

## PROGRAMME 3: TOWARDS A CLIMATE RESILIENT MEDITERRANEAN

### General introduction

73. The combination of various ongoing climate drivers of environmental change (e.g. sea warming, ocean acidification, and sea level rise) has numerous detectable effects on marine organisms acting at individual, population, and ecosystem scales. Expected future impacts include major reorganizations of the biota distribution, species loss, decrease in marine productivity, increase in non-indigenous species, and potential species extinctions. The importance of specifically addressing climate change in the Mediterranean has been recognized recently by the Intergovernmental Panel on Climate Change (IPCC): In the upcoming 6<sup>th</sup> Assessment Report (IPCC AR6) there will be, for the first time, a cross-chapter paper specifically on the Mediterranean, co-coordinated by one of the MedECC Coordinators, who work in close coordination with the UNEP/MAP-Barcelona Convention system.

74. The 2020 Mediterranean Experts on Climate Change and Environmental Change (MedECC) First Mediterranean Assessment Report (MAR1) notes that due to anthropogenic emissions of greenhouse gases, climate is changing in the Mediterranean Basin, historically and projected by climate models, faster than global trends. Virtually all sub-regions of the Mediterranean Basin, on land and in the sea, are impacted by recent anthropogenic changes in the environment. The main drivers of change include climate (temperature, precipitation, atmospheric circulation, extreme events, sea-level rise, sea water temperature, salinity and acidification), population increase, pollution, unsustainable land and sea use practices and alien invasive species. In most areas, both natural ecosystems and human livelihoods are affected. Most impacts of climate change are exacerbated by other environmental challenges such as changing land use, increasing urbanization and tourism, agricultural intensification, overfishing, land degradation, desertification, and pollution (air, land, rivers and ocean).

75. The 2020 State of Environment Report also stressed that climate change already exacerbates regional challenges, inducing an increase in risks of droughts, floods, erosion, and fires. In the upcoming decades, climate change is expected to further threaten food and water security, as well as human livelihoods and health, which is why it is essential that climate change is tackled in parallel to ensuring the sustainable management of the marine and coastal environment as well as addressing socioeconomic aspects such as poverty, security and human health.

76. UNEP/MAP has been working on the issue of climate change impacts on the marine and coastal zone as far back as in the 1990's and, after a first comprehensive bottom-up assessment of vulnerability and impacts of climate change on Mediterranean biodiversity done at national, sub-regional and regional levels and related priorities identification in 2008-2009, followed by works on its monitoring possibilities, climate related activities were integrated into the work of UNEP/MAP as a transversal common work theme within the 2016-2022 MTS. Programme 3 aims to provide even more consolidated support to Contracting Parties as noted in the Naples Declaration agreed in 2019 by COP 21 and in line with the Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas and Objective 4 of the Mediterranean Strategy on Sustainable Development 2016-2025, both adopted in 2016 by COP 19, and as support to the implementation of the Common Regional Framework for Integrated Coastal Zone Management adopted in 2019 by COP 21.

### Contribution to global and regional priorities and targets

77. Programme 3 directly contributes to a number of global and regional objectives and targets including the SDG's and the Paris Agreement under the UN Framework Convention on Climate Change

(UNFCCC). It also considers the resolutions UNEA in particular UNEA 4 (2019) resolution on Ecosystem-based adaptation which stresses ecosystem-based adaptation as a mechanism to reduce vulnerability to climate change and subsequent vulnerabilities in areas such as food security, water, health or biodiversity. It is also fully in line with UNEP's 2022-2025 MTS Climate Action Programme.

78. For the development of Programme 3, due consideration was given to the recommendations of two reports on Analysis of Existing Regional Measures identifying gaps vis a vis the achievement of Good Environmental Status and potential new/updated regional and national measures, which although structured around the MAP Ecological Objectives, they also addressed to some lesser extent climate change issues, mainly relating to the need to fill knowledge gaps about the impacts of climate change on marine and coastal ecosystems, especially the impacts of acidification.

**Programme 3 key relevant SDG targets:**

Goal 14. Life below Water:	Targets 14.2 and 14.3
Goal 13. Climate Action:	Targets 13.1, 13.2 and 13.3
Goal 6. Clean Water and Sanitation:	Target 6.6
Goal 11. Sustainable Cities and Communities:	Target 11.6 and 11.b

79. At the regional level, of great relevance is the network of Mediterranean Experts on Climate and Environmental Change (MedECC) and the First Mediterranean Assessment Report (MAR1) published in 2020 [\[LINK\]](#). This programme also contributes to the implementation of the relevant EU Directives and Strategies - climate action is at the heart of the European Green Deal [\[LINK\]](#), where applicable as well as with the relevant work of UfM, including the first Ministerial Declaration on Environment and Climate Change (adopted in Athens on 13 May 2014) and the progress since. The work of several other regional partners is considered, including IUCN-Mediterranean work on nature-based Solutions, WWF Mediterranean (WWF Med), Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE), the Euro-Mediterranean Center on Climate Change (CMCC) [\[LINK\]](#) and the Global Water Partnership-Mediterranean (GWP-Med).

## Objectives

80. Programme 3 includes the following strategic objectives linked to the ICZM Protocol and the Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas endorsed by COP 19:

1. To strengthen the resilience of the Mediterranean natural and socioeconomic systems to climate change by promoting integrated adaptation approaches and better understanding of impacts; and
2. To reduce anthropogenic pressure on coastal and marine ecosystems to maintain their contribution to adapt to and mitigate the effects of climate change

**Relevant Ecological Objectives:**

- EO 7. Alteration of hydrographic conditions does not adversely affect coastal and marine ecosystems

## Outcomes

81. The 2022-2027 MTS will achieve the following outcomes and associated Indicative targets/Indicators.

### **Outcome 3.1. Legal, policy and institutional framework strengthened at the regional and national level to efficiently address climate change related challenges (flooding, erosion, land degradation, pollution, disasters etc.)**

82. Climate change related challenges including among others sea level rise, extreme weather events and storm surges are expected to generate additional pressures on coastal and marine areas. The increase of temperature will have an impact on both, terrestrial and marine ecosystems and will affect land- and sea-based activities. In this regard, support will be provided in effectively mainstreaming climate change into national and regional strategic and policy instruments. At regional level, work will be undertaken to review the implementation of the current Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas, having a timeframe until 2025, and develop an updated Regional Strategy on Climate Change Adaptation taking into consideration the findings of MedECC report and other key regional and national assessments. Contracting Parties will be supported to integrate into National ICZM and MSP Strategies and management plans adaptation and mitigation measures as well as expected climate change projections and the increased uncertainty it brings to the environment, human health, and economic activities. To this end, leverage of adequate climate finance mechanisms will also be promoted, as well as stronger engagement of private, banking and insurance sectors. Activities will be undertaken to progress towards climate neutrality in line with regional and global commitments.

### **Outcome 3.2. Nature-based, technical solutions promoting prevention or reduction of the impact of climate change on coastal and marine ecosystems and increase resilience to climatic variability and change.**

83. The actions foreseen under this outcome aim to assist the Contracting Parties through the elaboration of guidelines and technical tools as well as through sharing of best practices for optimizing the use of ecosystem restoration as a means to maintain its ecosystem services. Adequate spatial planning and management can have important resilience enhancement effects, in particular through the establishment of coastal setback - that allows implementation of nature-based solutions in the sensitive land-sea interface areas - as well as measures related to green infrastructure and greening of coastal cities that improve quality of life of coastal populations by ensuring clean air and reducing risks of flooding, heat waves and other similar events. Coastal erosion prevention at national level will be supported also through mapping of key coastal ecosystems and targeted conservation and restoration actions.

### **Outcome 3.3. Better understanding and knowledge of climate change and its impacts on environment and development.**

84. Scientific evidence and knowledge about the current and projected impacts of climate change on the environment and development will enable decision-makers to anticipate and design policies that take into account the systemic interrelations between human activities, nature and climate change. The identification of particularly sensitive coastal areas and species threatened by climate change will support decision-makers and stakeholders to increase resilience and focus efforts when drawing-up inclusive and resource-efficient strategies for climate change mitigation and adaptation. Coastal areas, as the interface between land and marine ecosystems and landscapes, are of

exceptional value; they are also mainly urbanized areas, with a high population density and concentration of activities, which make them more vulnerable to impacts of climate change. It is therefore necessary to identify and assess the most threatened areas and propose planning and management measures in order to achieve preservation, restoration or adaptation in various coastal contexts, e.g. pristine areas, coastal cities, the narrow coastline, and the coastal sea.

85. Efficient climate change mitigation and adaptation measures will take into account the local environmental and socio-economic conditions and lead to a virtuous cycle where positive outcomes in addressing climate change also lead to positive outcomes for the environment and communities. Technical assistance to local authorities will support them in taking into account local socio-economic contexts and impacts of nature-based solutions from the design phase of such solutions to their implementation and replication. Human lifestyles are also a driver of climate and environmental change; investigating how changes in lifestyles towards sustainable consumer choices can impact climate outcomes can be a powerful lever for policies that target consumer behaviour.

**Outcome 3.4. Mitigation of Climate Change progressed through Circular Economy, increased resource efficiency and carbon neutrality business strategies.**

86. This Outcome aims at supporting climate change mitigation efforts by exploiting the positive nexus between sustainable production and consumption and action-led societal transformation. To this end, Circular Economy, industrial symbiosis, eco-innovation and value co-creation will be fostered through a number of activities targeting primarily the private sector, including entrepreneurs and small businesses, with the aim to support circular economy entrepreneurs and business ventures to address climate change mitigation, increased resource efficiency and reduced emissions and to promote tools for improved measurement frameworks and consumption-based accounting. Specific actions and innovative solutions will be also developed and implemented to reduce GHG emissions from ships in selected ports, including energy efficiency and decarbonisation. Also, energy efficiency and larger shares of renewable sources in the energy mix, in line with international agreements will be encouraged.

87. In achieving this outcome's goals, sustainable business support will be complemented by actions targeting civil society and local authorities, by offering appropriate tools to boost a change of lifestyles according to the pressing, climate change related, needs. In this respect, this outcome aims to promote cities and municipalities to be engaged to pivot climate positive lifestyles assessments and plans, using consumption-based accounting models to inform local mitigation pathways, identifying carbon hotspots and triggering effective consumption-production nexus.