4th Mediterranean Water Forum 2021

Mediterranean Water Forum

9th World Water Forum | Dakar 2022

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6-8 December 2021
Notch Conference Center, Malta

FORUM REPORT

THE ENERGY & WATER AGENCY

INSTITUT MÉDITERRANÉEN DE L'EAU IME

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

4th Mediterranean Water Forum

6-8 December 2021 Notch Conference Center, Malta

Water, Environment and Blue Economy

www.ufmsecretariat.org
Palau de Pedralbes | Pere Duran Farell, 11
08034 Barcelona, Spain
Phone: 00 34 93 521 4100
Fax: 00 34 93 521 4102

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Contents

Background

Initiated in Marrakech in 2011, then held in Murcia in 2014 and Cairo in 2018, the Mediterranean Water Forum is intended to be a regional event that brings together the main stakeholders in the Mediterranean water community.

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 a dynamic platform to a large number of solutions and experiences on water issues that can be highlighted during the World Water Forum.

The World Water Council supported the organisation of the 4th Mediterranean Forum through a mission entrusted to the IME to facilitate the mobilisation of the Mediterranean water community and to launch a feasibility study for the setting up of an International Observatory of Non-Conventional Water Resources and Associated Renewable Energies, in a first pilot area located within the Mediterranean-Sahel Region, before its extension to the world level. This Observatory will be designed to monitor the use of non-conventional water resources and the renewable energies dedicated to them.

The Forum aimed to present the Mediterranean as a hub of innovative water management solutions which have been locally developed or adapted to address the prevailing challenges of the region including those related to climate change impacts. It also outlined how the Mediterranean region is developing an integrated implementation framework through the Union for the Mediterranean's Water Agenda, while also servicing other important political and technical regional and sub-regional frameworks, which ensures that different water management actions reinforce each other thereby providing a comprehensive solution for evolving needs. In so doing, the forum presents the value of the Mediterranean region in the development, adaptation and implementation of effective and integrated water resources management (IWRM) solutions. It also showcases the replication potential of these solutions to address emerging problems at a global scale, including as a contributor to jobs, prosperity, stability and peace.

The Forum was a great opportunity to present the results in relation to the 20 "Water" targets of the United Nations SDGs for the 2030 horizon, including the 8 linked to SDG 6 (access to drinking water and sanitation).

Forum Agenda

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Monday 6 December 2021

9.30 – 17.30: Side events

9.30-12.30: "International Observatory of Non-conventional Water Resources and associated Renewable Energies" by **Institut Méditerranéen de l'Eau IME**

Partners Meeting of the GiFLUID Project - Green Infrastructures to mitigate flood risks in Urban and sub-urban areas and to improve the quality of rainwater discharges by **Energy and Water Agency**

14.00-15.30: "Youth mobility" by **HOMERE France**

16.00-17.30: "Small Mediterranean islands engines of sustainable development IWRM, bright spots" by **SMILO- Sustainable islands**

18.00: Official Opening Ceremony

18.00: Welcome / Introductory Speech by **Mr. Alain Meyssonnier,** President of the Institut Méditerranéen de l'Eau (IME) and **Mr. Manuel Sapiano,** CEO of the Energy and Water Agency (EWA)

18.10: **Video – the Energy and Water Agency (Water Management in Malta)**

18.15: Official Speeches

- **Mr. Loïc Fauchon,** President of the World Water Council
- **Ambassador Nasser Kamel,** General Secretary, Union for the Mediterranean
- **His Serene Highness, Prince Albert II of Monaco**
- **Hon. Evarist Bartolo,** Minister for Foreign and European Affairs, Malta
- **Hon. Miriam Dalli,** Minister for Energy, Enterprise and Sustainable Development, Malta

Media conference

Tuesday 7 December 2021

9.00 – 10.45: Session 1 "The Mediterranean as a hub of water management solutions and responses: Towards optimized management of water and sanitation services"

Pilot: **Mr. Constantin Tsakas,** Centre for Mediterranean Integration (CMI)

Panel Session 1:
- Keynote speaker: **Mrs. Blanca Moreno Dodson,** Centre for Mediterranean Integration (CMI)

Panelists:
- **Mr. Eric Mino,** EMWIS
- **Mr. Antonio Skarmeta,** University of Murcia, WATERMED4.0 PRIMA-MED project
- **Ms. Mirna Gharbi Dit Kacem,** MEDYWAT
- **Mr. Michel Nalbandian,** Eaux de Marseille Maroc

Moderated Debate - Session 1

Information Session: The MEDWAYCAP Project - The Mediterranean pathway for Innovation Capitalisation toward an urban-rural integrated development of Non-Conventional Water Resources

11.15 – 13.00: Session 2 "Non-Conventional Water Resources"

Pilot: **Mr. Ele Jan Saaf,** Institut Méditerranéen de l'Eau (IME)

Panel Session 2:
- Keynote speaker: **Mr. Teodoro Estrela,** Ministry for Ecological Transition and the Demographic Challenge, Spain

Panelists:
- **Mrs. Selma Jariri,** National Office for Electricity and Drinking Water, Morocco
- **Mr. Juan Ojeda,** Grupo TYPSA, Spain
- **Mr. Jose Moreno Sandoval,** Consejería de Agua, Agricultura, Ganadería, Pesca y Medio Ambiente, Autonomous Community of the Region of Murcia, Spain
- **Mr. Karim Saoud,** OCP Group, Morocco
- **Mr. Maki Abdourahman,** Food and Agriculture Organization (FAO)

Moderated Debate - Session 2

Official Launch Event of the GiFLUID Project - Green Infrastructures to mitigate flood risks in Urban and sub-urban areas and to improve the quality of rainwater discharges

14.00: Technical Visits

Departure for the Technical Visits
- GHAJN, National Water Conservation and Awareness Center
- Malta North Wastewater Treatment Plants and New Water System
- Pembroke Reverse Osmosis Desalination Plant
- Vittoriosa, the Water Harvesting City

Wednesday 8 December 2021

9.00-10.45: Session 3 "Integrated Management of Water Resources"

Pilot: **Mr. Ramiro Martinez,** Mediterranean Network Basin Organization (MENBO)

Panel Session 3:
- Keynote speaker: **Mr. Manuel Sapiano,** Energy and Water Agency (EWA)

Panelists:
- **Mr. Victor Arqued,** Ministry for Ecological Transition and the Demographic Challenge, Spain
- **Mrs. Mona Fakih,** Ministry of Energy and Water, Lebanon
- **Mr. Mosbah Helali,** National Water Distribution Utility (SONEDE), Tunisia
- **Mr. Juan Valero Palma,** Euro-Mediterranean Irrigators Community (EIC), Spain

Moderated Debate - Session 3

Information Session: The KASSANDRA Project - integrated decision support system (IDSS) that facilitates the creation, development and management of a truly resilient and sustainable city.

11.15-13.00: Session 4 "New Approach for the Water investment and financing nexus with climate funding, in a new world"

Pilot: **Mr. Almotaz Abadi,** Secretariat of the Union for the Mediterranean (UfM)

Panel Session 4:
- Keynote speech: **Prof. Jamal Saghir,** University for the Study of International Development, McGill University

Panelists:
- **Mr. Andrea Tinagli,** European Investment Bank
- **Mrs. Alice Colson,** French Development Agency
- **Mrs. Carmen Magariños,** AECID
- **Mrs. Chantal Demilecamps,** UNECE
- **Mr. Rémi Touron,** Water Agency Rhône Mediterranean Corsica, France

Moderated Debate - Session 4

14.00-15.45: Session 5 "International Collaboration"

Pilot: **Dr. Anthi Brouma,** GWP-Med

Panel Session 5:
- Keynote speaker: **Prof. Michael Scoullos,** GWP-Med/MIO-ECSDE

Panelists:
- **Dr. Lalla Asma El Kasmi,** National Office for Electricity and Drinking Water, Morocco
- **Mr. Marco Orlando,** PRIMA-MED
- **Mrs. Mélodie Boissel,** Programme Solidarité Eau, France
- **Mr. Bernard Massabo,** Euromed Cities Network, France
- **Eng. Natasha Carmi,** Geneva Water Hub
- **Mrs Melissa Kerim,** OECD

Moderated Debate - Session 5

Information Session: AQUARES Project - Water reuse policies advancement for resource efficient European regions.

16.15-17.00: General Synthesis and Conclusions – Towards Dakar 2022

- Keynote Speaker: Sustainable Development Goals SDGs: impact assessment software for Water projects and policies developed by the French Water Partnership (FWP): **Mr. Gérard Payen**

Mediterranean Proposals to Dakar

- Session 1: **Mr. Constantin Tsakas** (CMI)
- Session 2: **Mr. Ele Jan Saaf** (IME)
- Session 3: **Mr. Ramiro Martinez** (MENBO)
- Session 4: **Mr. Almotaz Abadi** (UfM)
- Session 5: **Dr. Anthi Brouma** (GWP-Med)

Synthesis of the Responses for DAKAR:
- **Mrs. Charafat Afailal,** Former Minister in charge of Water, Kingdom of Morocco

17.15 – 17.30: Closing Ceremony

- **Mr. Isidro Gonzalez Afonso,** Union for the Mediterranean
- **Mr. Manuel Sapiano,** Energy and Water Agency
- **Mr. Alain Meyssonnier,** Institut Méditerranéen de l'Eau

Thematic Session Conclusions

SESSION 1
"The Mediterranean as a hub of water management solutions and responses: Towards optimized management of water and sanitation services"

Pilot: CMI

Sustainability is a particularly urgent concern, especially in the Mediterranean region which is a climate change hotspot. Rightful allocation of water resources and water security must occur within the framework of integrated management and water governance. The way water is managed can have profound economic, social and political implications. However, implementation is faced with major challenges in a region that faces **"highly interconnected climate risks"** as noted by the IPCC's Working Group II report on climate impacts.

The **interconnected challenges** related to water management are the central issues during the 21st century in the context of climate variability in the Mediterranean. Water, energy and food security are closely interlinked in the region; water is needed to grow food, energy depends on water to generate power, while energy is also needed to extract and deliver water to users. Meanwhile, fossil fuel subsidies have contributed to expansion of pumping technology and often in dramatic declines in water availability, which also affects food security. However, withdrawing from fossil fuels and switching to renewables should also affect water availability. Desalination should only occur with renewable energies, which also need water to be produced. Meanwhile, wastewater can be used both for food production and energy production. Climate change has increased challenges while COVID-19 has also exacerbated the burden of addressing the increasing demand for water in the region. Water scarcity may also lead to political conflicts, domestic and/or regional, with countries fighting over scarce resources. It may also lead to movements of populations, which have no option but to flee from inhospitable environments. These are just some illustrations of the many interactions, indicating the need to approach challenges in an **integrated manner.**

As stressed in the keynote speech of the Center for Mediterranean Integration's session in Malta by the CMI Director Blanca Moreno-Dodson, if water challenges are interconnected, so must be solutions. This was one of the conclusions of the CMI's session at the IME Marseille kick-off event to prepare for Malta. This was also the reason why the CMI session of the 4th Mediterranean Water Forum seeked to **highlight Nexus Solutions,** the concept of the Nexus referring to « a connection or series of connections». Given the needs of Mediterranean countries, these Nexus solutions would also need to respond to the following :

- Consider and cater to **Local needs :** indeed, water management starts at the local level. Water solutions, ideas, technology, can all be adopted when they are efficiently adapted locally. The preparedness, response and impact related to water challenges differ across territories.
- Contribute to **Enhanced cooperation and integration** in management, governance and knowledge sharing. The vital nature of water being a key incentive for cooperation and dialogue, persuading stakeholders to resolve divergences. Among other things, cooperation can promote innovative and efficient techniques for water storage and distribution across national boundaries, but also improve water quality.
- "Smartify" and **Innovate Water management,** to make it durable and resilient.

The CMI thus screened various proposals and ultimately selected the following to be presented, adopting an intergenerational, regional, and multi-stakeholder approach. They were :

- **Hydrousa** (presented by Eric Mino) : Regenerative Nature Inspired water solutions with innovative exploitation models. Hydrousa contributes to less pollution, addresses water scarcity, provides water solutions to remote areas and is adapted to fragile ecosystems.
- **WaterMed4.0** (Antonio Skarmeta) : Smart water technologies applied to improve the quality and efficiency of Mediterranean agriculture in semi-arid areas. Concretely it i. optimizes fertigation management, ii. analyzes the potential of agrivoltaic applications (APV), iii. studies, adapts and implements technologies for reclaimed water and reuse and iv. develops socio-economic studies to improve water governance in the Mediterranean.
- **Optimoo** (presented by Mirna Gharbi Dit Kacem) : a Youth-led entrepreneurial initiative, a Smart dashboard for water management and analysis that, among other things, provides a response to the water shortage, optimizes the crop production and provides accurate information on water quantity needed to irrigate a specific crop.
- **Eaux Marseille-Maroc** (presented by Michel Nalbandian): An Hydraulic efficiency monitoring tool, proposing an audit and improvement of the hydraulic performance of drinking water supply systems.

All of them were quality proposals and provided a glimpse as to how they could efficiently answer interrelated water challenges. Following the presentations, a series of questions were then asked to the audience (online and in-presence) to receive the « Message from Malta » as to what are the most pressing water priorities and what an ideal solution should respond to. The questions and voting scores were the following :

Question 1. Which of the following needs most attention in the Mediterranean?

- Water-Energy-Food-Ecosystem Nexus (31%)
- Water-Employment-Migration Nexus (10%)
- Water Supply, Sanitation, and Hygiene Nexus (6%)
- Water and Climate Change Adaptation Nexus (52%)

Question 2. What are the main challenges to regional Med water cooperation?

- Limited trust between countries hindering political will for agreements (42%)
- Limited understanding of cooperation risks and benefits (16%)
- Limited capacity among water management agencies and stakeholder groups (16%)
- Limited coordination between donors, and between diplomatic and development efforts. (27%)

Question 3. What should be prioritized to solve water problems ?

- Education/Awareness (26%)
- Invest in New Technologies (9%)
- Better access to Finance (10%)
- Better Governance (56%)

The following 3 messages thus emanated from the voting :

- Solutions related to the "Water & Climate-Change Adaptation Nexus" and "Water-Energy-Food" Nexus should be prioritized. Climate change adaptation closely depends on water, with most efforts to reduce greenhouse gas emissions depending on reliable access to water resources. Nevertheless, as commented during the session, the "Water-Employment-Migration Nexus" and the "Water Supply, Sanitation, and Hygiene Nexus" are also closely linked to the other two and should not be neglected, as climate change impacts directly water resources which in turn impacts all aspects related to food, energy, employment, WASH and populations in general.
- Key challenges that need to be dealt with include : Building trust and enhancing donors/development coordination. They both highlight the importance of solutions that favor Local Ownership and Replicability, as commented during the session.
- The need to Strengthen Governance and "Water Education". Decision-makers need to be aware of existing solutions and be empowered with the capacity to make important decisions.

Taking into account the additional Malta message, the conclusion of the CMI session, presented by Constantin Tsakas (Senior Project Officer – Sustainable Development Policies, CMI), was that mature and scalable solutions that seem to have an immediate and more holistic potential that could be presented at Dakar, seem to be WATERMED 4.0 and Hydrousa, the rationale being that:

- **WATERMED 4.0** encompasses both a Macro dimension, that allows to understand the socio-economic impact of Climate Change and, a Micro dimension, which revolves on managing usage of water-energy consumption, ensuring crop quality, proposing agrivoltaics solutions and overall encompassing the whole agricultural sector.
- **HYDROUSA** focuses on nature-based solutions, that contribute to protecting habitats and expanding natural carbon sinks. Meanwhile, its exploitation is co-designed and managed with local stakeholders.
- Both solutions have the capacity to be replicated, which would be a great added value.

Nevertheless, all suggested proposals were of great quality and carried important potential. Additionally, the CMI session concluded on specific thoughts that would merit to be carried-on during the discussions in Dakar, specifically:

- As there is a true need to cooperate to respond to water challenges, the CMI supports and is ready to contribute to the rich ideas proposed in the Malta Forum, including providing substantive inputs to the **Mediterranean Treaty for Environment, economy and biodiversity** proposed by the World Water Council and the **Observatory of non-conventional Water resources and associated Renewable Energies** proposed by Institut Mediterranéen de l'Eau .
- There is also a need and opportunity to capitalize on the Youth, they carry a great potential and can be an example of successful regional cooperation as evidenced by the Optimoo solution. **The CMI calls all project-leaders to include the youth in their projects,** as they can be knowledge producers, innovators, and agents of change. The CMI is ready to facilitate connections with its youth network MedYWat (Mediterranean Youth for Water network), a network which is empowered by CMI through capacity-building and projects incubation, as part of a Water and Climate Change entrepreneurship e-Bootcamp run in cooperation with cewas Middle East. CMI will soon gather MedYWat during **CMI's Youth Regional Forum** (February 2021) to strengthen a major CMI research study on the Water-Security Nexus.

SESSION 2
Non-Conventional Water Resources

Pilot : IME

Session II on 7 December 2021 was a long and lively session with 6 presentations in total. Audience response was encouraged and both the presentations and the questions/comments from the audience suggest that non-conventional water resources (NCWR)[1] are a key part of the water resources balance for almost all countries around the Mediterranean. In Spain, Jordan, Israel and many other countries in our region, NCWR are being encouraged through large investments that mainly focus on desalination and re-use of treated wastewater.

The following conclusions can be deduced from Session II which are grouped under three key (summary) terms:

1. **Costs:** whereas significant investments are going into NCWR, it is still a relatively expensive investment (high nominal costs), and energy demands are often also challenging. Compounding this complexity, in many cases, the willingness and ability to pay by users is not evident. However the other side of the coin is that in terms of economic benefits and long-term planning, the costs are not considered too high. As with all water projects and systems that aim to be sustainable, the full cost price has to be paid by users to ensure that the system will continue operating effectively and reserves for future investments can be built. This means that whereas the nominal costs for capital expenditures require some sacrifice, the long-term economic benefit of investing in NCWR is usually positive.
2. **Awareness:** there is still a lot to be gained in terms of increasing awareness on both the potential and the benefits of NCWR, incl. the fact that the resource is guaranteed as long as potable water is used. Awareness also has to increase on the possible negative environmental impacts of unregulated brine disposal or the impact of insufficient water quality monitoring when re-using wastewater for agriculture. Several technologies and approaches to dealing with brine effluent from desalination have been pioneered, and more effort has to be focused on mainstreaming these technologies and innovations.
3. **Regulation:** still many regulatory, administrative and governance issues hinder further investments in NCWR. The common administrative silos separating agriculture/food security from water and energy policies in many countries do not bring to light the possible benefits of using NCWR. A focus on the nexus of water, energy and food security, also bearing in mind the environment, is crucial. Specifically, government procurement and technical departments need to be informed of technological options and innovations to ensure that these are included in bidding documents, or that space is given to private sector bidders to introduce these technologies in their bids.

In terms of Mediterranean proposal for Dakar, three items stand out that can be taken forward:

1. **NCWR as an input to economic development needs to be priced accordingly.** This includes the environmental impacts of using NCWR. In other words, in the Mediterranean we have understood that to develop NCWR, a solid social and economic analysis needs to take place before investing in infrastructure for NCWR which takes into account (i) the willingness and ability of users to pay for NCWR, (ii) the environmental cost of investing in NCWR, and (iii) the intent of governance structures to continue investing (subsidising in some cases) in NCWR within the context of the nexus of water/energy/food security. Energy sources constitute a significant part of the operational costs of NCWR plants, especially for desalination. Alternative sources of energy can be proposed from experiences in the Mediterranean basin[2].
2. **Communication and awareness campaigns on the potential and need of NCWR** (highlighting the increasing scarcity of water, but also the positive note that this problem can be addressed) need to be a precursor to investing in NCWR. These communication and awareness efforts need to be at all levels, from national to local government, but also to civil society stakeholders and users. The objective of this effort would be to ensure that political and social obstacles to the use of NCWR are addressed in time. From our experience acceptance of (especially) treated wastewater as an option for re-use increases exponentially once users understand both the dire straits in which the water sector is in terms of scarcity, and the strong water quality control measures in place to ensure compliance with national water quality standards[3].
3. **The establishment and development of an "International Observatory on Non-conventional Water Resources** and associated Renewable Energies" can provide experience, practical case studies technologies and access to finance. This observatory is seen as a stepping-stone to harmonising standards, approaches, technologies and costs across the basin. This observatory does not aim to compete with existing institutions in the basin but aims to complement their work by bringing research and application experiences to a larger audience.

1. NCWR refer mainly to re-use of (treated) waste water, whether urban or industrial, and desalination.

2. The option of piloting the use of small-scale nuclear energy with desalination is proposed to be considered.

3. Harmonisation of national water quality standards for re-use of treated domestic waste water across the Mediterranean basin would galvanise investments and reduce costs due to standardisation of technologies.

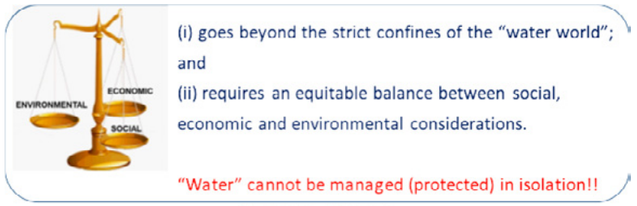
SESSION 3
Integrated Water Resources Management

Pilot: MENBO

Keynote speaker: Mr. Manuel Sapiano, Energy and Water Agency (EWA)

Panelists:

- **Mr. Victor Arqued,** Ministry for Ecological Transition and the Demographic Challenge, Spain
- **Mrs. Mona Fakih,** Ministry of Energy and Water, Lebanon
- **Mr. Mosbah Helali,** National Water Distribution Utility (SONEDE), Tunisia
- **Mr. Juan Valero Palma,** Euro-Mediterranean Irrigators Community (EIC), Spain



Main challenges in the Mediterranean (but shared with other regions of the world)

- Scarcity.
- Effects of climate change: requires adaptation plans due to the foreseeable decrease in resources, and an increase in the frequency and intensity of extreme events, such as droughts and floods.
- Importance of the agricultural sector: linked to food security, water footprint, virtual water, etc.
- 1) The need for prior planning supported by an appropriate governance system and data.
- 2) The need for a prior education and training system to shape this governance system.
- 3) The need to identify the competent authorities in each matter (resource/demand), and to establish coordination mechanisms between them, without confusing what decentralization of powers means, with the need for that administrative coordination, or with mechanisms for consultation and participation of citizens and stakeholders.
- 4) The convenience of adopting the concept of river basin demarcation as a planning and management area, regardless of how the necessary investments and control and pricing tasks are later made.
- 5) The need for joint consideration of natural and unconventional resources, which are not alternative, but complementary, to be confronted with the anticipated demand scenarios.
- 6) The need to create user communities to collaborate with administrations in management tasks, and establish the appropriate communication channels.
- 7) The convenience of prioritizing efforts over agricultural use, which concerns, on average, 80% of the resources in the region, and in which the policies applied will therefore be much more effective over the management as a whole.

SESSION 4
Finance of the Water Sector

Pilot: Union for the Mediterranean

The on-going COVID-19 pandemic has brought an unprecedented health crisis. As of 10 October 2021, over 250 million cases and over 5 million deaths had been reported to the World Health Organisation (WHO).

The Euro-Mediterranean region has suffered from a tumultuous health crisis but also, socially and economically.

The health crisis and the policy measures to control de pandemic implemented by UfM member states including lockdowns, quarantines, social distancing, mandatory closures of certain businesses, vaccination and enforcement of vaccination and others.

The **GDP** in the European Union as a whole declined by **11.7%** in the second quarter of 2020, and as much as **18.5%** in Spain (source: Eurostat).

The **GDP** in Middle East and North Africa **(MENA)** region expected losses for 2020 are **7.3%.**

The COVID-19 crisis has increased the cost of providing water services, putting additional pressure on the finances of the Mediterranean water sector.

Ensuring that all the population has access to water to practice handwashing is a long-standing goal and a human right, but it has become more urgent due to the COVID-19 pandemic.

Accelerating the achievement of universal access will require additional financial resources. Some water utilities are already adding costs as they rush water services to vulnerable communities by increasing access to water points, tanker services, and other enhanced delivery mechanisms.

The financial sustainability of the water sector is additionally threatened by the decline of financial contributions from water users, public budgets, and development partners,

In several countries, some of the emergency measures to protect the population from the socio-economic impacts of the COVID-19 crisis have been to decree the provision of free water to households to water utilities and to suspend disconnections due to non-payment,

The attendant loss of revenue caused by those measures has been compounded by the financial impact of a reduction of water demand from industrial and commercial users, which tend to face **higher tariffs than domestic users.** Water utilities are responding to the reduction in income by delaying capital projects (for asset rehabilitation and service expansion), but this coping strategy has a limit and can only work in the short term.

The other **two** ultimate sources of funding for water services are:

- Public budgets have been refocused on the emergency response to the pandemic regarding: Health expenditures and social protection expenditures
- Grants from development partners as economies slow down and tax revenues are reduced (for example, in Jordan year-on-year fiscal revenues had reduced by 49% by April 2020) national governments are rapidly increasing their debt levels.

This means that in the **medium** to **long-term** there will be less fiscal space, and thus budgetary allocations to the water sector are likely **to be reduced.** Additionally, the budgetary pressures in partner countries will in most cases result in reduced allocation to development funding, and within development funding there is already evidence of re-allocation towards health expenditures.

The Mediterranean water sector needs to respond to the COVID-19 emergency while also working to ensure its long-term financial sustainability and climate change. The response to the COVID-19 emergency has logically attracted the attention of water sector leaders in the Mediterranean region and elsewhere.

It is now timely to invest leadership time to consider the financial implications of the health and economic crises for the water sector, as well as the water sector's strategic response to this new situation.

The Euro-Mediterranean region is fortunate to have at its disposal the recent **UfM Financial Strategy for Water** as well as a process, overseen by the **UfM Water Expert Group** and open to all relevant stakeholders, to exchange information, good practices and lessons learned.

There is scope to use the framework of the **UfM Financial Strategy for Water** as a reference to develop national strategic responses to the financial challenges that the COVID-19 crises are imposing on the national water sectors, in some cases taking advantage of the national workshops on water financing supported by the UfM Secretariat to help design them or adapt pre-existing strategies.

The COVID-19 pandemic can create many opportunities:

- To speed up the implementation of the UfM Financial Strategy for Water and its three pillars: Governance reforms, controlling costs, and increasing revenues
- To help to break inertias and facilitate the adoption of technological, organisational and governance innovations that will help to reduce costs (such electronic bill collection payment systems, teleworking practices, or multi-sector planning
- It can provide the impetus to design and implement reforms of tariff and non-tariff measures that would help to protect the most vulnerable water users without jeopardizing the financial health of water providers.
- It can prompt more sustained efforts to widen and deepen funding sources for capital-intensive water projects from including water investments in economic recovery packages being put in place by UfM governments to attract private sector financiers.

The UfM work on Water Investment and Financing will provide an opportunity to take stock of challenges, good practices and lessons learned, and to identify strategic opportunities to ensure the long-term financial sustainability of the Mediterranean water sector.

This requires to measure the improvement of the efficiency of water services provision – reducing distribution losses, increasing energy efficiency in production and distribution, better managing the workforce and investing in the technical capacity of the workforce. This will be an important area to share experiences and best-practices on – since all these reduce the financial cost and enhance the internal revenues of the water sector and sustain of water services provision – making projects increasingly bankable. The UfM emphasizes that such actions enable the achievement of a **higher level of cost recovery without increasing tariff.** It showcased this, amidst other actions, during the 4th Mediterranean Water Forum, while also servicing other important political and technical regional and sub-regional frameworks, which ensures that different water management actions reinforce each other thereby providing a comprehensive response for evolving needs.

SESSION 5
International Cooperation

Pilot: GWP-Med

Introduction - Background

Session 5, on International Cooperation, was held on the third and last day of the 4th Mediterranean Water Forum in a hybrid format. It was a rich and lively session, comprising a keynote speech, a panel with six distinguished speakers and an interactive segment with the participants involving live polls and moderated debate.

The objectives of Session 5 align closing with the overall aim of the Mediterranean Preparatory Process that aim to identify best practices and technical solutions developed in the region to address the prevailing water challenges including those related to climate change impacts and share them widely within the region and beyond. This is providing the opportunity to showcase the Mediterranean as a hub of innovative water management solutions and as an example of how collective work and cooperation can promote regional stability and the sustainability of both political economies and livelihoods.

In this regard, Session 5 was the space for collecting and highlighting examples of regional/international water collaboration, assessing at the same time the potential of the Mediterranean Region in the exchange of water management practices and technologies with other regions facing similar challenges. Such exchanges of experiences can provide both an opportunity for the development of the Mediterranean's blue economy, and hence contribute to address employment and migration issues, as well as an opportunity for ensuring access to new water management practices and technologies hence enabling the optimisation of the region's existing water management frameworks. Moreover, and recognising that there are no sustainable solutions without ensuring the inclusion of all, emphasis was given on the issue of diversity, and gender in particular, and its potential as a catalyst for water cooperation. Finally, the session aimed to foster water cooperation and hydro-diplomacy for peace and stability, prompting at the same time a change of culture.

Highlights from the session

During the keynote speech and the targeted panel interventions, the following points were raised:

- International/Regional Cooperation goes beyond transboundary or joint water resources management
- We need to capitalise on the Mediterranean culture, a mosaic of co-existence necessitating cooperation, where water could be used as common theme of dialogue
- The Mediterranean is a laboratory of international/regional initiatives on which further progress regarding water cooperation could be developed – wealth of 'nexuses'
- Despite lingering politico-security challenges among neighbours, it remains an exemplary case of active and delivering North-South, South-North, South-South interface for learning and sharing
- Under changing environmental conditions, international cooperation is more imperative than ever and could result in optimising the use of funds/funding mechanisms
- A new Mediterranean Water Culture, based on Education/Awareness, could provide the enabling background for international/regional cooperation on water

The above were complemented through the input received during the live poll with the participants, which was followed by a moderated discussion on the selected responses.

For reference, below are the three poll questions along with the proposed answers, while in red are marked the responses that received the most votes.

Question 1: Based on the work you conduct, are the existing global and regional governance frameworks (UN 1992 and 1997 Conventions, Union for the Mediterranean, League of Arab States, Regional Cooperation Council, Barcelona Convention, etc) suitable and responsive to your needs?

Answer 1.1: Yes to a large extent

Answer 1.2 : Moderately

Answer 1.3 : Not at all – Do not know

Question 2: What do you consider as successes/highlights from the Mediterranean experience on international/regional cooperation that could be replicated within and beyond the region?

Answer 2.1 : Regional formal and informal governance frameworks (institutional, organisational, multi-stakeholder platforms and networks, etc)

Answer 2.2 : Research and applied technical solutions, like for WEFE (Water-Energy-Food-Ecosystems) Nexus

solutions, ways of dealing with extreme events related to water in view of the impacts of climate change in the region, non-conventional, etc

Answer 2.3 : Decentralised cooperation models (among cities, local/regional authorities, cooperatives, utilities, etc)

Question 3: What are we lacking in the Mediterranean and can be enhanced through international/regional cooperation?

Answer 3.1 : Creating entrepreneurship and employment opportunities, including raising productivity levels

Answer 3.2 : Adaptable financing mechanisms (including access to financing and absorption capacity)

Answer 3.3 : Equal opportunities and design/implementation of gender transformative policies

Conclusions and proposals for Dakar

Based on the interventions and the moderated debate/discussion, it was agreed that the messages to take to Dakar from Session 5 could be grouped under two categories: one concerning the examples/practices/experiences the Mediterranean can share with the world, and the other concerning the examples/practices/experiences the Mediterranean can learn from other regions.

A. What highlights can the Mediterranean share with the world?

- Wealth of governance frameworks/schemes with proven record of effectiveness
- Many important Multi-stakeholder Platforms, Networks, Federations
- Resilient regional formal Governance Frameworks
- Effective decentralised cooperation models (among cities, local/regional authorities, water operators, cooperatives, utilities, etc)
- Innovative research and applied technical solutions, including on non-conventional resources, responses to extreme events
- Conception and practical implementation of out-of-the-water-box/cross-sectoral approaches, including the WEFE (Water-Energy-Food-Ecosystems) Nexus, Source-to-Sea, blue-green, etc
- Water education/awareness, based on the approved Mediterranean Strategy and Action Plan on Education for Sustainable Development
- Very active North-South, South-North, South-South interface – with promising potential for triangular interface (North-South-South)

B. What can the Mediterranean learn from other regions?

- Adaptive & efficient governance needed for urgent reforms (esp. in national contexts)
- Enhancing entrepreneurship and employment opportunities, especially for youth, to increase productivity & avoid brain-drain
- Knowledge and capacity building on access and use of funding opportunities & flexible financing mechanisms – could be more effective if done collectively esp for international financing mechanisms
- Insert and safeguard principles of transparency, integrity and accountability in the water sector, also through innovative financial structures
- Further improve expertise/capacity/means & use untapped potential also through female empowerment and youth inclusion to enhance effective & efficient management
- Move beyond gender mainstreaming towards gender equality
- Strengthen efforts, including through education/awareness, towards a new water culture

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Institut Méditerranéen de l'Eau (IME)
Info@ime-eau.org – www.ime-eau.org