#### **CALL FOR EXPERTS**

# Threats to Mediterranean Marine Ecosystems in a Warming World

Deadline for Nominations: 12 August 2025

New Working Group for a project led by the Cyprus Academy, in cooperation with EASAC and NASAC

### **Overview of the Study**

A new expert study will be launched on 1 September 2025, coordinated by the Cyprus Academy of Sciences, Letters and the Arts, in collaboration with the European Academies' Science Advisory Council (EASAC) and the Network of African Science Academies (NASAC), as part of a project funded by the InterAcademy Partnership (IAP).

The study aims to assess the growing threats to **Mediterranean marine ecosystems** in the context of **climate change**, with a special focus on the **Eastern Mediterranean**, and to provide **science-based policy advice** for regional and European decision-makers. We aim to have the final, peer reviewed, report published by **June 2026**.

#### **Background and Motivation**

The Mediterranean Sea, shared by 22 countries, is one of the most biologically diverse marine regions globally hosting 18% of all known marine species within just 0.82% of global ocean surface area. Its ecological richness and socio-economic importance make it highly sensitive to climate-induced stresses.

Recent findings underscore growing risks including:

- Sea-level rise
- Ocean warming, salinity shifts, and acidification
- Invasive species
- Mass mortality events due to extreme temperatures, eutrophication and hypoxia

These developments pose significant threatsto marine biodiversity, productivity, fisheries, tourism, coastal agriculture, and cultural heritage. While the Western Mediterranean has been the focus of several initiatives, the Eastern Mediterranean remains comparatively underexplored despite its heightened vulnerability.

This study will build upon recent efforts, including the **2018–2022 EMME-CCI program** (https://emme-cci.org) coordinated by the Cyprus Institute, and will draw from a growing body of regional literature.

# **Objectives and Scope**

The Working Group will synthesize current scientific understanding, identify knowledge gaps, and evaluate response options. The scope includes:

- 1. Projecting the magnitude, evolution, and timing of climate impacts on marine ecosystems.
- 2. Assessing ecosystem resilience, including potential tipping points.

- 3. Evaluating **feasible**, **cost-effective strategies** to strengthen resilience.
- 4. Reviewing existing and emerging **technologies** to mitigate or reverse damage.
- 5. Analyzing **socio-economic impacts**, including on fisheries, tourism, and heritage.
- 6. Exploring **geo-political and geo-economic dynamics**, risks, and cooperation opportunities, especially in transboundary contexts.

While based on existing literature, measurements, and models, the study will not involve new modeling but will be informed by stakeholder consultations and targeted workshops.

## **Expertise Sought**

We are seeking nominations of **independent experts** to serve on the Working Group. Nominations are invited from member academies of EASAC and NASAC; Academies in countries bordering the **Eastern Mediterranean** or active in research in this area are particularly encouraged to respond.

Ideal candidates will bring expertise in the **natural**, **social**, **and behavioral sciences**, with an understanding of the **regional geopolitical context**. The Working Group should collectively cover a broad range of fields, including but not limited to:

- 1. Marine ecology, marine biology and marine ecosystems
- 2. Fisheries and marine resources management
- 3. Marine ecosystem drivers including marine heatwaves, acidification and hypoxia.
- 4. Climate related Socio-economic impact assessment
- 5. Environmental technologies and climate adaptation strategies
- 6. Policy analysis, governance, and international cooperation

### **Nomination Details**

Nominations should include a **brief CV**, a **statement of expertise**, and a **declaration of interest**. Please submit all materials by **12 August 2025**.

The selection of Working Group members will aim to ensure a balanced representation of disciplines, expertise, and regional perspectives. All nominations will be reviewed by the project leads, and a group of experts will be invited to participate based on the relevance of their expertise to the study scope and the needs of the Working Group.

The anticipated workload is moderate (4–10 working days). Participation in two workshops (one virtual and one hybrid) is expected over the nine-month duration of the project. Working Group members will be listed as co-authors in the report that will emerge. This is a voluntary role; no remuneration is offered. Limited travel support may be available for participants from countries of the "Mediterranean South."

# For questions or submissions, please contact:

Dr. *Eleni Pilla*Administrative Officer
Cyprus Academy of Sciences, Letters, and Arts