SIDE EVENT AGENDA

ACHIEVING MARINE AND COASTAL RESILIENCE IN THE CONTEXT OF CLIMATE CHANGE: CHALLENGES AND SOLUTIONS

17/04/2024, 12:00-13:00, Alternative Stage

Lead: Hellenic Centre for Marine Research

Part A: Addressing Impacts of Climate Change on the Marine Environment

Lead: Hellenic Centre for Marine Research
Co-organizers: Ocean Acidification Alliance, UNEP/MAP

Climate change is a long-term change in the average weather patterns that have come to define Earth's local, regional and global climates; don't forget: the Earth's climate is always changing. Changes observed in Earth's climate since the mid-20th century are driven by human activities, particularly fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere, raising Earth's average surface temperature. The ocean plays a vital role in regulating the Earth's climate by absorbing heat and carbon dioxide from the atmosphere, thus making the oceans and climate tightly interconnected. The impact of climate change on oceans is profound and multifaceted, affecting various aspects of marine ecosystems and coastal communities.

Despite dire warnings from the Intergovernmental Panel on Climate Change, the impacts of ongoing ocean warming, acidification, deoxygenation, and eutrophication, are often misunderstood or not reflected across mainstream climate or marine management policies. The OOC9 side event 'Addressing Impacts of Climate Change on the Marine Environment' aims to highlight challenges imposed by climatic forcing in the marine environment, with special focus on Mediterranean waters. The panelists, from esteemed organizations will provide a thorough idea of the evolution of key climate-related parameters and respective trends in the last decades, along with selected impacts of crucial importance linked with global warming, referring to ocean acidification effects, increase of eutrophication, and food provisioning ecosystem services such as fisheries and aquaculture.

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Aris Karageorgis, Hellenic Centre for Marine Research

12:00-12:05	**A short introduction on climate change and its impacts on the marine environment** **Aris Karageorgis,** HCMR/Institute of Oceanography director
12:05-12:12	**Launch of the National OA Action Planning Leadership Circle** **Jessie Turner,** Ocean Acidification Alliance Executive Director **Ambassador Olivier Poivre d' Arvor,** Special Envoy of the President of the French Republic for the United Nations Ocean Conference **(Invited)**
12:12-12:19	**Ocean warming, eutrophication and harmful algal blooms** **Tatjiana Hema,** UNEP/MAP Coordinator
12:19-12:26	**Impacts on fisheries and aquaculture** **Dimitris Damalas,** HCMR/Institute of Marine Biological Resources and Inland Waters
12:26-12:35	**Round of commitments (1-2 minutes each)**

Part B: Blue Carbon – the potential of coastal vegetated ecosystems in responding to the climate and biodiversity crisis

Lead: Hellenic Centre for Marine Research
Co-organizers: The Green Tank, National Technical University of Athens, University of Crete, Goulandris Natural History Museum - Greek Biotope/Wetland Centre

This side event, featuring eminent invited speakers, aims to bridge the global and national dimensions of the potential of Coastal Blue Carbon Ecosystems (CBCEs) in addressing the intertwined crises of climate change and biodiversity loss, fostering an interactive exchange between science and policy. The CBCEs are increasingly recognized as the core of the climate-ocean nexus, essential for meeting the 2030 and 2050 climate and nature targets set by the global community. Despite their critical role, CBCEs are among the most threatened ecosystems, jeopardizing their capacity to contribute to climate action. Consequently, conserving and restoring CBCEs has become a priority Nature-based Solution, offering potential benefits in climate change mitigation, adaptation, and resilience. However, challenges persist in implementation, underscoring the need for collaborative efforts to harness scientific knowledge and best practices. This side event will explore pivotal questions, including identifying the knowledge gaps and technical needs for assessing the potential of CBCEs for carbon storage, discussing the frameworks to integrate CBCEs into climate policies, thereby prioritizing conservation and restoration efforts, and addressing the challenges in developing sustainable financing mechanisms for blue carbon projects and ensuring benefits for nature, climate and people. Additionally, recent initiatives undertaken in Greece will be highlighted.

SIDE EVENT AGENDA

Ioli Christopoulou, The Green Tank

Panelists
Prof. Carlos M. Duarte, Ibn Sina Distinguished Professor, Marine Science Tarek Ahmed Juffali Research Chair in Red Sea Ecology, King Abdullah University of Science and Technology, Saudi Arabia (KAUST)
Dr. Minna Epps, Head IUCN Ocean, Centre for Conservation Action (IUCN)
Dr. Rosa Maria Roman-Cuesta, LULUCF Group, European Commission's Joint Research Centre (JRC)
Dr. Petros Varelidis, Secretary General Natural Environment and Waters, Ministry of Environment and Energy, Greece (MEEN)
Interventions
Dr. Eugenia Apostolaki, Institute of Oceanography, Hellenic Centre for Marine Research (HCMR)

Dr. Ioannis Sempos, School of Chemical Engineering, National Technical University of Athens (NTUA)
Dr. Sofia Reizopoulou, Institute of Oceanography, Hellenic Centre for Marine Research (HCMR)