



3rd Mediterranean Water Forum

January 22nd-24th, 2018

Cairo, Egypt

*Water sharing & Cooperation
Future for the Mediterranean*



Union for the Mediterranean
Union pour la Méditerranée
الإتحاد من أجل المتوسط



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1. BACKGROUND

Initiated in Marrakech (2011, Morocco) and held subsequently in Murcia (2014, Spain), the Mediterranean Water Forum has been put forth as a regional event that brings together the main stakeholders in the Mediterranean water community.

This forum, to be organized prior to each edition of the World Water Forum, has the mission of mobilizing the water community around the Mediterranean focusing on the geo-political, geo-environmental and geo-economic agendas related to water aspects directly and indirectly, in order to achieve the regional integrations and building synergies with the global Agenda on SD.

Given its specificity as an inter-continental crossroads, a target region for water scarcity and a hot spot of the effects of climate change, the Mediterranean region is as well is a dynamic platform to a large number of solutions and experiences on water issues that can be highlighted during World Water Forum. This version of the forum came under the political support of the UFM and during the year of Success in term of reaching agreement on the water issues under the UFM framework.

The 3rd Mediterranean Water Forum will be held in Cairo (Egypt) from January 22nd to 24th under the theme *“Water Sharing & Cooperation: Future for the Mediterranean”* under the coordination of IME and the Union for the Mediterranean, with the support of the National Water Research Center (NWRC) from Egypt.

Held every three years and in alignment with the themes defined for the 8th World Water Forum, the 3rd Mediterranean Water Forum will target specific themes for the Mediterranean region, which will be coordinated by the main stakeholders, following the regional kick-off workshop held in Monaco on July 11th, 2017 with the support of the Fondation Prince Albert II de Monaco.

During the activities of the 3rd Mediterranean Water Forum, other major subjects and initiatives will be discussed and debated, such as the UfM Agenda approved in Malta, the 5+5 initiative, Food Security, Water Policy/Water Security.

The results of the work groups’ activities, the panel and other events will serve to significantly enhance the regional report prior to its presentation during the 8th World Water Forum.

Furthermore, this 3rd Mediterranean Water Forum should contribute to making water on the highest political agenda at Global, regional and a national level.

The 3rd Mediterranean Water Forum was organized with the financial support of:

- The National Water Research Center (NWRC) from Egypt and its partners
- The Secretariat of the Union for the Mediterranean (UfMs)
- The Fondation Prince Albert II de Monaco

Regional or national organisations coordinated the thematic session groups under the general coordination of IME and UfMs:

- The Centre for Environment and Development for the Arab Region and Europe (CEDARE)
- The Confederación Hidrográfica del Segura/Ministry of Agriculture and Fisheries, Food and Environment, Spain (FIEA)
- The Euro-Mediterranean Water Information System (EMWIS/SEMIDE)
- The Global Water Partnership – Mediterranean (GWP-Med)
- The Institut de Prospective Economique du Monde Méditerranéen (IPEMED)
- The Mediterranean Cities Network (MEDCITIES)
- Mediterranean network of Basin organisation (MENBO)
- The Office National de l'Electricité et de l'Eau Potable (ONEE)
- The Regional Activity Centre of UNEP-MAP (PLAN BLEU)
- The TYPASA group of independent consulting engineering firms



2. FORUM AGENDA

Agenda

Monday, 22 January 2018	
10:00 – 15:00	Technical Visits (NWRC Facilities in El Kanater)
10.00 – 17.00	Pre-Registration AIDA Foyer
17:00 – 18:00	<p>Side Event 5+5 Dialogue: Water Strategy in the Western Mediterranean</p> <p>Welcome remarks</p> <ul style="list-style-type: none"> - HE Mr. Joseph Mizzi. Minister of Energy and Water Management of Malta - Mr. Hachmi Kennou. Executive Director. Mediterranean Water Institute (IME) - Mr. Eduardo Orteu. Current holder of the rotatory presidency of the Technical Working Group on Water of the 5+5 Dialogue. Ministry of Agriculture and Fisheries, Food and Environment. Spain. <p>Round table discussion: Funding water cooperation in the Mediterranean region: National and Institutions’ perspectives</p> <ul style="list-style-type: none"> - Chairman: Mr. Miguel García Herraiz Roobaert. Deputy Secretary General (UfM) <p>Closing remarks: Mr. Eduardo Orteu. Spain</p>
18:15 – 19:15	<p><u>High level panel by invitation</u> “Climate Change Impacts on Water Resources: Adaptation and Mitigation Measures”</p> <p>Opening remarks: “Updated information and knowledge for climate changes and their impacts on water resources worldwide” by Dr. Mohamed Ahmed</p> <p><u>Roundtable discussion:</u></p> <ul style="list-style-type: none"> - Prof. Mohamed Abdel Motaleb, President of NWRC - HE Mr. Joseph Mizzi, Minister of Energy and Water Management - Malta - Mr. Eric Tardieu, Technical Secretary, Global alliances for Water and Climate, General Secretary of INBO - Mrs. Milagros Couchoud, President of IME - Mr. Miguel García-Herraiz Roobaert, Deputy Secretary General – UfMs - Amb. Khaled Shamaa, Ministry of Foreign Affairs – Egypt - Ambassadors of Mediterranean Countries <p style="text-align: right;">Moderator: Prof. Alaa Abdel Motaleb Reporter :Dr. Mohamed Shaban</p>
19:15 – 20:15	WELCOME RECEPTION

Tuesday, 23 January 2018				
08:00 – 09:00	REGISTRATION			
09:00 – 10:10	<p><u>Opening Ceremony</u></p> <ul style="list-style-type: none"> • Prof. Mohamed Abdel Motaleb, President of NWRC • Mr. Miguel García-Herraiz Roobaert, Deputy Secretary General – UfMs • Mrs. Milagros Couchoud, President of IME • Mr. Diego Escalona, Head of Cooperation, EU Delegation to Egypt • H.E. Ali Al Ayed, Ambassador of Jordan in Egypt • Video Message from His Serene Highness Prince Albert II of Monaco • HE Mr. Joseph Mizzi, Minister of Energy and Water Management of Malta • HE Mr. Mohamed Abdel Atty, Minister of Water Resources and Irrigation of Egypt 			
10:00 – 10:15	<p>Keynote Speech</p> <ul style="list-style-type: none"> • Mr. Loïc Fauchon, Honorary President of WWC presented by Mr. Hachmi Kennou 			
10:15 – 10:30	<p>Participation of the Mediterranean to the 8th World Water Forum of Brasilia</p> <ul style="list-style-type: none"> • Mr. Hachmi Kennou, Executive Director of IME • Mr. Almotaz Abadi, Managing Director - UfMs 			
10:30 – 11:00	EXHIBITION OPENING			
	COFFEE BREAK			
11:00 – 12:30	<p><u>Panel (1)</u> “Water resources as a source of cooperation rather than conflict: How the transboundary water resources management should be a source for cooperation towards improving the people’s quality of life of different nations”</p> <p style="text-align: right;">Moderator: Dr. Tahany Sileet Reporter: Eng. Inas Ahmed</p>			
12:30 – 14:00	LUNCH			
	Thematic Mediterranean Working Groups - 8th WWF			
14:00 – 16:00	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center; vertical-align: top;"> <p>WG1: CLIMATE Water and climate change adaptation and mitigation <i>Piloted by CEDARE and Plan Bleu</i> AIDA</p> </td> <td style="width: 33%; text-align: center; vertical-align: top;"> <p>WG2: PEOPLE Integrated sanitation for all <i>Piloted by IME and ONEE</i> SALON VERT</p> </td> <td style="width: 33%; text-align: center; vertical-align: top;"> <p>WG3: DEVELOPMENT Water/Energy/Food/Ecosystems Nexus <i>Piloted by GWP-Med and TYPSA</i> VERDI</p> </td> </tr> </table>	<p>WG1: CLIMATE Water and climate change adaptation and mitigation <i>Piloted by CEDARE and Plan Bleu</i> AIDA</p>	<p>WG2: PEOPLE Integrated sanitation for all <i>Piloted by IME and ONEE</i> SALON VERT</p>	<p>WG3: DEVELOPMENT Water/Energy/Food/Ecosystems Nexus <i>Piloted by GWP-Med and TYPSA</i> VERDI</p>
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16:00-16:15	COFFEE BREAK			
	Thematic Mediterranean Working Groups - 8th WWF (continuation)			
16:15 – 18:15	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center; vertical-align: top;"> <p>WG4: URBAN Reuse in the Mediterranean and its impacts on territories <i>Piloted by Ipeded and MedCities</i> SALON VERT</p> </td> <td style="width: 33%; text-align: center; vertical-align: top;"> <p>WG5: ECOSYSTEMS Managing and restoring for water services and biodiversity Piloted by EMWIS and F-IEA VERDI</p> </td> <td style="width: 33%; text-align: center; vertical-align: top;"> <p>WG6: FINANCE Finance for sustainable development <i>Piloted by MENBO</i> AIDA</p> </td> </tr> </table>	<p>WG4: URBAN Reuse in the Mediterranean and its impacts on territories <i>Piloted by Ipeded and MedCities</i> SALON VERT</p>	<p>WG5: ECOSYSTEMS Managing and restoring for water services and biodiversity Piloted by EMWIS and F-IEA VERDI</p>	<p>WG6: FINANCE Finance for sustainable development <i>Piloted by MENBO</i> AIDA</p>
<p>WG4: URBAN Reuse in the Mediterranean and its impacts on territories <i>Piloted by Ipeded and MedCities</i> SALON VERT</p>	<p>WG5: ECOSYSTEMS Managing and restoring for water services and biodiversity Piloted by EMWIS and F-IEA VERDI</p>	<p>WG6: FINANCE Finance for sustainable development <i>Piloted by MENBO</i> AIDA</p>		
19:30	DINNER			

Wednesday, 24 January 2018			
09:00 - 10:30	Side Event (1) "Utilizing flash flood mitigation measure to support the fragile societies" <i>ENCOLD</i> AIDA	Side Event (2) "Water Ethics and Media" <i>MWRI</i> VERDI	Side Event (3) "Egypt Cooperation With Nile Basin Countries" <i>NWS-MWRI</i> SALON VERT
10:30 – 12:00	Side Event (4) "Adaptation to climate change in the Nile Delta" <i>Global Environment Fund</i> AIDA	Side Event (5) "Unifying Arab and Mediterranean Regions common issues: vision towards sustainable cooperation development" <i>UNESCO and Arab League</i> SALON VERT	Side Event (6) UfM Activities and Role in the Region VERDI
12:00 - 12:30	COFFEE BREAK		
12:30 – 14:00	Synthesis of the thematic working groups		
14:00 – 14:30	Introduction of the draft Mediterranean Regional Report by Mr. Gert Soer		
14:30 – 15:00	COFFEE BREAK		
15:00 – 16:30	<p><u>Panel (2)</u> "Water challenges and available opportunities: source of cooperation": Sharing the water challenges and current opportunities towards facing these challenges</p> <p><u>Roundtable discussion:</u></p> <ul style="list-style-type: none"> - Mr. Jacques Ganoulis, Special State Secretary of Water, Ministry of reconstruction, production, Environment and Energy, Greece - Mr. Yousef Awayez, General director of Strategic Planning, Palestinian Water Authority - Immaculada Paniagua brieva, Head of Water and Sanitation, Spanish Agency of International cooperation for Development, Spain - Mr. Ali Kchouk, Director of the Bureau of Planning and hydraulic balances, Ministry of Agriculture, Water resources and Fisheries, Tunisia - Mr. Almotaz Abadi, Managing Director – UfMs <p><u>Moderators:</u> Hachmi Kennou, IME Salim Nidal, GIWEH</p>		
16:30 – 17:00	<p>Closing Ceremony: Mediterranean Message to the 8th WWF</p> <ul style="list-style-type: none"> ● General conclusions by Mr Hachmi Kennou ● HE Mr. Joseph Mizzi. Minister of Energy and Water Management of Malta ● Mr. Miguel García-Herraiz Roobaert, Deputy Secretary General – UfMs ● Mrs. Milagros Couchoud, IME President ● Prof. Mohamed Abdel Motaleb, President of NWRC 		
17:30	DINNER		

3. FORUM ACTIVITIES

3rd Mediterranean Water Forum 22-24 January 2018 Hotel Marriot, Zamalek, Cairo

First day: 22 January 2018

1. The Mediterranean Water Forum started with a side event for the 5+5 group. This initiative, which started in 2014, brings together Western Mediterranean countries, namely: France, Italy, Malta, Portugal and Spain. The session discussed water cooperation possibilities between the five countries and the different strategies in favor of sustainable water use. The main objective was to adopt a common strategy for water resource management for 60 projects that will be implemented at national or international levels. Such strategy will make access to necessary funding easier. A group of water experts representing countries, donors and international NGOs have participated in this session.
2. Then, a high level panel took place to discuss three main themes about **climate changes and their impacts on water resources in the Mediterranean countries**. The panel was introduced by Dr. Mohamed Ahmed, the project director of Adaptation to Climate Change in Coastal Zones.

The 3 main themes were:

- International cooperation towards facing the different impacts of climate changes on the various water resources.
- Adaptation versus Mitigation measures of climate changes impacts
- Financial mechanisms available to face these challenges through mutual support.

Participants in the high level panel:

- H.E. Mr. Joseph Mizzi, Minister of Energy and Water Management of Malta.
- H.E. Eng. Nadia Abdo- El-Behira Governor.
- Prof. Mohamed Abdel Motaleb, President of National Water Research Center (NWRC).
- Mr. Eric Tardieu, President of International Network of Basin Organizations (INGBO)
- Mrs. Milagros Couchoud, President of the Mediterranean Institute of Water (IME)
- Mr. Miguel Garcia-Herraiz Roobaert, Deputy Secretary General Union for the Mediterranean. (UfM)
- Amb. Mr. Khaled Shama- Egyptian MoFA Assistant for Euro-Mediterranean Affairs .
- Other eminent personalities and experts in water resources have also participated, namely, former Water Resources and Irrigation Ministers: Prof. Mahmoud Abu Zeid, Prof. Hossam Moghazy, Dr. Hussein El-Atfy, MP Mr. Hatem Beshat, together with representatives of the Ministry of Foreign Affairs and Ambassadors of number of Mediterranean countries.

The open discussion session revolved around the various short and long term impacts of climate changes on the immediate availability of water resources, on water requirements for various agricultural crops, on the natural environment (ecological) system, on the need for and use of different energy sources and on the expected changes such as the rise of sea level.

The session ended with the following conclusions:

- The necessity to enhance cooperation between Mediterranean countries, mainly in the area of technology transfer, in order to be able to appropriately estimate the expected climate change impacts on water and agriculture in the near future.
- The importance of cooperation between Mediterranean countries to facilitate the access to the financial resources needed for the implementation of the measures and projects of climate change adaptation.
- The need to attach equal importance to both mitigation and adaptation measures in developing countries.

The second day of the forum was opened by welcome speeches by:

- The President of National Water Research Center (NWRC).
- The Deputy Secretary General of the Union for the Mediterranean.
- The President of the Mediterranean Institute of Water (IME)
- The Vice President of the European Commission in Egypt
- The Ambassador of Jordan in Egypt
- The Minister of Energy and Water Management of Malta.
- The Minister of Water Resources and Irrigation of Egypt
- A recorded speech by the Prince of Monaco was broadcasted

The opening speech was given by Mr Hashmi Kennou, the Executive Director of the Mediterranean Institute of Water on behalf of Mr. Loïc Fauchon, Honorary President of the World Water Council

The sessions started with the first panel entitled “Water Resources as a Source of Cooperation Rather than Conflict”. Following is the list of speakers:

- His Excellency, Mr. Mohamed Hegazi gave an introductory presentation on the opportunities and challenges in the Nile Basin. He reminded the tight relationship between Egypt and Nile Basin countries and how trans-boundary cooperation has long existed. He also underlined Egypt’s concern with progress and development in all of the basin countries as long as her water security is preserved.
- Prof. Hesham Bekhit gave an overview about the actual situation concerning the impacts of building and operating the Grand Ethiopian Renaissance Dam (GERD) and its expected consequences on Egypt. He pointed to the risk of decreasing Egypt’s annual water quota during the period of filling the tank near the dam. He explained that several studies in Egypt have proved such a risk and insisted on the vital necessity to cooperate with Ethiopia to

minimize the damage that will be caused by water shortage while filling and operating the dam.

Senior experts in international river water management thereafter took the floor and discussed the issues raised in the presentations:

- Amb. Yasser Srouf insisted on the importance of enhancing cooperation between the various basin regions, mainly the Eastern ones.
- Prof. Mohamed Abdel Motaleb pointed that Egypt and Ethiopia are now working together to find the best measures to operate and manage existing and future infrastructures by the Nile River, with special emphasis on the measures needed while building and managing GERD.
- Dr Hussein Al-Atfy emphasized the need for cooperation in managing trans-boundary water resources between neighboring countries by stressing the fact that the Arab world suffers from severe water resource shortage, which drives it to rely on the resources shared with neighboring countries. He pointed to the various opportunities available to improve water resources in the Nile Basin if these countries agree upon a common plan on how to benefit from such resources.
- Mr. Hachmi Kennou closed the panel discussion by emphasizing the importance of hydro-diplomacy.

After the panel session, six plenary sessions were held to discuss Mediterranean countries' vision about the themes that will be discussed in the World Water Forum, which will take place in Brasilia in March 2018. (Working Groups Report).

2nd day: 23 January 2018

On the second day, a number of breakout sessions were organized in cooperation between various national and international bodies.

1. **The Egyptian Committee of Hydrology (National Division on Large Dams) and the Spanish Commission on Large Dams** have organized a session on how to benefit from run-offs to support fragile and remote communities. During this session, the Spanish have shared their expertise in designing and implementing early warning systems and emergency plans to face flooding threats. Egyptian participants shared their experiences in building small dams to store water for inhabitants of remote regions in Sinai and the eastern desert.
2. The second session evoked the theme of **Water Ethics and Media Role in raising people's awareness about water issues**. The Central Directorate organized the session for **Water Awareness and Guidance** in cooperation with **the Regional Center of Water Uses Ethics at the Ministry**. This session focused on three main topics. The first is water footprint, which is the actual water consumption in the various sectors including imported products in which water is a main element in their production. For the second theme, **the Central Directorate for Water Awareness and Guidance** invited an artist to discuss the role of audio-

- visual media in dealing with water ethics. Emphasis was on the necessity to integrate good practices in water management and preservation in artistic works that target broad audiences. The focus of the third theme was on youth and kids and how they should be sensitized and encouraged to follow good practices in dealing with water by developing educational curricula to include efficient methods and principles of using and preserving water sources.
3. **The Nile Water Sector at the Ministry** organized **breakout session on Egyptian Cooperation with Nile Basin Countries** where it presented an overview about the importance and objectives of establishing a navigational route between Lake Victoria and the Mediterranean Sea. The session also reviewed the various studies that aim at identifying the different environmental impacts of such a project on the concerned countries. It was noted that it was vital that these countries participate and be involved in the studies in order to efficiently deal with any environmental side effects of the project.
 4. The next session organized by the **Global Environment Facility (GEF)** was devoted to the project **'Adaptation to Climate Change in the Nile Delta using Integrated Coastal Zones Management'**. The session included a review of the role of the United Nations Development Program (one of the partners in the project) in dealing with climate change and its impacts on Egypt. GEF referred to its role in backing Egypt to benefit from a package of projects funded by international donors. After that, GEF gave a detailed account of the current project on Adaptation to Climate Change in Egypt, along with the project activities, the measures needed to protect Nile Delta from the effects of climate change and the impact of rising sea levels.
 5. Parallel to the previous session, **UNESCO** and the **Arab League** jointly organized a session entitled **'Unifying Arab and Mediterranean Regions Common Issues: Vision towards Sustainable Cooperation Development'**. During this session, systems and mechanisms of data storage and exchange were highlighted as a key to improve cooperation for sustainable development. The Mediterranean Water Knowledge Platform, a project supported by OIEau, IME was introduced by EMWIS and MENBO. A review was made on the role of scientific diplomacy in facilitating cooperation and transfer of expertise in sharing water information between countries.

The **second plenary session** was entitled **Water Challenges and Available Opportunities: Source of Cooperation**. Roundtable of this session was attended by the following participants:

- Mr. Rémi Touron, Program and International Cooperation Manager in The Rhone-Mediterranean and Corsica Water Agency
- Mr. Yousef Awayez, General director of Strategic Planning, Palestinian Water Authority
- Mr. Teodoro Estrela, Advisor to Spanish Ministry of Agriculture and Fisheries, Food and Environment
- Mr. Ali Khouk, Director of the Bureau of Planning and hydraulic balances, Ministry of Agriculture, Water resources and Fisheries, Tunisia
- Mr. Almotaz Abadi, Managing Director – UfMs

This session discussed the various challenges in the water sector from different perspectives. Priorities to face these challenges were set as follows:

- Water management,
- International and regional cooperation
- Human resources that need to be developed and reinforced through raising public awareness about water security and water scarcity
- Investing in upgrading and developing the infrastructure
- Increasing administrative efficiency of water management
- Supporting water policies in the Mediterranean region

The forum concluded with a definition of a list of recommendations to be raised in the 8th World Water Forum to be held in Brasilia, on October 2018.

It is to be noted that prior to the forum sessions, foreign participants were invited to conduct a field visit to the National Center for Water Research in Kanater. During the visit, Prof. Maha Tawfik, Vice President of the Center, presented the research activities undertaken by the various institutes. Thereafter, participants visited the Hydraulics Research Institute and learned about the natural forms of hydraulic structures in Egypt. The visit then continued to the Environmental Monitoring Center where they discovered its various activities. Participants then discovered the Channel Maintenance Research Institute and learned about the experiments and studies of the Institute in the field of Biogas, which are considered among the leading experiments in biological aquatic weed management.

Arabic translation of this part below

**المنتدى الثالث للمياه لدول البحر المتوسط
22 - 24 يناير 2018
فندق ماريوت الزمالك – القاهرة**

بدأ المنتدى بجلسة جانبية لآلية 5+5 (وهي آلية خاصة بدول غرب المتوسط وهي فرنسا وإيطاليا ومالطا والبرتغال وأسبانيا وفرنسا وإيطاليا ومالطا والبرتغال وأسبانيا وقد تم بدء هذه الآلية منذ عام 2014) لعرض أفاق التعاون في مجال المياه لهذه الدول كما تم استعراض استراتيجية المياه لدول غرب المتوسط لتحقيق الاستخدام المستدام للمياه في المنطقة على أساس تبني الإدارة المتكاملة للموارد المائية على كافة المستويات. ومن خلال هذه الاستراتيجية يتم تيسير الحصول على التمويل اللازم لتنفيذ حافظة المشروعات التي تحتوى على 60 مشروع تنفذ على المستوى الوطنى أو الإقليمى، وقد

شارك في هذه الجلسة مجموعة من خبراء هذه الدول وممثلي الجهات التمويلية والمنظمات الدولية العاملة في مجال المياه.

ثم عقدت جلسة مسائية رفيعة المستوى لمناقشة ثلاث موضوعات هامة في مجال التغيرات المناخية وآثارها على الموارد المائية في دول البحر المتوسط، تناولها العرض التقديمي من السيد الدكتور/ محمد أحمد، مدير مشروع التكيف مع التغيرات المناخية للمناطق الساحلية وهي:

1. التعاون الدولي لمواجهة آثار التغيرات المناخية على الموارد المائية.
2. إجراءات التكيف مقابل إجراءات تخفيف آثار التغيرات المناخية.
3. آليات التمويل المتاحة للدعم المتبادل لمواجهة هذه الآثار.

وقد شارك في هذه الجلسة كل من:

1. معالي السيد/ جوزيف ميتسي - وزير الطاقة والمياه بالمطا
2. معالي السيدة المهندسة/ نادية عبدة - محافظ البحيرة
3. السيد الأستاذ الدكتور/ محمد عبد المطلب- رئيس المركز القومي لبحوث المياه
4. السيد/ إريك تارديو- رئيس الشبكة الدولية لمنظمات أحواض الأنهار
5. السيدة/ ميلاجروس كوشود - رئيس معهد المتوسط للمياه
6. السيد/ ميغيل جارسيا-هيرايروبرت - نائب الأمين العام للاتحاد من أجل المتوسط
7. السيد السفير/ خالد شمعه - مساعد وزير الخارجية للشئون الاورومتوسطية
8. هذا بالإضافة إلى العديد من الشخصيات البارزة والخبراء في مجال الموارد المائية ومنهم السادة وزراء الموارد المائية والرى السابقين: أ.د. محمود أبو زيد، أ.د. حسام المغازي، ود.حسين العطفى والسيد النائب/حاتم باشات وممثلي وزارة الخارجية والساده سفراء بعض دول البحر المتوسط.

ونوقش في هذه الجلسة ما تم استعراضه من آثار التغيرات المناخية المختلفة طويلة وقصيرة المدى، وتحديد قيمة هذه الآثار على الموارد المائية المتاحة حاليا، والاحتياجات الزراعية لمختلف المحاصيل،

وأثار هذه التغييرات على النظام البيئي الطبيعي (الإيكولوجي)، وكذلك على احتياجات واستخدامات أنواع الطاقة المختلفة، وكذلك التغييرات المتوقعة في ارتفاع منسوب سطح البحر كأحد هذه الآثار.

وقد انتهت الجلسة إلى:

1. ضرورة تضافر الجهود من دول المتوسط وبخاصة في مجالات نقل التكنولوجيا للتقدير الدقيق للآثار المتوقعة للتغيرات المناخية في هذه الدول في مجالات المياه والزراعة وبخاصة في المستقبل القريب.
2. أهمية التعاون والمشاركة بين دول المتوسط لتيسير إيجاد مصادر التمويل اللازمة لتنفيذ الإجراءات والمشروعات الخاصة بالتكيف مع التغيرات المناخية.
3. الاهتمام بإجراءات التخفيف في الدول النامية بنفس القدر الذي يتم به الاهتمام بإجراءات التكيف.

وفي بداية اليوم الثاني تم افتتاح المنتدى بكلمات ترحيب من كل من السادة:

1. السيد الأستاذ الدكتور/ رئيس المركز القومي لبحوث المياه
2. مساعد الأمين العام للاتحاد من أجل المتوسط
3. رئيس معهد البحر المتوسط للمياه
4. نائب رئيس مفوضية الاتحاد الأوروبي بمصر
5. سفير المملكة الأردنية بمصر
6. معالي السيد/ جوزيف ميتسي - وزير الطاقة والمياه بمالطا
7. معالي السيد الدكتور/ وزير الموارد المائية والرى المصرى
8. بالإضافة إلى كلمة مسجلة أذيعت لأمير موناكو

لقى السيد/هاشمى كاينو المدير التنفيذي لمعهد البحر المتوسط كلمة الافتتاح نيابة عن السيد/ لوى فوشون الرئيس الشرفى للمجلس العالمى للمياه.

ثم بدأت الجلسات بالجلسة العامة الأولى تحت عنوان "المياه كأساس للتعاون وليس الصراع" وقد شارك بعروض تقديمية في هذه الجلسة كل من:

1. السيد السفير/ محمد حجازى بعرض تقديمي عن الفرص والتحديات في حوض نهر النيل، حيث تحدث سيادته عن الروابط الوثيقة بين مصر ودول حوض نهر النيل، والتعاون بين هذه الدول على مدى التاريخ الطويل، وأوضح اهتمام مصر بالتنمية لجميع دول الحوض طالما لا يتم الإضرار بالأمن المائي لمصر.
2. كما استعرض الأستاذ الدكتور/ هشام بخيت الوضع الحالي بخصوص آثار إنشاء وتشغيل سد النهضة الإثيوبي المتوقعة، وأشار إلى احتمال حدوث نقص في الحصص السنوية لمصر خلال فترة ملء الخزان أمام السد، وأوضح أن مصر لديها العديد من الدراسات الخاصة بذلك ومن الضروري التعاون مع الأشقاء الإثيوبيين لضمان الملء والتشغيل في إطار تقليل الإضرار الناتجة عن نقص المياه.

ثم تم التعقيب على ما تم استعراضه من أعضاء المائدة المستديرة على المنصة وهم مجموعة من كبار الخبراء في مجال إدارة مياه الأنهار الدولية، حيث عقب السيد السفير/ ياسر سرور بالتأكيد على أهمية دعم التعاون في مختلف المجالات بين جميع دول الحوض، وبخاصة دول حوض نهر النيل الشرقي، كما أشار السيد الأستاذ الدكتور/ محمد عبد المطلب إلى أن مصر وإثيوبيا يعملان حالياً معاً للتوصل إلى أفضل الإجراءات لتشغيل وإدارة المنشآت القائمة والمقترحة على النهر، وخصوصاً الإجراءات الخاصة بإنشاء وتشغيل سد النهضة، أما السيد الدكتور/ حسين العطفى فقد تركزت تعليقاته على أهمية التعاون في إدارة الموارد المائية المشتركة بين الدول المتجاورة، وبخاصة لأن العالم العربي يعاني من نقص شديد في موارده المائية ويعتمد غالباً على موارد مشتركة مع دول جوار مختلفة، وأشار إلى أن هناك العديد من الفرص لتنمية الموارد المائية في حوض نهر النيل ويجب البدء في وضع رؤية مشتركة للاستفادة منها، ثم اختتم السيد / هاشمي كينو المناقشات بالتركيز على أهمية التعاون في إطار الدبلوماسية المائية.

ثم عقدت ستة جلسات رئيسية لمناقشة رؤية دول المتوسط في الموضوعات المقرر استعراضها في المنتدى العالمي للمياه بالبرازيل في مارس 2018 (Working Groups Report)

وقد شمل المنتدى أيضا عدة جلسات جانبية عقدت في صباح اليوم الثاني متوازية بتنسيق من عدة جهات محلية ودولية:

6. حيث عقدت جلسة نظمتها اللجنة المصرية للهيدرولوجيا (الشعبة الوطنية للسدود الكبرى)

مع اللجنة الأسبانية للسدود الكبرى عن كيفية الاستفادة من مياه السيول لخدمة مجتمعات صغيرة ضعيفة ومنعزلة، وقدمت خلال هذه الجلسة الخبرة الأسبانية في مجال تصميم وتشغيل نظم الإنذار المبكر وخطط الطوارئ والإجراءات غير الإنشائية لمواجهة خطر السيول، وكذلك التجارب المصرية من خلال إنشاء سدود صغيرة لتخزين المياه لسكان المنطقة المنعزلة في سيناء والصحراء الشرقية، ونوقشت التجارب المصرية والأسبانية خلال هذه الجلسة لتبادل الخبرات.

7. وتطرقت الجلسة الثانية إلى موضوع أخلاقيات المياه ودور الإعلام في رفع الوعي بقضايا

المياه، وقد نظم هذه الجلسة الإدارة المركزية للتوعية والإرشاد المائي بالتعاون مع المركز الإقليمي لأخلاقيات المياه بالوزارة، وقد ركزت هذه الجلسة على ثلاثة محاور رئيسية هي مفهوم البصمة المائية وهو الاستهلاك الفعلي للمياه للقطاعات المختلفة شاملا ما يتم استراده من منتجات يكون الماء عنصرا هاما في إنتاجها، واستعانت الإدارة المركزية بأحد الفنانين لمناقشة دور وسائل الإعلام المرئية والمسموعة في هذا الموضوع، وضرورة الاهتمام بإدراج ممارسات وأساليب ترشيد المياه والحفاظ عليها في النسيج الدرامي للأعمال الفنية التي تخاطب قطاعا عريضا من المجتمع، أما بخصوص المحور الثالث فقد ركز على ضرورة بالنشأ وغرس السلوكيات الإيجابية فيما يخص التعامل مع المياه، وتطوير مناهج التعليم لتتضمن ترسيخ مبادئ الحفاظ على الموارد المائية وحمايتها.

8. وقام قطاع مياه النيل بالوزارة بتنظيم جلسة جانبية عن تعاون مصر مع دول حوض النيل،

حيث تم استعراض مشروع الخط الملاحى من بحيرة فيكتوريا إلى البحر المتوسط، وأهمية هذا المشروع وأهدافه، كما تم عرض ما يتم حاليا من دراسات لتحديد الآثار البيئية المختلفة

للمشروع فى الدول التى يمر بها، وضرورة إلتزام هذه الدول ومشاركتها فى الدراسات حتى يمكن التعامل مع أية آثار بيئية سلبية للمشروع.

9. وتلى ذلك جلسة نظمها المرفق العالمى للبيئة من خلال مشروع التكيف مع التغيرات المناخية فى دلتا نهر النيل باستخدام أسلوب الإدارة المتكاملة للمناطق الساحلية، وقد تضمنت هذه الجلسة استعراض عن دور البرنامج الإنمائى للأمم المتحدة (أحد الشركاء فى تنفيذ المشروع) فى مجال التعامل مع التغيرات المناخية وآثارها فى مصر، كما تمت الإشارة إلى حزمة المشروعات التى ساهم البرنامج فى دعم مصر للحصول على تمويل لها من الجهات والمؤسسات الدولية، ثم تم تقديم عرضاً تفصيلياً عن المشروع الحالى للتكيف مع التغيرات المناخية فى مصر، وما يتم تنفيذه فى المشروع من أنشطة وإجراءات للحفاظ على دلتا نهر النيل من آثار التغيرات المناخية وارتفاع منسوب سطح البحر.

10. وبالتوازي مع تلك الجلسة نظم اليونسكو بالمشاركة مع جامعة الدول العربية جلسة عن التعاون العلمى والمشاركة فى المعرفة لتحقيق التنمية المستدامة للمياه فى دول منطقة البحر المتوسط، وتم خلال هذه الجلسة استعراض أنظمة وأسس حفظ المعلومات وآليات تبادلها كأساس لتطوير التعاون للتنمية المستدامة، كما تم تقديم برنامج المعرفة المائية للمتوسط والمدعوم من نظام معلومات المياه اليورو متوسطى وشبكة منظمات الأنهار فى منطقة المتوسط، وكذلك تم استعراض دور الدبلوماسية العلمية لتيسير التعاون ونقل الخبرات بين الدول فى مجالات تبادل ومشاركة المعلومات والمعارف المائية.

ثم عقدت الجلسة العامة الثانية فكانت تحت عنوان "تحديات المياه والفرص المتاحة" حيث شارك فى المائدة المستديرة لهذه الجلسة كل من:

1.1 السيد/ ريمى تورون، المسئول عن التعاون الدولى فى هيئة المياه الفرنسية لمنطقة رون-المتوسط.

1.2 السيد/ يوسف عويس، المدير العام للتخطيط الاستراتيجى بإدارة المياه بالسلطة الفلسطينية.

1.3 السيد/ تيودورو استريلا، ممثل وزارة الزراعة والثروة السمكية والغذاء والبيئة الأسبانية.

1.4 السيد/ على كشوك، مدير مكتب التخطيط والتوازن المائى بوزارة الزراعة والموارد المائية والثروة السمكية التونسية.

1.5 السيد المعتز عبادي، المدير التنفيذي للاتحاد من أجل المتوسط.

وخلال هذه الجلسة تمت مناقشة التحديات المختلفة في مجال المياه من وجهات النظر المختلفة، وتم تحديد الأولويات لمواجهة هذه التحديات كالآتي:

إدارة المياه، والتعاون الدولي والإقليمي، والموارد البشرية التي يجب تطويرها وتعزيزها من خلال رفع الوعي الجماهيري بقضايا الأمن المائي وندرة المياه، والاستثمار في تأهيل وتطوير البنية التحتية، ورفع كفاءة إدارة المياه، ودعم السياسات المائية في منطقة المتوسط.

واختتم المؤتمر بالوصول إلى مجموعة رسائل محددة من دول المتوسط للمنتدى العالمي الثامن للمياه والمقرر عقده في برازيليا في مارس 2018.

كما أنه سبق إنطلاق فعاليات الملتقى القيام بزياره ميدانية للساده المشاركون من الدول الأخرى للمركز القومي لبحوث المياه بالقناطر حيث قامت السيد الأستاذة الدكتورة/مها توفيق نائب رئيس المركز بعمل عرض تقديمي للأنشطة البحثية التي تقوم بها المعاهد وتلى ذلك زيارة السادة الضيوف لمعهد بحوث الهيدروليكا للتعرق على النماذج الطبيعية للمنشآت المائية في مصر ثم قاموا بزيارة المعامل المركزية للرصد البيئي وتعرفوا على أنشطتها ثم زيارة معامل معهد صيانه القنوات حيث تعرفوا على التجارب والدراسات التي يقوم بها المعهد في مجال Biogas والتي تعتبر من التجارب الرائدة في مجال التخلص الأمن من الحشائش المائية.

3.1. THEMATIC MEDITERRANEAN WORKING GROUP REPORT

Introduction

Water situation in the Mediterranean Region faces many challenges, which differ substantially from country to another; but in common they are hugely affected by water scarcity and particularly threatened by the effect of climate change and water scarcity, population growth, political unrest, armed and other conflicts, environmental pressures, pollution of the Mediterranean Sea, fresh water resources is not always adequate, also need to strengthen institutional environment to proper tackle the water problems.

Climate change may have a disastrous negative impact on available fresh water resources through precipitation reductions depending on the prediction method and the area under consideration. The adaptation to this is a major governance challenge in which all possible efforts, institutional and financial are needed. Where climate adaptation is very much a national issue, the regional component is important for knowledge sharing and regional climate change modelling.

Access to sanitation has been improved during the last decades, but in particular, in the southern part of the Mediterranean there is still much to be done, in particular in the rural areas. Where in the richer countries in the North, operation and maintenance is at a very acceptable level, in the southern and eastern part of the Region, a considerable part of the sanitation system is not operational, due to lack of financial recourses, operational and maintenance staff capacities and inadequate management.

An interesting development is the water-energy-food nexus approach. The Mediterranean Region is on average scarce in water resources, is a net energy importer of energy and net food importer as well. Sectoral approaches (water demand management, more food for water, solar and wind energy may solve part of the problem, but the nexus approach will make investments in new technology more efficient. Benefits from the nexus application are multiple: from security of sectors to social-economic and environmental, including job creation.

As population grows and water needs for population, tourism and industry grow as well; more wastewater may be produced in future. Treating this wastewater and reusing it for multiple purposes such as irrigated agriculture, landscaping, industrial process water, cleaning ... will relieve the pressure on fresh water resources. Until now, treated wastewater is not used on a large scale (except in some countries), but there is a growing interest to use this water. Simultaneous to wastewater reuse, there is also the issue of sludge, which can be, under controlled conditions, a valuable resource to be recycled.

Wetland ecosystems can play an important role in integrated water management. They provide important ecosystem services, which increase biodiversity and protect sensitive water resources in both quantitative and qualitative sense. Ecosystem development should therefore be a component

of water management services. Ecosystems are of great value for the fight against climate change through climate regulation, flood protection and carbon sequestration.

Sufficient and sustainable financing of public water services is crucial for human development and environmental protection in the Mediterranean region. Capacity building is needed for governmental agencies to make projects bankable and attract financing from donors and their own governments. Moreover, civil society engagement in water management is essential and should include a wide array of stakeholders in any phase of a project. Private sector investment should be encouraged and properly regulated.

Six working group sessions were organised on the following priority themes based on the presentation of case studies related to sustainable water resources management issues at the regional level.

1. *Climate change*
2. *Sanitation for all*
3. *Water-Energy-Food-Ecosystems Nexus*
4. *Wastewater Reuse*
5. *Ecosystem Services*
6. *Financing*

Based on the results of the discussions in these sessions, key messages have been formulated which covered all six topics and the political dimension on regional cooperation. They contain messages on regional cooperation, actions to alleviate the impact of climate change, how to implement the nexus approach more widely in the Mediterranean.

The key messages relate to the following issues:

- ▶ **Strengthening of the cooperation between the main stakeholders involved in water sector in the Mediterranean region in coherence with the Water Agenda of the UfMs approved in Malta in April 2017;**
- ▶ **Improving the knowledge base on the thematic themes presented in the Forum, including capacity building on a number of issues and regional networking where needed; sharing of information for the common good.**
- ▶ **Emergence of regional projects in which countries mutually support each other on implementing innovative approaches for complex problems such as climate change, sanitation, wastewater reuse, water-energy-food nexus, ecosystem services and appropriate financing mechanisms.**
- ▶ **Stimulate regional knowledge and know-how transfers and dialogue within as full participatory stakeholder involvement setup.**
- ▶ **Continued need to enhance governance and regulations in the water sector.**

Conclusions of the thematic working group sessions

1. *WG Session on “Climate Change” piloted by CEDARE*

- ▶ The Water Sector is one of the most vulnerable sectors to possible climate change and human induced impacts. The Mediterranean Region and more specifically North Africa and the Middle East is one of the most vulnerable regions in the world to these impacts. With parts of that region being amongst the driest regions in the world, it makes the water sector the most challenging sector to deal with under climate change scenarios. Considering a climate reduced water scenario when dealing with an already water-scarce sub-region or country, under an ever increasing water demand, it becomes inevitable that the region needs to work harder on adaptation mechanisms.
- ▶ The impacts of climate change on sea level rise and especially on low coastal zones on the Mediterranean Sea are becoming issues of great discussion, especially with the potential impact on fresh groundwater. Some of the existing natural features such as sand dunes, and physical structures such as the ones currently installed on the Nile Delta in Egypt for shore erosion protection could serve as a protection against sea level rise impacts. However further studies are needed to investigate potential areas at risk, if sea level rise is to be realized near the Nile delta or other Mediterranean coastal low lands.
- ▶ Adaptation mechanisms to the impacts of climate change and the uncertainties associated with the future predictions require further research to avoid compounded environmental impacts. It also needs robust and integrated water resources management, integrated coastal zone management and proper land use planning. Inherently, this includes environmental impact assessment of proposed mechanisms, socio-economic analysis of proposed solutions, resources demand management, public awareness and behavioural change.
- ▶ A good part of the fresh water available in the Mediterranean Region, in particular in the Nile and Euphrates basins, comes from outside the Region. To implement effective climate change transboundary water adaptation programs, one needs to study the physical, geographical, hydrological, and anthropogenic settings of transboundary river basins. Geopolitical constraints may hamper climate change adaptation substantially and need to be removed.
- ▶ Countries in the Mediterranean should intensively cooperate on downscaling Global Climate Models to a Regional Climate Model, with the objective to get better climate change predictions and adapt regional and national adaptation strategies and actions plans. At the same time a regional map for climate change indicators and vulnerability should be prepared and a Mediterranean network of meteorological stations should be established to improve knowledge sharing.
- ▶ Solar Energy transfer from South to North Mediterranean

2. WG Session on “Sanitation for all” piloted by ONEE and IME

- ▶ The majority of Mediterranean countries have made sustained efforts to improve the sanitary conditions of urban agglomerations and to protect the environment through major projects in the field of sanitation; many of these countries have developed national strategies and programs to improve and set up sanitation infrastructures since the 80s of last century.
- ▶ The dramatic growth in sanitation in many Mediterranean countries requires the implementation of considerable efforts to prevent environmental problems that the coming generations will have to solve.
- ▶ These efforts and strategies are implemented in line with SDG 6 “Ensure access to water and sanitation for all” and are currently directed towards general access to sanitation services, including rural areas, by sharing best and adapted practices from prior experiences. This includes the improvement of treated wastewater reuse as a nonconventional resource that can contribute to mitigating local water shortage.
- ▶ Knowledge acquired by European Southern countries must be shared constructively, if possible at the government level, by public companies, or by the private sector; SDG 17: “Revitalize the global partnership for sustainable development”.
- ▶ More efforts should be made concerning sludge management, mainly through the implementation of sludge strategies for the management, treatment and final destination as a national issue, rather than a local challenge. Sludge should be considered as a valuable product in a circular economy context, to the detriment of landfill solutions.
- ▶ Legislations adapted to local reality should be implemented for reuse and sludge valorisation in order to allow circular economy and sustainable development. At the same time, awareness on the reuse of treated wastewater and the use of sludge should be improved to assure social acceptance of the final products.

3. WG Session on “Water-Energy-Food-Ecosystems Nexus” piloted by GWP-Med and TYPESA

- ▶ Benefits from the nexus application are multiple: from security of sectors to social-economic and environmental, including job creation. However, it is important to make explicit these benefits for a wider acceptance of the nexus approach by means of developing a monitoring framework to evaluate the level of success when implementing nexus applications and by the application of ex-post analysis of specific examples to strengthen the case of the nexus at different levels and scales.
- ▶ Provide targeted support, including structural aspects, for institutions to tackle the difficulties of handling complexity relating to nexus application: this includes paying attention to the allocation of Ministries’ responsibilities and how they affect the nexus application.

- ▶ When applying nexus approaches, there is a need to include different stakeholders from all levels, ensuring their active involvement through appropriate legal and regulatory frameworks.
- ▶ Technology needs to be adequately integrated in all activities to accelerate the meeting of sustainable development objectives.
- ▶ Water professionals need to think beyond the water box and consider options for integrating and synergizing energy and food production aspects as well.

4. *WG Session on “Wastewater Reuse” piloted by Ipemed and Medcities*

- ▶ The link between cities and territories should be reflected upon and projects should be implemented that are adapted to the uses, needs and the local context. A reuse project raises the question of the relevant space in which it fits. When considering reuse, it may, for a periurban area, be more efficient to use decentralized wastewater treatment with natural purification processes, less expensive in construction and maintenance, than necessarily using a "central WWTP" treating the effluents of an entire region. It is therefore essential that all stakeholders (public authorities, the private sector, users, etc.) can work together to design and implement an integrated reuse project. The use of public-private partnerships could be considered, but may not be absolutely required for the success of a reuse project.
- ▶ Beyond reuse: adopting a circular economy strategy. Wastewater recycling helps to create a virtuous economic and ecological cycle; its impacts are multiple and can only be apprehended within the framework of a "nexus" approach. Reuse favours the economic activity by the savings realized by substituting the fresh water by treated wastewater adapted to a specific use (agricultural irrigation, ecological restoration, watering of green spaces, industrial use, etc.). It reduces the human footprint on the environment, contributes to adaptation to global warming, etc. This systemic approach requires consideration of the entire water cycle.
- ▶ North-South, but also South-South cooperation in the Mediterranean should be strengthened and structured. We must continue to value the know-how of some countries in the region, but also learn from the failures. It would be interesting to further structure the cooperation, notably through the launch of a specific Euro-Mediterranean call for projects to target innovative projects (on the use of sewage sludge, for example), of a scientific and/or normative nature (adaptation, generalization or harmonization of standards in force between countries). Emphasis should be placed on strengthening the capacity of local authorities, particularly for the implementation of IWRM, but also on the education of users through a triptych "awareness - explanation - demonstration" to develop the use of treated wastewater. This last point is also essential, as reuse, by increasing the availability of water resources for a given use, must not lead to the wasting of these resources.

5. *WG Session on “Ecosystem Services” piloted by EMWIS and FIEA*

- ▶ Wetland ecosystems can play an important role in integrated water management. They provide important ecosystem services which increase biodiversity and protect sensitive water resources in both quantitative and qualitative sense. Ecosystem development should therefore be a component of water management services.
 - ▶ Ecosystems know no boundaries; they require cooperation and solidarity. The particular nature of water ecosystems and its linkage with the water cycle makes them a very relevant example of how the effects of actions of any sign taken at any place can be found across borders and both at local, regional and even continental scales.
 - ▶ Integrate ecosystem deterioration into pricing of water services. In accordance with the “polluter pays” principle, the cost of deterioration of water ecosystems and its services should be integrated into the pricing policies for every water use sector, in order to collect funding for restoration projects and to discourage unsustainable use policies.
 - ▶ Ecosystems are of great value for the fight against climate change. The ecosystem services of climate regulation, flood protection and carbon sequestration are only a few of the examples that illustrate how healthy water ecosystems can be a cornerstone in the fight against climate change.
 - ▶ Maintaining essential productions requires maintaining ecosystem services. Multiple links have been found between sectors that sustain society in a strict survival sense, such as food production or water supply, and ecosystem services provided by wetlands. Maintaining these ecosystems in good working order is essential to ensure the sustainability of our very means of subsistence.
 - ▶ There will be no achieving the SDGs if we turn our back on the water ecosystems. Water-related SDGs will be achieved while protecting and enhancing wetland ecosystems and the services they provide, or otherwise they will not be achieved at all.

6. WG Session on “Financing” piloted by MENBO

- ▶ Sufficient and sustainable financing of public water services is crucial for human development and environmental protection in the Mediterranean region where there is a lack of data regarding financial flows. Countries should develop sustainable cost recovery strategies before embarking on larger investments.
- ▶ In the planning phase, before making investments, impacts of climate change, climate change strategies have to be assessed, water-energy nexus approaches should be reflected and in general, a holistic approach on water management, including resource management, water service delivery and non-conventional water resources should be implemented.
- ▶ There is a need to find adequate funding mechanisms. Awareness of the international financing instruments and mechanisms is not always available; it is necessary to establish a regional map of financing institutions.

- ▶ In order to achieve “planning independency”, meaning that relevant ministries and agencies will be able to prepare the necessary documentation to make projects bankable and supervise all aspects of project implementation, investments in management are necessary as well. Financing of “water governance” is considered as key-issue.
- ▶ Civil society engagement in water management is essential. A wide array of stakeholders should be involved in all phases of project preparation and implementation. This should involve governmental agencies, municipalities, water service providers, the private sector, the population at large and NGOs. Transparency and open dialogues produce strong benefits.
- ▶ Public funds are limited and subject to many priorities. Private investments in the water sector should be encouraged by promoting public-private partnership and strengthening regulation of the sector. Where this is a deterrent to private investment, necessary legislation should be adopted.

The agendas of the working group sessions are annexed to the report

3.2. *PANEL SESSION REPORT*

3.2.1. HIGH LEVEL PANEL

HIGH LEVEL PANEL

Day: 22nd January 2018

Time: 18:15 – 19:15

Climate Changes Impacts on Water Resources (Adaptation and Mitigation Measures)

The forum brought together high-level participants to discuss three main issues that cover different topics related to climate changes in relation to water resources in the Mediterranean countries. These issues were as followings:

- Importance of international cooperation towards facing the different impacts of climate changes on the various water resources.
- Adaptation versus Mitigation measures and the effectiveness of each type.
- Financial mechanisms towards supporting each other in facing these challenges.

The main features of the Forum included an opening presentation to update information and knowledge for climate changes and their impacts on water resources worldwide as well as different adaptation and mitigation measures implemented worldwide towards reducing risks. After that, open discussion session took place covering the previous three issues.

Distinguished Participants

- **H.E. Mr. Joseph Mizzi**, Minister of Energy and Water Management of Malta.
- **Prof. Mohamed Abdel Motaleb**, President of National Water Research Center (NWRC).
- **Eng. Nadia Abdo** - El-Behira Governor.
- **Mr. Eric Tardieu**, President of INBO
- **Mrs. Milagros Couchoud**, President of IME
- **Mr. Miguel Garcia-Herraiz Roobaert**, Deputy Secretary General UfMs
- **Amb. Khaled Shama** - Egyptian MoFA for UfM.
- **H.E. Prof. Mahmoud Abu Zeid**, Former Minister of Water Resources and Irrigation (MWRI), Egypt, and President of Arab Water Council.
- **H.E. Dr. Hussein El-Atfy**, Former Minister of Water Resources and Irrigation Egypt, and Secretary General of Arab Water Council.
- **H.E. Prof. Hossam Moghazy**, Former Minister of Water Resources and Irrigation Egypt, and Head of Water Department the Faculty of Engineering in Alexandria University.
- **Mr. Hachmi Kennou**, Executive Director. Mediterranean Water Institute (IME).

Moderator: Prof. Dr. Alaa Abdel Motaleb

Reporter: Dr. Mohamed Shaban M. Abusalam

1. OPENING PRESENTATION

Prof. Dr. Alaa Abdel Motaleb, the moderator, welcomed the distinguished guests, scientists, professionals and all those interested in the field of climate changes from all over the world to attend the Forum.

Then, *Dr. Mohamed Ahmed* (MWRI - Egypt) gave a brief presentation to update the information and knowledge for climate changes and their impacts on water resources. The presenter addressed the following points:

- Brief introduction about climate changes principals.
- Climate changes impacts (short and long-term impacts).
- Carbon dioxide capture and storage in relation to the intensive use of fossil fuels.
- Climate changes indicators: Melting glaciers, sea water level rise, and average surface temperatures increased Arctic sea ice is decreasing, extreme events of flood and drought events.
- Impacts of climate change on increasing the crop water requirements.
- Climate change and shore line erosion.
- Impacts on the ecological systems and health sector.
- Renewable (solar and wind) versus fossil fuels.
- Adaptation versus Mitigation measures: Efficient use for water resources; shore protection programs; well-developed infrastructure; using drought tolerant crops (less water consumption).
- Importance of regional and international cooperation.
- Invitation to the Nile Delta region on Wednesday 24 Jan. 2018 at 10:30 AM to see the latest technologies applied in Egypt.

2. OPEN DISCUSSION SESSION

Issue 1: Importance of international cooperation towards facing the different impacts of climate changes on the various water resources

Eng. Ahmed Bahaa Eldin, Head of the Water Sector (MWRI - Egypt), addressed the topics of developing techniques for irrigation networks and how to deal with the monitoring programs. He also indicated the importance of controlling floods that cause problems as those happens regularly in Alexandria, Egypt.

H.E. Dr. Hussein El-Atfy, addressed the importance of taking the socio-economic aspects into accounts especially that the poor are those who pay most of the price related to the climate change risks. It is also important to establish effective early warning systems and this should be included in the development plans on the national levels

Dr. Eduardo Orteu Berrocal, the Ministry of Agriculture and Fishing in Spain. He presented the Spanish experience in effective water management. He indicated that they studied the possible impacts of climate change on water resources. The main objective was to ensure sustainable management for these resources. The basic components were the application of adaptation and mitigation measures; effective use of water resources and water saving programs; raising awareness and farmers' participation on the basin levels. He finally stated the relative importance for creating an efficient dialogue environment for all possible stakeholders.

Issue 2: Adaptation versus Mitigation measures and the effectiveness of each type

Prof. Mohamed Abdel Motaleb, President of National Water Research Center (NWRC), said that the availability of financial resources differ substantially from country to other. There is always debate around both items adaptation and mitigation measures. However, it is important to find a compromise between the two measures taking into accounts the socio-economic aspects on regional/national scale.

Prof. Dr. Alaa Abdel Motaleb, the moderator, He indicated that in some cases, both measures are not always valid. For example, Egypt can only apply adaptation measures to deal with the problem of sea level rise. Another example is the risk of flooding the Nile Delta of Egypt. He was calling participants from countries that have similar problems to share their experience/ knowledge.

Dr. Eduardo Orteu Berrocal, the Ministry of Agriculture and Fishing in Spain. He said that the sea level rise problem is very important for Spain. Therefore, different policies were set to improve the infrastructures to be able minimize the risks.

Prof. Khaled Mahmoud Abu Zeid (CEDARE) supported the idea that we should deal with the adaptation and mitigation measures as equally important topics especially in the developing countries. For example, in the water sector, mitigation is essential. Lifting water requires energy that should be renewable (solar or wind energy) instead of using fossil fuels. The efforts should also cover all other sectors that affect the water sector.

Prof. Dr. Alaa Abdel Motaleb, the moderator, We need maybe to set priorities for the actions needed and consequently allocate the available financial resources for the most urgent/most important actions and this for sure will vary depending on the local conditions for each country.

Mrs. Milagros Couchoud, President of IME, I would like to say that climate is changing by its nature. We may need to concentrate more on the driving forces for these rapid changes that we front now. I would simply say that pollution is the main reason for the problem. We changed our life style dramatically leading to serious exhausted natural resources

(energy, water, environment ...). We have to help nature to be able to reach an equilibrium state. I am clearly against adaptation. Instead, we must struggle pollution. I wish that the international community will work together against pollution. I also believe that modern technology can effectively support these efforts.

Issue 3: Financial mechanisms towards supporting each other in facing these challenges

H.E. Prof. Hossam Moghazy, stated that the international cooperation should be in all aspects related to water resources. In Egypt, special attention should be given to the cooperation with the Nile Basin Countries (NBCs). Cooperation may include but not limited to exchange experiences between these countries.

Mr. Miguel García-Herraiz Roobaert, Deputy Secretary General – UfMs, stated that water and environment are on the focus of our interest and we are ready to receive project proposals from your countries. We should have better communications especially in the field of improving knowledge and infrastructures.

Mrs. Milagros Couchoud, President of IME stated that the general secretary of the **5+5 Group** exerts great efforts for the sake of building capacity in all Mediterranean countries. However, we cannot ignore that the process requires strong political support and that is very clear for all.

Prof. Mohamed Abdel Motaleb, President of National Water Research Center (NWRC), said that for many years now, there is no international policies that are set to be applied on a large scale. Each country has its own plans for example China. In my opinion, we should start working a bit far from the political influences. Building capacity is essential for developing countries. In addition, data/information exchange is very important to alarm the more developed nations in order to reduce their emissions. Again, let us build the capacities and exchange our experiences in the fields of climate change and water resources management.

Mr. Mohamed Nasser Advisor for the Ministry of Foreign Affairs (MoFA), added the importance of technology transfer and providing financial resources to the possible areas of international cooperation. He also indicated that each country should exactly identify its needs based on realistic assessment.

Mr. Mohamed Hegazy, the Ministry of Foreign Affairs (MoFA), added the importance of building alliances between for example between the Nile Basin Countries (NBCs).

H.E. Prof. Mahmoud Abu Zeid and Prof. Khaled Mahmoud Abu Zeid supported the previous ideas.

High Level Panel Participants

H.E. Mr. Joseph Mizzi,	Minister of Energy and Water Management of Malta.
Prof. Mohamed Abdel-Motaleb	NWRC - President
Eng. Nadia Abdo	El-Behira Governor
H.E. Amb. Khaled Shamaa	Ministry of Foreign Affairs - Egypt
Mrs. Milagros Couchoud	IME
Mr. Miguel Garcia	UfM
Mr. Hachmi Kennou	Executive Director. Mediterranean Water Institute (IME)
Mr. Eric Tradieu	INBO
Prof. Mahmoud Abu Zeid	Former Minister of WMRI & President of AWC
Dr. Hussein El-Attfy	Former Minister of WMRI & Secretary General of AWC
Prof. Hossam Moghazy	Former Minister of WMRI
H.E. Amb. Maria Madalina	Portugal
H.E. Amb. Aly Al Ayed	Jordan
H.E. Amb. Talla Fall	Senegal
H.E. Amb. Arturo Avello	Spain
H.E. Amb. Charles Sultana	Malta
H.E. Amb. Mustafa K. Eruygur	Turkey
H.E. Amb. Luidovic Prevost	Director of Business Branch - France
Mr. Wouler Poels	Embassy 1st, Secretary - France
Mr. Felic Longobardi	Director of the Italian Agency - Italy
H.E. Amb. Hassan Al - Omari	Economic Counselor - Jordan
Mr. Hassan El-Amry	Jordan
Mr. Qais Biltagi	Counselor - Jordan
Mrs. Ebru Demircan	Turkey
Mr. Okyanus Akin	Turkey
Mr. Hatem Pashat	Member, Egyptian Parliament
Amb. Mohamed Hegaze	Ministry of Foreign Affairs - Egypt
Mr. Mohamed EL-Gamal	Ministry of Foreign Affairs - Egypt
Mr. Mohamed Nassr	Ministry of Foreign Affairs - Egypt
Mr. Kamel El-Abasiry	Ministry of Foreign Affairs - Egypt
Prof. Alaa Abdel - Motaleb	NWRC - Deputy Chairman
Prof. Alaa Abdin	NWRC
Eng. Mir Mokhtar	NWRC
Prof. Essam Haggag	Consultant
Mr. El-Motazz Abady	UFM
Eng. Ahmed Bahaa	NWS-MWRI
Prof. Khaled Abu Zeid	CEDARI
Dr. Mohamed Ahmed	Project Director - GEF
Dr. Mohamed Shabaan	NWRC
Journalist	Press

3.2.2. PANELS

Panel Session (1)

23rd January, 2018

11:00 – 12:30 am

“Water Resources as a Source of Cooperation Rather than Conflict”

How the transboundary water resources management should be a source for cooperation towards improving the people’s quality of life of different nations”

Keynote Speakers:

1. **Dr. Mohamed Hegazy**, Former Ambassador, Egypt.
2. **Dr. Hesham Bekhit**, Professor of water resources in Faculty of Engineering, Cairo University - Presentation on “Brief Review on the Technical Impacts of GERD on Egypt and the procedures undertaken to communicate among Egypt, Sudan and Ethiopia on the Dam”.

Panelists:

- **H.E. Prof. Mohamed Abdel Motaleb**, President of National Water Resources Center and Former Minister of Water Resources and Irrigation.
- **H.E. Dr. Hussein Al-Atfy**, Secretary General of Arab water Council
- **Amb. Yasser Srour**, Director of Water Affairs in the Ministry of Foreign Affairs, Egypt.
- **Mr. Hachmi Kennou**, WWC Governor.

Moderator:

- **Dr. Tahani Mostafa**, General Director, Nile Water Sector, MWRI.

Reporter:

- **Eng. Enas Ahmed**, Water Resources Engineer, Nile Water Sector, MWRI

Reporting during the session

- **Dr. Tahani Moustafa** opened the session by highlighting the importance of strengthening the cooperation between the riparian states to go beyond the shared waters, therefore win-win solutions will be achieved.
- **Dr. Mohamed Hegazy** highlighted the importance of reinforcing the cooperation between the Eastern Nile Basin countries in all the development aspects by establishing the Eastern Development path, and he emphasized that Egypt is not

against any development projects in Nile Basin countries as long as it doesn't harm Egypt water security.

- **Dr.Hesham Bekhit** presented the situation regarding the impacts of GERD on Egypt.
 - He noted, that there will be filling impacts on Egypt concluded in (34.4 BCM shortage in 3 years filling during average flow and about 68 BCM shortage in 3 years filling during drought period) in addition to reduction in hydropower generation.
 - Also, there will be long term impacts concluded in (139 BCM shortage spread over 14 years during average flow and about 150 BCM shortage spread over 11 years during drought period) in addition to reduction in hydropower generation.
 - He also emphasized the role of Egypt to initiative and present its national studies that address the impacts of GERD to both Ethiopia and Sudan, and the role of Egypt to break the impasse in the implementation of the studies recommended by the IPOE an DOP.

Discussionation:

- **Amb. Yasser Srou** started the discussion by emphasizing the importance of reinforcing cooperation between the riparian stated specially the Eastern Nile countries in line with the international water law .
- **Prof. Mohamed Abdel Mataleb**, underlined that Egypt, Sudan and Ethiopia have to work together to find a way out to better management of all infrastructure specially such a dam (GERD), and to build enhanced cooperation.
- **H.E. Dr. Hussein Al-Atfy**, highlighted the importance of enhancing transboundary cooperation as it represents the only way to face the water challenges in the Arab region. He mentioned that there is a lack of integrated vision between Nile basin countries, and Nile river has a lot of potential and opportunities, so we have to find a solution to overcome the challenges we are face. He also emphasizes the need of solid structure gathering these countries under one umbrella.
- **Mr.Hachmi Kennou**, emphasized the importance of hydro-diplomacy.

Key Messages:

- 1- Enhance dialogue and cooperation among countries on the management of their shared water resources based on the International water law.
- 2- The need to develop a mechanism for dam operation in the Eastern Nile Basin.
- 3- Regional economic integration is a key to achieve sustainable development in the shared basin.
- 4- Facilitate transboundary cooperation is necessary to achieve 2030 agenda.

Panel Session (2)

24th January 2018

15:00 – 16:30

“Water challenges and available opportunities: source of cooperation”

Sharing the water challenges and current opportunities towards facing these challenges

The session focused mainly on presenting the different countries water challenges and the current available opportunities towards facing these challenges.

The session started with a roundtable discussion with the panelist:

- **Mr. Remi Touron**, in charge of International cooperation of the French Water Agency in the Rhone-Mediterranée-Corse Region.
- **Mr. Yousef Awayez**, General director of Strategic Planning, Palestinian Water Authority
- **Mr. Teodoro Estrela**, Advisor, Spanish Ministry of Agriculture and Fisheries, Food and Environment
- **Mr. Ali Kchouk**, Director of the Bureau of Planning and hydraulic balances, Ministry of Agriculture, Water resources and Fisheries, Tunisia
- **Mr. Almotaz Abadi**, Managing Director – UfMs
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Moderators:

- **Mr. Hachmi Kennou**, IME
- **Mr. Nidal Salim**, GIWEH

During the session, the speakers debated to identify common water challenges in order to forward cooperation messages to the Global authorities.

From the fruitful exchanges, it was highlighted that the Top priority is water management, bilateral and regional cooperation is a must, therefore human capital must be strengthened by:

- Raising public awareness related to scarcity, shortage
- invest in infrastructure (finance issues are important)
- more efficiency in water management
- supporting water policy in Mediterranean

Considering the specificities of the Mediterranean region, the following recommendations were proposed:

- The Mediterranean nature makes water so important to us; storms/droughts make our region different from other regions. Countries' agencies, private sector, public institutions are all involved to face these challenges.
- Technologies/practices are specific to each country, each country has its own experience and its solutions to the problems, therefore modern technologies must be adapted to the problems.
- No magic solutions exist to water crisis but there are several solutions on how to share knowledge and how to work jointly.
- We support challenges encountered in each single country as our common challenges.
- Facing water security is a common challenge we should support each other define a route map together in the region.
- River basin management is a way of peaceful and sustainable management.
- Change our mind, introduce new mechanisms, see beyond the river, based on justice and fair approach. (e.g. MEKONG River is a success story).
- All countries of the region should have knowledge of data and projects to build trust in order to ensure useful cooperation

3.2.3. SIDE EVENTS

SIDE EVENT 5+5 DIALOGUE: Water Strategy in the Western Mediterranean.

Monday 22 January 2018

17:00 – 18:00

“Funding Water Cooperation in the Mediterranean Region”

CONCEPT NOTE

The Water Strategy in the Western Mediterranean is an initiative launched in 2014 by Spain and Algeria. Its objective is the approval and implementation of a line of collaboration between the countries of the two shores of the western Mediterranean rim that promotes the sustainable use of water in the region, based on the integrated water resources management at all levels, and taking the river basin approach as the basic management unit.

The Strategy was approved in Algiers in 2015, within the scope of the 5 + 5 Dialogue, which is a cooperation platform that brings together 10 countries on the western Mediterranean shore: 5 in the north (France, Italy, Malta, Portugal and Spain) and 5 in the south (Algeria, Libya, Mauritania, Morocco and Tunisia). After the approval of the Strategy, an Action Plan was drawn up, which consists of 60 innovative projects and initiatives to be implemented at national or regional level. This Action Plan, which was annexed to the Strategy, was adopted at ministerial level on the margins of COP 22 on Climate Change, held in Marrakech in 2016.

Researchers, experts and the United Nations Intergovernmental Panel on Climate Change have shown through the modeling of climate projections that the effects of climate change will seriously affect the availability of water resources in the Mediterranean region, where some countries already suffer from serious water shortages and droughts. Therefore, we will only be able to face the regional water challenges -as described in the Sustainable Development Goals approved by the UN in 2016- and give an effective response to the water security challenge in the Mediterranean basin if we undertake a sustainable management of the available water resources, taking into consideration the environmental, economic and social factors.

An adequate financing of the actions linked to the water cycle and water infrastructures is a sine-qua-non condition to guarantee the viability, effectiveness and sustainability of the water services, necessary for human and economic development, social stability and peace. Likewise, an economic support for technical collaboration and the exchange of

experiences among water administrations at all levels in the region is essential to strengthen water governance systems. It is also a key aspect to effectively plan and manage the scarce water resources, which are particularly subject to an intensive use. An adequate, reliable and sufficient financing of technical collaboration among countries supports and stimulates dialogue on public water policies among decision makers. At the same time, the exchange of technical knowledge is the main engine to undertake water governance reforms in which the region is immersed. Some of the main exponents of these cooperation dialogues in the region are the Water Strategy for the Western Mediterranean of the Dialogue 5+5 and the Water Agenda for the Mediterranean promoted by the Union for the Mediterranean.

The present event brings together a list of experts ranging from representatives of different country governments to associations and institutions operating in the Mediterranean basin, such as multilateral development banks and national development cooperation agencies, in order to discuss the needs of financing the water agenda in the region, both at national and the Mediterranean rim levels.

The conclusions of this event will aim to fuel the discussions taking place during the 3rd Mediterranean Water Forum and contribute to the broader debate raised on water security and technical collaboration as a means to achieve the Sustainable Development Goals, which will be discussed at the World Water Forum in Brasilia, in March 2018.

CONCLUSIONS

The side-event was opened by Mr. Joseph Mizzi, Minister of Energy and Water Management of Malta, Mr. Hachmi Kenno, Executive Director of the Mediterranean Water Institute and Mr. Eduardo Orteu, current holder of the rotatory presidency of the Technical Working Group on Water of the 5+5 dialogue. He works for the Ministry of Agriculture and Fisheries, Food and Environment of Spain.

After the session's opening Mr. Miguel García Herraiz Roobaert, Deputy Secretary of the Union for the Mediterranean (UfM), took the floor to moderate a panel discussion composed of *Eng. Tarek Kombaz, from the Ministry of Water Resources and Irrigation of Egypt*; Mr. Ali Kchouk, from the Ministry of Agriculture, Water Resources and Fisheries of Tunisia, Ms. Inmaculada Paniagua from the Spanish Agency for International Cooperation for Development (AECID), Mr. Teodoro Estrela, Head of the Planning Office of the Júcar River Basin Authority of Spain, Mr. Mouhamed Fadel Ndaw from the World Bank.

The aim was to bring together governmental experts as well as representatives from multilateral development banks and national development cooperation agencies operating in the Mediterranean basin. The panelists addressed the urgent need to mobilize adequate financing for the actions linked to the water cycle and water infrastructures in the region, and receive relevant information of how to access the

available resources. This discussions will also contribute to the broader debate raised on water security and how to achieve the Sustainable Development Goals.

AGENDA

5+5 DIALOGUE: Water Strategy in the Western Mediterranean. “Funding water cooperation in the Mediterranean region”	
17:00 – 17:15h	<p>Welcome Remarks:</p> <ul style="list-style-type: none"> - <i>Mr. Joseph Mizzi</i>. Minister of Energy and Water Management of Malta - <i>Mr. Hachmi Kennou</i>. Executive Director. Mediterranean Water Institute (IME) - <i>Mr. Eduardo Orteu</i>. Current holder of the rotatory presidency of the Technical Working Group on Water of the 5+5 Dialogue. Ministry of Agriculture and Fisheries, Food and Environment. Spain.
17:15 – 17:55h	<p>Round table discussion: Funding water cooperation in the Mediterranean region:</p> <ul style="list-style-type: none"> - Chairman: <i>Mr. Miguel García Herraiz Roobaert</i>. Deputy Secretary General (UfM) <p><i>Part 1: National perspectives</i></p> <ul style="list-style-type: none"> - <i>Representative from Algeria</i> - <i>Representative from Egypt</i> - <i>Representative from Tunisia</i> <p><i>Part 2: Institutions’ perspectives</i></p> <ul style="list-style-type: none"> - <i>Ms. Inmaculada Paniagua</i>. Spanish Agency for International Cooperation for Development (AECID). - <i>Representative from the European Commission (tbc)</i>. - <i>Mr. Osama Hamad</i>. World Bank
17:55- 18:00h	<p>Closing remarks:</p> <ul style="list-style-type: none"> - <i>Mr. Eduardo Orteu</i>. Spain

Side Event (1)

Wednesday, 24 January 2018

09:00 – 10:30

Utilizing Flash Flood Mitigation Measure to support the fragile societies

Organized by: ENCOLD

Moderator: Prof. Ashraf El Asheal

Reporting: Prof. Ehab Kalile

Create an Environment that could sustain the pressures from the needy society and satisfy their needs with preserving the integrity of the environment.

Dr. Enrique Gifres in Spain-cold

Title: "Floods, dams and territory Reflections on Interferences with Other Cross-Cutting Strategies"

Describing the Spanish Safety Program

- Early Warning System on the Basin Scale.
- Emergency Action Plan.
- Other non-structural measures.

There is a joint Flood and Land Management System with various scales of intervention upon the risk assessment studies. It depends mainly on minimizing the risk and reduce the potential hazard with the following activities.

- Mapping and information transfer in real time. This includes dam monitoring and surveillance systems. Different sources use available global data. Uncertainty in data should be reduced as much as possible to increase the positive probability of good decisions. Valid data and its exchange is essential to reduce any conflicts in operation and mitigation measures implemented.
- As accurate as possible to assess risks including extreme events.
- Implement an emergency action plan. There is no such "zero" risk. Climate change must be taken into consideration.
- Land management and use for such action plans and involvement of insurance companies in such process. Appropriate land use to be implemented in probable affected land by flooding.

- The production of Emergency Action Plans (EAP) including that related to evacuation plans.
- Economic studies for the infrastructure plans where upgrades or addition of structures is necessary.
- Involvement of stakeholders throughout the process from an idea to implementation. Participation of non-technical population in implementation would increase percentage of sustainability.
- Social issues are difficult to assess far beyond technical ones. Education is a major factor in improving the sustainability of facing such issues.
- Where countries are involved agreement and working together is the solution as with Portugal and Spain, Principals must be clearly and firmly established when implementing trans-boundary measures.

It is important to note that the added measure must not and should not increase risks and potential hazards instead of reducing them.

Prof. Karima Attia, member of the Water World Council

Title: "Utilizing the Flash Flood Mitigation in Supporting the Fragile Societies"

The arid areas that Egypt usually deal with are arid to extremely arid regions where rainfall is not uniformly distributed over the years and usually have prolonged periods of time. Groundwater is relatively scarce. For these 2 reasons societies are relatively migratory following the water availability. However, flash floods frequency are on the increase potential for the last few years.

Flashfloods studies are:

- Field investigations.
- Topographic Studies.
- Morphological Studies.
- Geological Studies.
- Meteorological Studies locally carried out for lack of data locally and internationally,
- Hydrological Studies implementing lumped, semi-lumped and distribution models (WMS and HEC-RAS WMS models)
- Socio-economic studies.
- Tender documents for mitigation measures.

Mitigation measures:

- Artificial lakes.
- Agriculture depending on greenhouses and drip irrigation technologies.
- Providing Atlases for Flashfloods potential in various governorates.
- Infrastructure structures, rehabilitation of existing ones and protection of wells etc..

- Workshops for public involvement is carried out in the local communities.

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Side Event (2) “Water Ethics and Media”

Wednesday, 24 January 2018

09:00 – 10:30

Organized by the Ministry of Water Resources and Irrigation

The Central Directorate for Water Awareness and Guidance organized, in cooperation with the Regional Center for Water Ethics at the Ministry of Water Resources, a working session. This session was entitled "**Water ethics and the role of media in raising awareness of water issues**" on Wednesday 24 January 2018 in the presence of the artist Afaf Shuaib and several researchers interested in the issues of water information and water ethics.

The working session was devoted to three main themes. The first theme was subject to a presentation by **Hisham Saber, Engineer**, Head of the Central Administration for Water Awareness and Guidance, in which he exposed through key statistics the current water situation or "water footprint" in the Arab Republic of Egypt. An estimated 114 billion cubic meters of water are consumed between agriculture, drinking water and industry in addition to the imported water in the form of agricultural crops of vegetable and fruit.

In another respect, Egypt's share of Nile water remains stable at about 5.55 billion cubic meters of water, which is the main supplier of renewable water in Egypt. It represents 97% of resources, taking into consideration the increasing water needs, the deterioration of water quality and increasing population pressure. This means that Egypt reaches the stage of water scarcity since the water per capita resources have fallen to 600 cubic meters per year. This figure is below the world average of per capita annual water resources based on the United Nations standards of 1,000 cubic meters per year.

The working session also reviewed the major efforts made to protect and rationalize the Nile water through the organization a series of information campaigns to raise awareness of water issues, the publication of several magazines, books, posters, and children's stories, audiovisual activities, ads on various TV channels and radio stations, various cultural competitions on water through radio programs, seminars for awareness raising as well as the launch of a channel on YouTube, the use of social media through the official page of the Ministry of Water Resources and Irrigation on Facebook to sensitize and raise awareness of water issues and conservation, in addition to the existence of a specialized department for receiving and handling complaints and constructive proposals to address them and work on resolving them or drawing the relevant consequences therefrom.

In addition to the above-mentioned actions, there are other efforts to benefit from the role of the scholars of Al-Azhar, the Ministry of Awqaf and the Church in influencing the public and urging it to preserve water and rationalize consumption. Cooperation also involved the General

Organization of the Cultural Palaces, the National Council for Women, the Ministry of Education and the Ministry of Youth and Sports. The preparation and organization of new activities are also being planned to support communication between the Ministry and the other concerned bodies.

Eng. **Hashim Saber** also pointed out that the Central Directorate for Water Awareness and Guidance is carrying out awareness campaigns in various schools in the governorates of the Republic to instill the values of water conservation and rational use in children. During the session, a group of schoolchildren who were exposed to awareness campaigns made a presentation to show the extent to which they have benefited from the campaigns and the positive role they play in this field.

The second theme of the working session was addressed in the speech by **artist Afaf Shuaib** on the importance of water, the need to preserve it, to rationalize its consumption and protect the Nile River from all forms of pollution with targeted drama that greatly influences the target audience.

The session concluded with the third and final theme, which was presented in a speech delivered by **Dr. Hossam Imam**, Director of the Regional Center for Water Ethics and representative of the Ministry of Water Resources and Irrigation, where he stressed the importance of modifying the behavior of individuals, which might lead to misconduct that harms Egypt's water resources. He explained that the process of behavioral change is very difficult and requires great efforts and a lot of to instill values, ethics, and positive behavioral habits, in order to preserve every drop of water. At the end of the meeting, an interactive discussion took place on the raised issues aimed at raising awareness and instilling new and innovative visions and ideas in order to rationalize and conserve water from waste and pollution

Side Event (3)

Wednesday, 24 January 2018

09:00 – 10:30

“Egypt Cooperation with Nile Basin Countries”

Organized by: NWS-MWRI

9:00- 9:05	Introduction	
9:05- 9:35	Establishment A Navigational Route Between Lake Victoria and The Mediterranean Project overview and progress	
9:35- 10:05	Panel Discussion Topics: <ul style="list-style-type: none"> • Resource Mobilization (Phase 2) • Institutional setup for Phase 2 (National/Regional PMU) • Capacity Building for PMU, Focal persons, and others • Countries commitments and ownership of the project • Sharing Costs and Benefits 	Panel members
10:05- 10:30	Open Discussion	Participants

Moderator : Dr. Mamdouh Hassan

PMU Chair : Dr. Tahany Mostafa

Dr. Mamdouh Hassan, the moderator gave brief introduction to the project and introduce the panel members as follows: *Prof. Mohamed Nour Eldin*, professor of Hydraulics, Ain Sham university *Prof. Dr. Khalid Khar Eldin*, Director of institute for Environment, Water Research Center, *Eng. Samir Salama*, Ex-Chair of river transit authority and the presenter, *Dr. Tahani Sleit*, Director of the project management unit (PMU) Dr. Tahani presented the project background , its vision, mission, objectives and progress to date and the way forward. She underlined the benefit of the project on regional economic integration for the Nile Basin Countries especially for landlocked ones.

The panel started discussion about capacity building, sharing cost and bene0ts of the project, resource mobilization, way forward, and preparation in for phase 2. *Eng. Samir Salama* started by confirming that capacity building should go parallel to the progress of

activities for each phase. He also mentioned that each country should be committed to implement part of the project on their own based on assessment of benefits for each. **Prof. Dr. Mohamed Nour** commented that the project alternatives should be reinvestigated during the detailed feasibility study.

Prof. Dr. Khalid Khar Eldin raise the importance of environmental impact assessment and assure that there are many positive impacts and on the other hand, negative impacts are minor. Questions came from the participants about possible disengagement of one of the countries and answer was that it depend on the location of the country weather on the main route or not. Countries on the main route are Egypt, Sudan, S. Sudan, and Uganda are very important for the success of the project. Participants raised the importance of the ownership of the project and the answer was the very important and this is way discussion for phase 2 will be about having regional PMU and the mechanism for report review and target stakeholder.

Prof. Hossam Mogazy, the Ex- Minister of Water resources and Irrigation of Egypt addressed the regional dimension of the project and this is a kind of Mega project that needs a lot of work and cooperation to guarantee the success of the project.

Side Event (4)

Wednesday, 24 January 2018

09:00 – 10:30

“Adaptation to climate change in the Nile Delta”

*التكيف مع التغيرات المناخية في دلتا نهر النيل
باستخدام أسلوب الإدارة المتكاملة للمناطق الساحلية*

Organized by GEF Project

10:30 – 10:35	Opening speech	Prof. Mohamed Abdel Motaleb – President of the NWRC and ACCNDP National Director
10:35 – 10:45	Global CC adaptation issues, economic impacts in Egypt and support to Egypt	UNDP representative
10:45 – 11:05	Overview of the SCCF Project and GCF Project including justification and list of extreme weather events	ACCNDP project manager
11:05 – 11:15	ACCNDP pilot projects and performance under storms	SPA representative
11:15 – 11:25	Scenarios for SLR impacts on Nile Delta and ACCNDP National Observation System	CoRI representative
11:25 – 11:33	Overview of the GCF assistance and potential funding opportunities	EEAA representative
11:35 - 11:55	Discussions / questions	
11:55 – 12:00	Closure	Prof. Mohamed Abdel Motaleb – President of the NWRC and ACCNDP National Director

"Adaptation to Climate Change in the Nile Delta Using Integrated Coastal zone Management Approach"

The guest speakers on the main panel were:

- **Dr. Mohamed Abdel Muttalib**, President of the National Water Research Center and National Coordinator of the Project;
- **Dr. Mohamed Farouk**, Head of Environmental Management, Egyptian Environmental Affairs Agency (EEAA);
- **Dr. Mohamed Soliman**, Director of the Coastal Research Institute;
- **Dr. Mohamed Bayoumi**, Water and Environment Expert, UNDP;
- **Eng. Salah Sarhan**, Egyptian Shore Protection Authority;
- **Dr. Mohamed Ahmed**, Project Executive Director ;
- In addition to many Egyptian and international experts in the fields of water and coastal shore management.

The session started with an opening speech by **Dr. Mohamed Abdel Muttalib**, in which he explained the importance of this project to Egypt and the concerted efforts of the various parties to make the project a success, which had a positive impact on the fast delivery of results. Thanks to this project's fruitful outcomes, another grant of about \$ 31.4 million was approved by the Green Climate Fund.

Dr. Mohamed Bayoumi spoke about the role of the United Nations Development Program in dealing with climate change in Egypt. In his address, he also referred to the cooperation between UNDP and Egypt to initiate projects designed to address the impacts of climate change on Egypt.

Dr. Mohamed Ahmed gave a detailed presentation on the objectives of the project, its stakeholders and its main components which include the following items:

- Natural and cost-efficient protection of low delta areas
- Implementation of a national monitoring system on the Mediterranean shores.
- Capacity-building activities.
- Exploratory study of integrated coastal zone management along the Mediterranean shores.

During the session, **Eng. Salah Sarhan** explained the role of the Egyptian Shore Protection Authority in the project, which consists in the design of protection schemes in Delta and supervising their implementation.

Dr. Mohamed Sulaiman made a presentation during the session in which he explained the effects of the sea level rise on the Delta and how this issue can be addressed by building the national monitoring system. At the end of the session, **Dr. Mohamed Farouk** gave a brief overview of the implementation history of the integrated coastal zone management program.

After these presentations and the successful and productive discussions that followed, the session concluded that current efforts to combat climate change should continue through the project

funded by the Green Climate Fund which is the funding mechanism of climate projects. At the end of the session, **Dr. Mohamed Abdel Muttalib** thanked the participants in the project management and implementation, as well as all the attendees for their fruitful contributions to the session discussions.

Side Event (5)

24th January, 2018

10:30 – 12:00 am

“Science Cooperation and Knowledge Sharing Towards Sustainable Development of Water Resources in the Mediterranean Region”

Organized by: UNESCO & Arab League

The side event was opened by **Dr Ghaith Fariz**, the Director of the UNESCO Regional Bureau for Science in the Arab States. He pointed out the necessity to build a bridge of the water knowledge between Arab States and the Mediterranean Region.

Mr. Hachmi Kennou and **Mr. Hammou Lamrani** supported this idea by insisting on the implementation of new mechanisms of exchanges and regional cooperation was more than necessity.

To illustrate this approach, Regional projects were presented aiming to facilitate the water knowledge sharing in the Mediterranean region

- **Mrs Maroua Oueslalti** from EMWIS and **Mr Ramiro Martinez** from MENBO presented the “Mediterranean Water Knowledge platform” piloted by OIEau and IME supported by EMWIS and MENBO, aims to aims to facilitate the production, harmonization and sharing of water information among key stakeholders in the Mediterranean, starting with implementation in six pilot countries: Jordan, Lebanon, Monaco, Morocco, Spain and Tunisia
- **Mrs Anthi Brouma** from the GWP-Med presented the “Governance and Financing for the Mediterranean Water Sector” project piloted by GWP-Med and OECD, aims to deliver a set of country analysis and a regional action plan to improve the public governance and attract investments to the water sector of the Mediterranean region.
- **Mr Khaled Abuzeid** from CEDARE presented the Arab Action plan elaborated by the Arab Water Ministerial Council

Dr. Ghaith Fariz made a presentation on “Water Security for All: Science Diplomacy for Sustainable Development”. He emphasized that Water security refers to the availability of an acceptable quantity and quality of water for health, livelihoods, ecosystems and production, coupled with an acceptable level of water-risks to people, environments and economies”. Science is the gateway for sustainable prosperity.

3.3. EXHIBITION

The 3rd Mediterranean Water Forum

On the sidelines of the 3rd Water Forum in the Mediterranean, the National Water Research Center (NWRC) organized an exhibition for companies and governmental and non-governmental organizations to showcase the latest major technologies and equipment used in the field of water resources.

The exhibition was opened by Mr. Mohamed Abdel Muttalib, President of the National Center for Water Research, Mr. Miguel Garcia, Secretary General of the Union of the Mediterranean, and Mr. Diego Escalona, Head of the Cooperation of the EU Commission. The exhibition is an important opportunity to learn about the latest technologies and equipment used in water resource management. It is also a platform for the exchange of experiences and joint successful cooperation between the stakeholders in the field of water resources management from the Mediterranean, Arab and African countries in order to improve the quality of life and achieve sustainable development.

The exhibition was attended by 16 specialized entities and companies. The **National Water Research Center** (NRC) participated with a special pavilion presenting the Center's expertise in management and rationalization of water resources. **IME** and **UFM** participated in the exhibition with the most important implemented projects and studies in which they are involved.

Two companies -**Technoscient** and **Zone** - participated in the exhibition by presenting the latest equipment used in the Geographical Information Systems (GIS). **The Egyptian Agency for Space Applications and Remote Sensing** also participated by presenting the latest applications and techniques in the field of Sensing and Space, in addition to **ZEPC**, a company specialized in drilling groundwater wells.

The exhibition was also attended by a number of bodies and departments of the Ministry of Water Resources and Irrigation in Egypt and namely the **Egyptian Shore Protection Authority**, the **Survey Authority**, the **Planning Sector** and the **Regional Training Center**.

The **Arab Water Council** participated in the exhibition by presenting the most important projects and studies carried out in addition to presenting the activities of the Arab Council to support Arab countries in the field of water resources. The **Permanent Joint Technical Commission for Nile Waters** equally took part in the exhibition.

The project of "**Rehabilitation and Development of Rural Infrastructure in Fayoum and Minya**" presented the most important activities to rehabilitate watercourses in 2 pilot areas in Fayoum and one pilot area in Minya. The project which is implemented in the areas of Minya and Fayoum is supported by the European Union with a follow up by the Italian Embassy in Egypt.

A number of **research institutes affiliated to the National Water Research Center** have also participated in the exhibition with projects implemented and supported by STDF in a special pavilion for STDF-supported projects. The pavilion hosted two main projects: (i) "Water Users Participation in the Management of the Sustainable Development Program for the Conservation of the Canals" implemented by the Water Canal Maintenance Research Institute, (ii) "Establishing

Dynamic Knowledge Base, Forecast and Assess the Catastrophic Climate Conditions Events along Sinai Peninsula and the Suez Canal Corridor with the 21st Century” a project implemented by the Climate Change Research Institute, and (iii) the “Adoption of Physiochemical Measurements in the Department of Inorganic Chemistry” implemented by central laboratories.

The Climate Change Research Institute participated with an exhibition of the most important state-of-the-art equipment used to monitor the quality of water in watercourses and its pollutants.

The Mechanics and Electricity Research Institute equally exhibited a model of water pump for dredging waterways used to remove deposits and silt in narrow places that are difficult to reach by traditional equipment and another model for water pump to remove floating oils and contaminants in watercourses. These models are the outcome of the research conducted by the Institute.

The exhibition on the sidelines of the Forum is considered one of the most important activities of the forum in terms of exchanging experiences on the latest technologies, and applications used in the field of water resources to save water and optimize its use.

4. APPENDICES

4.1. Photo



4.2. List of Participants

IME					
N°	NAME	Surname	Organisation/Institution	Position	Country
1	ABADI	Almotaz	Secretariat of the Union for the Mediterranean (UfMS)	Managing Director	Espagne
2	ABDEL AL	Iman	Fondation Ibrahim Abdel Al pour le développement durable	Trésorière	Liban
3	ABDELWAHAB	Abdelwahab	Euro-Mediterranean Irrigators Community (EIC)	Vice-president	Egypte
4	ABOU JAOUDE	Fady	BUTEC UTILITY SERVICES Sal	General Manager	Liban
5	ABU ABDALLAH	Montaser	Aqaba Water Company	Manager of Quality Assurance & Strategic Planning	Jordanie
6	ABU ZEID	Khaled	Centre for Environment & Development for the Arab Region & Europe (CEDARE)	Senior Regional Water Resources Program Manager	Egypte
7	AHMADEIN	Ghada	Arab Network for Environment and Development (RAED)	Technical Coordinator	Egypte
8	ALZAWAHREH	Mohammad	Zarqa Municipality		Jordanie
9	ARAB	Camélia	Association of the Friends of Ibrahim Abd El Al (AFIAL)	Communication Officer	Liban
10	ARMETTA	Carmelo	Italian Agency for Development Cooperation	Expert	Egypte
11	AWAYES	Yousef	Palestinian Water Authority (PWA)	Director General of Strategic Planning	Palestine
12	AWEDIKIAN	Roy	BUTEC UTILITY SERVICES Sal	Business Development Manager	Liban
13	AYAD	Ayman	The EU Delegation in Egypt	Water and Utilities Sector Manager	Egypte
14	BAHADER	Mona	Euro-Mediterranean Irrigators Community (EIC)	Ecologist	Egypte
15	BANY MUSTAPHA	Mohammed	Arab Women Water Energy Environment Association Network (AWWEENA)	Permanent Technical Secretary	Jordanie
16	BARBA	Oriol	MEDCITES	Directeur	Espagne
17	BELLOT MIANA	Oriol	AGBAR and AQUALOGY become SUEZ	Business Development Manager	Espagne
18	BEN CHEIKH	Ezzeddine	Société d'Exploitation du Canal et des Adductions des Eaux du Nord (SECADENORD)	Directeur d'Exploitation	Tunisie
19	BENHEMOU	Mourad	Eaux de Marseille Maroc	Directeur Ingénierie & Exploitation	Maroc

20	BENZERGA	Nasreddine	Office National de l'Assainissement (ONA)	Directeur Général	Algérie
21	BERAUD	Pedro	Aguas de Portugal Internacional, Serviços Ambientais	Business Development Maghreb region	Portugal
22	BONHOMME	Alexandre	Safbon Water Service (Holding) Inc., Shanghai	Business Development Manager	France
23	BOURZIZA	Hajiba	Office National de l'Electricité et de l'Eau Potable (ONEE)	Chef de Division	Maroc
24	BROUMA	Anthi	Global Water Partnership Mediterranean (GWP-Med)	Senior Programme Officer	Grèce
25	BURAK	Selmin	Université d'Istanbul - Institute of Marine Sciences and Management	Environmental Engineer	Turquie
26	BURK	Zachary	Agence Française de Développement (AFD)	Project Officer	Egypte
27	BZIOUI	Mokhtar	Consultant	Gestion des Ressources en Eau	Maroc
28	CAVAILLES	Jérôme	Ville d'Agde	Directeur de Cabinet	France
29	CHAABOUNI	Tarek	Office National d'Assainissement (ONAS)	Chef du Département Epuration	Tunisie
30	CHENINI	Faycel	Food and Agriculture Organization (FAO)	Senior Water Expert	Egypte
31	CIFRES	Enrique	Institut Méditerranéen de l'Eau (IME)	Expert - Consultant Indépendant	Espagne
32	COUCHOUD	Milagros	Institut Méditerranéen de l'Eau (IME)	Présidente	Espagne
33	DATTURI	Sara	Italian Agency for Development Cooperation	Expert	Egypte
34	DE GENNARO	Raffaella	Ville d'Agde	Chargée de Mission	France
35	DEBOOS	Arthur	IPEMED	Research Officer	France
36	DERAMCHI	Mohamed	Agence Nationale de la Gestion Intégrée des Ressources en Eau (AGIRE)	Directeur Général	Algérie
37	EL FARAMAWY	Ismail	Italian Agency for Development Cooperation		Egypte
38	ELBADAWY	Omar	KFW	Project Officer Water Sector	Egypte
39	ESTRELA MONREAL	Teodoro	MENBO / Confederacion Hidrografica del Jucar	Head of Water Planning Office - Permanent Technical Secretary of MENBO	Espagne
40	FRAILE JIMENEZ DE MUNANA	Jaime L.	Foundation Instituto Euromediterraneo del Agua (F-IEA)		Espagne
41	GAFREJ	Raoudha	Université de Tunis El Manar	Enseignant Chercheur	Tunisie
42	GANOULIS	Jacques	Ministry of Reconstruction of Production, Environment and Energy	Special State Secretary for Water	Grèce

43	GARCIA-HERRAIZ ROOBAERT	Miguel	Secretariat of the Union for the Mediterranean (UfM)	Deputy Secretary General	Espagne
44	GONZALEZ ZARATE	Pilar	Ministry of Agriculture and Fisheries, Food and Environment	Tehnical Official	Espagne
45	HABIB	Hajar	Secrétariat d'Etat auprès du Ministre de l'Equipement, du Transport, de la Logistique et de l'Eau, chargé de l'Eau	Ingénieur Génie Rural au service Planification de l'Eau - DRPE	Maroc
46	HOFMANN	Isabel	KFW	Project Manager	Egypte
47	IMBERT	François Xavier	Office International de l'Eau (OIEau)	Chef de projets Coopération Décentralisée	France
48	KAMEL	Fethi	SONEDE	Directeur Central Conseiller auprès de la Direction Générale	Tunisie
49	KCHOUK	Ali	Ministère de l'Agriculture, des Ressources en Eau et de la Pêche	Directeur au Bureau de Planification et des Equilibres Hydrauliques	Tunisie
50	KEDAJ	Yvan	AQUA-VALLEY	Directeur Général Adjoint	France
51	KENNOU	Hachmi	Institut Méditerranéen de l'Eau (IME)	Directeur Exécutif	France
52	KHADRA	Roula	CIHEAM-Bari Institute	Senior Researcher / International Officer	Italie
53	KHASHMAN	Khaldon H.	Arab Countries Water Utilities Association (ACWUA)	Secretary General	Jordanie
54	KOMBAZ	Tarek	Ministry of Water Resources and Irrigation (MWRI)	Head of Central Administration for information, documentation and decision support systems	Egypte
55	LAAMRANI	Hammou	Center for International Migration and Development	Senior Expert on Water, Energy, Food Security and Climate Change Nexus	Egypte
56	LAGARDE	Catherine	Société des Eaux de Marseille (SEM)	Directrice Sociétale et Communication	France
57	LAMADALLENA	Nicola	CIHEAM - Bari Institute	Head of Department	Italie
58	LANFRANCHI	Stéphanie	Agence Française de Développement (AFD)	Director of Cairo Office	Egypte
59	LETILLY	Gaëlle	Agence Française de Développement (AFD)	Deputy Director of Cairo Office	Egypte
60	LONGOBARDI	Felice	Italian Agency for Development Cooperation	Head	Egypte
61	LUBERT	Sébastien	Fondation Prince Albert II de Monaco	Trésorier - Directeur Financier et du Développement	Principauté de Monaco
62	MAKAR	Mounir	Conseil Franco-Egyptien des Affaires	Consultant	Egypte
63	MARTINEZ COSTA	Ramiro	MENBO / EVREN SLP	Directeur Division Eau - Environnement - Coordinateur MENBO	Espagne

64	MARY	Naoll	FCC Aqualia	Aqualia Egypt Director	Egypte
65	MASHAKBEH	Sultan	As-Samra Wastewater BoT Unit - Water Authority of Jordan / Ministry of Water and Irrigation	Director of BoT Unit	Jordanie
66	MEYSSONNIER	Alain	Société des Eaux de Marseille (SEM)	Directeur Général Adjoint en charge du Développement	France
67	MIZZI	Joseph	Ministry of Energy and Water Management	Minister	Malte
68	MUNOZ	José	SUEZ	Directeur Délégué Euro-Méditerranée	France
69	NADA	Essam	Arab Office for Youth and Environment (AOYE)	Executive Director	Egypte
70	NGUYEN	Ida	Institut Méditerranéen de l'Eau (IME)	Assistante de Direction	France
71	ODEH	Waad	Ecopeace Middle East	Project Manager	Palestine
72	OJEDA COUCHOUD	Juan	Grupo TYPSA	Director of Water Engineering Department	Espagne
73	ORTEGA GOMEZ	Tatiana	MENBO	Expert	Espagne
74	ORTEU BERROCAL	Eduardo	Ministry of Agriculture and Fisheries, Food and Environment	Head of the Water Director's Office	Espagne
75	OUESLATI	Maroua	SEMIDE	Information Manager	France
76	PAINTENDRE	Jean-Marie	IPEMED	International Advisor	France
77	PANIAGUA BRIEVA	Inmaculada	Agencia Espanola de Cooperacion Internacional para el Desarrollo (AECID)	Head of Water and Sanitation	Espagne
78	PISANI	Peter	Ministry for Energy and Water Management	Coordinating Officer	Malte
79	RACHIDI	Maryem	Office National de l'Electricité et de l'Eau Potable (ONEE)	Head of Cooperation Service	Maroc
80	RADOJEVIC	Biljana	Food and Agriculture Organization (FAO)	Climate Change Officer	Egypte
81	ROBIN	Kelly	IPEMED	Chef de projet Infrastructures et ressources naturelles	France
82	ROMERO HIDALGO	Javier	Granollers City Council		Espagne
83	ROUSSEL	Malika	Institut Méditerranéen de l'Eau (IME)	Chargée de la gestion de projets	France
84	SALAMEH	Asma	Palestinian Water Authority (PWA)	Public and International Relations Consultant to PWA	Palestine
85	SALIM	Nidal	Global Institute for Water Environment and Health	Director	Suisse
86	SAPIANO	Manuel	Energy and Water Agency	Chief Policy Officer	Malte
87	SCHEMBRI	Michael	Energy and Water Energy	Senior Policy Officer	Malte

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89	SOTO	Salvador	Guadalquivir River Basin Organisation	Area Chief	Espagne
90	TARDIEU	Eric	Office International de l'Eau (OIEau)	Directeur Général	France
91	TOURON	Rémi	Agence de l'Eau Rhône Méditerranée Corse	Chargé de Mission Programme et Coopération Internationale	France
92	VILLEROY de GALHAU	Léopold	Agence Française de Développement (AFD)	Project Officer	Egypte
93	ZAYED	Omar	Palestinian Water Authority (PWA)	Director of Studies & Monitoring Dept.	Palestine
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8	Eng. Hesham Saber	Water Media
9	Eng. Amany Abdel-Aziz El-Baz	Ground water
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11	Eng. Hala Ramadan	Planning Sector
12	Dr. Moemen El-Sharqwy	Planning Sector
13	Eng. Amro El-Kady	Planning Sector
14	Eng. Taha Taha Mohamed	Shore Protection Authority
15	Eng. Eman Taha Emam	Shore Protection Authority
16	Eng. Salwa El-Sayed Abdel-Baset	Shore Protection Authority
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18	Eng. Mohamed Mokhtar Mohamed	Irrigation Department
19	Eng. Salah Abdel - Meguid	Irrigation Department
20	Eng. Magdy El-Sayed	Nile Water
21	Dr. Mamdouh Hassan	Nile Water
22	Dr. Aref Ghareeb	Nile Water
23	Dr. Tahany Sleit	Nile Water
24	Dr. Ahmed Medhat	Nile Water
25	Eng. Enas Ahmed	Nile Water
26	Eng. Amgad Salah	Nile Water

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2	Eng. Hend Abdel - Aziz Qalyoubia water and Waste Water Company
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4	Eng. Ahmed Gaber Alexandria Water Company
5	Mr. Yaser Saber Alexandria Water Company
6	Mr. Mohamed Badry Sohag for Water & Waste Water
7	Mr. Mohamed ElSayed Sohag for Water & Waste Water
8	Mrs. Doaa Nasser Sohag for Water & Waste Water
9	Mr. Aman El Nemr Sohag for Water & Waste Water

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	Title	Name		Position	Organization
1	Prof.	Mohamed	ABDEL MOTALEB	President	National Water Research center
2	Prof.	Maha	TAWFIK	Vice president	National Water Research center
3	Prof.	Alaa	ABDEL MOTALEB	Vice president	National Water Research center
4	Prof.	Mohamed	RAMI	Professor	National Water Research center
5	Prof.	Alaa	ABDIN	General Supervisor for NWRC President Office	National Water Research center
6	Eng.	Mir	ELASYED	Head of the Central Department of Research Services	National Water Research center
7	Dr.	Mohamed	IMBABI	Researcher	National Water Research center
8	Eng.	Mohamed	NOWER	Assist. Researcher	National Water Research center
9	Prof.	Mohamed	YEHIA	Director	Central laboratory for Environmental Quality Monitoring
10	Prof.	Mariam	ABDEL MOTALEB	Deputy Director	Central laboratory for Environmental Quality Monitoring
11	Prof.	Hanan	ABDEL GAWAD	Head of Dep.	Central laboratory for Environmental Quality Monitoring
12	Dr.	Reham	EL KORASHEY	Technical Office Director	Central laboratory for Environmental Quality Monitoring
13	Dr.	Ahmed	EL NAGAAR	Researcher	Central laboratory for Environmental Quality Monitoring
14	Dr.	Mahmoud	RADWAN	Researcher	Central laboratory for Environmental Quality Monitoring
15	Dr.	Hossam	IBRAHIM	Researcher	Central laboratory for Environmental Quality Monitoring
16	Dr.	Sabah	IBRAHIM	Researcher	Central laboratory for Environmental Quality Monitoring

17	Dr.	Sahar	OTHMAN	Researcher	Central laboratory for Environmental Quality Monitoring
18	Eng.	Abdel Baki	HOSSAM	Researcher	Central laboratory for Environmental Quality Monitoring
19	Prof.	Tarek	EISAMMAN	Director	Channel Maintenance Research Institute
20	Prof.	Hosam	IBRAHIM	Deputy Director	Channel Maintenance Research Institute
21	Prof.	Salwa	ABOUELELLA	Deputy Director	Channel Maintenance Research Institute
22	Dr.	Mohamed	SALAH	Head of Channel Main Department	Channel Maintenance Research Institute
23	Dr.	Emam	OSMAN	Head of Design Dep.	Channel Maintenance Research Institute
24	Dr.	Yasser	ALI	Head of Weed Control Department	Channel Maintenance Research Institute
25	Eng.	Ahmed	AGEEB	Assoc. prof.	Channel Maintenance Research Institute
26	Eng.	Ahmed	ABDEL MONIEM	Civil Eng.	Channel Maintenance Research Institute
27	Eng.	Ibrahim	AMER	Head of Unit	Channel Maintenance Research Institute
28	Dr.	Tarek	GAMAL EL DIN	Assoc. prof.	Channel Maintenance Research Institute
29	Prof.	Mohamed	Anwar	Director	Construction Research Institute
30	Prof.	Yasser	El Hakem	Deputy Director	Construction Research Institute
31	Prof.	Ehab	Khalil	Professor	Construction Research Institute
32	Dr.	Mohie	El Mashad	Assoc. prof.	Construction Research Institute
33	Dr.	Mohamed	Khalil	Researcher	Construction Research Institute
34	Dr.	Asmaa	Shokir	Researcher	Construction Research Institute
35	Eng.	Ahmed	Noshy	Researcher Assistant	Construction Research Institute
36	Mr.	Amr	Abdel Baset	Researcher Assistant	Construction Research Institute
37	Mr.	Mahmoud	ALI	Researcher Assistant	Construction Research Institute
38	Mr.	Ahmed	Abdellah	Researcher Assistant	Construction Research Institute
39	Prof.	Mohamed	SOLIMAN	Director	Costal Research Institute
40	Prof.	Aymen	ELGAMAL	Deputy Director	Costal Research Institute
41	Dr.	Essam	DEABES	Researcher	Costal Research Institute
42	Dr.	Mohsen	ABDEL MONEM	Researcher	Costal Research Institute
43	Dr.	Waled	REDA	Researcher	Costal Research Institute
44	Eng.	Ahmed	EL KOTT	Assoc. prof.	Costal Research Institute
45	Eng.	Ahmed	EL HAMAME	Engineer	Costal Research Institute
46	Eng.	Shimaa	TAHA	Engineer	Costal Research Institute

47	Eng.	Asmaa	ABO BAKR	Engineer	Costal Research Institute
48	Prof.	Essam	KHALEFA	Director	Drainage Research Institute
49	Prof.	Ashraf	ELSAYED	Deputy Director	Drainage Research Institute
50	Dr.	Ehab	ELSAYED	Assoc. prof.	Drainage Research Institute
51	Dr.	Aiman	EL SAADI	Assoc. prof.	Drainage Research Institute
52	Eng.	Mohamed	FAWZY	Research Assistant	Drainage Research Institute
53	Eng.	Ahmed	ABDEL TAWAB	Research Assistant	Drainage Research Institute
54	Dr.	Mohamed	SHABAN	Assoc. prof.	Drainage Research Institute
55	Dr.	Ahmed	SAYED	Researcher	Drainage Research Institute
56	Prof.	Ahmed	RASHED	Professor	Drainage Research Institute
57	Dr.	Ahmed	EL HAWARY	Assoc. prof.	Drainage Research Institute
58	Prof.	Khaled	KHAIR ELDIN	Director	Environment & Climate Change Research Institute
59	Dr.	Mahmoud	ROSHDI	Researcher	Environment & Climate Change Research Institute
60	Dr.	Ashraf	EL GOHARE	Researcher	Environment & Climate Change Research Institute
61	Dr.	Sherif	THARWAT	Researcher	Environment & Climate Change Research Institute
62	Dr.	Hani	MOUSTAFA	Researcher	Environment & Climate Change Research Institute
63	Dr.	Waled	EL BABLI	Researcher	Environment & Climate Change Research Institute
64	Eng.	Rewida	EL SAYED	Engineer	Environment & Climate Change Research Institute
65	Eng.	Gehan	EL GHARHI	Engineer	Environment & Climate Change Research Institute
66	Eng.	Moustafa	SHABAN	Engineer	Environment & Climate Change Research Institute
67	Eng.	Esraa	EL SAYED	Engineer	Environment & Climate Change Research Institute
68	Prof.	Entesar	EL GHORAB	Deputy Director	Hydraulic Research Institute
69	Prof.	Sayed	MAHGOUB	Deputy Director	Hydraulic Research Institute
70	Dr.	Sherif	ELSAYED	Researcher	Hydraulic Research Institute
71	Dr.	Mohamed	ROUSHDY	Professor	Hydraulic Research Institute
72	Dr.	Ahmed	ELBELASY	Professor	Hydraulic Research Institute
73	Dr.	Ahmed	NADA	Assoc. prof.	Hydraulic Research Institute
74	Dr.	Abd El Hamid	KHATER	Researcher	Hydraulic Research Institute
75	Eng.	Gihan	ELSERI	General Manager	Hydraulic Research Institute
76	Mr.	Sherif	MOSTAFA	Researcher	Hydraulic Research Institute
77	Mr.	Mosaab	ABDELKADER	Research Assistant	Hydraulic Research Institute
78	Prof.	Samir	ABDEL RAHMAN	Director	Mechanical & Electrical Research Institute

79	Dr.	Sami	ABDEL FATAH	Deputy Director	Mechanical & Electrical Research Institute
80	Dr.	Mohamed	ABDEL LATIF	Professor	Mechanical & Electrical Research Institute
81	Dr.	Said	HAWASH	Researcher	Mechanical & Electrical Research Institute
82	Dr.	Dalia	EL-GAZZAR	Head of Design Dep.	Mechanical & Electrical Research Institute
83	Dr.	Mofreh	HASHIM	Researcher	Mechanical & Electrical Research Institute
84	Eng.	Mahmoud	HAMAD	Res. Assistant	Mechanical & Electrical Research Institute
85	Dr.	Abdllah	IBRAHIM	Assistant Research	Mechanical & Electrical Research Institute
86	Dr.	Osama	SALEM	Researcher	Mechanical & Electrical Research Institute
87	Eng.	Adham	OSAMA	Res. Assistant	Mechanical & Electrical Research Institute
88	Prof.	Medhat	AZIZ	Director	Nile Research Institute
89	Prof.	Tarek	ABDEL AZIZ	Deputy Director	Nile Research Institute
90	Prof.	Sherin	SHAWKI	Deputy Director	Nile Research Institute
91	Prof.	Nahla	SADEK	Professor	Nile Research Institute
92	Dr.	Nadia	ABDEL SALAM	Researcher	Nile Research Institute
93	Dr.	Mohamed	ALI	Researcher	Nile Research Institute
94	Dr.	Ahmed	SAEID	Researcher	Nile Research Institute
95	Dr.	Shimaa	EL SHERBINI	Researcher	Nile Research Institute
96	Eng.	Marwa	MAMDOH	Engineer	Nile Research Institute
97	Eng.	Fatma	SAMIR	Engineer	Nile Research Institute
98	Eng.	Mamdouh	EL SETAWI	Engineer	Research Institute. For Groundwater
99	Prof.	Amr	FADL	Deputy Director	Research Institute. For Groundwater
100	Prof.	Safaa	MOUSTAFA	Professor	Research Institute. For Groundwater
101	Dr.	Samer	RADEE	Researcher	Research Institute. For Groundwater
102	Dr.	Hanem	ZAMZAM	Researcher	Research Institute. For Groundwater
103	Dr.	Wedad	SAAD	Researcher	Research Institute. For Groundwater
104	Dr.	Zeinab	EL FAKHRANE	Researcher	Research Institute. For Groundwater
105	Dr.	Heba	ABDEL AZIZ	Researcher	Research Institute. For Groundwater
106	Dr.	Iman	RAGAB	Researcher	Research Institute. For Groundwater
107	Prof.	Samy	SAAD	Director	Strategic Research Unite
108	Prof.	Ghada	EL REFAIE	Professor	Strategic Research Unite
109	Prof.	Inas	EL GAFY	Professor	Strategic Research Unite
110	Eng.	Nevien	ALI	Civil Eng.	Strategic Research Unite
111	Prof.	Yasser	RASLAN	Director	Survey Research Institute
112	Prof.	Gomaa	DAWOD	Deputy Director	Survey Research Institute

113	Prof.	Nagy	YAKOUB	Deputy Director	Survey Research Institute
114	Dr.	Hany	EMAM	Researcher	Survey Research Institute
115	Dr.	Ghada	HAGGAG	Head of Physical dept.	Survey Research Institute
116	Dr.	Bahaa	SHAHEEN	Head of Engineering Dept.	Survey Research Institute
117	Dr.	Hala	EBAID	Head of GIS Dept.	Survey Research Institute
118	Dr.	Nagwa	ELASHMAWY	Head of Remote sensing Dep	Survey Research Institute
119	Dr.	Houda	FASIAL	Researcher	Survey Research Institute
120	Dr.	Essam	ALKRERGY	Researcher, Physical Dep.	Survey Research Institute
121	Prof.	Hesham	Mostafa	Director	Water Management Research Institute
122	Prof.	Atef	Nassar	Deputy Director	Water Management Research Institute
123	Dr.	Talat	ELGAMAL	Researcher	Water Management Research Institute
124	Dr.	Mohamed	HALME	General Manager	Water Management Research Institute
125	Dr.	Nesreen	ABDEL KAREM	Researcher	Water Management Research Institute
126	Dr.	Ali	FARAG	Researcher	Water Management Research Institute
127	Dr.	Mohamed	ANTER	Researcher	Water Management Research Institute
128	Eng.	Khaled	SHABAN	Civil Eng.	Water Management Research Institute
129	Eng.	Menaa	ADEL	Civil Eng.	Water Management Research Institute
130	Eng.	Ahmed	NABEL	Civil Eng.	Water Management Research Institute
131	Prof.	Karima	Attia	Director	Water Resources Research Institute
132	Prof.	Gamal	ELSAYED	Researcher	Water Resources Research Institute
133	Prof.	Hatem	MEKHAMER	Researcher	Water Resources Research Institute
134	Prof.	Osama	ABDEL RAOFF	Researcher	Water Resources Research Institute
135	Prof.	Iman	HASSAN	Researcher	Water Resources Research Institute
136	Eng.	Eman	MAHMOUD	Civil Eng.	Water Resources Research Institute
137	Eng.	Ahmed	MOATAZ	Civil Eng.	Water Resources Research Institute
138	Eng.	Dalia	FAROUK	Civil Eng.	Water Resources Research Institute
139	Eng.	Rania	MAHMOUD	Civil Eng.	Water Resources Research Institute
140	Eng.	El Moatasem	ABDEL HAK	Civil Eng.	Water Resources Research Institute

NWRC PROFESSOR EMERITUS

	Name	Position	Organization
1	Prof. Safwat Abdel-Dayem	Professor Emeritus	National Water Research Center
2	Prof. Daa El-Qousy	Professor Emeritus	National Water Research Center
3	Prof. Mohamed Fawzy	Professor Emeritus	National Water Research Center
4	Prof. Shaden Abdel-Gawad	Former President	National Water Research Center
5	Prof. Ahmed Khatteer	Professor Emeritus	National Water Research Center
6	Prof. Dala Al-Naggar	Professor Emeritus	National Water Research Center
7	Prof. Nahed El-Arabi	Professor Emeritus	National Water Research Center
8	Prof. Ashraf Al Ashaal	Professor Emeritus	National Water Research Center
9	Prof. Abdel-Fatah Metawei	Professor Emeritus	National Water Research Center
10	Prof. Hussam Fahmy	Professor Emeritus	National Water Research Center
11	Prof. Mohamed Lotfy Nassr	Professor Emeritus	National Water Research Center
12	Prof. Taher Hassan	Professor Emeritus	National Water Research Center
13	Prof. Magdy Salah El-Din	Professor Emeritus	National Water Research Center
14	Prof. Samia El-Gindy	Professor Emeritus	National Water Research Center
15	Prof. Madiha Mostafa	Professor Emeritus	National Water Research Center
16	Prof. Tarek Tawfic	Professor Emeritus	National Water Research Center
17	Prof. Ibrahim El-shenawy	Professor Emeritus	National Water Research Center

4.3. Proposed Agenda of the Thematic Working groups

Session Proposal Form: WG1

CLIMATE: Water and mitigation/adaptation to Climate Change

Session Coordinator(s):			
Name (s)	Dr Céline Dubreuil, Programme officer for Water & Climate change – Plan Bleu		
	Prof. Khaled AbuZeid, Senior Regional Water Director - CEDARE		
Session description:			
Title: Water and mitigation/adaptation to Climate Change			
Description:			
<p>The Mediterranean region faces many climate change challenges, with projected increase in temperature, decrease in precipitation, and more frequent extreme events (floods and droughts). These climate change effects will significantly affect the water sector and multiple economic sectors, including vulnerable people, assets and food security. There is a need to develop appropriate climate-smart water policies and practices to build climate resilience to lower the risks. Many Mediterranean countries have already or are in the process to develop adaptation plans and strategies. However, it remains challenging to include measures to climate-smart water security. Policymakers should be fully aware of the latest scientific knowledge in managing risk and uncertainty for climate resilience, and be capable of utilizing those scientific findings to make informed decisions to embrace sound policy instruments to support climate change adaptation. Technology transfer to make climate-related water information available is essential. Policy instruments for climate-smart adaptation in the water sectors should investigate various options including desalination, groundwater recharge, wastewater reuse, green water management, water demand management and planning for less future water and extreme events. Innovative financing mechanisms should also be sought.</p>			
Session agenda:			
Day	23 January 2017 afternoon - 120min		
Order	Duration (mn)	Description of items/presentations	Confirmed speakers
14:00	5' 15'	Introduction Key note speech: Water & Mitigation to Climate Change	
14:20	10'	Title of the selected case studies: 1. Contribution of the water supply public service to the Sustainable Development Goals : the case of Marseille Provence community	Ms Catherine Lagarde, Société des Eaux de Marseille
	10'	2. A new approach for assessing high return period floods regarding climate change: a case study in a Mediterranean basin	Dr Enrique Cifres, eWATER
	10'	3. Potential adaptation and mitigation measures in Palestine	Mr Omar M. Zayed, Palestinian Water Authority
14:50	15'	Interaction with the Audience	Prof. Khaled Abu Zeid
15:05	10'	4. Smart Management for Impacts of Extreme Hydrological Events	Prof. Khaled Kheir El-Din Director of Environmental and Climate Change Research Institute (ECRI) - NWRC
	10'	5. Water and climate change: adapting yes, but not anyhow!	Mr Rémi Touron, Agence de l'Eau Rhône Méditerranée Corse
	10'	6. Climate change impact on water resources and adaptation plans in Spain	Mr Teodoro Estrela, MENBO
Closing	10'	Conclusion, next steps and closing session	Prof. Khaled Abu Zeid

Session Proposal Form: WG2

People: Integrated Sanitation For All

Session Coordinator(s):			
Name (s)	Organization(s)		
Hajiba BOURZIZA	NATIONAL OFFICE OF ELECTRICITY AND DRINKING WATER (ONEE)		
Hachmi KENNOU	WATER MEDITERRANEAN INSTITUTE (IME)		
Session description:			
Title: Integrated Sanitation For All – Whole sanitation approach, sanitation chain, innovation			
Description: The session “Integrated Sanitation for all: Whole sanitation approach, sanitation chain, innovation” aims to create a space to exchange between Mediterranean stakeholders in the sanitation sector around the modalities and innovative approaches adopted for the development and implementation of sanitation services. Based on a representative sample of Mediterranean countries (Egypt, Jordan, Morocco, Portugal and Tunisia), case studies will be presented with a view to proposing innovative technical solutions for the whole sanitation chain: wastewater collection, transportation and treatment as well as reuse of the treatment byproducts. The session will also be an opportunity to exchange views on financial mechanisms and the means of generating sustainable sanitation services in a context of rapid urbanization linked to population growth but also emigration. Partnership models between the countries in the Mediterranean region that facilitate the transfer of knowledge and best practices will be discussed.			
Session agenda:			
Day	January, 23th 2018 afternoon - 120 min		
Order	Duration (mn)	Description of items/presentations	Confirmed speakers
Opening	10 min	Introductory speech	Session Coordinators
1 st slot	75 min (5x15min)	Title of the selected case studies: <ol style="list-style-type: none"> 1. Development of access to sanitation services in Morocco 2. Energy efficiency and renewable energy in the sanitation sector in Tunisia 3. Sanitation services in Egypt 4. WWTP sludge strategy in Mediterranean European countries and Maghreb region: Treatment and final destination 5. Current status of WWT, Regulations and Standards for Reclaimed water and Reuse in Jordan 	Mrs. Hajiba BOURZIZA Mr. Tarek CHAABOUNI Mr. Ahmed MOAWAD Mr. Pedro BERAUD Mr. Sultan MASHAKBEH
2 nd slot	15 min	Interaction with the Audience	Session Coordinators
3 rd slot	15	Questions to move forward	
Closing	5	Conclusion and closing session	

Session Proposal Form: WG3

DEVELOPMENT: Nexus: water – Energy – Food – Ecosystems

Session Coordinator(s):			
Name (s)	Organization(s)		
Anthi Brouma & Dimitris Faloutsos	Global Water Partnership – Mediterranean (GWP-Med)		
Juan Ojeda	Mediterranean Water Institute (IME) - TYPSA		
Session description:			
Title: Nexus: water – Energy – Food - Ecosystems			
Description:			
<p>Water, food, energy and ecosystems are essential for human well-being, poverty reduction and sustainable development. They are interlinked through a nexus of natural, institutional, economic and social frameworks. The Water-Energy-Food-Ecosystems Nexus approach was initially introduced in the natural resources management agenda to facilitate enhancement of water, energy and food security while preserving ecosystems and their functions and increasing climate resilience, by reducing trade-offs and shifting towards more sustainable consumption patterns while increasing efficiency, building synergies and improving governance across sectors.</p> <p>A Nexus approach to sectoral management, through enhanced technical assessment, policy dialogue, investment mobilisation, replicable applications, collaboration and coordination, is necessary to ensure that co-benefits and trade-offs are not only considered but also that appropriate safeguards are put in place to mitigate their detrimental effects. Importantly, governance improvements are a cornerstone for any reform process and policy design and implementation.</p> <p>This is particularly relevant in the case of the Mediterranean, where the regional characteristics render the implementation of an integrated approach somewhat challenging: water scarcity, natural and financial resources unevenly distributed across space and time, uncontrolled population growth coupled with rapid urbanisation trends, migratory movements often taking place under dramatic conditions, observed impacts of climate change, fast-changing consumption patterns, etc.</p> <p>The session aims to shed light on the context and the challenges of applying the nexus framework in the Mediterranean context. Through an interplay of selected case studies (based on existing and ongoing work at national and transboundary levels) and a regional knowledge and experience sharing, the session aims to identify tangible recommendations for actions (including the demonstration of technology transfer options, as applicable) and suggest decision-support tools for prioritising solutions at different geographical scales based on Nexus analysis and assessments.</p>			
Session agenda:			
Day	23 January 2017 afternoon - 120min		
Order	Duration (min)	Description of items/presentations	Confirmed speakers
Opening	20	Introductory remarks and setting the stage on the nexus approach in the Mediterranean context Nexus in the UfM Water Agenda Short Q&As	Anthi Brouma & Juan Ojeda UfM Secretariat
Panel Discussion	70	Presentations and insights from selected case studies: <ol style="list-style-type: none"> Nexus in the transboundary context EcoPeace Middle East and the Konrad Adenauer Stiftung (KAS) - the vision of a Water-Energy Nexus between Jordan, Palestine and Israel Groupe des Eaux de Marseille – concrete solutions from smart meter to smartgrids SONEDE - the use of solar energy in the desalination of water NWRC – role of small dams towards achieving sustainable development Confederación Hidrográfica del Guadalquivir – Irrigators’ communities. The Spanish model for an efficient collective administration of the Nexus 	GWP-Med Waad Odeh Alain Meyssonnier Kamel Fethi Ashraf Al Asheal Salvador Soto
The way forward	15	Discussion on future actions	
Closing	5	Conclusion and next steps	

Session Proposal Form: WG4

URBAN: Reuse in the Mediterranean and its impacts on territories

Session Coordinator(s):			
Name (s)	Organization(s)		
Mrs. Kelly ROBIN	IPEMED		
Mr. Oriol BARBA	Medcités		
Session description:			
Title: Reuse in the Mediterranean and its impacts on territories			
Description:			
<p>Despite important improvements, access to safe water and sanitation are still boiling issues in Southern and Eastern Mediterranean Countries, especially considering their structural water stress situation, growing anthropogenic pressures and anticipated climate change impacts. The Mediterranean region only gathers 3% of freshwater resources and 1.2% of the world's renewable natural water resources, but hosts about 60% of the world's population who does not have much access to water. The demographic and urban growth of SEMCs should increase the pressure on water resources: the SEMCs' population could reach more than 360 million in 2030 while it currently amounts to 280 million. 2/3 of Mediterranean people live in cities and more than 3/4 of them should by 2030. Thus, water consumption should increase from 170 km³ to 228 km³ by 2025 whereas an increase of 2 to 4°C in temperature as well as a decrease of 4 to 30% in pluviometry are expected in the area.</p> <p>Consequently, as regards Mediterranean cities, one of the main challenge is to improve the resilience of their current water management & sanitation systems. It offers opportunities to break away from past water management approaches and to shift to innovative water management solutions, such as integrated urban water management, which includes the use of treated wastewater.</p> <p>Based on lessons learned on the ground, this bottom-up and participative session wants to highlight the potentials and the impacts on the Mediterranean territories. It will involve some decision makers as well as elected representatives, researchers and civil soci</p>			
Session agenda:			
Day	23 January 2017 afternoon - 120min		
Order	Duration (mn)	Description of items	Confirmed speakers
Opening	15	Introductory speech	Kelly ROBIN & Oriol BARBA (10 minutes,French) <i>Main challenges of the REUSE in the Med; presentation of the Session (previous workshops, objectives, expected results)</i> Hajiba BOURZIZA, ONEE (Co-coordinator of the People Session)(5 minutes, French) <i>Presentation of the main conclusions of the People Session</i>
1 st slot	60	Case studies	1st part: Lessons learned from the ground: testimonies of 2 cities -Francisco Javier Romero , Granollers City Council, Spain(5-10 minutes, English): ➤ Presentation of the wastewater reuse project in the municipality of Granollers: Objectives? Ecological, social & political impacts of the project? -Mohammad Al Zawahreh , Zarqa Municipality Unit, Jordan(5-10 minutes, English) ➤ What are the main impacts of the As-Samra Wastewater Treatment Plant for the city of Zarqa? Synthesis by Kelly ROBIN & Oriol BARBA (5 minutes, French) 2nd part: Waste Water Management & Governance in Med territories: role of the national and regional institutions & public service concession holders -José Munoz , Deputy Director for the Euro-Mediterranean, SUEZ (5-10 minutes, French): ➤ Lessons learned from their PPPs in Jordan & Morocco: which business model? What about the relationship between SUEZ and the institutions, the local authorities, the users, included irrigators, etc. in these countries? -Rémi Touron , Agence de l'eau Rhône Méditerranée Corse, France (5-10 minutes, French) ➤ What is the mission of the Agency regarding the development of REUSE policies in French municipalities?

2nd slot	30	Interaction with the Audience	Moderated by Kelly Robin & Oriol Barba & François-Xavier Imbert
3 rd slot	10	Questions to move forward	Ideas or projects to move forward concerning the REUSE in the Mediterranean and its impacts on territories: 1 or 2 recommendations/ participant
Closing	10-15	Conclusion and closing session	<p>Jacques Ganoulis, Special Secretary for Water at Greece's Ministry of Environment and Energy</p> <ul style="list-style-type: none"> ➤ Synthesis of the main challenges & solutions to move forward. ➤ Key political messages in the prospect of the 8WWF.

Session Proposal Form: WG5

ECOSYSTEMS: Managing and restoring for water services and biodiversity

Session Coordinator(s):			
Name (s)	Organization(s)		
ERIC MINO	SEMIDE – EMWIS “Euro-Mediterranean information system on know-how in the water sector”		
Jaime L. Fraile	Hydrological Planning Office, Confederación Hidrográfica del Segura Ministry of Agriculture and Fisheries, Food and Environment		
Session description:			
Title: ECOSYSTEMS, Managing and restoring for water services and biodiversity			
Description: Most wetlands in the Mediterranean basin are at low altitudes and are predominantly coastal. A number of large river deltas are well known in the Mediterranean. They include the Camargue at the mouth of the Rhone in France, the Po delta in Italy, the Ebro delta in Spain, the combined delta of the rivers Axios-Aliakmon-Loudias near Thessaloniki, the Nestos delta in Northwest Greece, the Evros delta on the border between Greece and Turkey, the Menderes delta in Western Turkey, the Medjerda delta in Tunisia and, of course, the enormous Nile delta in Egypt. These ecosystems provide a wide range of services (fresh water, food, recreational, flood protection, biodiversity) but are in great danger due to human activities as well as climate change. This session will present different cases where these ecosystems have been used as Nature Based Solutions for water resources management in Mediterranean countries, as well as an innovative monitoring tool (that can also support SDG6.6 reporting) and will feature a round-table on the governance structures to ensure the success of ecosystem restoration and Natural Based Solutions at river basin level.			
Session agenda:			
Day	23 January 2017 16h15-18h15 - 120min		
Order	Duration (mn)	Description of items/presentations	Confirmed speakers
Opening	20 min	Introduction Overview of Mediterranean wetlands status (on behalf of MedWet)	Maroua Oueslati (SEMIDE)
Case studies	45 min	1. Overview of water services, biodiversity and available techniques for restoration – 2. Lake Manzala Engineered Wetland a Successful Model for the Mediterranean Sea Protection 3. Albufera de Valencia: semi-urban wetland under ecological recovering process in Spain	1. Jaime L. Fraile - CHS 2. Prof. Ahmed Rashed– Drainage Research Institute (DRI), NWRC 3. Enrique Cifres, EWATER
2nd slot	30 min	Interaction with the Audience	(Moderator) Fraile Jiménez'
3 rd slot	15 min	Questions to move forward	Jaime & Maroua
Closing	10 min	Conclusion and closing session	Jaime & Maroua

Session Proposal Form: WG6

FINANCE: Finance for Sustainable Development

Session Coordinator(s):			
Name (s)	Organization(s)		
Teodoro ESTRELA	MEDITERRANEAN NETWORK OF BASIN ORGANISATIONS (MENBO)		
Ramiro MARTÍNEZ	MEDITERRANEAN NETWORK OF BASIN ORGANISATIONS (MENBO)		
Session description:			
Title: Finance for Sustainable Development			
<p>Description:</p> <p>This session will be based, among others, on the concepts presented in the report “WATER: FIT TO FINANCE?” from the High Level Panel convened by the World Water Council and the OECD on the occasion of the 7th World Water Forum (South Korea, April 2015), on the key issues regarding water finance set out in the Water Strategy in the Western Mediterranean (Dialogue 5+5), approved by Water Ministers in March 2015, and on the financial strategy to undertake the commitments of the recently adopted Mediterranean Water Agenda by the Union for the Mediterranean Ministers (Malta, April 2017).</p> <p>The attendance of numerous and relevant participants is expected, and public consultation and exchange debates will be fostered in order to enrich the technical contents.</p> <p>The session will be conducted by staff of the Permanent Technical Secretariat of MENBO and the participants will exploit synergies with the main Themes from the Thematic Framework of the WWF, namely: Climate change mitigation; Integrated sanitation for all; Water for Energy; Treatment and reuse technologies and Managing and restoring ecosystems for water services and biodiversity.</p>			
Session agenda:			
Day	23 January 2017 afternoon (16:15 – 18:15) 120min		
Order	Duration (mn)	Description of items/presentations	Confirmed speakers
Opening	20	Introductory speech	Hon Minister Joseph Mizzi Miguel García Herraiz Teodoro Estrela
1 st slot	30	Title of the selected case studies: 1. Financing the water sector in the Mediterranean 2. Finance for Sustainable development: approach at the river basin level 3. Case Study: Association for Sustainable Financing of Mediterranean MPAs 4. The great projects from SONEDE to satisfy and ensure food and drinking water in the 2030 Horizon.	1. Inmaculada Paniagua 2. Eric Tardieu 3. Sébastien Lubert 4. Monia Ziadi
	10	Interaction with the Audience	MENBO
2 nd slot	30	5. Civil society engagement in water management 6. Private contribution on water services in the Mediterranean: “Two cases, Spain and Algeria” 7. Financing Water Users’ Associations. Case Study 8. Financing civil engineering infrastructures in the Mediterranean area	5. Iman AbdEl Al 6. Oriol Bellot 7. Abdel Wahab El Haddad 8. Adil El Hadithi (TBC)
	10	Interaction with the Audience	MENBO
Closing	20	Conclusions: questions to move forward	MENBO



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