Marine turtles are considered sensitive species to climate change and - even at diminished population levels - play important functional ecological and socio-economic roles in the Mediterranean, by maintaining healthy seagrass beds, providing key habitat for other marine life, helping to balance marine food webs and facilitating nutrient cycling from water to land. They also provide valuable cultural, social and economic services to communities, stakeholders and the tourism industry within the Mediterranean. Predicated impacts of climate change risk the ability of marine turtles, ecosystems, and biodiversity to deliver essential services and co-benefits to support livelihoods.

Understanding the current condition of marine turtles, their associated loss of valuable ecosystem services and the resultant impact on human welfare has motivated funding for two successful Phases of the MAVA-funded Conservation of Marine Turtles in the Mediterranean Project, driving policy reforms, building local, national, and regional capacity, and delivering other actions to protect and restore marine turtle populations. Project 3 represents the third phase and it will enhance the protection and conservation of marine turtles resulting in thriving marine turtle populations both on land and at sea, benefiting surrounding ecosystems and biodiversity for a more resilient Mediterranean.

Issues

The Mediterranean is warming 20% faster than the global average. Increasing temperatures in the Mediterranean are predicted to have disastrous consequences for marine turtles through disrupted sex ratios, reducing hatching success to close to 0%, inhibiting successful foraging, reducing, and shifting nesting areas, and increasing pathogenic risk – limiting their ability to perform crucial functional roles for the benefit of the region. Actions to tackle, and build resiliency to, the impacts of climate change are currently hindered by the lack of data through fragmented monitoring strategies, the effectiveness of direct interventions and lack of resources, political will, and funding to implement national and regional strategies.
Solutions

To limit or reduce the detrimental impact of climate on marine turtles, and critical habitats, in the Mediterranean, the response is two-fold: direct interventions and overarching mitigations coupled with a need to fill knowledge gaps, improve current monitoring and assessment efforts and development and adoption of ecosystem-based management strategies.

To achieve this, the project 3, through an established and strong partnership, with involvement of key local, national and regional stakeholders (scientists, managers, general public, policymakers and private sector), will implement activities over three years, under 3 workstreams. The total implementation cost of the project is estimated at €2.300 million, with a breakdown per activity as indicated in italic below.

This cost includes expected co-funding from countries and implementing partners of 300K, and expected funding from donors of 2000K.

1 | STRENGTHEN MONITORING AND RESEARCH

Monitoring practices for marine turtle and their habitats will be advanced with rigorous scientific data. Theme 1 will report on the status of marine turtle, identify key habitats through the Important Marine Turtle Areas (IMTA) process and fill knowledge gaps through the development of conservation responses to key threats, including climate change.

Estimated cost in euros - Total cost: 530K, expected in kind co-funding from countries and partners: 30K, expected funding from donors: 500K.

2 | REDUCING THREATS

Threats to marine turtles will be identified, minimised, and mitigated through coordinated responses and area-based management within local, regional and international frameworks. Theme 2 will be achieved by: (a) the identification and selection of hotspots for threats and pressures; (b) the production of appropriate tools to manage critical habitats for nesting, foraging, wintering and migration; (c) the establishment of a unified and scientifically operational national stranding network; (d) the improvement of policies for marine turtle conservation, aligning national action plans; and (e) the support of obligations under regional policy Post-2020 frameworks, and international commitments.

Estimated cost in euros - Total cost: 580K, expected in kind co-funding from countries and partners: 30K, expected funding from donors: 550K.

3 | EXPANDING THE MARINE TURTLE COMMUNITY

Capacities to collect critical data, monitor marine turtles, and respond to impacts will be increased producing a network of conscious stakeholders, practitioners, and citizens. Theme 3 will build the capacity of project partners, raise capacity and strengthen exchanges between stakeholders, operational networks & rescue centres whilst maintaining and expanding communication and developing relationships for marine turtles outside of the Mediterranean.

Estimated cost in euros - Total cost: 530K, expected in kind co-funding from countries and partners: 30K, expected funding from donors: 500K.

Implementation

The project will focus on countries with a key role to play in marine turtle populations and with identified capacity limitations within the following countries: Albania, Algeria, Egypt, France, Greece, Italy, Israel, Lebanon, Libya, Morocco, Spain, Tunisia, Türkiye.

The project will be driven through a sustainable and functional partnership for marine turtles, benefiting from a strong governance structure and steering committee composed of 8 project partners - building on two previously successful phases.

Estimated cost of the project coordination in euros (included in the total implementation cost, indicated above) - Total cost: 660K, expected in kind co-funding from countries and partners: 210K, expected funding from donors: 450K.
The activities of the project cover the following actions of the Post-2020 SAPBIO

2. SPECIES RECOVERY
Develop recovery plans and implement emergency actions for endangered and threatened species whose continued survival depends on such actions

13. CLIMATE CHANGE
Increase climate change impacts monitoring and contributions to mitigation and adaptation, particularly to warming, acidification, and to disaster risk reduction, through nature-based solutions and ecosystem-based approaches

14. GOOD ENVIRONMENTAL STATUS
Promote actions, including scientific research, with the view of achieving GES for all biodiversity-related ecological objectives within the Ecosystem Approach EcAp/IMAP

27. STREAMLINE Post-2020 SAPBIO
Streamline the Post-2020 SAPBIO and Regional strategies and action plans, developed in the framework of the SPA/BD Protocol, into national strategies, action plans and legal frameworks

36. CAPACITY BUILDING FOR THE Post-2020 SAPBIO AT NATIONAL LEVEL
Enhance the national capacities to implement the Post2020 SAPBIO, to manage MPAs and vulnerable marine and coastal habitats and species

38. AWARENESS
Increase awareness, understanding and appreciating of the values and threats to the marine environment, stimulating improved behaviour, and of the responses and good practices, by targeting decision-makers and the general public

39. OUTREACH AND EDUCATION
Promote the integration of marine biodiversity and ecosystems conservation concerns into school, higher education, professional training, and citizen science, so that best practices and innovative technologies to protect marine and coastal ecosystems are more accessible and replicable

Partners

The Sea Turtle Protection Society of Greece (ARCHELON); Sea Turtle Research, Rescue and Rehabilitation Center (DEKAMER); Mediterranean Association To Save Sea Turtles (MEDASSET); Network of Marine Protected Areas managers in the Mediterranean (MedPAN); World Wildlife Fund (WWF) - Greece, North Africa, Türkiye.

Photo: © SPA/RAC, Artescienza
### Indicative calendar

<table>
<thead>
<tr>
<th>Workstreams</th>
<th>Activities</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>**1</td>
<td>STRENGTHEN MONITORING AND RESEARCH**</td>
<td>a. Continued monitoring of marine turtles on both land and at sea to guide management measures</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Important marine turtle areas (IMTA) identification process</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Filling knowledge gaps for monitoring and managing ecosystems for marine turtles in the face of climate change</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>**2</td>
<td>REDUCING THREATS**</td>
<td>a. Identification and selection of hotspots for threats and pressures</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>b. Appropriate tools to manage critical habitats for nesting, foraging, wintering and migration</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>c. Establish unified and scientifically operational national stranding network</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>d. Improving policies for marine turtle conservation: aligning national action plans</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>e. Support obligations under regional policy frameworks post-2020, and international commitments</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>**3</td>
<td>EXPANDING THE MARINE TURTLE COMMUNITY**</td>
<td>a. Building capacity of internal project partners</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>b. Raise capacity and strengthen exchanges between stakeholders, operational networks &amp; rescue centers</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Maintain and expand communication on the project’s activities, results and achievements</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>d. Learning lessons and developing relationships for marine turtles outside of the Mediterranean</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>