1st Regional Roundtable on WEFE

NEXUS in the Mediterranean

Promoting innovations, investments and upscaling of solutions

6-7 JUNE 2023
Farah Rabat Hotel - Rabat, Morocco

To be held in hybrid format.
Participants can also join the Roundtable remotely via the Zoom platform.
WATER-ENERGY-FOOD-ECOSYSTEMS: CHALLENGES AND INTERLINKAGES

Around the Mediterranean, nature’s conditions including climate change and its impacts, water scarcity, rising population, rapid urbanization, unsustainable economic growth and consumption patterns, are driving pressures on the availability of natural resources and on vulnerable ecosystems, including in the coastal and marine areas. Parts of the region face an enduring economic crisis, armed conflicts, unemployment particularly among youth, socio-political instability, gender disparities and large-scale migratory movements often under dramatic conditions. Further, the ongoing war in Ukraine has disrupted supply chains and threatens food and energy security.

For a sustainable development in the Region, it is of utmost priority to ensure integrated management of natural resources that constitute the basis for socio-economic activities and livelihoods. It is also necessary to ensure water, energy and food security in an efficient, equitable and climate-resilient way, while preserving the health of natural systems.

These sectors do not operate in isolation but are heavily cross-dependent to each other. As an example, agriculture is the largest consumer of freshwater resources, while energy generation is also highly dependent on water for extraction of fossil fuels, hydropower, cooling thermal power plants, biofuel crops, etc. At the same time, both the food and water sectors are energy intensive: around a quarter of total energy consumption is related to food production and supply, while up to 30% of the operating costs of water and wastewater utilities are energy-related costs, including desalination. Combined pressures of all sectors’s demands are exercised on ecosystems and the critical services they provide; these are exacerbated in the coast, including aquifers, wetlands, and other fragile systems, also affecting the marine area and economy.

The graphs below provide a generic visualisation of water, energy, food and ecosystems interlinkages, meaning that activities in one sector can affect the others. While trade-offs can exist, especially where there is competition for the same scarce resources, significant opportunities for synergies and cost savings arise if planning and investments are optimized across sectors.
THE WEFE NEXUS APPROACH

The Water-Energy-Food-Ecosystems (WEFE) Nexus approach is essentially about moving beyond a traditional sectoral/fragmented thinking and adopting an integrated and coordinated approach across sectors for the management of natural resources by reconciling the potentially conflicting interests of different sectors and stakeholders that may even compete for the same resources. The Nexus can contribute towards the achievement of the Sustainable Development Goals (SDGs) as well as meeting the goals of building low carbon and climate resilient economies and societies.

The Nexus approach can be applied at all levels: national, basin, local/coastal, transboundary, etc. It may best deliver results where institutional and managerial arrangements are in place to drive design, implementation and monitoring, including the watershed / basin level. In the case of transboundary basins / aquifers, the Nexus approach can be a useful instrument enabling a cooperative and integrated management of shared natural resources and their equitable and efficient use, both across borders and sectors, for shared benefits. In a Source-to-Sea approach, the Nexus can provide multiple benefits, throughout natural, territorial and administrative units, in the land and the adjacent marine areas.

At the same time, the Nexus presents a conducive environment for deployment of innovation, entrepreneurship and employability for income generation as well as for private sector engagement for sustainability and climate resilience objectives.

An effective adoption of a Nexus approach is a promising instrument for promoting considerations on social cross-cutting issues such as gender empowerment, stakeholder engagement, human rights, combatting poverty, youth engagement, etc., by safeguarding the rights of 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.

LOOKING FORWARD: ADVANCING AND IMPLEMENTING THE WEFE NEXUS APPROACH

National institutional and policy-making frameworks don’t always provide a favorable environment for the implementation of multi-dimensional approaches such as the Nexus. It is, therefore, necessary to enhance understanding, experience sharing and capacities to provide more substantial evidence and reliable knowledge to decision-making to enable its adoption as a ‘mainstream’ management approach. Lines of action in that regard include the cross-fertilization among practitioners, the development and sharing of methodologies and tools for the elaboration of Nexus Policy Dialogues and Nexus Assessments, exchange of experience in the fields of innovations and Nexus solutions as well as the financing means, including public and private investments, to upscale these, explaining specific interlinkages at national, basin, coastal, local and transboundary levels, capacity building for decision makers, key stakeholders and staff of institutions, etc.

Further, it is critical to advance from ‘Nexus thinking’ to ‘Nexus doing’. Concrete, feasible and sustainable policy and technical solutions proofing the Nexus concept and fostering innovation, need to be further demonstrated, at all levels, supported and promoted by regional and national institutions, and then successful examples to be replicated and upscaled including through public and private investments as well as private-public cooperation, also towards jobs creation and income generation.
In terms of challenges and pressures in Nexus-related resources, it is self-evident that countries around the Mediterranean exhibit significant differences and variations among them on their natural conditions, the availabilities of natural resources, the risks from climate change, as well as on economic development, governance, demographic trends and socioeconomic issues, including gender disparities. A distinction may be made between some countries on the northern shores of the Mediterranean and some in its southern and eastern ones, although significant variances are also evident at the sub-regional level and among different population subgroups. Furthermore, Nexus-related challenges and, in balance opportunities for improvements, may be more significant in urban as well as in coastal areas where, among others, developmental pressures, demand for natural resources, but also fragility of ecosystems, may be higher.

In terms of integrated management of natural resources, significant policy and governance advancements have taken place in many Mediterranean countries in the past decade, through e.g. the establishment of inter-ministerial coordination bodies, the integration of water and biodiversity targets in agriculture and rural development plans, the consideration of a range of Nexus sectors in climate strategies and plans, etc. At the same time, the development of Nexus Assessments and studies to identify priority Nexus synergies and trade-offs, have assisted in comprehending better related challenges, solutions and opportunities for action at local, national and transboundary levels.

The Nexus approach should be further promoted as it will assist addressing integration of related issues that still characterize policy and institutional frameworks in most countries:

- Formal institutional cooperation, however not necessarily translating into inter-sectoral policy integration, leading to isolated efforts;
- Lack of inter-sectoral strategic framework as well as action and investment planning;
- Overlapping responsibilities and competing objectives of local and central governments.

In addition, a number of Nexus technical pilots, though less mainstreamed field applications, are implemented demonstrating Nexus benefits, while strong demand is expressed for more, replicable and scalable interventions as well as mobilization of related financing and investments by public and private partners.
THE WEFE NEXUS APPROACH UNDER KEY POLITICAL FRAMEWORKS IN THE MEDITERRANEAN

The Nexus approach and agenda has been recognized among priorities of regional and sub-regional institutions and political frameworks like the Union for the Mediterranean (UfM), the Barcelona Convention, the European Union, the League of Arab States, the Regional Cooperation Council in Southeastern Europe, etc.

Already since 2017, the UfM Ministerial Conference on Water included the WEFE Nexus among the thematic priorities of the UfM Water Agenda. A UfM Nexus Framework Programme, delivered through rolling biannual work plans, is facilitated by a UfM Nexus Task Force by countries and stakeholders to coordinate related design and implementation of activities. The Task Force is led by Lebanon, and is technically facilitated by the Global Water Partnership-Mediterranean (GWP-Med), under the convening role of the UfM Secretariat. Assistance for Nexus policy development and institutional settings, demo technical applications, financing and investments, community of practice, knowledge management, etc. are in the focus of the UfM Nexus Framework Programme. Several of these are linked with advancements in the UfM Financial Strategy for Water. Aiming to proof the Nexus concept in the field, the Sida/UfM/GWP-Med MENA Water Matchmaker 2 project is demonstrating Nexus technical solutions (see briefly in Annex).

THE UFM WATER AGENDA

Mandated by the UfM Ministerial Meeting on Water (April 2017, Malta), the UfM Water Agenda was put together in consultation with UfM Member States to enhance regional cooperation on water and guarantee it responds to the needs of all countries. It sets out a series of technical and financial recommendations, which aim to ensure that each country receives technical, administrative, and financial advice to help it achieve water security for its populations and their economic activities.

Through its Policy Framework for Action 2030, the UfM Water Agenda promotes dialogue and action on Water-Energy-Food-Ecosystems Nexus, Water-Employment-Migration, Water & Sanitation Hygiene, and Water & Climate Change. Its Financial Strategy for Water aims to facilitate investment on access to water; protection against droughts, floods and water pollution; and sustainable growth in the Med region, while enhancing the financial sustainability of the water sector. It does so by raising the profile of the issue within the finance community, providing analytical work on how to overcome barriers to investment, and promoting impactful, new ways of financing water-related investments.

In the framework of the Barcelona Convention, the Nexus is being discussed in the context of the Mediterranean Commission for Sustainable Development (MCSD), while UNEP-MAP is implementing the dedicated 'Mediterranean coastal zones: Managing the Water Food Energy and Ecosystems Nexus', the Child Project 2.2 in the frame of the GEF UNEP/MAP MedProgramme, managed by GWP-Med (see briefly in Annex).

The European Union (EU) has been actively promoting the Nexus approach in Europe, neighboring countries, and globally. Among others, the European Green Deal recognizes the importance of integrated approaches to address the Nexus sectors interdependencies for sustainable development. The EU Council’s conclusions on “Water in the EU’s external action“ (November 2021) highlighted the significance of the Nexus approach. In line with this, the EU supports various Nexus projects and initiatives through different frameworks, including Horizon 2020. Examples of such funded projects include DAFNE, MAGIC, REXUS, SIM4NEXUS, among others.

Since 2018, the EU Partnership for Research and Innovation in the Mediterranean (PRIMA) has been ac-
**THE BARCELONA CONVENTION**

The Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention) was adopted in 1976, entering into force in 1978. It was amended in 1995, renamed as the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, entering into force in 2004. It aims to prevent, abate, combat and eliminate pollution of the Mediterranean Sea Area and to protect and enhance the marine environment in that Area so as to contribute towards its sustainable development.

The Barcelona Convention and its seven Protocols (Dumping, Prevention & Emergency, Land-Based Sources, Specially Protected Areas & Biological Diversity, Offshore, Hazardous Wastes, Integrated Coastal Zone Management), adopted in the framework of the Mediterranean Action Plan (MAP), serves as the Barcelona Convention Secretariat, is the principal regional legally binding Multilateral Environmental Agreement (MEA) in the Mediterranean. Among others, Nexus is being discussed with the Mediterranean Commission for Sustainable Development.

Indicatively, examples of other regional Nexus initiatives, programmes and projects include inter alia, the GIZ ‘Nexus Regional Dialogues Programme’ in the League of Arab States framework; FAO work on the Nexus and Climate, supported by Sida; UNECE work on the Nexus at transboundary level; MENA Nexus Regional Innovation Hub (WE4F MENA RIH) led by Berytech, supported by a range of donors; EcoPeace ‘The Green Blue Deal for the Middle East’; GWP-Med ‘Nexus in South-eastern Europe’ Project supported by ADA, Germany and GEF IW:LEARN; GWP-Med/UFM ‘Making Water Cooperation Happen in MENA – Matchmaker’ Project 1’, including Nexus work in North Western Sahara Aquifer, supported by Sida; upcoming INWRDAM Nexus Hub for MENA, supported by UfM/Sida. Several more initiatives and projects are advancing in the region promoting the Nexus agenda.

At the global level, it is noteworthy that the Nexus approach is part of the list of “Water Dialogues” items towards the High-Level UN Water Conference 2023 (New York, March 2023).
Scope and Objectives of the 1st Regional Roundtable on WEFE Nexus in Med

The 1st Regional WEFE Nexus Roundtable in the Mediterranean on ‘Promoting innovation, investments and upscaling of solutions’ aims to facilitate a multi-stakeholder dialogue among Mediterranean countries and stakeholders to further advance Nexus understanding, facilitate cross-fertilization among institutions, organizations and practitioners, and lay the path towards coordinated actions to tackle Nexus challenges in the region, that also affect the coastal and marine environment in a Source-to-Sea approach.

It will take place on 6 and 7 (half day) June 2023, in Rabat and online. It will be organized back-to-back with the UfM 13th Water Expert Group Meeting (7 & 8 June; by invitation) as well as with the Steering Committee Meetings of three Child Projects of GEF UNEP/MAP MedProgramme (7 & 8 June; by invitation).

Here’s an overview of the timeline of the back-to-back events:

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<th>THURSDAY 8 JUNE</th>
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<td>MORNING</td>
<td>Nexus Roundtable</td>
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<td>AFTERNOON</td>
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The overall objectives of the Roundtable are:

- To identify ways to excel the Nexus approach implementation at national, basin, local, coastal and transboundary levels supported by regional action, taking note of outputs of recent, ongoing and upcoming Nexus-related initiatives and processes, including towards a possible regional strategy/action plan on Nexus in the Mediterranean.

- To identify ways to upscale and mainstream Nexus solutions and innovation, at all levels in the Mediterranean, through identification, prioritisation and mobilisation of funding and investments.

In that regard, the Roundtable will:

- Highlight and disseminate insights, best practices and lessons-learned regarding the Nexus approach in terms of both assessing needs as well as of identifying and implementing solutions drawing on suitable policy frameworks, institutional coordination, available tools and methodologies, etc.

- Identify means and actions for promotion and wider application of existing technical innovations for addressing Nexus trade-offs and providing solutions to identified needs.

- Discuss options and steps for mobilising funding and investments by public and private partners, including through blended financing, for upscaling and mainstreaming successful technical solutions.

- Facilitate discussion among government, stakeholder and finance representatives on related perspectives and priorities, including for shaping, according
to interest and aligning with on-going and planned initiatives, key elements and a roadmap towards a possible regional strategy/action plan on Nexus in the Mediterranean, contributing to the Nexus theme of the UfM Water Agenda, the Barcelona Convention’s contents as well as to the follow ups of the UN Water Conference 2023 (March 2023) in the region.

Further, the Roundtable includes special sessions on:

- The Gateway to the Future of the Mediterranean, facilitated by EU DG JRC
- The Mediterranean Nexus Community of Practice, facilitated by the PRIMA WEFE4MED Project

Two documents prepared recently will be presented and discussed during the Roundtable feeding into related consultations:

- The "Mediterranean Rapid Nexus Assessment" which provides a Nexus baseline for the nine beneficiary countries of the GEF UNEP/MAP MedProgramme 2.2 Nexus Project, in synergy for MENA with the Sida/UfM/GWP-Med Water Matchmaker 2 project, identifying in each of them the current status and main targets and challenges in the Nexus sectors as well as the level of integration in the policy and institutional frameworks in the management of natural resources, and outlining suggestions on ways forward for tackling Nexus challenges and capturing related opportunities.

- The "Nexus Gateway to the future of the Mediterranean: Water, energy, food and the environment" prepared by the EC JRC with over 130 contributors from 65 partners including EC, UfM and GWP-Med, UNEP, UNESCO, World Bank, FAO, UNECE, ministries, NGOs and donors. The Gateway provides a spatial baseline analysis and projection of Nexus requirements in the Mediterranean region, addressing inter-sectoral trade-offs and synergies as promoters of stability and socio-economic development. The Atlas aims at offering a scientific but also cultural perspective regarding the Nexus, and is complemented by a collection of Nexus best practices and success stories.

Regarding expected participation, the Roundtable will bring together for 1.5 days high-level representatives from national institutions from the beneficiary countries, involved in the sectors of water management, energy production, food & agriculture, environmental protection, and climate action. Representatives of regional institutions and stakeholder organisations as well as financing institutions and private sector partners will also participate. Among its points of added value, the Roundtable targets country participation from all, as relevant, Nexus sectors, further to its water and environment partners that participate more often in such dialogues.

It is organized within the joint initiative of UfM, Barcelona Convention and the EU, by GWP-Med and the WES Project Team, hosted by Morocco’s Ministry of Equipment and Water and Ministry of Energy Transition and Sustainable Development, with contributions by and in the framework of the GEF UNEP/MAP MedProgramme Child Project 2.2. on Nexus, the EU WES Project, the Sida/UfM MENA Water Matchmaker 2 Project and the PRIMA WEFE4MED Project. Brief information on the co-organisers and supporters is provided at the end of the document.

This will be the first of 3 Regional Roundtables to be organized in the framework of the regional activities of the MedProgramme Nexus Child Project in synergy with institutional partners, regional stakeholders and programmes providing an opportunity for regular and structured dialogue shaped by its contributors.
The Mediterranean Roundtable, addressing all shores of the region, follows up and builds on previous related regional dialogue activities in the region, including inter alia:

- The four ‘Nexus Roundtables in South-East Europe’ organized by GWP-Med in Belgrade (2017), Skopje (2018) and Tirana (2019 & 2022) with the support of the German Environment Agency, the GEF:IW Learn Project and the Austrian Development Agency (ADA)

- The ‘Nexus Roundtable in the MENA and wider Mediterranean’ organized by the Lebanese Ministry of Energy & Water and GWP-Med in Beirut (2018) with the support of the Swedish International Development Agency (Sida)

- The ‘WEFE Nexus Science Advances Conference’ organized and supported by EC DG JRC and DG RES, UfM, PRIMA and CyI with inputs by GWP-Med in Nicosia and online (2021)

- The ongoing Nexus Regional Dialogue in the Middle East and North Africa (MENA) implemented by GIZ

- The Nexus as a cross-cutting theme of the SWIM-Horizon 2020 (2016-2019) and the Nexus-related capacity building activities of WES (2019-2024)

- FAO’s Nexus-related workshops, webinars and other initiatives in the Mediterranean.

The Regional Roundtable will build its deliberations on panel discussions by different stakeholders and on a range of contents and disciplines, sharing views on how to advance Nexus integrated policy making, up-scaled action and innovation as well as financing, in a coherent and impact-oriented approach. Brief video sessions over the event’s duration will showcase results from a range of projects at different levels. The Nexus Gateway and the Rapid Nexus Assessment will be briefly presented. The Nexus Community of Practice will be launched during the Roundtable. The Regional Roundtable will conclude with a plenary discussion on recommendations for action as well as on the need and, if positive, the way to elaborate a regional Nexus strategy/action plan as a tool for advancing and upscaling, in a coordinated manner, the agenda in the Mediterranean, aligning processes and action lines within institutions, stakeholders and donors. Interpretation will be available between English and French.
Annex

Brief info on the regional projects supporting the Roundtable

The following projects contribute to contents and organisation of the Roundtable:

**GEF UNEP/MAP MEDITERRANEAN COASTAL ZONES: MANAGING THE WEFE NEXUS (MEDPROGRAMME CHILD PROJECT 2.2)**

The project, funded by GEF-IW and executed by UNEP/MAP and GWP-Med, in collaboration with PAP/RAC, Plan Bleu and UNESCO IHP, runs until 2025, with regional activities targeting the Med-Programme beneficiary countries (Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco, Tunisia), and with focused activities in Albania, Lebanon and Morocco. The project aims to assist 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 introduces the Nexus approach and catalyses action for its adoption and implementation in the Med area, at national and transboundary levels. In selected areas of priority, the project seeks to:

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

**EU WATER AND ENVIRONMENT SUPPORT IN THE ENI SOUTHERN NEIGHBOURHOOD REGION (WES)**

The EU-funded WES Project is a regional project designed to contribute to the implementation of an integrated approach to pollution reduction and prevention, in line with the Union for the Mediterranean agendas and the Barcelona Convention. WES is also meant to contribute to a more efficient management of scarce water resources in the ENI Southern Neighbourhood region.

The project aims to do so by increasing the capacity of stakeholders that are involved in pollution reduction and water management and support them in formulating and implementing the environmental and water policies. WES supports the shift to a more sustainable consumption and production model, promotes an integrated and efficient management of water, combats plastic pollution and marine litter and fosters dialogue on key environmental and sustainable development issues. In this way, WES also supports mutual understanding, cooperation and peace in the region.

The project also focuses on strengthening the efficient use of water in urban and rural areas, the appropriate treatment of wastewater to allow for its use/re-use, as well as the cost-recovery and affordability of water services. WES is covering Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Libya, Palestine and Tunisia.
SIDA/UFM/GWP-MED MENA MATCHMAKER 2 PROJECT

The Project aims to equip UfM MENA countries with tangible and scalable local technical solutions combined with employability capacitation as well as with selected applicable and shareable policy tools for improved water management and climate resilience, through multi-stakeholder, multi-sectorial and gender mainstreaming approaches.

The Project's objective is to prove, through piloting, the integrated concept of applying WEFE Nexus technical solutions at local level while capacitating priority beneficiary groups on employment options, offering measurable and scalable contributions for further application in UfM MENA countries, and assisting the UfM Water Agenda to enter and mark progress on tangible benefits at local level.

Nexus technical solutions are implemented in Jordan and Palestine, in a cross-country context, integrating the Nexus inter-relations:

- **Water**: Utilising tertiary treated wastewater, through a nature-based solution i.e. constructed wetlands, for irrigation.
- **Energy**: Utilising solar power infrastructure for irrigation while lowering costs, reducing the carbon footprint, and increasing water efficiency for energy production (where applicable).
- **Food**: Utilising treated wastewater for agriculture.
- **Ecosystem**: Assisting local ecosystems and their services through constructed wetlands towards increasing food production; increasing the irrigated farms' ecological niche; improving environmental conditions over the irrigated area e.g. soil conditions, including compared to the direct application of wastewater coming from a plant (that does not include tertiary treatment).

The Project is managed and implemented by GWP-Med, supported by Sida through a fund-forwarding arrangement through UfM.

PRIMA WEFE4MED PROJECT:
TOWARDS A MED WEFE NEXUS COMMUNITY OF PRACTICE

The WEFE4MED Project aims to foster the adoption of a Water-Energy-Food-Ecosystems Nexus approach in the Mediterranean through a Nexus Community of Practice (NCoP), to confront the climatic and environmental challenges facing societies and agro-ecological systems.

The NCoP will be steered by a Core Group of organisations namely EC DG R&I, Joint Research Centre and the UfM Secretariat, led by PRIMA. The Core Group will guide the overall activities of the NCoP and facilitate the network's vision, development and future directions through monitoring and evaluating the impact of the initiative.

The NCoP will bring together practitioners, scientists, policymakers, civil society, media, entrepreneurs, innovators and investors. Together they will share knowledge and build capacities by deploying best practices and science-based policies and innovative solutions inspired by Nexus demonstration sites, showcasing the benefits of integrated natural resource management for sustainable, climate-resilient development in the Mediterranean.

WEFE4MED will identify and promote Nexus solutions in the Mediterranean, highlighting the advantages of Nexus approach to policy makers and other stakeholders. Through a structured participatory process, WEFE4MED will design, establish and operate an open digital Nexus Knowledge Hub and cooperation platform that will persist well beyond the project lifespan, due to the commitment to Nexus objectives of the project partners and NCoP members.

WEFE4MED is managed by the Cyprus Institute, implemented in partnership with regional and national organisations, and is financially supported by PRIMA.