



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



1st Nexus Roundtable in the MENA and wider Mediterranean

***26-28 November 2018
Beirut, Lebanon***

Hilton Beirut Metropolitan Palace Hotel

Concept Note

Under the auspices of:
Lebanese Ministry of Energy and Water

Organised by:
Global Water Partnership – Mediterranean

In partnership with:
**Union for the Mediterranean (UfM)
UN Environment / Mediterranean Action Plan (UNEP MAP).**

Supported by:
**Swedish International Development Cooperation Agency
Global Environment Facility (GEF) / UNEP MAP MedProgramme
Water Climate and Development Programme (WACDEP)**

With the support of:





Purpose & Setting of the Roundtable

The **“1st Nexus Roundtable in the MENA and wider Mediterranean”** will be held on 26-28 November 2018, in Beirut, Lebanon, under the auspices of the **Lebanese Ministry of Energy and Water**¹ and in partnership with the Union for the Mediterranean (**UfM**)² and the United Nations Environment Programme / Mediterranean Action Plan (**UNEP MAP**)³.

The Roundtable is organised by the Global Water Partnership - Mediterranean (**GWP-Med**)⁴ within the framework of the **“Making Water Cooperation Happen in the Mediterranean”** (Water Matchmaker) Project supported by the Swedish International Development Cooperation Agency (**Sida**)⁵, and in synergy with the Global Environment Facility (GEF) / UNEP MAP *MedProgramme*, with the **“Water, Climate and Development Programme”** (WACDEP)⁶ implemented by GWP, and with the work of the UfM *Water Agenda’s Nexus Task Force*.

The Roundtable is part of activities developed to facilitate Dialogue processes in the Region for the incorporation of Water, Energy, Food and Ecosystems Nexus considerations in national and transboundary water resources management planning, including the link between the Nexus approach and vulnerable groups (women, youth, poor), and to enhance related capacities of MENA institutions and stakeholders.

The Roundtable will bring together for 3 days targeted stakeholders from national and regional institutions in MENA and the wider Mediterranean Region, involved in the sectors of water management, energy production, food & agriculture, and environmental protection, as well as financing institutions. The expected overall outcomes of this roundtable are:

- to highlight and disseminate insights, best practices and lessons-learned on policy frameworks, institutional coordination and financing experiences with respect to the advancement of the Nexus approach,
- to facilitate a dialogue process on and a deeper understanding of appropriate ways for streamlining integrated Nexus policies and measures,
- to advocate among decision-makers to continue and enhance support to the advancement of Nexus approaches,
- to contribute to the development of the UfM Water Agenda, in particular to its Nexus thematic component

Information on the supporting projects and initiatives

“Making Water Cooperation Happen in the Mediterranean” (Water Matchmaker)

This is a 4-year (2015 - 2019) regional project, aiming to make tangible advancements on priority issues of sustainable water resources management, at regional and transboundary level in the Mediterranean with a focus on and for the benefit of MENA countries. Through targeted, multi-purpose activities, the

¹ www.energyandwater.gov.lb

² www.ufmsecretariat.org

³ www.unepmap.org

⁴ www.gwpmed.org

⁵ www.sida.se

⁶ www.bit.ly/WACDEP



Project is expected to enhance regional cooperation towards sustainable development objectives shared among countries of the region.

Supported primarily by the Swedish International Development Cooperation Agency (Sida), the Project is structured around two components that address targeted challenges, service political and technical agendas, build capacities and strengthen existing or foster new partnerships among a range of stakeholders.

- Component 1: Enhance Transboundary Cooperation

- Component 2: Assist Regional Climate Change Policy

Addressing cross cutting issues -like gender, rights, equity and poverty- as well as engaging targeted stakeholder groups -like parliamentarians, media, women and youth- are part of the Project activities and are implemented horizontally under the two Components.

The Project is led and managed by the Global Water Partnership – Mediterranean (GWP-Med) and is implemented in partnership with the Union for the Mediterranean (UfM), UNEP Mediterranean Action Plan (UNEP/MAP), UN Economic Commission for Europe (UNECE) and the Observatory for Sahara and Sahel (OSS).

“Mediterranean coastal zones: Managing the Water Food Energy and Ecosystems Nexus”
(MedProgramme Child Project 2.2)

The project (currently in preparation phase), funded by GEF-IW and executed by UNEP/MAP and GWP-Med, will run for 4 ½ years with activities in Albania, Lebanon and Morocco. Its central objective is “Balancing of competing water uses in priority coastal areas through water, food, energy and ecosystems integrated governance, to enhance environmental security and sharing of benefits”.

The Project will introduce the Nexus approach and catalyse action for its adoption and implementation in the Mediterranean area, at the national and transboundary levels. Action will be taken to facilitate the Nexus approach being adopted as part of Mediterranean-wide institutional frameworks as a means to: (a) sustaining and upscaling the outcomes of the intervention; (b) matching the global nexus related efforts of the European Commission.

In selected coastal areas of priority, using the water-food-energy-ecosystems Nexus approach, the project will seek to:

- i. understand the interlinkages among the Nexus sectors and related issues;
- ii. identify solutions, as means to address issues of priority in coastal areas of importance, fostering water-food-energy security, reduction of land based nutrient pollution and other pressures, protection of coastal habitats and biodiversity and climate change resilience;
- iii. Test novel approaches for addressing management issues and work to upscale these.
- iv. support the development of Nexus Strategies and Action Plans as parts of existing or in the making plans and strategies e.g. ICZM plans and strategies
- v. Develop bankable projects that respond to priority solutions/interventions addressing pressing issues identified.

Water, Climate and Development Programme (WACDEP)

The Water, Climate and Development Programme (WACDEP) is a programme of the Council of African Ministers of Water (AMCOW) developed and implemented by the Global Water Partnership (GWP) in 5 transboundary basins and 18 countries across Africa. WACDEP aims to promote water as a key element

With the support of:





for sustainable development and to contribute to climate change adaptation for economic growth and human security.

The objectives of the programme are to support countries to integrate water security and climate resilience into sectorial planning and development processes, to formulate investment strategies, funding request and project proposals for the implementation of the NDCs (Nationally Determined Contributions) and the achievement of the SDGs (Sustainable Development Goals) based on the NAPs (National Adaptation Plans) and the water related strategies as well as to promote partnerships, capacity building and South-South coordination and cooperation for the implementation of water-related actions in NDCs, NAPs and SDGs.

In North Africa, WACDEP is implemented by GWP-Med in Mauritania, Tunisia and the North Western Sahara Aquifer System (NWSAS).

Some background to the Water-Energy-Food-Ecosystems Nexus

Introduction – interlinkages between water-energy-food-environment

One of the major challenges that our societies face is how to deliver water, energy and food for all in a sustainable and equitable way, while preserving the health of natural systems that form the basis of any economic activity. Interlinkages between water, energy and food systems are manifold. Some generic illustrations of such interlinkages are presented below.

Water <-> Energy: Water plays a role in energy production e.g. in hydroelectric plants, for cooling fossil-fuel and nuclear plants, in growing plants for biofuels, even in emerging technologies such as Concentrated Solar Power or fracking for oil or natural gas exploration. At the same time, energy is required to process and distribute water, to treat wastewater, to pump groundwater, to desalinate seawater.

Water <-> Food: Water is the keystone for the entire agro-food supply chain, while agricultural intensification impacts water quality

Food <-> Energy: Energy is an essential input throughout the entire agro-food supply chain, from pumping to processing to transportation. Conflicts around land use could arise in the case of biofuels or extended solar installations.

Healthy ecosystems are an essential requirement for the sustainability of all the above and are negatively affected if water, energy or food are used in an unsustainable way.

The figure below from UNECE provides a good illustration of these interlinkages.

With the support of:



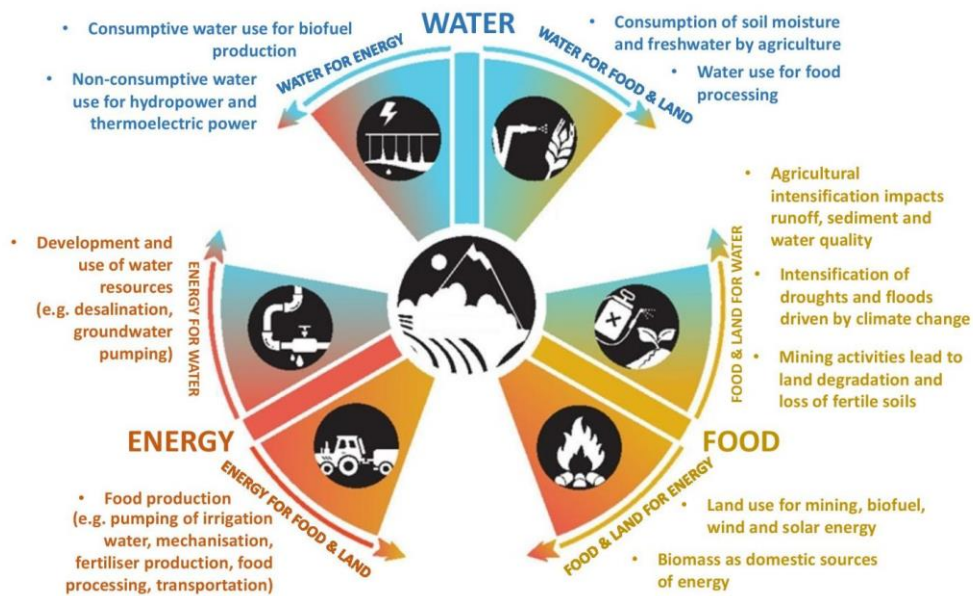


Figure 1: Nexus interlinkages. Source: UNECE

Especially in the MENA Region, these interlinkages are expected to intensify in the region as a result of increasing demand for resources due to population growth and changing consumption patterns towards more resource-intensive lifestyles, of low management efficiencies in both supply and demand in these sectors, and of course of the impacts of climate change which are expected to affect the Region more than in other parts of the world.

Box: Energy consumption of the water sector

The World Energy Outlook 2018 (WEO-2018), published by the International Energy Agency on November 2018, shows that the global water sector accounts for 4% of total global electricity consumption. Wastewater treatment alone represents roughly a quarter of the water sector’s electricity consumption. The sector’s share of global greenhouse gas emissions is estimated at 3%.

The WEO-2016 estimated that over the next 25 years, the amount of energy used globally in the water sector will more than double, mostly because of desalination projects. By 2040, these desalination projects will account for 20% of water-related electricity demand.

In the broader Middle East, the water sector’s share of electricity consumption is expected to increase from 9% in 2015 (compared to a 4% global average) to 16% by 2040, due to a rise in desalination capacity.

Synergies and trade-offs

Such interlinkages between the water-food-energy-environment sectors mean that synergies and trade-offs are available. For example, a large hydropower plant provides benefits across sectors by producing



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



electricity, providing water storage for irrigation and urban uses, mitigating flood effects. However, this can have negative effects for downstream ecosystems and the coastal zone, or require resettlements of communities. Similarly, using irrigation to grow bioenergy can help improve energy security but it may also result in competition with agriculture for land and water resources, therefore negatively impacting food security.

Significant opportunities for synergies can arise from such interlinkages. Typical examples include the potential of wastewater treatment plants to produce energy and make available treated water for agricultural or environmental uses; the potential for using renewable energy in desalination plants etc.

The Nexus approach

The Nexus approach is essentially about moving beyond the traditional sectoral thinking and adopting an integrated approach for the water-energy-food sectors, with a view to reconciling their interests as they compete for the same scarce resources, resolving conflicts while respecting environmental constraints as well as human rights, and exploring emerging opportunities.

Under such an approach, interlinkages, synergies and trade-offs among the relevant sectors are assessed aiming to identify solutions that will foster water-food-energy security and efficiency, while reducing impacts and risks on water-dependent ecosystems. This approach starts from the realization that in a traditional fragmented approach, attempting to achieve the security in one of these sectors independently without addressing trade-offs with the other two sectors will endanger their sustainability and security. Overall security can be achieved by creating intelligent synergies and fair trade-offs between them, while providing opportunities for innovation and learning to minimise security risks and enhance resource efficiency and equity. Furthermore, a Nexus approach is an excellent tool towards the achievement of the SDGs and meeting the goals of building low carbon and climate resilient economies and societies.

The Nexus approach in a Transboundary context

The adoption of a Nexus approach in the case of Transboundary water bodies ensures benefits to various sectors in the whole river basin area and ensures that synergies are explored at both inter-sectoral and cross-country levels, improving coordination, cooperation and thus reducing conflicts and trade-offs. Mutual commitments to increasing resource efficiency and eliminating unnecessary waste of water resources benefit all riparian countries. A transboundary Nexus approach can also foster regional political cooperation and provide further economic benefits through the development of regional markets and increased & optimised trade.

The social dimension of a Nexus approach

An effective adoption of a Nexus approach is also a promising instrument for promoting considerations on social cross-cutting issues (such as gender empowerment, stakeholder engagement, human rights, combatting poverty etc) by safeguarding the rights of the socially and economically vulnerable groups that are affected the most by resources insecurity, as they depend the most -and spend the largest share of their income- on basic needs in the form of water, food and energy.

With the support of:





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



The need for integrated and coordinated approaches

The adoption of a Nexus approach requires transforming the persistent silo thinking, establishing cross-border inter-sectoral cooperative structures and procedural mechanisms.

In order to fully capture the benefits and synergies under a Nexus approach, the development and management choices in the water-energy-food sectors require enhanced integration at the knowledge, policy, legislative and institutional levels/frameworks.

The current, commonly uncoordinated governance settings and policies in the MENA Region, constitute an impediment in addressing issues related to the management and security of the Nexus resources at the national and regional levels. Most governments have separate agencies to oversee water, energy, and agricultural food production, and they set policies and plan for each sector separately. The same is also true, to some extent, of research on these issues: expertise on energy, water and land use is clustered in separate groups, with limited interaction

However, there are increasingly evident on-going efforts at the governmental level in the MENA Region and the wider Mediterranean for the coordination of actions across the Water, Food, Energy and Environment sectors and the achievement of integration at the level of planning and implementation of actions, even though some ministries or sectoral institutions often have the stronger leverage and decision-making power.

At the institutional level, the table below presents a mapping of the Nexus-related competencies of the relevant Ministries in all Mediterranean countries.

With the support of:





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



Table 1 – Mapping of Nexus-related Ministerial Competencies in the Mediterranean (Source: GWP-Med)

Country	Environment	Energy	Water	Agriculture	Nexus Integration of Ministerial competencies
Spain	Ministry for the Ecological Transition			Ministry of Agriculture, Fisheries and Food	Environment, Energy, Water
France	Ministry for the Ecological and Inclusive Transition		<i>Cross-ministerial</i>	Ministry of Agriculture and Food	Environment & Energy (and partially water)
Italy	Ministry for Environment, Land and Sea Protection	Ministry of Economic Development	Ministry for Environment, Land and Sea Protection	Ministry of Agriculture, Food and Forestry Policies	Environment & Water
Slovenia	Ministry of Environment and Spatial Planning	Ministry of Infrastructure	Ministry of Environment and Spatial Planning	Ministry of Agriculture, Forestry and Food	Environment & Water
Croatia	Ministry of Environmental Protection and Energy		Ministry of Agriculture		Environment & Energy; Water & Agriculture
Bosnia and Herzegovina	Ministry of Environment and Tourism	Ministry of Energy, Mining and Industry	Ministry of Agriculture, Water-Management and Forestry		Agriculture & Water
Montenegro	Ministry of Sustainable Development and Tourism		Ministry of Agriculture and Rural Development		Environment & Energy; Water & Agriculture
Albania	Ministry of Tourism and Environment	Ministry of Infrastructure & Energy	National Water Authority	Ministry of Agriculture and Rural Development	-
Greece	Ministry of Environment and Energy			Ministry of Agriculture	Environment, Energy, Water
Malta	Ministry of Environment, Sustainable Development, and Climate Change				All

With the support of:





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



Global Water
Partnership
Mediterranean

Cyprus	Ministry of Agriculture, Rural Development and Environment	Ministry of Energy, Commerce, Industry and Tourism	Ministry of Agriculture, Rural Development and Environment		Environment, Water, Agriculture
Turkey	Ministry of Environment and Urban Planning	Ministry of Energy and Natural Resources	Ministry of Agriculture and Forest		Agriculture & Water
Lebanon	Ministry of Environment	Ministry of Energy and Water		Ministry of Agriculture	Energy & Water
Israel	Ministry of Environmental Protection	Ministry of National Infrastructure, Energy and Water Resources		Ministry of Agriculture and Rural Development	Energy & Water
Palestine	Environmental Quality Authority	Palestinian Energy and Natural Resources Authority	Palestinian Water Authority	Ministry of Agriculture	-
Egypt	Ministry of Environment	Ministry of Electricity and Renewable Energy	Ministry of Water Resources and Irrigation	Ministry of Agriculture and Land Reclamation	-
Libya	Ministry of Health & Environment	Ministry of Electricity & Renewable Energy	Ministry of Water Resources	Ministry of Agriculture, Animal and Marine Wealth	-
Tunisia	Ministère des Affaires locales et de l'Environnement	Ministère de l'Énergie, des Mines et des Énergies Renouvelables	Ministère de l'Agriculture, des Ressources Hydrauliques et de la Pêche		Agriculture & Water
Algeria	Ministère de l'Environnement et des Énergies Renouvelables	Ministère de l'Énergie	Ministère des Ressources en Eau	Ministère de l'Agriculture, du Développement Rural et de la Pêche	Environment & Energy (only regarding renewables)
Morocco	Ministère de l'Énergie, des Mines et du Développement Durable		Ministère de l'équipement, du Transport, de la Logistique et de l'Eau	Ministère de l'Agriculture, de la pêche maritime, du développement rural et des eaux et forêts	Environment & Energy

With the support of:

