



# التغير المناخي والبيئي في حوض المتوسط الوضع الراهن والمخاطر المستقبلية

تقرير التقييم المتوسطي الأول (MAR1)

## تحرير

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كاتارزينا ماريني  
مسؤولة العلوم في MedECC  
سكرتيرة MedECC  
الخطة الزرقاء



Mediterranean  
Action Plan  
Barcelona  
Convention



Union for the Mediterranean  
Union pour la Méditerranée  
الاتحاد من أجل المتوسط



Sweden  
Sverige

## شبكة خبراء المتوسط حول التغير المناخي والبيئي (MEDECC)

تعد شبكة خبراء المتوسط حول التغير المناخي والبيئي (MedECC) شبكةً مستقلة من العلماء في المادين ذات الصلة، تم تأسيسها سنة 2015، وتروم تقييم أحسن المعارف العلمية المتاحة حول التغير المناخي والبيئي والمخاطر المرتبط المتواجد في حوض البحر الأبيض المتوسط وجعلها متوافرة وسهلة الولوج من لدن واضعي السياسات، والاطراف المساهمة وكذا السكان.

ولقد وصل في الوقت الراهن (سبتمبر 2020)، عددُ اعضاءها إلى ما يزيدُ عن 600 عضوٍ علمي، يُساهم كل واحد من موقعه ووفق إمكانياته دون أي تعويضٍ مادي.

ينتمي علماء شبكة MedECC إلى 35 بلداً، من ضمنها 19 بلداً متعاقد بشأن اتفاقية حماية البيئة البحرية والمنطقة الساحلية للبحر المتوسط (اتفاقية برشلونة 23 بلدا هم أعضاء في الاتحاد من أجل المتوسط).

إن سكرتارية اتفاقية برشلونة ببرنامج الأمم المتحدة للبيئة/خطة عمل البحر الأبيض المتوسط من خلال مركز الأنشطة الإقليمية للخطة الزرقاء، وبشراكة مع سكرتارية الاتحاد بغاية دعم شبكة المتوسط MedECC، لوضع نسق لتقييم علمي متين وشفاف.

إن تحضير تقارير شبكة MedECC لفائدة صناع القرار ولأوسع جمهور، يتم على أساس معايير علمية فيما ترجع مسؤولية التحقيق في صحتها على عاتق واضعيها من أعضاء شبكة MedECC.

تعاني المعارف المتوافرة حول المخاطر التي كانت موضوع درُاسة شبكة MedECC، من فجواتٍ، تُعزى في الغالب إلى محدودية نُظم المراقبة وقدرة البحث العلمي لذا واعتبار لذلك تم الإشارة بشكل واضح إلى هذه الفجوات. وعلى الرغم من استنفاد الجهد والطاقة، يظل احتمال وقوع الخطأ والإغفال ممكناً.

### هذا التقرير

أعدت شبكة MedECC التقرير الأولي لتقييم المتوسط (MAR1) حول الوضع الراهن ومخاطر التغير المناخي والبيئي المنتظر في حوض المتوسط. يتضمن هذا التقرير ملخصاً لفائدة واضعي السياسات (Summary for Policymakers (SPM)، يضم الرسائل الأساسية الواردة في التقرير. وكانت الطبعة الأولى لتقرير MAR1 قد وُضعت في 2019 وكانت موضوع تحليل بأسلوب استعراض النظير.

وتعرضت على نطاق واسع، الطبعة الثانية التي تمت مراجعتها اعتماداً على تعليقات الواردة على ضوء الاختبار والتي زودت حالياً بملخص، لتعليقات وملاحظات من لدن واضعي السياسات، والاطراف المساهمة سنة 2020.

وكان الهدف الأساسي من الاستشارة التأكيد من أن نتائج التقرير MAR1، كما عُرضت في الملخص SPM، مفهومة واضحة ولا يشوبها أي التباس. أما مشاريع الفصول المقدمة مع الملخص SPM قيد المراجعة، ساعدت فقط على توفير المعلومة ولن تكون مكوناً من الاختبار.

وقد عبر منسقي شبكة MedECC عن الامتنان للخبرم، والدقة وتفاني الكتاب الرئيسيين وكذا للمنسقين لدورهم ومدى التعامل بشكل عرضاني مع كل فصل من فصول التقرير، علاوة على المساعدة الضرورية التي وفرتها مجموعة من الكتاب والمؤلفين.

وقد بلغ عدد الملاحظات التي وردت حول الملخص SPM في نهاية المشاورات مع الاطراف المساهمة ما يناهز 453 ملاحظة ساعدت على المراجعة الممكنة. وقد توج اختبار المنجز من لدن الاطراف المساهمة، بجلسة عامة عُقدت عبر الإنترنت في 22 سبتمبر، 2020. ومن المقرر إصدار الطبعة النهائية من تقرير MAR1 في نهاية 2020.

ولا يفوتُ كُتابٌ ومنسقي شبكة MedECC أن يتقدموا بالشكر الجزيل لجميع المراجعين لما بذلوه من الجهد والوقت. وفي هذا الاطار تم وضع سجل يتضمن لكل الاجابات على تعليقات المراجعين.

This publication has been made possible through the collaboration of more than 180 contributors, who are listed in the full report.

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## Foreword

Climate change is possibly the most crucial challenge for the future of the Mediterranean: the pace and magnitude of climate change and its impacts in the region can turn it into a serious stability risk if untamed and not integrated organically in national and regional policy.

In accordance with their respective mandates, the Secretariats of the Union for the Mediterranean (UfM) and of the United Nations Environment Programme / Mediterranean Action Plan – Barcelona Convention (UNEP/MAP) have joined efforts to support the work undertaken by the network of Mediterranean Experts on Climate and environmental Change (MedECC) and its Secretariat, which is hosted by Plan Regional Activity Centre (UNEP/MAP) in Marseille, France.

Despite the pressing need to better understand the current state of play and the present and future risks of climate and environmental change in the Mediterranean, there was until recently a dearth of reliable, robust and scientific data combined with a deficit in knowledge sharing with decision-makers and stakeholders.

Thanks to MedECC, the First Mediterranean Assessment Report (MAR1) now bridges the gap.

The methodology used by MedECC is based on key principles of the Intergovernmental Panel on Climate Change (IPCC) and of the Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). This approach is innovative, but its application was fraught with challenges specific to the Mediterranean region. We commend MedECC for the results achieved.

For the UfM Secretariat, it is clear that MAR1 is a major deliverable of the 1<sup>st</sup> UfM Ministerial Declaration on Environment and Climate Change; it is also a cornerstone between the first and the second UfM Ministerial Declarations.

From the UNEP/MAP perspective, the support to MedECC is a major achievement under the Mediterranean Strategy for Sustainable Development (MSSD), which identifies the establishment of a regional science-policy interface on climate change as a priority (Flagship Initiative). MAR1 will take centre stage in the context of the 22<sup>nd</sup> Meeting of the Contracting Parties to the Barcelona Convention, which will adopt the UNEP/MAP Medium-Term Strategy (MTS) 2022-2027.

At a time when an unprecedented health crisis having severe impacts on Mediterranean societies and economies, regional cooperation and multilateralism underpinned by robust science have never been more sorely needed. In this vein, MedECC offers a unique synthesis on best available scientific knowledge on climate and environmental changes in the Mediterranean, thus allowing for an evidence-based, basin-wide policy response.

This is also a report of great importance to our partners in the Mediterranean region as MAR1 will inform integrated programming in ways that can improve cooperation to address urgent needs and to inform long-term climate and environmental action. Its findings constitute a foundation for meeting sustainable development needs whilst informing strategic planning and investment at the regional level.

We acknowledge with appreciation MedECC's efforts, which also have an important impact in terms of capacity-building. UfM and UNEP/MAP reiterate their commitment to bolstering MedECC and its linkages with global processes. We will deploy additional support for the best-possible use of MAR1 in the context of the enforcement of the three UN Rio conventions in the region.



**Mr. Nasser KAMEL**

*Secretary General*

*Union for the Mediterranean*



**Mr. Gaetano LEONE**

*Coordinator*

*UNEP/MAP – Barcelona Convention*

Within the mandate given by the Contracting Parties to the Barcelona Convention to Plan Bleu in its role of Regional Activity Centre of the UNEP/MAP system, and in the framework of an agreement with the Secretariat of the Union for the Mediterranean, Plan Bleu has hosted the MedECC Secretariat and supported directly its activities since its creation.

We would like to commend all the scientists who contributed to this report, MedECC Steering Committee and especially its Coordinators and Scientific Secretary for the delivery of this outstanding report. This work would not have been possible without the financial support of the Swedish International Development Agency (SIDA), the Principality of Monaco, the French Agency for Ecological Transition (ADEME), the French Ministry of Ecological Transition and Solidarity, the French National Centre for Scientific Research (CNRS) and the French Research Institute for Development (IRD) via the MISTRALS programme, the Aix-Marseille University via the Laboratory of Excellence (Labex) OT-Med, the Advisory Council for the Sustainable Development of Catalonia of the Government of Catalonia (CADS) and the Aix-Marseille Provence Metropole.

Plan Bleu will maintain its support to the MedECC network to disseminate the key MAR1 findings to all stakeholders, including to policymakers through UfM and UNEP/MAP processes; and to dive in the assessment of thematic issues in its next phase of activities.



**Mr. Thierry LAVOUX**

*Président, Plan Bleu*

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