

Side-Event

Harnessing freshwater, wetlands and coastal and marine ecosystems through Source to Sea and WEFE Nexus approaches for a net-zero transition

18 November 2024 – 16h00- 17h30

Water for Climate Pavilion
COP 29 – Baku – Azerbaijan

Background:

The potential of the water sector for reducing greenhouse gas (GHG) emissions is significant. Recent findings by the Voluntary Carbon Markets Integrity Initiative (VCMI) indicate that the global water sector could save approximately 4% of the world's carbon emissions, translating to over 1.3 billion CO₂ of mitigation potential annually, which is nearly equivalent to half of the EU's annual emissions. Urban water and wastewater systems can account for up to 40% of municipal energy use in some cities, primarily driven by fossil fuels. Wetlands, peatlands, *Posidonia oceanica* beds, meadows, etc. are among the most effective ecosystems for carbon storage, holding twice as much carbon as all the world's forests combined.

Mitigation strategies in the water sector often provide adaptation co-benefits that enhance resilience against climate change. For instance, protecting and restoring freshwater ecosystems not only reduces GHG emissions but also supports biodiversity and disaster risk reduction. Upgrading water infrastructure (drinking, desalination, wastewater treatment and irrigation systems) to more energy-efficient systems and enhancing effective water management and governance can significantly reduce GHG emissions and operational costs while increasing water availability and affordability, in particular in scarce water regions and for vulnerable communities.

The Water-Energy-Food-Ecosystems (WEFE) Nexus, Source-to-Sea (S2S), and Nature based Solutions (NbS) approaches provide frameworks to reduce water footprint, enhance water resilience, and achieve adaptation and mitigation co-benefits.

Furthermore, water management accounts for at least 10% of global emissions, yet receives less than 2% of global climate finance. Investing in increasing energy efficiency in water systems and

utilities, and the conservation of wetlands to enhance their carbon sequestration capacity can contribute significantly to reduce GHG emissions and consolidate mitigation efforts.

During the Resilient Mitigation Day at the Water for Climate Pavilion Day, the Global Water Partnership Mediterranean (GWP-Med), WINZ and Nature Conservancy, convene a Side Event (16.00-17.00) and a High-Level Segment (17.00-17.30) to discuss the relevant approaches to foster adaptation and mitigation co-benefits in the freshwater- coastal- marine ecosystems continuum. By sharing examples and good practices, the event seeks to promote the integration of these approaches in water and climate action planning and advocate for enhanced coordination between the sectors to ensure alignment of water related climate adaptation and mitigation strategies and related finance mobilisation.

Expected Outputs:

- Raise awareness about the role of freshwater, peatlands, coastal and marine ecosystems in contributing to GHG emissions while enhancing water resilience,
- Promote relevant approaches that can be used for water and climate actions planning to ensure adaptation and mitigation co-benefits,
- Reflect on opportunities to increase high-level political commitments and mobilize required investments to scale-up water adaptation/mitigation solutions.

Targeted Audience:

- Water, energy, agriculture stakeholders,
- Environmental and Ecosystems conservation managers,
- Coastal planners,
- UNFCCC Focal Points, Focal Points and National Designated Authorities, Climate Funds (GCF, GEF, AF), International Implementing Agencies
- Private Sector
- International, regional, and civil society organizations.

AGENDA

Time	Technical Session	Speaker
16:00 - 16:05	Welcoming Remarks	Prof. Michael Scoullos, Chair - GWP-Med Ms Mirey Atallah, Chief of the Adaptation and Resilience Branch, Climate Change Division - UNEP
16:05 - 16:25	Setting the stage <ul style="list-style-type: none"> - WEFE Nexus Approach for adaptation/mitigation co-benefits in the Source to Sea continuum - Wetlands and Nature Based Solutions contribution to industrial carbon mitigation. - Addressing the freshwater -marine ecosystems continuum for adaptation-mitigation co-benefits: experiences from the SCCF Project of the GEF UNEP/MAP MedProgramme 	M. Manuel Sapiano, Chief Executive Officer, Energy & Water Agency – Malta Dr. Paula Hanasz, Advisor to the Minister, Ministry of Climate and Environment - Poland Dr. Sarra Touzi-, Senior Advisor, Global Water Partnership-Mediterranean (GWP-Med)
16:25 - 16:50	Panel Discussion <ul style="list-style-type: none"> - Energy Efficiency of Desalination Plants - Mainstreaming adaptation and mitigation in Sri Lanka's National Green Growth Strategy & Investment Plan - Climate Transparency framework and performance indicators to track energy reduction in water and wastewater sectors - Financing action for adaptation & mitigation co-benefits 	<i>Facilitated by Dr. Jauad El Kharraz, Former Executive Director, Regional Center for Renewable Energy & Energy Efficiency</i> Ms. Siham Laraichi, Ministry of Equipment and Water - Morocco Dr. Sunimal Jayathunga, NDA Sri Lanka Ms. Lea Kai, Project Manager/Advisor Climate Change Projects, UNDP, Ministry of Environment, Lebanon Dr. Amgad Elmahdi- Regional Manager - Middle East and North Africa (MENA)
16:50 - 17:00	Discussion	

High-Level Segment

“Fostering adaptation and mitigation co-benefits in the freshwater- coastal- marine ecosystems continuum : Leveraging opportunities and mobilizing finance for resilient and net-zero development”

17:00 – 17:30	Facilitated by Prof. Michael Scoullos , Chairman, GWP-Med
	H.E. Ms. Messouda Baham Mohamed Laghdaf , Minister of Environment and Sustainable Development - Mauritania
	H.E. Mr. Tawfiq Al Shargabi , Minister of Water and Environment - Yemen
	H.E. Mr. Habib Abid – Minister of Environment - Tunisia (tbc)
	H.E. Mr. Almotaz Abadi - Deputy Secretary General in charge of Water, Environment and Blue Economy - Union for the Mediterranean
	Ms. Rachael Barza - Lead on Climate Adaptation & Nature Finance, European Bank for Reconstruction and Development (EBRD) (tbc)
	Ms. Najia Gharbi – General Director - Deposits and Consignments Fund (Caisse de Dépôts et Consignations – CDC), Tunisia
	Mr. Arun Kumar Subedi , Chairman, Muktinath Darshan Pvt Ltd, Nepal (tbc)
	Mr. Gary White , CEO and co-founder of Water Partners International (tbc)