

IUCN Mediterranean Programme 2017-2020





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1. BAKGROUND/ CONTEXT



Sinis Protected area © IUCN/L. Lazaro

The UICN Mediterranean Programme 2017-2020 has been prepared by the IUCN Centre for Mediterranean Cooperation (IUCN-Med) in cooperation and consultation with IUCN Members and Partners in the Mediterranean region.

The Programme takes into account and aims to contribute to the Global Programme of IUCN for the same period and other key international processes such as the Strategic Plan 2010-2020 for Biodiversity adopted by the Parties to the Convention on Biological Diversity (CBD), and the post-2015 development agenda to reach, by 2030, the Sustainable Development Goals (SDGs).

It is also intended to contribute in implementing relevant initiatives and strategies in the Mediterranean region, in particular the UNEP/MAP Mid-Term Strategy 2016-2021 (MTS) and the Mediterranean Strategy for Sustainable Development 2016-2025 (MSSD). The MTS is meant to guide the path for the protection of the marine and coast al environment of the Mediterranean region to achieve Good Environmental Status. The MSSD aims to harmonise the interactions between socio-economic and environmental goals, for securing a sustainable future for the Mediterranean region consistent with the Sustainable Development Goals.

The involvement of all IUCN Members and partners is crucial to achieve the expected results of the programme. They will greatly contribute, including with their own activities, to the achievement of the main targets set in this programme. IUCN-Med and its partners will undertake concerted action to further strengthen and amplify their efforts in developing effective solutions for nature conservation in the Mediterranean.

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2. IUCN IN THE MEDITERRANEAN

2.1. WORKING TOGETHER

The long term goal of IUCN in the Mediterranean is to preserve biodiversity components and restore degraded ecosystems functionality as the fundamental basis for a sustainable development and welfare of the Mediterranean people and societies. This goal can only be achieved with the cooperation of key partners, including governmental, non-governmental organisations, public and private sectors, as well as the civil society.

The IUCN-Med programme focuses on the Mediterranean region, including all countries bordering the Mediterranean Sea. Three other major IUCN programmes cover part of the Mediterranean Region and complement each other: the North Africa programme (Southern Mediterranean countries), the Pan-European programme (Northern Mediterranean countries) and the West Asia programme (Eastern Mediterranean countries). Cooperation among these programmes is essential to seize common opportunities and achieve effective and successful results.

IUCN-Med cooperates with numerous partners in the Mediterranean region and has signed agreements with relevant international and national organisations to join forces for the implementation of actions in areas of common interest. (See a list of partners in Annex 1)

All these agreements and partnerships have been taken into account in the preparation of this Mediterranean Programme.

2.2 BUILDING UPON THE RESULTS FROM PREVIOUS PROGRAMMES

Since 2001, IUCN Med has worked with government authorities, as well as local NGOs, academic institutions and the private sector to strengthen cooperation in the conservation of the Mediterranean's natural resources. In order to guide conservation actions, IUCN-Med has provided training on extinction risk assessments of species, Identification and protection of important areas for biodiversity conservation, management planning and sustainable development.

Some thirty projects were run in the previous programme (2013-2016) to empower civil society and policy makers in preserving nature and achieving a sustainable development through cooperation in the Mediterranean. The IUCN-Med action frame was targeting the three interdependent programme areas: 1) Valuing and Conserving Nature, 2) Effective and Equitable Governance of Nature's use, and 3) Deploying of nature-based solutions to climate, food and development challenges.

For **valuing and conserving nature**, the assessment of the conservation status of over 3800 plant and animal species in the Mediterranean and the

As an example, IUCN-Med is looking at governance models for the participation of artisanal fishermen in the management of fisheries resources inside and around marine protected areas.

identification and appraisal of important habitats, both at terrestrial and marine levels, were carried out. New Key Biodiversity Areas for freshwater species (167 sites), Red Lists of Ecosystems in danger and green lists standards for effectively managed areas have also been developed to assist policy making and informed conservation based decisions.

The effective and equitable governance of nature's use has been supported through cooperation with Mediterranean institutions and governments, among countries and among different society sectors. A participatory and consultative approach involving public, private and civil society stakeholders for a shared and integrated management of natural resources was promoted through measures aimed at protecting and enhancing the knowledge and use of nature at different levels. As an example, IUCN-Med is looking at governance models for the participation of artisanal fishermen in the management of fisheries resources inside and around marine protected areas.

Work undertaken for the **deploying nature-based solutions** to climate, food and development was concentrated in the Mediterranean on ecotourism and social development and will continue in the current programme. Several projects were implemented to restore coastal habitats and address climate change in Marine Protected Areas and to improve the resilience of Mediterranean mountain ecosystems, including actions to enhance population capacity to understand and address climate change and related consequences through nature-based solutions.

Based on a strong demand from Members, training workshops and practical hands-on experience sessions for civil society organizations and government officials have always constituted a crucial element for the long-term sustenance of the projects. By compiling the best available science and spreading it through IUCN networks, IUCN Med is increasing the impact and empowering partners in achieving a sustainable Mediterranean.

On the operational side, IUCN-Med is strongly promoting the use of new information and communication tools to keep pace with the digital era and maintain contact with its partners and younger generations. Social media strategies have been put into place to energize the interaction with IUCN Med associates and all those interested or involved in protecting and valuing our natural resources.

3. SITUATION ANALYSIS AND IDENTIFIED NEEDS.

3.1. STATUS AND TRENDS OF MEDITERRANEAN BIODIVERSITY AND NATURAL RESOURCES

With 2,085,292 km² and around 5,000 islands, the Mediterranean region is the second largest of the 34 biodiversity hotspots in the world (CEPF, 2011). It stretches across more than 22 countries, including major terrestrial habitats such as forests, maquis, garrigue, pasture, wetlands, coastal areas and areas of transition (ecotones) between each of these and the desert zones. The coastal and marine portion of the Mediterranean hotspot includes 2,500,000 km² with a large diversity of ecosystems and habitats from estuarine and coastal areas to the marine environment with unique and singular examples such a seagrass meadows, vermetids and oyster reefs, rhodolith beds, coralligenous and Cytosiera macroalgal beds to steep underwater geological structures as seamounts, submarine canyons, mud volcanoes, cold seeps, an trenches more than 5,000 m deep.

The Mediterranean basin is characterized by high levels of species diversity and endemism. Two main circumstances have contributed to the high diversity in the Mediterranean: (i) its location between two major landmasses: Eurasia and Africa; and (ii) the huge topographical diversity and altitudinal differences ranging from the Dead Sea (420 meters below sea level) to 4,165 metres in the west (Morocco) and 3,756 m in the east (Turkey). Its climate is unique, characterized by predominantly cool, wet winters and hot, dry summers.

In terms of plant diversity, the Mediterranean basin is the third richest biodiversity hotspot in the world (Mittermeier et al., 2004). Although geographically it only represents 1.6% of the earth's surface, around 10% of the world's vascular plants (25,000) are found in the basin and more than half of these species (13,000) are endemic to this zone; found nowhere else on Earth. Despite this, precise data on the distribution and status of plants are frequently incomplete, lacking, or out of date, particularly in the south and east of the region.

The Mediterranean also hosts one of the most diverse marine environments on the planet: with less than 1% of the world's ocean area, the Mediterranean Sea is home to nearly 8% of known species.

In terms of endemism, among animals, freshwater fishes (about 400 species recorded in the region) and amphibians (108 species) have the highest rate of endemism with respectively 253 species (63%) and 76 species (70%) respectively. Reptiles (349 species), including two resident marine turtles, have a 48% (168 species) rate of endemism with a high proportion of lizards (65%) and snakes (30%). Mammals include 297 species, 30% of which are terrestrial endemic species, including a great number of rodents, shrews, moles and hedgehogs. As for marine mammals, there are eight resident cetaceans and one endemic pinniped (the Mediterranean monk seal). The avifauna includes about 600 species with around 500 species known as



being permanent and breeding within the Mediterranean and neighbouring countries (Nadin, 2008). The highest percentage of marine endemic species lies on the sponges (Porifera 48%) followed by Mysidacea (36%), Cumacea (32%), Echinodermata (24%), Bryozoa (23%), seaweeds and seagrasses (22%) and others (Coll et al., 2010)

The current Mediterranean landscape and the remarkable natural richness of the hotspot is a consequence of the intense interaction that took place over millennia between the different local and rural civilizations that lived in the region, who employed a balanced and rational use of its natural resources as the basis of their livelihoods.



Camargue_wetland © Julle Gibbons CC BY-SA 2.0

Nevertheless, a clear decline in Mediterranean biodiversity and habitat degradation has been observed during the last decades. For example, more than 50% of wetlands were reported to have disappeared over the past century, and their decline and deterioration continue. Local species depletions have mostly occurred among large species, including marine mammals, birds, turtles, commercial fish and invertebrates. For example, recent evaluations led to declare that some populations of cetacean species have decreased in the Mediterranean by at least 30% over the past years. Other assessments showed that 31 freshwater taxa (mostly molluscs and fishes), previously present within the region, are now Extinct at the global level.

Biological invasions by non-indigenous species are also reported as a threat in the terrestrial environment in many Mediterranean countries.

Significant differences in biodiversity trends can be seen between the Mediterranean subregions and also between groups of habitats or group of species. For many groups, while the trend at the Mediterranean level shows a relative stability, some of their populations at sub-regional or local levels were reported to decrease drastically. Additionally, one of the most striking trends concerning Mediterranean biodiversity observed in the last decades is the continuously increasing number of non-indigenous species reported in terrestrial, freshwater and particularly marine ecosystems. Today, more than 1,000 alien and cryptogenic species have beeb reported in the Mediterranean, of which more than 60 are showing large impacts (Zenetos et al.; Otero et al., 2013)

3.2 MAIN DRIVERS, PRESSURES AND THREATS ON MEDITERRANEAN BIODIVERSITY

Besides to changes in the region that are subject to natural forces, human activities are the strongest driving impact on Mediterranean biodiversity.

Impacts on terrestrial biodiversity

In the terrestrial environment, habitat loss is the main concern affecting Mediterranean biodiversity. It is mainly caused by urban development and intensive agricultural practices. In most southern countries, overgrazing in arid zones, land abandonment and degradation of productive lands are among the main factors contributing to desertification. Furthermore, in many countries, inadequate policies for water resource management and forest harvesting are causing significant damage to habitats and species. These are also impacted by droughts and forest fires, although Mediterranean ecosystems have developed a relatively high level of resilience to such threats. Biological invasions by non-indigenous species are also reported as a threat in the terrestrial environment in many Mediterranean countries.

Impacts on marine biodiversity

In the marine environment, fishing impacts, habitat loss and degradation, pollution, climate change, eutrophication, and the establishment of alien invasive species are the most significant threats. They affect a great number of taxonomic groups, especially top predators like the the Atlantic Blue fin Tuna (*Thunnus thynnus*), which is listed as Endangered on the IUCN Red List. Besides by-cach, over-harvesting stands out as the most important factor. It indeed causes or contributes to 93% of depletions and 100% of local extinctions or extirpations due to an increase in the efficiency of existing fishing gear (e.g. the otter trawl) and the introduction of new ones

(such as mid-water pelagic trawls, hydraulic dredges, and iron-toothed dredges). Although the Bluefin Tuna is just one example, commercial fishing, particularly trawling and bentic dredges in general have severe impacts on species, habitats, and ecosystems.

Oil and gas exploration, maritime transport, aquaculture and tourism and their likely future developments will result in further pressures to marine life.

Main drivers affecting the conservation status of species, habitats and ecosystems

In the Mediterranean region, demographical trends and climate change can be identified as two overarching drivers which will continue to strongly influence the status of biodiversity in the region.

Population growth trends

According to the last report from WWF on Mediterranean trends, the population is expected to grow by 5% from 2010 to 2030, reaching more than 580.000 (See Piante and Ody, 2015). According the data provided by Plan Bleu, the 46,000 km of Mediterranean coastline will be inhabited by 217 million people by 2025. This would include the natural growth of the current population in addition to the internal migration of people from rural communities to cities, phenomena which will be more acute on the southern than on the northern rim. Moreover, for this first quarter of the century, up to 500 million tourists will visit the Mediterranean coast (Pan Bleu, 2014 Report). On top of the expected population growth, the high visitor rates will drive urban development, increasing the demand for natural resources such as water, energy and land area, often resulting in loss of natural habitats.

Prosperity of Mediterranean communities is incontestably linked to the maintenance of healthy ecosystems. Sound solutions need to be delivered by both public and private policies in order to minimize the environmental impacts stemming from population growth and guarantee an adequate balance between the economic demand of natural resources and the capacity of ecosystems to efficiently deliver their services. In order to meet both ends, Integrated Coastal Zone Management has been adopted at the regional level as the most adequate framework to design and deliver solutions for sustainable use of the coastal areas, under an ecosystem and participative approach. Nevertheless, methodologies, tools and processes to implement this framework are still need to be tested and to be ready for application. A pressing need for their development is currently expressed.

Climate change scenarios

The last report from the International Panel on Climate Change (IPCC, 2013) highlights the Mediterranean as one of the most vulnerable regions in the world to the impacts of global warming. The models issued by IPCC cast different scenarios for the Region, but all of them agreed on a clear trend in the pattern of some climatic parameters. In terms of the thermal regime, the base scenario from 1980-2000 was used to estimate an increase in



Cabo de Gata
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average surface temperatures in the range of 2.2 and 5.1 °C for the period 2080-2100. For this same period, the models indicate pronounced rainfall regime changes in the Mediterranean, and estimate that precipitation over lands might vary between -4% and -27 %. Finally, although with less certainty because its local variability, sea level will rise in the region.

Limited amount of studies on the consequences that climate change could produce on species distribution, habitat features and ecosystem structure in the Mediterranean have been so far conducted. Nevertheless, the available and precious information they have delivered indicates that a serious alteration of biological and ecological patterns in both marine and terrestrial biomes is already taking place and generating mostly negative rather than positive impacts.

The creation of scientific tools to anticipate and monitor those changes and help to generate reliable knowledge to guide decisions on biodiversity conservation policies are actions which should be urgently implemented in order to prevent continued Mediterranean biodiversity decline.

The strong and close link between people and nature in the region is undeniable, and is clearly reflected in the current distribution, structure and functioning of all elements in the region.

3.3 MEDITERRANEAN ECOLOGICAL AND CULTURAL PATRIMONY

Human activity has been, and still is, the main driver that has shaped and continues to shape Mediterranean biodiversity. For this reason, in the Mediterranean, nature conservation policy deals with eco-cultural systems rather than with pristine or lightly modified natural systems, as could be the case for other regions on the planet. It is a core consideration that should be present in any program dealing with biodiversity conservation, with the aim of mitigating the negative consequences and enhancing the positive outcomes of conservation actions.

Over time, the local and rural communities that lived in the region have devised and applied a rich set of management practices that have contributed to the maintenance of the ecological features of the territory and have at the same time delivered an economic input to their welfare.

Many examples on how to manage pastoralism to prevent forest fires, to devise rational irrigation systems to deal with water scarcity or to implement selective fishing methods to prevent fish stocks collapsing can be found all across the Mediterranean region. There is a long list of such practices that could nowadays be perfectly assumed as being sustainable practices and/or nature-based solutions to tackle the major biodiversity challenges.

This know-how has generated a huge array of social features that are soundly rooted in the culture of the Mediterranean communities. There is no doubt at all that the Mediterranean natural patrimony has been one of the most modified compared to other regions in the world and is inextricably linked to the footprints humans have left over time.

The strong and close link between people and nature in the region is undeniable, and is clearly reflected in the current distribution, structure and functioning of all elements in the region.

Unfortunately, most of this rich and unique eco-cultural heritage is undervalued and misused due to its replacement by short term economic profit schemes despite the fact that these have been repetitively proved as inadequate in the medium and long term both for social development as well as for nature conservation.

There is an increasing demand for the recuperation of the Mediterranean ecocultural by all sectors, with the aim of diversifying local economies as well as coping with the global change challenges the planet is facing.

3.4 ADDRESSING THE CRITICAL FACTORS AND THE MAIN NEEDS TO ENSURE CONSERVATION OF SPECIES, HABITATS AND ECOSYSTEMS

Based on the key threats and challenges identified in previous sections and on the consultation of IUCN Members and partners, some strategic lines were identified to address the main conservation needs in the region, which are presented below.

 Increase knowledge on biodiversity status and trends in the Mediterranean Region and strengthen knowledge sharing and communication to promote sound decision making.

At the core of many challenges in the Mediterranean region, is the management of science based knowledge. At regional level, common approaches to increase knowledge on habitats, species or human pressures are required to address biodiversity conservation. Knowledge is key, as well as developing standards and tools to influence policy and to support action on the ground. Better knowledge about biodiversity, including threats and conservation measures, will help drive action. By combining credible knowledge, standards and tools with a mobilized network of members and partners, real change in policies and action on the ground to improve biodiversity conservation is possible.

Expected results:

- 1.1: Knowledge on biodiversity values, status and trends is improved, widely shared and communicated to inform policies and sound decision-making on nature conservation in the Mediterranean region.
- Improve the status of biodiversity through the implementation of conservation areas and conservation strategies for key species and ecosystems

Appropriate management of key biodiversity areas and strategic planning and implementation of conservation measures for threatened species and ecosystems are considered among the most efficient actions to improve the status of biodiversity. IUCN has long experience in these areas. The Mediterranean programme should focus on those actions that are most needed, including specific management measures for vulnerable species and habitats. Promoting coherent, representative and functional network of Protected Areas and enhancing their conservation and management effectiveness is among the priority areas also.

Expected results:

1.2: Representativeness and appropriate management of conservation areas in the Mediterranean region are strengthened.

- 1.3: Conservation of key species and ecosystems is strengthened through strategic planning and implementation of priority measures.
- Strengthen governance and institutional processes for nature conservation and sustainable management of natural resources across the Mediterranean

Effective governance models are essential to ensure the conservation of important biodiversity areas and to empower civil society for the sustainable use of natural resources. This strategic line of the programme will contribute to the assessment and improvement of natural resource governance approaches at all levels, and to strengthen the participation of local communities and relevant stakeholders in nature conservation.

Expected results:

- 2.1: Governance and institutional systems for effective management of important biodiversity areas are strengthened.
- 2.2: Cooperation and coordination with regional initiatives and instruments to influence governance and institutional processes for effective conservation and sustainable management of Mediterranean biodiversity and natural resources are enhanced.
- Improve capacities to address climate change effects and enhance resilience and adaptation to climate change and other global threats

Improved knowledge and understanding of climate change effects on Mediterranean ecosystems and on possible options to improve their resilience is essential to address one of the main challenges for nature conservation in the region. Capacities to carry out vulnerability assessments and develop adaptation strategies shall be strengthened in important biodiversity areas.

Expected results:

- 3.1 Knowledge and capacities for addressing climate change and other global threats and improving resilience and adaptation in important biodiversity areas and priority ecosystems are strengthened
- Conserve and restore ecosystems and ensure their delivery of goods and services sustaining livelihoods and human development

Well managed or restored ecosystems can make effective contributions to addressing some of the highest priority challenges in sustainable development. Nature-based solutions and innovative practices for natural resource management inspired in the eco-social Mediterranean heritage shall be promoted under this programme. Exchange of knowledge on these practices and their application on the ground will be supported and facilitated.

Expected results:

3.2: Conservation, restoration and sustainable management of ecosystems is optimised to ensure the delivery of ecosystem goods and services that address societal challenges.

4. THE MEDITERRANEAN PROGRAMME AREAS, STRATEGIC LINES, RESULTS AND APPROACHES

The Mediterranean Programme builds on the IUCN "One Programme Approach" and covers the substantive elements to be delivered in regard of each of the three interdependent Programme areas that compose it, namely:

- 1. Valuing and conserving nature
- 2. Promoting and Supporting Effective and Equitable Governance of Natural Resources
- Deploying nature based solutions to address societal challenges including climate change, food security and economic and social development.

Under Valuing and conserving nature, IUCN will develop and use its knowledge on biodiversity, and its associated tools and planning standards, to influence policy and action on the ground. Under Effective and equitable governance of nature's use, IUCN will consolidate its experience from working with people and institutions, addressing how public and private decisions on nature and ecosystems affect biodiversity and livelihoods. Deploying nature-based solutions to global challenges in climate, food and development expands IUCN's work on nature's contribution to tackling problems of sustainable development, particularly in climate change, food security and social and economic development.

These programme areas are essential for biodiversity conservation and for influencing the economic, social and political processes that determine biodiversity loss, ecosystem management, nature-based livelihoods, and rights and responsibilities for nature.

The Programme will seek to contribute to the delivery of the Sustainable Development Goals, the Aichi Targets for biodiversity (Strategic Plan of the CBD 2011-2020) and the Paris Agreement on Climate Change.

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Figure 1. Contribution of the three programme areas to the delivery of some key SDGs

4.2 OVERVIEW OF THE PROGRAMME

The Tables included below present the substantive elements of the IUCN's Mediterranean Programme for the period 2017-2020 in regard of each of the three programme areas. These tables provide a broad overview of the results and the targets to be achieved by 2020. The expected results and targets of the programme are linked to the SDGs and to the Aichi targets, which they support. More detailed narratives introducing the elements of each programme area, the approaches and means proposed to achieve the results are presented in the next section of the document (see section 4.3).

PROGRAMME AREA 1: Valuing and conserving nature

Result 1.1: Knowledge on biodiversity values, status and trends is improved, widely shared and communicated to inform policies and sound decision-making on nature conservation in the Mediterranean region

	INDICATORS	Contribution to IUCN Global Pro-gramme results and other international goals		
2020 TARGETS		IUCN Global results	SDG and MSSD targets	Aichi Targets
 By 2020, important areas for biodiversity conservation are identified, and assessed in the Mediterranean region, and knowledge is available to address their conservation challenges. By 2020, Mediterranean Red Lists of species and ecosystems are further developed and expanded to cover new groups of species and ecosystems. A Mediterranean Biodiversity Platform (MBP) is prepared to compile and share relevant information from the region. Critical issues for biodiversity conservation are widely communicate using appropriate tools and media 	 Number of (new) KBAs identified, updated, mapped and reported: IPAs, marine (incl. deep-sea), terrestrial, freshwater areas, etc. Studies/assessments to improve conservation management of KBAs (including IPAs). New taxonomical groups assessed in Mediterranean Red Lists. Re-assessments of Mediterranean Red Lists. Red Lists of Mediterranean ecosystems prepared and communicated. Technical guidelines for MBP implementation. Thematic reports on key topics (biodiversity status and trends, conservation areas, ecosystems services, climate change, etc.). Communications in social media, press, etc. Key sectors targeted by communications. 	1.1, 1.2	SDG targets: 2.5, 6.6, 11.4, 12.a, 12.8, 13.3, 14.2, 14.5, 14.a; 15.1, 15.4; 15.5; 15.7; 15.8; 15.9, 17.6, 17.7, 17.9 MSSD strategic directions: 1.1, 2.1, 2.3, 4.1, 5.4, 5.5, 6.1, 6.3, 6.4, 6.5	1; 2; 5; 6; 8, 11; 12; 19, 20

Result 1.2: Representativeness and appropriate management of conservation areas in the Mediterranean region are strengthened

		Contribution to IUCN Global Pro-gramme results and other international goals		
2020 TARGETS	INDICATORS	IUCN Global results	SDG and MSSD targets	Aichi Targets
 By 2020, representativeness of Protected Areas networks are assesses and gaps identified to implement new designations. A representative and coherent network of marine and coastal areas of conservation interest in the Mediterranean is identified and being implemented. Management effectiveness is assessed and improved in Mediterranean PAs (e.g. using IUCN Green List criteria). Capacities to integrate and address ecological connectivity in PAs designation and management are improved. 	 Assessments of representativeness and coherence of PA national networks (number, countries). New designations of PAs and other conservation areas: terrestrial, marine and coastal areas (% increase.) Evaluations of management effectiveness of PAs (number, countries). Management plans and strategies for conservation areas elaborated with support from the programme. Trainings, cooperation and experience sharing among site managers. Guidelines, best practice case studies to improve ecological connectivity of conservation areas 	1.1, 1.3	SDG targets: 6.6, 11.4, 12.2, 14.2, 14.4, 14.5, 14.b, 15.1, 15.2, 15.4, 15.5, 15.a, 17.3, 17.9, 17.17 MSSD strategic directions: 1.1, 2.1, 2.3, 6.1, 6.2, 6.3, 6.4	6, 7, 10, 11, 12, 13, 20

Result 1.3: Conservation of key species and ecosystems is strengthened through strategic planning and implementation of priority measures

2020 TARGETS	INDICATORS	Contribution to IUCN Global Pro-gramme results and other international goals		
		IUCN Global results	SDG and MSSD targets	Aichi Targets
 By 2020, regional strategies for the conservation of threatened species and habitats in the Mediterranean are prepared and implemented. The Strategy for conservation of deep sea ecosystems is adopted. Integration of Protected Areas and KBAs (including IPAs) into spatial planning is improved and appropriate tools and methodologies for addressing key pressures and to promote conservation and sustainable management of key ecosystems are developed and applied. 	 Conservation strategies for key species and habitats prepared and implemented. Vulnerable Marine Ecosystems (VMEs) identified in the Mediterranean. Fisheries Restricted Areas (FRAs) proposed and adopted by the GFCM Guidelines on conservation and monitoring of deep sea ecosystems. Geoportals and similar tools developed and used for MSP and ICZM. Experiences on the integration of KBAs in spatial planning. 	1.1, 1.3	SDG targets: 2.4, 2.5, 6.5, 6.6, 12.2, 14.1, 14.2, 14.3, 14.4, 14.5, 14.7, 14.a, 14.c, 15.1, 15.2, 15.3, 15.4, 15.5, 15.7, 15.9, 15.a, 15.c, 17.3, 17.6, 17.9. MSSD strategic directions: 1.1, 1.2, 2.1, 4.1, 5.5, 6.1, 6.2, 6.3, 6.5	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 20

PROGRAMME AREA 2: Promoting and Supporting Effective and Equitable Governance of Natural Resources

Result 2.1: Governance and institutional systems for effective management of important biodiversity areas are strengthened.

	INDICATORS	Contribution to IUCN Global Pro-gramme results and other international goals		
2020 TARGETS		IUCN Global results	SDG and MSSD targets	Aichi Targets
 By 2020, effective and innovative governance models are in place in important biodiversity areas. Methodologies and approaches for assessing and improving natural resource governance are applied. Management approaches that improve the participation of local communities and relevant stakeholders in nature conservation are implemented in selected areas. 	 Assessments of nature conservation and natural resources governance systems. Pilot actions and comanagement schemes involving relevant stakeholders in protected areas management. Analysis of synergies and complementarities of conservation labels for MPAs. 	2.1, 2.2	SDG targets: 1.4; 1.b; 2.5; 5.1; 5.5; 5.a; 5.c; 6.b; 10.2; 10.3; 12.2; 15.6; 16.3; 16.6; 16.10, 16.7; 16.b; 17.14, 17.17 MSSD strategic directions: 1.1, 1.2, 2.1, 2.3, 6.1, 6.2, 6.3, 6.4, 6.5	1; 2; 4; 13; 16; 17; 18; 19, 20.

Result 2.2: Cooperation and coordination with regional initiatives and instruments to influence governance and institutional processes for effective conservation and sustainable management of Mediterranean biodiversity and natural resources are enhanced.

2020 TARGETS	INDICATORS	Contribution to IUCN Global Pro-gramme results and other international goals		
		IUCN Global results	SDG and MSSD targets	Aichi Targets
 By 2020, cooperation and synergies are strengthened for the implementation of international conventions and regional initiatives and programmes related to biodiversity conservation and sustainable management. Technical support and assistance is provided for the implementation of relevant actions. 	 Participation of IUCN representatives, Members and partners in international and regional debates and initiatives. Regional meetings on biodiversity related agreements supported. Cooperation activities with regional organisations (GFCM-FAO, UfM, WWF, UNEP/MAP, etc.). 	1.2, 2.3	SDG targets: 1.b, 2.5, 5.5, 6.6; 6.a; 8.4; 10.b; 12.2; 14.c; 15.6; 15.a; 16.8; 16.b; 17.9, 17.14 MSSD strategic directions: 1.1, 1.2, 2.1, 2.3, 2.4, 4.1, 6.1, 6.2, 6.3, 6.5	5, 6, 11, 12, 17, 20.

PROGRAMME AREA 3: Deploying nature-based solutions to address societal challenges including climate change, food security and economic and social development

Result 3.1: Knowledge and capacities for addressing climate change and other global threats and improving resilience and adaptation in important biodiversity areas and priority ecosystems are strengthened

		Contribution to IUCN Global Pro-gra results and other international go		
2020 TARGETS	INDICATORS	IUCN Global results	SDG and MSSD targets	Aichi Targets
 By 2020, knowledge and understanding of climate change effects on Mediterranean ecosystems and on possible options to improve their resilience will be improved and widely communicated. Capacities to carry out vulnerability assessments and adaptation strategies will be strengthened in important biodiversity are-as and sensitive areas. Systems for early detection and pilot action for control of IAS are implemented. 	 Reports on climate change effects on biodiversity and key sectors (e.g. fisheries, tourism) distributed to relevant stakeholders. Document for policy makers prepared and widely distributed. Vulnerability assessments, resilience planning and pilot actions on adaptive management in selected areas. MPAs and KBAs (including IPAs) involved in monitoring of invasive species. 	3.1	SDG targets: 1.5; 2.4; 6.6; 11.b; 11.4; 11.5; 12.2; 13.1;13.2; 13.3; 13.a; 13.b; 14.2; 14.3; 15.a; 15.b; 15.1; 15.5; 15.8; 15.9. MSSD strategic directions: 1.1, 2.1, 2.3, 4.1, 4.2, 4.3, 4.4, 6.1, 6.3, 6.5.	1, 2, 9, 10, 11, 14, 15, 20.

Result 3.2: Conservation, restoration and sustainable management of ecosystems is optimised to ensure the delivery of ecosystem goods and services that address societal challenges

2020 TARGETS	INDICATORS	Contribution to IUCN Global Pro-gramme results and other international goals		
		IUCN Global results	SDG and MSSD targets	Aichi Targets
 By 2020, valuation of ecosystems services and nature based solutions that contribute to the conservation and sustainable management of Mediterranean ecosystems are widely disseminated and promoted. Key sectors, as the fisheries and tourism sectors, are involved in sustainable management and nature-based solutions. 	 Assessments of key ecosystem services and values developed. Methodologies for the quantification of Blue Carbon developed. Dissemination of best practices on nature-based solutions. Identification of restoration needs, strategies and demonstration actions for restoration of de-graded ecosystems. Initiatives of sustainable fishing practices in important biodiversity areas. Evaluation of tourism footprint. Number of protected areas involved in ecotourism promotion. 	3.1, 3.2, 3.3	SDG targets: 2.4; 2.5; 4.7; 5a; 6a; 6b; 6.4; 6.5; 6.6; 11.b; 11.3; 11.4; 11.5; 12.a; 12.b; 12.2; 12.6; 12.8; 14.1; 14.2; 14.4; 14.5; 14.6; 14.7; 14.a; 14.b; 15.2; 15.3; 15.4; 15.5; 15.9; 16.7. MSSD strategic directions: 1.1, 2.1, 2.2, 2.3, 2.4, 2.5, 4.1, 4.2, 5.1, 5.3, 5.4, 5.5, 5.6, 6.1, 6.2, 6.4, 6.5.	1, 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 15, 16, 18, 19

4.3. DESCRIPTION OF THE PROGRAMME: RESULTS AND APPROACHES

PROGRAMME AREA 1: Valuing and conserving nature

Result 1.1: Knowledge on biodiversity values, status and trends is improved, widely shared and communicated to inform policies and sound decision-making on nature conservation in the Mediterranean region.

Justification

Credible and trustable knowledge is a key factor for improving the decision making processes concerning species and habitats conservation, protected area network planning and ecosystems management, as well as the whole environmental governance process in general.

In spite of the fact that knowledge about Mediterranean biodiversity has notably increased over the last two decades, it still suffers from significant gaps, in particular regarding the geographical distribution of species and habitats, genetic diversity, ecosystem functioning and socioeconomics, particularly in the case of wetlands and marine environment in several eastern and southern regions of the Mediterranean basin. The UNEP 2012 report on the state of the Mediterranean marine and coastal environment identified additional gaps in terms of the ecological and environmental status of offshore areas, impacts of human activity on marine and coastal biodiversity, and mapping data.

Moreover, the existing knowledge about the status of biodiversity and its trends is heterogeneous and in some cases difficult to access. The available information is incomplete and as such, undertaking studies and assessments on regional biodiversity requires consulting heterogeneous sources of information and statistical data. This represents a major challenge for the Mediterranean region.

The lack of information sharing and dissemination approaches make it difficult for institutions and organisations to effectively plan, monitor, and evaluate their activities. Therefore, there is an increasing need for an effective management and efficient use of information and knowledge resources.

Getting the right environmental message across to the relevant audiences is increasingly difficult and requires more innovative and dynamic communication methods. The growing development of new information technologies has improved access to and dissemination of timely, relevant and reliable environmental information. Individuals, communities and business have a large potential to take action and create change in the environmental arena and are entitled to this knowledge in order to reach a general understanding of environmental issues, and be empowered to make changes.

IUCN-Med has contributed to the identification of KBAs for freshwater species in the Mediterranean region, which represents the first baseline data set on the status of freshwater biodiversity.

ICT technologies also present huge opportunities to improve collaboration between organisations and to facilitate interaction with civil society at large. All organisations working on environmental affairs - as IUCN-Med does - must further improve the collection, analysis and communication of environmental related information, which is absolutely essential for decision makers to respond to environmental problems.

Approach (means)

Identification and assessment of KBAs, including IPAs and other important areas for biodiversity conservation in terrestrial, freshwater and marine environments. IUCN Med will work with its partners on the identification of important areas for biodiversity conservation in the Mediterranean Region. This process will provide fundamental information to inform a wide range of decision-making contexts and end-users by, for example: informing the selection of sites for protection under national and international legislation, planning economic activities and supporting private and financial sectors to manage their environmental risks related to biodiversity. Since 2012. IUCN-Med has contributed to the identification of KBAs for freshwater species in the Mediterranean region, which represents the first baseline data set on the status of freshwater biodiversity throughout the entire Mediterranean region. In addition, over 360 IPAs have been identified in North Africa, the Balkans and Middle East. This approach will be expanded to identify important biodiversity areas in other Mediterranean terrestrial and marine biomes, involving scientists, conservation practitioners, governmental agencies and IUCN Members. This identification may also require supporting field surveys and activities needed to fill knowledge gaps.

The consolidation of networks of experts, NGOs, Civil Society Organisations and site manaers is also proposed to improve and share knowledge and management approaches of these areas. A comprehensive mapping of KBAs in the Mediterranean (in particular for IPAs) should be conducted under this programme, including information about active management of these areas.

The assessment of important marine areas for conservation (gaps and hotspots for marine conservation) will deserve special attention to the **identification of deep sea biodiversity hotspots** in the Mediterranean. Many of these Mediterranean deep biodiversity hotspots are open continental shelves, slopes, cold seeps, hydrothermal vents, canyons,



- volcanoes and seamounts although their full geographic extent and biodiversity relevant is still unknown.
- Mediterranean Red Lists of species. The Mediterranean Red List of Species is an on-going process aimed at assessing the conservation status of the fauna and flora of the Mediterranean region. The taxonomic groups completed to date include mammals, amphibians, reptiles, endemic freshwater fishes, freshwater molluscs, aquatic plants, marine bony fishes, cetaceans and dragonflies. The most recent and on-going assessments include butterflies, dung beetles, saproxylic beetles, monocotyledon plants, cartilaginous marine fishes, anthozoans, and marine aquatic plants. This initiative will be further expanded to other key terrestrial and marine



Extremadura. Spain © Mark Walton

species groups under the current programme. Red Lists of species are a basic tool to encourage and assist conservation prioritisation and action. The initiative contributes to identify the species that are threatened with extinction at the Mediterranean level so that appropriate regional and local conservation action can be taken to improve their status. Moreover, Red Lists offer a rich, expert-driven compendium of information on species' ecological requirements, geographic distributions and threats that provide the knowledge on conservation needs and how to address them. Reassessments of some Red Lists available may also be needed and will be certainly useful to evaluate trends and assess the effectiveness of conservation measures implemented for threatened species.

The programme will also encourage and support the elaboration of the **Red List of Mediterranean Ecosystems** to identify and assess the risk of degradation and collapse of some key ecosystems. Some previous work has been implemented with the description and initial assessments of EU terrestrial and marine ecosystems. IUCN-Med will promote the contribution of scientists from the region to the IUCN global initiative on the elaboration of a classification system for threatened ecosystems (Red List of Ecosystems) for the whole Mediterranean region. To this end, it will **support the participation of scientists in workshops and working groups convened on this subject at global and Mediterranean levels**.

Work on Red List of species and Red List of ecosystems will be conducted in close collaboration with IUCN Species Survival Commission (SSC) and with the Commission on Ecosystem Management (CEM).

Red Lists can also be used to propose adjustment to regional or international instruments list of species or ecosystems (see Result 2.2).

Mediterranean Biodiversity platform. IUCN-Med in partnership with other regional organisations will support the development of an effective information system to compile and share relevant information that enables analysis and communication of biodiversity values, status and trends in the region. While current international and regional policy frameworks are rather comprehensive, coordinated, and broad in terms of biodiversity. strategic and operational instruments including monitoring tools remain more sector-based or do not always include cross-cutting issues into the analysis of biodiversity. In collaboration with other major organizations and institutions dealing with different measurement of the state and trends of Mediterranean biodiversity (RAC/SPA, Plan Bleu, ACCOBAMS, CIESM), the aim will be to further explore how a regional biodiversity monitoring platform could address this discrepancy by bridging gaps between the international policy framework and with monitoring and evaluation requirements. In order to be efficient and useful, the Mediterranean Biodiversity Platform should capture the interest of potential users by providing an added value to the existing instruments, and by avoiding the duplication of activities and products.

Furthermore information on critical issues for biodiversity conservation will be disseminated and effectively communicated using appropriate tools and media. This will include the elaboration of thematic reports and guidelines related to the main topics covered in this programme with the aim to raise awareness and promote better understanding of a) biodiversity status and trends, b) the main threats and pressures affecting biodiversity and natural ecosystems, and c) the benefits that biodiversity and ecosystems services offer to human populations.

In the high seas and along the southern and eastern Mediterranean coasts, important habitats and associated marine species are underrepresented and therefore could also be under-protected.

Dissemination and communication activities will be an essential component of the Mediterranean programme and will be integrated in all its programme areas and strategic lines. Moreover, a network of journalist involved in the dissemination of environmental news and information on biodiversity will be supported in their communication activities in order to improve coverage of relevant subjects in the media.

Result 1.2: Representativeness and appropriate management of conservation areas in the Mediterranean region are strengthened

Justification

In line with the targets set in the Strategic Plan of the CBD (target 11), there is a need to improve the designation of protected areas and other areas of particular importance for biodiversity and ecosystem services, as well as ensure their effective management and connectivity. New designations should be supported to increase the coverage of conservation areas and improve the ecological representativeness, especially in coastal and marine areas. Appropriate measures should be implemented to ensure their effective management and improve ecological connectivity.

As regard to MPAs, its distribution, representativeness and connectivity need particularly to be addressed in the region. Distribution is uneven, with the majority of MPAs located in the northern Mediterranean Sea and coastal zones. In the high seas and along the southern and eastern Mediterranean coasts, important habitats and associated marine species are underrepresented and therefore could also be under-protected. Furthermore, conservation of sensitive deep sea ecosystems (from circa-littoral, bathyal and abyssal environments) like cold water coral and sponge assemblages and conservation actions to better conserve these communities and the other vulnerable habitats is still limited.

Evaluating tangible outcomes of management actions in natural sites is a challenge. Policies at all levels are requiring the establishment of frameworks for monitoring, evaluation and review of management plans and conservation measures (Aichi target 11, art. 11 and 17 of Habitat Directive) and several initiatives have been implemented so far worldwide as well as at Mediterranean level. Guidelines and appropriate monitoring schemes are expected to include measurable and clearly verifiable objectives and a system of indicators.

Finally, connectivity between sites is neither ensured, nor common and this urgently needs to be addressed.

Approach (means)

- Assessment of representativeness of the national networks of conservation areas shall be encouraged and supported under this programme (especially in non-EU countries), in order to identify gaps and promote new designations. In the marine environment in particular, support shall be provided to design a representative and coherent network of marine and coastal areas of conservation interest. Following the MedRAS (2009-2012) and the Nereus project main outcomes, the programme will continue this line of work and provide assistance to Mediterranean countries to assess representativeness of MPAs networks, identify gaps and hotspots and promote designation of new marine and coastal areas for conservation based on the most recent scientific ecosystems' and species' information. Assistance with be provided for the preparation of relevant documentation for designation of marine conservation areas.
- Evaluate the effectiveness of management of protected areas, based on agreed criteria and indicators (e.g. IUCN Green List of Protected and Conserved Areas, GLPCA). IUCN-Med will promote and facilitate the evaluation of management effectiveness in conservation areas of Mediterranean countries supporting the definition of common indicators and providing guidance on conservation status assessments and other relevant issues.
- The programme will also encourage the elaboration of management plans and strategies for conservation areas based on the ecosystem approach and climate change adaptation, and will support sharing experience and good practice in the management of conservation areas among Mediterranean countries. A database of Mediterranean protected areas' managers will be useful to promote exchange of experience, identify areas for common interest and improve capacities for conservation.
- IUCN-Med and its partners will also support the **development of national strategies and action plans for MPAs** and exploring **approaches such as MPAs for fisheries** in collaboration with the GFCM and other national partners and fishermen associations. Furthermore, the programme will promote and support relevant activities to **improve capacities** for conservation of marine and coastal protected areas and **monitoring of threatened coastal and marine species and ecosystems**. It will foster networks and develop training for improving the dialogue and coordination between MPA managers and marine scientists, local communities and local administrations to sustainably manage and conserve natural resources.

• Finally, in relation to the concept of ecological coherence and connectivity, the programme will promote and support initiatives to improve the integration of the ecological connectivity concept in the designation and management of conservation areas and networks, e.g. through dissemination of case studies, best practice and guidelines. The integration of KBAs in spatial planning and land-use planning at appropriate scales will also be promoted under the programme. The ultimate goal is to develop guidelines and best practice focused at the administrative and political levels to introduce ecological connectivity information layers in relevant policies and planning to avoid environmental risks.

Result 1.3: Conservation of key species and ecosystems is strengthened through strategic planning and encouraging implementation of priority measures.

Justification

33

Due to human pressures on the environment, some species and ecosystems have become vulnerable or are threatened in the Mediterranean region. International agreements (Barcelona Convention) and supranational legislation (European Union) provide a list of threatened or endangered species to address national and international conservation actions. Conservation strategies are and can be prepared to address the main problems affecting some of the more threatened species and ecosystems. Common –and occasionally individual- approaches and conservation strategies for priority species and ecosystems should be elaborated and implemented.

Key pressures and impacts on Mediterranean ecosystems are well identified in general. However, more detailed and specific assessments of pressures and comprehensive assessments of cumulative impacts at appropriate scales are often needed to guide strategic planning and sustainable management of natural resources.

A spatial analysis based on modelling of human pressures throughout the Mediterranean Basin has identified the marine and coastal areas that suffer the greatest cumulative impact from multiple pressures in the Mediterranean, which include the Adriatic and Alboran seas and some coastal areas within the territorial waters of Spain, France, Italy, Tunisia and Egypt¹. Further analysis are needed to better understand the extent to which multiple human pressures are causing ecological impacts and potentially undermining the delivery of ecosystem services in order to design and implement appropriate action to counteract the main impacts.

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^{(1) 2012} UNEP/MAP. State of the Mediterranean Marine and Coastal Environment. United Nations Environment Programme/Mediterranean Action Plan (UNEP/MAP) – Barcelona Convention, Athens, 2012.



Cabrera National Park © IUCN/L. Lazaro

Appropriate tools should be developed to afford the monitoring and assessment of key pressures, impacts and trends, and the implementation of ecological objectives related to biodiversity. This will ensure that the implementation of Maritime Spatial Planning and Integrated

Coastal Zone Management is properly contributing to biodiversity conservation and sustainable development.

Some specific pressures and impacts can be addressed in the framework of existing initiatives. For instance, the identification of Vulnerable Marine Ecosystems in the context of deep sea fishing should be addressed in cooperation with the GFCM and with the collaboration of other IUCN partners.

Approach (means)

 Conservation strategies for species and key ecosystems in the Mediterranean region will be supported under this programme. This may involve training, workshops and technical assistance for the preparation of regional and national strategies for the conservation of Mediterranean threatened species and key habitats. The elaboration of guidelines and other tools for the conservation of coastal and marine biodiversity and ecosystems, especially for threatened Mediterranean coastal and marine species and key habitats will also deserve particular attention under this programme.

- The programme will contribute to the development and implementation of the Strategy for conservation of deep sea ecosystems, including: the identification of biodiversity hotspots ecosystems (VBHMEs) in cooperation with partners, identification of priority sites for conservation, elaboration of communication material on the importance of deep sea ecosystems, species or biodiversity hotspots and preparation of guidelines for improving management and monitoring in deep sea environments. The programme will support international partnerships to conserve deep sea ecosystems through sustainable management of deep-sea fishery activities. It will promote the conservation of deep **sea biodiversity hotspots** through the implementation of appropriate management regimes, as the designation of fisheries restricted areas, removing trawling, etc. This may require setting up of a working group to elaborate proposals for the establishment of fishing reserves and/or Fisheries Restricted Areas to be presented for discussion and adoption to GFCM in key areas. Moreover, guidelines for improving management and monitoring in deep sea environments will be prepared.
- The use of appropriate tools for marine spatial planning, integrated coastal zone management and assessment of threats and pressures on marine and coastal ecosystems shall be promoted under this programme. This will be based on the experience gained in the previous programme through the implementation of Spatial Data Infrastructure (e.g. Alboran geoportal, Medina and PEGASO SDIs). Further development of these tools and their use for strategic planning and assessment of marine and coastal activities and conservation planning will be encouraged and supported especially in non-European countries. In particular, the Alboran geoportal will be expanded to integrate relevant information from other organizations and will be offered to interested stakeholders that can use it for strategic planning and analysis. The Programme will also explore the possibilities to develop similar tools and integrating existing ones. Moreover, pilot actions for Marine Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM) will also be applied in selected areas of importance for conservation of biodiversity, linking coastal and open sea areas to major pressures.

PROGRAMME AREA 2: Promoting and Supporting Effective and Equitable Governance of Natural Resources

Results 2.1: Governance and institutional systems for effective management of important biodiversity areas are strengthened

Justification

Governance of natural resources and biodiversity is a complex issue, which requires action at many different levels. IUCN defines natural resource governance as "the interactions among structures, processes, and traditions that determine how power and responsibilities are exercised, how decisions are taken, and how citizens or other stakeholders have their say in the management of natural resources – including biodiversity conservation".

In particular, the conservation of important biodiversity areas requires effective participation of different institutions and sectoral organisation, local communities and other relevant stakeholders that use or have an influence in the area. Moreover, it often requires determining rights and responsibilities related to nature and natural resources in legal and institutional frameworks available.

Approach (means)

- The programme will encourage and promote effective and innovative governance models in important biodiversity areas through capacity building, technical assistance and exchange of experience. This will firstly require the assessment of nature conservation and natural resources governance systems and identification of possible measures to improve the situation and address the most relevant constraints.
- In the marine environment, the programme will support the identification and development of appropriate governance systems for marine conservation areas (especially in non EU countries). This line of work will build upon the analysis of conservation labels and their compatibility with IUCN MPAs management categories (based on objectives and management practices) and identification of complementarities, through discussion with partners and relevant stakeholders. The evaluation of the legal framework for sea protection and fisheries management in selected areas will be supported and workshops will be conducted to improve capacities by bringing stakeholders together to address governance challenges for a sustainable use of fisheries resources.
- Institutional capacity for nature conservation will also be strengthened through dissemination and exchange of experience and best practice among Mediterranean countries regarding governance, planning and effective management of conservation areas, fisheries and other coastal and marine activities, with active involvement of relevant stakeholders and local communities.

- Initiatives that encourage the co-management of conservation areas with the participation of relevant stakeholders will be supported under this programme, for instance through land stewardship involving NGOs, CSO or other key stakeholders.
- **Involvement of local communities and local land users** will also be encouraged in the implementation of nature-based solutions and management of Protected Areas and KBAs (e.g., promoting sustainable management of grazing areas in IPAs).
- In marine conservation areas with artisanal fisheries activities, development of fisheries management plans and co-management options could be supported (in non EU countries, e.g. in Albania, Morocco, etc.).

Result 2.2: Cooperation and coordination with regional initiatives and instruments to influence governance and institutional processes for effective conservation and sustainable management of Mediterranean biodiversity and natural resources are enhanced.

Justification

At the international level, IUCN is active in seeking to influence and contribute to some key environmental governance mechanisms and conventions such as CBD, UNFCCC, UNCCD, CITES, CMS, Ramsar/MedWet Initiative and others in promoting the role of biodiversity, ecosystem services, gender equality, rights and governance and environmental law for sustainable development outcomes. At the national level, IUCN advises governments on negotiating positions, translating international commitments into national policy and building capacity for implementation. At the local level, IUCN seeks to influence locally appropriate governance and legal frameworks favouring nature, biodiversity, local communities' rights and natural resource users. IUCN has demonstrated that by securing rights and good governance of nature's use, the environment can be conserved and benefits to human wellbeing secured.

In the Mediterranean Region, environmental governance is facing a complex geopolitical framework made up of a huge variety of political organizations that address environmental challenges across the region from different perspectives. International and regional organisations are developing programmes and initiatives that address biodiversity conservation and sustainable management of natural resources in different geographic areas and with special focus on particular issues. Relevant governance bodies and programmes are framed under regional conventions and programmes, as the Barcelona Convention and the Mediterranean Action Plan, ACCOBAMS and GFCM-FAO, partnerships as the Union for the Mediterranean, and supranational organisations as the Arab Maghreb Union (AMU) and the European Union (EU).

The programme will promote and contribute also in organising meetings and discussion for on relevant conservation challenges.

With the aim of increasing the decision making processes and efficiency for the implementation of these agreements and conventions, it is necessary to supply the best information available on the state and trends of biodiversity as well as to promote collaborative mechanisms between governance instruments for the conservation of nature. Enhancing cooperation and coordination between all Mediterranean stakeholders to influence governance and institutional processes for effective conservation and management of the Mediterranean biodiversity is a strategic line to be developed by this programme.

Approach (means)

- The programme will contribute to strengthen the implementation of international and regional initiatives and programmes related to biodiversity conservation and sustainable development in cooperation with all relevant partners. It will provide technical support and assistance for the implementation of actions at the national level and for the elaboration of relevant information and reporting. It will promote and contribute also in organising meetings and discussion for a on relevant conservation challenges.
- Moreover, support will be provided to strengthen the participation and engagement of Mediterranean partners in relevant regional and international initiatives that contribute to improve governance and institutional processes for biodiversity conservation and sustainable management of natural resources. This may involve, for instance, supporting the participation of national administrations or experts (with priority focus on non-European organisations and experts) to regional and international meetings on marine governance, planning and management (e.g. MPAs, Offshore, Sustainable Development) to highlight the specificities of the Mediterranean region and increase synergies.

PROGRAMME AREA 3: Deploying Nature-based solutions to address societal challenges

Result 3.1: Knowledge and capacities for addressing climate change and other global threats and improving resilience and adaptation in important biodiversity areas and priority ecosystems are strengthened.

Justification

Ecosystems are threatened by a variety of pressures including climate change, degradation due to intensive use and changes in land-use systems, all of which, in turn, create or contribute to major societal challenges.

Recent research indicates that the threat posed by climate change to biodiversity may soon equal if not overtake the impacts from more established drivers of loss such as habitat conversion and invasive species. Climate change also will have increasing impact on the livelihoods of people who depend on natural resources by, inter alia, increasing the frequency and exacerbating the effects of extreme weather events such as coastal flooding and threatening the stability and security of food production systems.

Well managed ecosystems can contribute to slow the impact of climate change on biodiversity, to sequester and store atmospheric carbon and to provide additional, effective options for increasing the resilience of vulnerable people and communities.

Although general climate change scenarios at global level are well known, there is a need to improve knowledge and communicate more precise information about the effects of climate change in the Mediterranean ecosystems and to enhance the capacity for adaptation.

Approach (means)

- Addressing climate change requires improving knowledge and understanding the effects it will cause on Mediterranean ecosystems and the possible options to improve their resilience, including nature-based solutions, in order to develop appropriate adaptation strategies. The programme, in cooperation with all relevant partner, will support the consolidation and dissemination of information on climate change impacts in the Mediterranean region, including on biodiversity and vulnerable ecosystems but also on key economic sectors (tourism, fisheries, etc.). It will develop common indicators and consolidate the relevant information. A document for policy makers will be prepared and shared with governmental organisations, NGOs, the private sector and other relevant stakeholders.
- The programme will also contribute to strengthen capacities to carry out vulnerability assessments and to design and promote adaptation measures to climate change and to other global threats effects on

sensitive areas. Dissemination of **methodologies** for vulnerability assessments and **sharing of experience and know-how** (e.g. North-South Mediterranean cooperation will be supported. Assistance shall be provided for the identification of impacts on MPAs and other vulnerable areas, including on fishing resources (e.g. changes in nursery areas), and for **improving knowledge and capacities to implement monitoring mechanisms, planning and management for adaptation** in key ecosystems, including in particular marine and coastal areas, forests and freshwater habitats.

- The programme will promote the **demonstration of adaptive management of ecosystems to improve their resilience** to climate
 change effects and will disseminate relevant experiences to increase
 awareness of local communities on the adaptation concept and key
 adaptive practices (forestry, water management, etc.). Workshops and
 guidelines on adaptive management of key ecosystems and direct
 communication activities with local populations will be prepared in this
 regard.
- Cooperation shall also be reinforced with relevant partners (e.g. MedPAN Secretariat, RAC/SPA and other regional and local partners) to continue working in building capacity to address climate change threats to coastal MPA ecosystems. This could be done through assessing the likely impacts of climate change on different MPAs and species and the potential actions needed to ensure the adaptability and the resilience of biodiversity. Furthermore, the programme will aim to foster networks by improving the dialogue and coordination between MPA managers and marine scientists. IUCN-Med will contribute in organising meetings and collaborative initiatives on climate change effects' monitoring and adaptation strategies.
- Demonstration of climate change adaptation with a specific focus on Ecosystem based Adaptation (EbA) will be promoted under this Programme. Particular attention will be given to build capacity for resilience planning and adaptation to global change in protected areas and important areas for biodiversity conservation, with particular focus on Ecosystem based Adaptation. Training sessions on monitoring approaches and adaptation measures on marine and coastal MPAs will be conducted under this Mediterranean programme. It will also support implementation of pilot projects on ecosystem-based adaptation intervention and assess their results.
- Furthermore, the programme will support the implementation of actions to address the challenges posed by Invasive Alien Species to protected areas and KBAs (in particular IPAs) and the monitoring of its impacts. It will support the strategy for invasive species for the Mediterranean MPA network, in particular concerning early detection, monitoring, management measures, evaluation and mitigation of impacts. Support and assistance will be provided for the preparation of initiatives on

non-indigenous species monitoring, impact assessment or management strategies in relevant countries. Meetings will be organized to evaluate possible solutions and mitigation measures for invasive species with relevant stakeholders. Communication to increase awareness and related activities of the MedMis platform on invasive species in MPAs will also be promoted.

Result 3.2: Conservation, restoration and sustainable management of ecosystems is optimised to ensure the delivery of ecosystem goods and services that address societal challenges

Justification

While the degradation of ecosystems can exacerbate societal problems, the conservation, management and restoration of these same ecosystems present opportunities for improving local communities' well-being and resilience in addition to helping address major societal challenges.

Nature-based solutions (NBS) contribute to solving major societal challenges, such as climate change, water security and disaster risks. Well managed or restored ecosystems make effective and efficient contributions to solutions for some of the highest priority challenges in sustainable development.

IUCN will use the 2017-2020 Global Programme to put nature-based solutions at the centre of strategies for implementing the SDGs and taking action under the Paris Agreement on Climate Change.

Better understanding and awareness of ecosystems' services and values, and their contribution to the welfare of local populations will help to promote sustainable practices and to value some traditional best practices available in the Mediterranean region.

Restoration and sustainable management of ecosystems will contribute to ensure the delivery of ecosystem goods and services that address societal challenges of, inter alia, climate change, food security and economic and social development.

Approach (means)

- The programme will support the compilation of best practices on management of ecosystems and nature based solutions in the Mediterranean region and will disseminate relevant experiences, methodologies and approaches for assessing ecosystem services and values.
- The programme will also contribute to valuing ecosystem services and supporting nature based solutions, exploring the potential economic value of marine ecosystems and in particular, the carbon fixation and

sink capacity of coastal and marine habitats. IUCN-Med will also work in cooperation with its partners to develop and apply methodologies for the **quantification of the blue carbon** (carbon captured by oceans and coastal ecosystems such as marshes and seagrass) and will promote its inclusion in the carbon market, for instance with the aim to finance the conservation of key marine ecosystems and MPAs.

- As regards to restoration of key ecosystems, the programme will support
 the identification of restoration needs and opportunities at national
 (and landscape) level in order to design a strategy and action plan at the
 regional/national level. This shall guide and assist in promoting relevant
 projects and initiatives for the restoration of degraded ecosystems that
 provide essential services and goods to local populations.
- The programme will also support the exchange of experience, dissemination of best practices and methodologies for the restoration of key habitats, such as coastal habitats (e.g. dunes), wetlands, forests and steppes, including restoration techniques, reduction of key pressures and sustainable management of resources. Demonstration actions could also be implemented in selected areas with the participation of relevant stakeholders. This could include for instance the restoration and sustainable management of grazing areas in grassland habitats (e.g. Alfa steppes in North Africa), the restoration of freshwater KBAs and IPAs.
- Best practice in natural resource management shall be promoted especially in conservation areas and important biodiversity areas and shall promote the engagement of key sea and land-users and natural resource sectors. In particular, two key economic sectors in the Mediterranean can be involved in the implementation of nature-based solutions and integration of biodiversity conservation into their activities: the fisheries and the tourism sectors. Sustainable fishing activities will be promoted under this programme, as previously described under other relevant results (see results: 1.2, 3.1, 2.1 and 3.1).
- As regards tourism, IUCN-Med will support the evaluation of the impacts of tourism and the ecological footprint of different tourism models in the Mediterranean to guide planning of sustainable tourism (e.g. trough national and local plans) and improve the sustainability of current activities.
- The programme will continue to strengthen and expand the network of Mediterranean protected areas promoting eco-tourism (25 PAs) set up in the MEET previous project. Activities will involve working with tourism operators and local providers of tourism services to improve sustainability, promoting consumption of local products in tourist destinations and elaborating manuals and guidelines for creation of sustainable tourism products.

5. MODALITIES FOR THE IMPLEMENTATION OF THE PROGRAMME

WORKING TOGETHER

The primary mission of IUCN is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

The "One Programme approach" states that the different parts of IUCN involved in the implementation of the Mediterranean programme – IUCN Members (government and NGO), National Committees, Commissions of experts, and the IUCN Secretariat (represented by IUCN-Med in this case)in – work together to develop, implement and advance the programme.

This One Programme approach brings together the collective strengths of the Union to address pressing environmental issues in the region.

The One Programme Principles guide the way all parts are committed to work together in the implementation of the programme:

- To deliver the programme at the most appropriate level, using the bestplaced part of the Union to deliver national, regional or global results;
- To cooperate and don't compete for roles and resources;
- To allocate resources to the part of the Union responsible for delivery;
- To communicate openly and transparently to keep each other informed of plans and activities.

Under this approach, IUCN-Med will continue to work closely with the main governance bodies in the Mediterranean, as well as with the main stakeholders acting in the region in order to influence the regional nature conservation agenda and to support institutional processes leading to effective conservation and management of biodiversity, natural patrimony and resources in the region.

IUICN Members and key partners are committed to the implementation of the programme and contribute with their own efforts and resources to the achievement of the expected results. Some of the activities and tasks undertaken by Members are clearly integrated into the programme's objectives and can be accounted as part of its implementation. The national committees and the Members play an important role in translating the programme into relevant national action plans.

Particular attention will also be given to **increase IUCN membership and partnership at national level**, and strengthen the involvement of the most relevant local partners in the implementation of the programme.

Partnerships for the implementation of the programme will be strengthened and diversified. The participation of representatives of national institutions from different economic sectors, the private sector and relevant local stakeholders (including local authorities and communities) will be enhanced. This will also imply improving the consultation and involvement of partners in project preparation and implementation management and ensuring continuous communication among the partners.

Women participation and ensuring gender approach in the conservation of biodiversity and sustainable use of natural resources will be reinforced. Women can provide significant support and know- how for implementing actions at all levels. It will also be important to strengthen the Involvement of **young generations** in the implementation of the actions under the programme.

EFFICIENT IMPLEMENTATION AND MOBILISATION OF RESOURCES

A main focus is on increasing the cooperation between Members, National Committees, Commission experts, key partners and IUCN-Med in order to strengthen the programme implementation and impact on the ground.

Improving coordination and cooperation among the members and partners in the implementation of the programme will require more regular meetings to ensure that all views and relevant needs are taken into account, to share experiences and know-how –and to learn from failures and success stories. Best available technologies can be used for this purpose.

Initiatives and projects will be coordinated and followed up by **steering groups** formed with national experts from the countries involved in their implementation, which will boost a more dynamic implementation of the actions.

Support and **capacity building** for the partners involved in the implementation of projects and initiatives is crucial. This requires training and support to create networks involving public and private organisations, and promote cooperation among the different actors involved.

Providing the **expertise** needed for projects' implementation is also essential and can be achieved by making efficient use of all knowledge and experience available in the countries and from abroad. National experts and organisations can provide relevant knowledge and experience, while international experts and other expert networks from international organisations can be integrated into projects' implementation. The IUCN

New funding opportunities will be sought through participation in European programmes supported by development and regional cooperation funds for the Mediterranean (ENP, ENICBC, Interreg) and other EU funds (e,g. LIFE).

Commissions provide strong technical support on concepts, approaches and methodologies for the implementation of the programme activities.

Efforts will also be made to continue building the network of experts and expertise in Mediterranean countries through **supporting membership to IUCN Commissions**. Under each Commission, regular consultation with thematic network of experts from the Mediterranean countries will be maintained and enhanced.

Coordination and cooperation with other regional programmes and offices in particular the IUCN offices for EU, ECARO, ROWA, SEE, PACO, as well as with other IUCN Members and Commissions will also be reinforced to achieve common objectives within IUCN Programme 2017-2020.

It seems also advisable to take the necessary steps to transform the agreements signed with regional institutions (UfM, UMA, CEDARE, FAO and ALECSO) into action plans that identify the opportunities and help to jointly implement the relevant actions under this programme.

Moreover, the **mobilisation of resources** for the implementation of the programme should be strengthened through looking for new donors and exploiting synergies with other programmes and initiatives that share similar objectives to those pursued under this programme. In particular, new funding opportunities will be sought through participation in European programmes supported by development and regional cooperation funds for the Mediterranean (ENP, ENICBC, Interreg) and other EU funds (e,g. LIFE).

PROGRAMME MONITORING AND REPORTING

The monitoring and reporting of the Mediterranean Programme 2017-2020 will be done through a number of results and impact **indicators** properly defined, which will allow assessing progress during the implementation of the programme evaluating the results achieved. These indicators are as far as possible aligned with the indicators used to measure progress against the SDGs² and the Aichi Biodiversity Targets.

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⁽²⁾ At the time of writing this programme, the SDG indicators have not yet been finalised and it is therefore not yet possible to state these in their final form. However, by the time of the IUCN World Conservation Congress, IUCN will be able to use the SDG indicators to track IUCN contributions to the SDG targets.

The monitoring and evaluation of the programme include a **Mid-term evaluation** to be conducted at the end of the second year of the programme implementation (2018) and a **final evaluation**. These evaluations will be conducted by independent experts and in consultation with all IUCN Members and key partners in the region, and their results will be widely disseminated and communicated to all relevant stakeholders.

The Mid-term evaluation is essential to assess main strengths and weaknesses during the programme implementation and enable identifying gaps, shortcomings and successful experiences. Tailored measures would then be taken to ensure more efficient programme delivery.

The monitoring and evaluation of the programme provide relevant information for the communication of key results to all partners, other interested parties and the general public, which improves the visibility of the programme and its results.

The programme objectives and its results shall be properly communicated to raise awareness about biodiversity at the political and decision-making level, in all policy arena and development sectors, and among the population. This requires effective and appropriate tools and language. **Reporting and communication** under the programme will highlight the linkages of biodiversity and development, including socio-economic issues that concern the life of people, as job creation, economy, food and climate change, etc.

6. HUMAN AND FINANCIAL RESOURCES NEEDED TO IMPLEMENT THE PROGRAMME

HUMAN RESOURCES

The proper and efficient implementation of this Programme requires the involvement of IUCN's Members in the Mediterranean and the coordination of the IUCN-Med Centre. The day-to-day management and implementation of the Programme activities will be done by a team made of a Programme Coordinator and 4 Programme officers in the IUCN-Med Centre.

The Programme Coordinator will be responsible for the overall implementation of the Programme including: (i) contacts with Members, (ii) contacts with relevant national authorities, (iii) Secretariat of the Steering groups, (iv) coordinating and supporting the Programme officers, (v) elaborating technical and financial reports.

The Programme officers will be responsible for the activities under the following thematic areas:

- Terrestrial and freshwater ecosystems
- Terrestrial and freshwater species
- Marine ecosystems and species
- Information and communication

The IUCN Members and partners involved in the Mediterranean programme contribute with their human and financial resources and facilities to the implementation of the actions under their competences and responsibilities.

The IUCN expert Commissions provide a valuable scientific and technical support on relevant issues for the implementation of the programme. IUCN may also seek the collaboration of international experts that provide technical assistance to the implementation of some particular actions as required.

FINANCIAL RESOURCES

The financial resources needed for the implementation of the Programme are being evaluated and will be provided at a later stage.

ACRONYMS

ACCOBAMS: Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area

ALECSO: Arab League Educational, Cultural and Scientific Organization

CBD: Convention on Biological Diversity

CEDARE: Centre for Environment and Development for the Arab Region

CEPF: Critical Ecosystems Partnership Fund

CITES: Convention on International Trade in Endangered Species of Wild

Flora and Fauna

CMS: Convention on Migratory Species

CSO: Civil Society Organisation

EU: European Union

EURO: IUCN Regional Office for Europe

ECARO: IUCN Regional Office for Eastern Europe and Central Asia

FAO: United Nations Food and Agriculture Organization

GFCM-FAO: General Fisheries Commission for the Mediterranean-FAO

GIS: Geographical Information System

GIZ: Gesellschaft für Internationale Zusammenarbeit (German International

Cooperation)

IAS: Invasive Alien Species

IPA: Important Plant Area

IUCN: International Union for the Conservation of Nature

KBA: Key Biodiversity Area

MaB: Man and Biosphere – UNESCO Programme

MAP: Mediterranean Action Plan

MEDPAN: Network of Marine Protected Areas in the Mediterranean

MPA: Marine Protected Area

PA: Protected Area

RAC/SPA: Regional Activity Centre for Specially Protected Areas, established

by the Contracting Parties to the Barcelona Convention

ROWA: UICN Regional Office for West Asia

SDI: Spatial Data Infrastructure

SDG: Sustainable Development Goals

UfM: Union for the Mediterranean

UMA: Union du Maghreb Arabe

UNFCCC: United Nations Framework Convention on Climate Change

UNCCD: United Nations Convention to Combat Desertification

UNESCO: United National Educational, Scientific and Cultural Organisation

UNEP: United Nations Environment Programme

UNFCC: United Nations Framework Convention on Climate

WWF: World Wide Fund for Nature

ANNEX 1 - DONORS AND PARTNERS

PARTNERS

NEW PARTNERSHIPS

The work of IUCN-Med in partnership with organizations linked to IUCN and comprising Members. Commissions and other institutions, is reflected in the new cooperation agreements signed in 2014 and 2015 with the following institutions:

- Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS) - Monaco
- Agence Française des Aires Marines Protegées (AFAMP) -France
- Agencia EFE Spain
- Arab Office for Youth and Environment (AOYE) - Egypt
- Centre for Environment and Development for the Arab Region and Europe (CEDARE) - Egypt
- Centre Permanent d'Initiatives pour l'Environment (CPIE) Côte Provencale - France
- Direction Générale des Fôrets (DGF) - Tunis
- Fundación González Bernáldez -Spain
- General Fisheries Commissions for the Mediterranean (GFCM) -Italy
- High Commisariat for Water, Forest and Combatting Desertification (HCEFLCD) -

Morocco

- International Marine Centre of Oristano - Italy
- IUCN French National Committee
 France
- L'Union du Maghreb Arabe -Morocco
- Ministère de l'Aménagement du Territoire et de l'Environment -Algeria
- Ministry of Environment Italy
- Network of Marine Protected Area Managers in the Mediterranean (MedPAN) - France
- Universidad Autónoma de Madrid
 Spain
- Universidad de Cádiz Spain
- Universidad de Granada Spain
- Universidad de Málaga Spain

DONORS



Critical Ecosystem Partnership Fund (CEPF)



Ernst Kleinwort Foundation (Balkans)



European Commission EuropeAid



European Commission ENPI CBCMed Programme



European Commission FP7 Programme



European Commission Life+ Programme



European Commission Interreg Mediterranean



European Commission POCTEFEX Programme



French Agency for Development (Agence Française de Développement-AFD)



French Agency for Marine Protected Areas (AFAMP)



French Global Environment Facility (Fonds Français pour l'environnement Mondial -FFEM)



Biodiversity Foundation



Habitec Foundation



International Union for Conservation of Nature (IUCN) Headquarters



Mava Foundation



Regional Activity Centre for Specially Protected Areas (UNEP MAP-RAC/SPA)



Regional Ministry of Environment and Land Planning. Junta de Andalucía (CMAOT)



Spanish Agency for International Cooperation and Development (AECID)



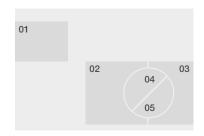
Ministry of Agriculture and Fishery, Food and Environment (MAPAMA)



Spanish National Parks Autonomous Agency (OAPN)



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