairo contains numerous religious and governmental structures. The ornate architecture of the Citadel, in eastern Cairo, enhances the city's skyline. Begun by Saladin in 1176 and modified and expanded by later sultans, the Citadel is famous for its mosques, museums, and fort. Mohammad Ali Mosque (1830) is particularly notable within the complex, with its storied domes and twin minarets. The Coptic Church known as Al Mu'allaqa, located in Old Cairo, is believed to be the earliest known site of Christian worship in Egypt as well. The church was built in the 3rd century, although it has been almost entirely replaced through successive restorations.

The Pyramids of Egypt, which served as tombs for the Ancient Pharaohs, and the statue of the Sphinx, which dates from 2565 BC and is probably the country's most famous monument, are located just west of Cairo in the suburb of Giza. Despite the fact that most people picture these monuments as being far off into the desert, the Pyramids are actually extremely close to Cairo.

The distinctive and imposing gates of Cairo once part of a wall that encircled the city, these three gates are all that remain of the original eight. Among Cairo's modern buildings are the Cairo Tower, which stands at a height of 187 m (about 614 ft) and offers a stunning view of the Pyramids and the Citadel.

Shopping and malls

Cairo is famous for its popular atmosphere and nightlife, with coffee shops, bazaars, shopping malls, distinctive restaurants, and luxury markets which qualify it to be one of the most attractive tourist destinations in the world. Shopping in Cairo varies among traditional markets, bazaars and the luxury shopping malls, here in below a short guide to the most popular shopping destinations in Egypt.

Khan El Khalili Market (Traditional market and bazaar)

No trip to Cairo would be complete without a visit to Khan Al-Khalili. The bazaar is loud, crowded, colorful, and exciting—full of all kinds of goods and shiny baubles. You can find the typical tourist trinkets here.

The market dates back to the 14th century when Emir Dajaharks Al-Khalili built a large market complex on the site of the Za'afra Tomb, which had been the burial place of the Fatimid rulers of Egypt.

Khan El Khalili is located 12 km from downtown- Cairo. Khan El Khalili market is situated at one corner of a triangle of markets that go south to Bab Zuwayla and western to azbakiyyah.

The skinny lanes of Khan Al Khalili are basically a medieval-style mall. This agglomeration of shops many arranged around small courtyards stocks everything from soap powder to semiprecious stones, not to mention tacky toy camels and alabaster pyramids. Most shops and stalls open from around 9am to well after sundown (except Friday morning and Sunday).

Today the market has been modernized significantly, but there are still portions that display the original Mamluk style architecture, which featured great archways and vaulted ceilings. The market has several restaurants and cafés spread throughout where you can take a break from shopping. Al Fishawy is the oldest café in Cairo, decorated with large mirrors and old furniture. It used to be frequented by Naguib Mahfouz, the Egyptian Nobel laureate author.

There is also an upscale restaurant in the market that bears his name. The market is next to Hussein Square, the garden in front of Hussein Mosque. This square also offers many cafes and cheaper restaurants.

Shopping malls

Egypt witnessed in the last decade, as in many mega-cities, the reshaping of public space through the creation of new shopping malls and recreation places. This went hand in hand with the 'gentrification' of certain areas of the city of Cairo. We can say that there's at least one mall in every district in Cairo such as Mall of Egypt, Cairo Festival City Mall, Citystars Mall and The First Mall.

For more information please visit:

<http://www.mallofegypt.com/>

<http://www.cairofestivalcity.com/en/Home>

<http://www.citystars-heliopolis.com.eg/en>

<http://firstmallcairo.com/>



LIST OF ABBREVIATIONS

AFRWG	The African Regional Working Group
AF-YWPF	The African Young Water Professional Forum
AUC	American University in Egypt
AWA	Arab Water Academy
AWC	Arab Water Council
BoG	Board of Governors
Cap-Net	Capacity Development in Sustainable Water Management Network
CoE	The Center of Excellence
CWW	Cairo Water Week
ECCADP	Enhancing Climate Change Adaptation in the North Coast and Nile Delta Regions in Egypt Project
EFSD	European Fund for Sustainable Development
EFSD	European Fund for Sustainable Development
EIP	European Investment Plan
ENCID	Egyptian National Committee for Irrigation and Drainage
ESCWA	United Nations Economic and Social Commission for Western Asia
ESDF	Egyptian Sustainable Development Forum
EU	European Union
FAO	The Food and Agriculture Organization of the United Nations
GCF	Green Climate Fund
GEF	the Global Environment Facility
GIZ	The German Agency for International Cooperation
ICBA	International Center for Bio saline Agriculture
ICID	International Commission on Irrigation and Drainage
ICWC	International Centre for Water Cooperation
IHE	Delft Institute for Water Education
IMC	Inter-Ministerial Committee Meeting
ISC	International Steering Committee
IWMI	International Water Management Institute
LAS	League of Arab States
MWRI	Ministry Of Water Resources and Irrigation
NBCBN	Nile Basin Capacity Building Network
NENA	Near East and North Africa Regional
NWRC	National Water Research Center
OIC	Organization of Islamic Cooperation
PICI	Presidential Infrastructure Champion Initiative
RAED	Arab Network for Environment and Development
SciDev-Net	Science and Development Network
SDGs	Sustainable Development Goals
SIDA	Swedish International Development Cooperation Agency
SPIS	Solar Power Irrigation System
STEM	Schools for Science, Technology, Engineering and Mathematics
UFM	Union for the Mediterranean
UN	United Nations
UNESCO	The United Nations Educational, Scientific and Cultural Organization
WA	Water Accounting
WWC	World Water Council
WMO	World Metrological Organization

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