



Expert Analysis: Environmental change, conflict, and human migration in the Mediterranean Basin

by **MedEC** 
Mediterranean Experts on Climate
and environmental Change

MEDITERRANEAN EXPERTS ON CLIMATE AND ENVIRONMENTAL CHANGE

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Expert Analysis

Environmental change, conflict, and human migration in the Mediterranean Basin

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Preface

Mediterranean Experts on Climate and environmental Change (MedECC) is an open and independent international network of scientists founded in 2015, that specifically focuses on climate and environmental changes within the Mediterranean region. The objective of MedECC is to provide decision-makers, stakeholders, and citizens with assessments of available scientific knowledge on climate and environmental changes including associated risks and social aspects. MedECC reports aim to maintain neutrality regarding policy and to objectively address scientific, technical and socio-economic factors relevant to the application of policies. They are produced for use by policymakers and a broader audience and are developed on the basis of scientific criteria only.

Since 2015, more than 300 authors have contributed to MedECC reports, all in an individual capacity and without financial compensation. MedECC scientists are located in 35 countries, including 19 registered as Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and 23 members of the Union for the Mediterranean (UfM).

The network is governed by Co-Coordicators, a Steering Committee, and an Advisory Board. Operations are managed by the MedECC Secretariat, which is officially hosted by Plan Bleu, a UNEP/MAP Regional Activity Centre in Marseille, France, as part of a partnership with the Secretariat of the UfM. The Mediterranean Action Plan of the United Nations Environment Program (UNEP/MAP) has also provided support since 2022, with MedECC activities integrated into the successive UNEP/MAP Work Programmes since 2020, the latest being approved during COP 24 (Cairo, Egypt, December 2025).

MedECC published the First Mediterranean Assessment Report (MAR1): *Climate and Environmental Change in the Mediterranean Basin – Current situation and risks for the future*, in November 2020. It includes a Summary for Policymakers (SPM) that was approved line-by-line during a plenary session attended by government representatives

from Mediterranean countries in September 2020, ensuring its relevance to stakeholders. MedECC was awarded the prestigious North-South Prize 2020 of the Council of Europe for its efforts towards peace and democracy. The SPM was acknowledged as an important contribution of the scientific community to future climate and environmental action in the Mediterranean region, as stated in the Declaration adopted during the 2nd Ministerial Meeting on Climate and Environmental Action of the Union for the Mediterranean (4 October 2021, Cairo, Egypt), and by the 22nd meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) (COP 22, December 2021, Antalya, Türkiye). The findings of MAR1 have since been widely acknowledged and cited in strategic documents, establishing it as a foundational scientific source for climate and mitigation policies across the Mediterranean. The MAR1 report has also laid significant groundwork for other key deliverables and contributions for the Mediterranean region. MedECC contributed to the coordination of the climate change chapter of the State of the Environment and Development in the Mediterranean (SoED) report, published in 2020 by Plan Bleu. MedECC authors contributed to the IPCC Sixth Assessment Report (AR6-WG2) published in February 2022, through a cross-chapter paper focused specifically on the Mediterranean Basin, integrating regional aspects into the global assessment. In 2024, two MedECC Special Reports were published: *Interlinking climate change with the Water–Energy–Food–Ecosystems (WEFE) nexus in the Mediterranean Basin* and *Climate and environmental coastal risks in the Mediterranean*. The SPM of the climate and environmental coastal risks report was approved at COP23 (Decision IG.26/13, Portorož, 2023), while the SPM of the WEFE nexus report was endorsed at COP24 (Decision IG.27/10, Cairo, 2025).

This MedECC Expert Analysis

Scope of the Analysis

The *MedECC Expert Analysis on environmental change, conflict, and human migration in the Mediterranean Basin* responds to the MedECC Steering Committee's decision to provide scientific information regarding specific issues for the Mediterranean identified after the publication of MAR1, informed by both scientists and government representatives. It provides an assessment of the scientific, technical and socio-economic literature on the interdependency and numerous mutual linkages and feedback mechanisms between environmental change (including climate change), conflict and human migration. It builds on the MedECC MAR1 report, previous reports by the Intergovernmental Panel on Climate Change (IPCC), and other relevant local, regional, and national assessments, and draws on evidence from over 1000 scientific publications.

This Analysis examines the intricate connections between environmental change, conflict, and human migration in the Mediterranean Basin. It aims to improve the common understanding of the determinants, trends, patterns and impacts of human migration and displacement in order to assist in the development of policy measures designed to minimise human suffering, allocate resources effectively, and collectively support regional stability and well-being.

Structure of the Analysis

The Analysis consists of seven chapters and includes an Executive Summary, which presents key findings of the full Analysis in the form of headline statements and a synthesised narrative of the full Analysis. *Chapter 1 (Introduction and framing)* and *Chapter 2 (Geographical and temporal scope and current setting)* describe the methodology and process, context, background, and key dimensions of this assessment. *Chapter 3 (Threats to human life and livelihoods from environmental change)* provides an overview of the impact of environmental change including climatic drivers and non-climatic drivers, in a range of sectors, which may endanger human life and livelihoods and cause conflict and/or migration. *Chapter 4 (Key challenges for security: conflict and cooperation in the Mediterranean)*, *Chapter 5 (Understanding the environment-migration nexus in the Mediterranean)*,

and *Chapter 6 (The environmental change-conflict-migration nexus and uneven challenges of adaptation)* then address the context-dependent migration patterns shaped by the interaction of environmental stressors with socio-economic and political factors. These core chapters aim to deepen the understanding of how environmental challenges influence conflict dynamics, migration flows, and adaptation strategies in the region. Finally, *Chapter 7 (Knowledge gaps and strategies to address them)* builds on the previous chapters and presents an overview of the knowledge gaps and some ways forward. The aim of this structure is to offer a coherent assessment of the risks and responses to efficiently guide policymakers and stakeholders toward a comprehensive understanding and effective policy responses that address the interconnected challenges of environmental change, security, and migration in the Mediterranean region.

The process

The MedECC Expert Analysis represents the collaborative efforts of a team of leading experts and scientists who volunteered their time and expertise without financial compensation. Its preparation followed the established principles of scientific assessments, similar to those applied for MAR1 and the IPCC, involving an open and rigorous process of author selection, external peer-review, and stakeholder consultation.

An open call for self-nominations of scientific experts was circulated in April 2021. The Scoping Meeting took place in November 2021, in which experts and scientists were consulted alongside governmental representatives and stakeholders. The framework and outline were reviewed and approved by the MedECC Steering Committee. The authors were selected and approved by the MedECC Steering Committee based on their expertise, their country, and the gender balance (56 authors from 17 countries). The Analysis detailed outline was developed during an in-person meeting in Barcelona, Spain, in June 2022. It was further refined in November 2022 following a consultation process in which the outline was shared with stakeholders, including the UfM Climate Change Expert Group (CCEG), UNEP/MAP and Plan Bleu Focal Points, and the Mediterranean Commission on Sustainable Development (MSCD).

The development of the MedECC Expert Analysis involved several stages of drafting, an open and transparent review and revision process, and consultation with stakeholders to ensure scientific accuracy and robustness, as well as strong policy-relevance. The initial draft (Zero Order Draft) underwent internal review between March and May 2023, receiving 203 comments from 12 reviewers.

The First Order Draft Analysis and its Executive Summary underwent extensive peer review between October and December 2023. A total of 508 comments on the full Analysis and 147 comments on the Executive Summary were submitted by 34 reviewers and fully addressed by the authors in developing the final version, consolidated by the coordinators.

