

Mediterranean Programme of IUCN Centre for Mediterranean Cooperation 2021 – 2024



Table des matières

1.	. A NEW PROGRAMME FOR THE MEDITERRANEAN, ON THE PATH TO 2030	3
2.	ENACTING THE IUCN GLOBAL PROGRAMME IN THE MEDITERRANEAN	4
3.	. DIAGNOSIS: SITUATION ANALYSIS AND IDENTIFIED NEEDS	6
	3.1 The Mediterranean basin: biophysical overview	6
	3.1.1 Geographical situation	6
	3.1.2 A biodiversity hotspot	6
	3.2 A threatened socio-ecological system	7
	3.2.1 Cultural, political, and socio-economic context	7
	3.2.2 Intensifying human activities and threats over ecosystems	8
	Residential and commercial development	8
	Agriculture	9
	Overharvesting of biological resource use: fisheries, wildlife utilization	10
	Pollution and waste	10
	Natural system modification: dams & water management	11
	Invasive alien species	11
	Climate change	12
4.	THE IUCN-MED PROGRAMME OF WORK	12
	4.1 Intervention strategy and approach	12
	4.2 Working lines	15
	4.2.1 Nature-based Solutions and Climate Change	16
	4.2.2 Biodiversity Standards and Indicators	17
	4.2.3 Ecosystem Resilience and Spatial Planning	19
	4.2.4 Marine Biodiversity and Blue Economy	21
	4.2.5 Nature Conservation and Food System	23
5.	. PROGRAMME IMPLEMENTATION	24
	5.1 One Programme approach	24
	5.2 Enhanced cooperation and coordination	25
	5.3 Resource mobilization	25
6.		26
7.		27
	7.1 2021-2024 Med Programme Results Framework	27
	7.2. Alignment with the 2021-2024 IUCN Global Programme	35

1. A NEW PROGRAMME FOR THE MEDITERRANEAN, ON THE PATH TO 2030

Like anywhere else in the world, the Mediterranean region is facing two interlinked major crises: the biodiversity loss and climate change. Two challenges that the IUCN Centre for Mediterranean Cooperation (IUCN-Med) is willing to address in its programme 2021-2024, in line with the provisions of the related international and regional agreements and the IUCN global programme.

The Mediterranean basin is no exception to the global trends of biodiversity loss and climate change, with many endemic species listed in the IUCN Red List of threatened species and an alarming increase in temperatures in recent decades.

The year 2020 was an important milestone in the international commitment to address these two major interconnected crises. It marks the beginning of a pivotal decade to reverse the current trends of biodiversity loss and rising Green House Gas emissions by 2030, the target date for achieving the Sustainable Development Goals and the last chance, according to scientists, to avoid catastrophic climate change. The 2021-2030 United Nations Decade of Ecosystem Restoration is a call to all countries of the world to work together to protect and restore ecosystems for the benefit of nature and people. The Post-2020 Global Biodiversity Framework (Convention of Biological Diversity) has just set ambitious targets by 2030 to encourage governments to take effective and urgent action to ensure resilient ecosystems. At a more regional scale, the recently adopted European Biodiversity Strategy (EU Green Deal) for 2030 also provides a new momentum to bring together the efforts of member states to ensure that Europe's biodiversity will be on the path to recovery by 2030 for the benefit of people, climate and the economy. In addition, in July 2021, the 22 countries party to the General Fisheries Commission for the Mediterranean plus the European Union, adopted their 2030 Strategy aiming at securing a sustainable future for fisheries and aquaculture in the Mediterranean and the Black Sea. However, other commitments under the regional Barcelona convention will need further implementation to curb down marine pollution, accelerate the transition to sustainability and conserve the health of the coastal and marine Med environment. On the climate front, 2020 marked the upward revision of the commitments (National Determined Contributions - NDC) made by all the parties to the United Nations Framework Convention on Climate Change (UNFCCC) under the Paris Agreement, with the integration of Nature-based Solutions.

In this context, the International Union for Conservation of Nature (IUCN) also chose to define its global strategy in a decadal timeframe and edited the Nature 2030 programme giving a long-term outlook to its strategy as well as ensuring alignment with international conventions, among them the United Nations 2030 Agenda for Sustainable Development and the Paris Agreement goals, recognizing that the current suite of global problems are interconnected and interdependent. Nature is central to support and sustain countries' development pathways and livelihoods of the most vulnerable people and helps to mitigate the impacts of climate change through the many ecosystem services it provides.

Finally, the recent and still ongoing COVID-19 pandemic has been the latest reminder of how human health is linked to healthy ecosystems and wildlife. It is further emphasizing the need and urgency to protect and restore nature in order to limit the risk of development and spread of infectious diseases and from a broadest perspective to ensure human and ecosystem health and well-being.

Committed to these engagements and embracing the IUCN global vision, the IUCN Centre for Mediterranean Cooperation (IUCN-Med) is setting its ambition in the same timeframe, shaping, and adapting it for the period 2021-2024, giving thus its members the possibility to adapt the strategy along the way. Within the Mediterranean, IUCN-Med's work is regional across 28 countries in Southern Europe, North Africa and the Middle East. This document aims to present the contribution of IUCN-Med to the IUCN global vision to address the most pressing threats, challenges and opportunities in the Mediterranean. It presents IUCN-Med's strategic priorities for the period 2021-2024, as well as expected results, targets, and indicators, which will be reviewed on an annual basis to monitor progress. The programme has been prepared in consultation and with the participation of IUCN members and partners in the region, building on the results of the previous programme (2017-2020).

2. ENACTING THE IUCN GLOBAL PROGRAMME IN THE MEDITERRANEAN

The IUCN Nature 2030 programme aims to deliver concrete and tangible positive impacts to 5 areas that are People, Land, Water, Oceans and Climate, using five pathways to lead to transformative changes: Recognise, Retain, Restore, Resource and Reconnect¹ (see Figure 2).



Figure 1:IUCN's Nature 2030 Programme Framework

The first prioritised programme area of the IUCN's Nature 2030 agenda concerns **People**, where the IUCN seeks to address pervasive injustice, inequality and unsustainable use of nature undermining the prospects for human prosperity and nature conservation alike. The IUCN-Med programme will be in line with this global programme area, ensuring just and inclusive conservation and sustainable use of nature through the application of multi-stakeholder approaches, including fully equitable governance, rights, and responsibilities particularly for indigenous people, women, and youth

¹ Recognize the interconnected challenges the world is facing; Retain the importance of safeguarding, maintaining and sustainably using the world's natural and cultural heritage; Restore the condition of species and ecosystems; Resource by funding and investing in nature and the people working to conserve it; Reconnect people to nature to build a culture of conservation.

The second and third areas of IUCN's Global Programme relate to Land and Water, which aim to safeguard key biodiversity areas, conserve and recover species, restore ecosystems and the services they provide, ensure the sustainability of production landscapes, promote an equitable access to water resources for all, and strive to include nature values in water governance, law and investments. The IUCN-Med programme will contribute to these global programme areas, by supporting the safeguarding, restoration and recovery of key terrestrial and freshwater ecosystems, while accompanying human societies towards more sustainable production models (including agriculture and aquaculture) and urban lifestyles, reducing use of plastics, pesticides and fertilizers that harm land and ocean.

The fourth Global Programme area relates to the protection of the world's **oceans**, where the IUCN seeks to address ocean warming, acidification and deoxygenation, marine litter, overfishing, illegal and unregulated fishing, and pollution, from pesticides, and other chemicals. With the deployment of specific activities on sustainable fisheries, restoration of endangered and vulnerable marine ecosystems and species, sustainable coastal development and planning processes, the IUCN-Med programme will largely contribute to this global programme area. It will particularly promote a sustainable use of marine natural resources, generating overall positive biodiversity outcomes and maintaining livelihood benefits.

Within the fifth programme area of the IUCN's Nature 2030 agenda, Climate, IUCN aims at limiting the impacts of climate change, harming societies, the natural world, and the multiple services that healthy nature provides as well as proposing adapted mitigation solutions. Aligned with the Paris Agreement, the Union targets to limit temperature rise to 1.5°C through ambitious measures to mitigate climate change and enable effective adaptation in a changing world. Within this framework, NbS, informed by scientific assessment and knowledge, have been identified as an accurate and appropriate tool to reach both targets. The IUCN-Med programme will place particular emphasis on promoting the integration of such a tool in the Mediterranean at various levels (regional, national and local) and across different types of ecosystems, including urban areas.

Throughout its work, IUCN-Med will also follow the five pathways to transformative changes outlined in the IUCN's Nature 2030 agenda: Recognise, Retain, Restore, Resource and Reconnect. Cross-sectoral and multidisciplinary collaborations will be fostered to ensure the recognition of the importance of a whole-of-society approach to today's environmental crises. Complementary to this first pathway, there is the need to stress the concept of ownership, understood as the need for all segments of society to feel responsible for enabling a just and fair transition to a more sustainable future. Based on the key programme areas defined in this document, the IUCN in the Mediterranean will relentlessly work to retain and restore natural capital. It will work to protect the Mediterranean habitats and species, reduce the stressors to biodiversity loss and enhance the uptake of NbS, thus contributing to IUCN's vision of a just world that values and conserves nature. Moreover, the upcoming four years and beyond, will be marked by the recovery from the global health and economic crisis. An unprecedented amount of resources will be developed to rebuild our societies and IUCN will work to ensure that funding will be biodiversity-positive. The reconnect pathway is of particular importance as it connects particularly well with the IUCN-Med's objective to increase its presence and visibility in the Mediterranean region amongst decision-makers, researchers, businesses and civil society.

Thus, the Nature 2030 programme proposes a broad, ambitious and inclusive framework which is largely coherent and appropriate to address the global environmental crises that humanity is facing. The IUCN-Med programme will therefore contribute to the implementation of this global agenda by addressing the most pressing threats, challenges and opportunities in the Mediterranean.

3. DIAGNOSIS: SITUATION ANALYSIS AND IDENTIFIED NEEDS

3.1 The Mediterranean basin: biophysical overview 3.1.1 Geographical situation

many endemic species.

The Mediterranean basin gathers a great diversity of terrestrial and marine geographical characteristics that is home for many forms of ecosystems and habitats, hosting, among others,

The Mediterranean basin covers part of three continents: Africa in the South, Asia in the East, and Europe in the north. It is boarded by 28 countries and runs west to east from part of Portugal to Jordan and north to south from northern Italy to Morocco. It includes African States which are Morocco, Egypt, Libya, Tunisia and Algeria, and also parts of Spain, France, the Balkan states, Greece, Turkey, Syria, Lebanon, Israel, as well as around five thousand islands scattered around the Mediterranean Sea. West of mainland, several Atlantic islands such as the Canaries, Madeira, the Azores and Cape Verde are also integrated.

With 46,000 km of coastline, the Mediterranean Sea is the largest semi-closed sea in the world and covers 2.5 billion kms². Connected to the Atlantic Ocean by the narrow Strait of Gibraltar, to the Red Sea via an artificial waterway, the Suez Canal, and to the Black Sea via the Bosphorus Strait, it encompasses four major marine eco-regions and different marine sub-basins. Its average depth is 1,500 meters with a maximum depth of 5,267 m in the eastern Ionian Sea.

The basin is also home to many coastal hydrological basins, these riverine systems are the main source of nutrients for marine and terrestrial ecosystems.

Its climate is characterized by heavy rainfall in winter and hot and dry summers. It is a transition zone between a temperate Europe and Arab deserts, ranging, according to the Köppen-Geiger Climate Classification, from warm and hot-summer Mediterranean climate in Italy, Greece or Turkey to cold semi-arid climate in the southern part of Spain, Morocco and Algeria, until hot desert climate covering the whole Egyptian territory and most part of North African Countries.

Its location between three continents, its terrestrial huge topographical diversity and altitudinal differences ranging from the Dead Sea (420 meters below sea level) to 4,165 meters in the west (Morocco) and 3,756 m in the east (Turkey) are major circumstances that make this region unique and home to a great diversity of ecosystems, habitats, and species which can, for part of it, be described as endemic.

3.1.2 A biodiversity hotspot

With a high rate of endemism and seriously damaged and endangered ecosystems, the Mediterranean basin is recognized as a biodiversity hotspot, the second largest on Earth and the third richer, over thirty-six.

The Mediterranean hotspot is the third richer in the world over thirty-six, regarding plant biodiversity. It is one of the most important zones for endemic plants on the planet. In terms of habitats, it supports several terrestrial biomes such as forests, garrigues, mountain meadows, as well as deserts and arid scrub. Regarding aquatic habitats, brackish water lagoons, rivers, estuaries, or transitional areas; coastal plains; wetlands; rocky and sandy shores and nearshore coastal areas characterize the region as well as marine ecosystems such as sea grass meadows; coralligenous

communities; frontal systems and upwellings; seamounts and marine canyons; mud volcanos, chemosynthetic environments and other deep-water and pelagic systems.

Major habitats and associated species are presented in the box 1 below.

Box 1: Mediterranean key ecosystems and conservation status

Freshwater ecosystems

- 550 freshwater fish species, 47% endemic, some even limited to a single lake or hydrographic basin, 44% threatened
- 500 bird's species (increasing population since the 2000's, 10% endemic, 12% threatened)

Including springs (Mediterranean richest biotope, seasonal in arid areas, prompt to appearance of endemic species = "superhotspot"), wetlands (2 to 3% of the Mediterranean basin, 30% of vertebrate species, important habitats for birds, particularly in North Africa) and peatlands.

Coastal and marine ecosystems

- <1% of global ocean surface, wide variety of habitats
- Home to nearly 8% of known marine species, of which 12% are threatened, 52% decrease in populations of marine species (mostly fish populations) since the 1990's. Some emblematic species: 19 cetaceans, 3 marine turtles, the Mediterranean monk seal, the red tuna, rays and sharks but also red coral, Pinna mussel, Posidonia seagrass.

Forests

- 2% of the world's global forested surface, forest represent 10% of Mediterranean countries surface mostly in Spain, France, Turkey and Italy (steadily increasing since the 1990's, unequally present, exploited and threatened between North and South of the basin)
- Limited recent biodiversity assessment in North Africa, flora and fauna highly endemic and threatened

Drylands, arid areas

- Valuable and fragile ecosystems, such as the Alfa grassland or oasis hosting the genetic diversity of date palm
- Poor flora but remarkable, oasis legal protection at national scale ongoing

Savannah and grasslands

- Located in arid, Saharan and mountain areas
- Small gazelles decline, information limited

Mountains

- North Africa's Mountain ranges include the Atlas and Rif mountains
- Rich biodiversity with many rare, threatened, and endemic species such as Cedar Atlas

As illustrated by the Box 1, level of knowledge and availability of information are unequal depending on ecosystems and species but also, at local scale, between countries and sub-regions. This information, the associated standards and assessment tools are crucial to determine the conservation status and adapt civil society behaviors and policy governance over ecosystems in order to initiate effective conservation measures, especially since anthropogenic direct and indirect pressures are increasing in the region.

3.2 A threatened socio-ecological system

3.2.1 Cultural, political, and socio-economic context

The Mediterranean region is home for a unique socio-ecological equilibrium which has been shaped by centuries of interactions between human societies and singular ecosystems. It is nowadays threatened by human development and the non-sustainable use of natural resources against the backdrop of some major socio-economic crises.

The Mediterranean region is often described and considered as the cradle of humanity and the interaction between human societies and ecosystems has therefore created a unique socio-ecological cultural heritage that shaped its landscapes. It hosts a great diversity of ecosystems and communities that developed themselves through centuries of commerce and communication. Unfortunately, nowadays most of this rich and unique eco-cultural heritage is undervalued and misused due to its replacement by short term economic profit schemes.

Economic development in the Mediterranean is dominated by three sectors, all with a very large ecological footprint: (i) the primary sector, corresponding to natural resource-based activities including agriculture, forestry and fisheries; (ii) the energy sector based on non-renewable resources, mainly oil and gas, as well as renewable resources, mainly water but also wind, hydro and solar energy; and (iii) the tertiary sector, grouping services, mainly tourism and maritime transport.

Besides, North-South and West-East inequalities in the region are still ongoing and wealth distribution between the Mediterranean countries within the European Union and Southern and Eastern countries of the Mediterranean basin is uneven. The economic development gap remains as, in 2016, the average income per capita was 1.9 times higher in the Mediterranean countries within the European Union than in Southern and Eastern countries. Poverty was still impacting 65 million people in the Middle East and North Africa in 2015 although some countries benefited from significant improvements in key social indicators as represented by the Human Development Index.

Nowadays, the Mediterranean region is more than ever a major socio-political concern for the international community especially regarding Arab transitions, political instability in the Southern and Middle East countries, conflicts in Syria, migrant and economic crisis. Although civil society is increasingly aware of environmental and climate change issues, especially recently in the Arab world, all these factors drive short-term economic measures and thus significantly reduce government attention to the environment. Despite the national commitments of countries within the framework of international environmental agreements and actions of non-governmental organizations (NGOs) and civil society, the human footprint in the region is growing constantly and is now almost two times higher than the average global footprint. Destruction of ecosystems and habitats happen at a rapid pace and climate change impacts are increasingly tangible.

3.2.2 Intensifying human activities and threats over ecosystems

Direct pressures, both terrestrial and marine, coming from anthropogenic activities, are increasingly weighing on Mediterranean ecosystems, having irreversible impacts on habitats and species. In addition, climate change will potentially have an amplifying and exacerbating effect on these direct threats and thus accelerating biodiversity loss.

Residential and commercial development



එළු Demography and urbanization

Mediterranean coasts are strongly attractive and are predicted to host most of the Mediterranean population in the future, which will represent a huge development challenge in terms of employment, food, water and energy supply as well as housing, and other goods and services, exerting pressure on coastal ecosystems and environments. From 250 million people in 1960 to an estimated 537 million persons in 2015, the Mediterranean population is expected to reach 670 million people by 2050. The population increase has been particularly concentrated on the coasts, since now one third of the Mediterranean population lives on its coastline (i.e. less than 30 km from the sea). This has been accompanied by a strong urbanization process, which has been underway since the middle of the last century, particularly in the southern and eastern Mediterranean countries. The Mediterranean urban population has increased from 48% in 1960 to 68% today, and this proportion is expected to further increase in the coming years.

This high coastal population density leads to demographic and economic unbalances between lands and coastal areas and internal migrations from poor rural areas to economically dynamic cities, as well as an increase in soil artificialization for urbanization and cultivated lands, resulting in the loss, fragmentation and degradation of ecosystems such as wetlands or forests and intensifying pressure on natural resources. This has also adverse consequences for human well-being as the deterioration of the services provided by these ecosystems exacerbates the risks of flooding and water scarcity, degradation of water and the impacts of climate change.



Tourism

The rapid development of the Mediterranean coastline is also linked to the growth of tourism, the Mediterranean Sea being the first touristic destination in the world. It hosted 368 million tourists in 2020 (compared to 58 million in 1970), which could reach 500 million in 2030. It consists mainly of coastal tourism as well as cruise tourism and boating. As the contribution of tourism to regional GDP has increased by 53% over the last 20 years, this sector is a key economic driver in the region. The related prospects of short-term financial benefits have continually prevailed over the preservation of biodiversity and ecosystem services. In addition to aggravating the artificialization of the coasts, the massive influx of tourists is seriously impacting coastal and marine ecosystems as well, through species injuries and disturbance and sea pollution.



Maritime sectors

Maritime shipping traffic has been constantly growing over the last two decades in the Mediterranean Sea. It is considered nowadays as one of the major maritime routes of the world, connecting the Mediterranean countries to each other but also to the rest of the world through the Gibraltar strait and the Suez Canal. It gathers one-third of the world's trade and this trend is expected to further increase in the coming years with the doubling of the Suez Canal by 2023. The shipping sector is all the more difficult to regulate and sensitize to environmental issues since it does not depend on ecosystem services. It is in contrast responsible for many ecological issues: air contamination, animal collisions and noise disturbance, chemical and waste pollution, non-native invasive species introduction and spreading into marine ecosystems as well as degradation and destruction of coastal ecosystems due to the construction of port infrastructure and transshipment hubs. Finally, other anthropogenic activities such as oil and gas exploration and extraction, offshore renewable energy and underwater mining are also expected to grow and increase the potential threats to marine ecosystems.



Agriculture

Agriculture has always been fundamental for Mediterranean populations' livelihood and development. It has played a major role in the Mediterranean agricultural landscape heritage and has provided employment, income and food security to a large part of the rural population while supplying local and, more recently, international markets. Its recent intensification particularly in Southern and Eastern countries of the Mediterranean, is having dramatic impacts on ecosystems. While the Mediterranean cultural surface has been constant since the 1960s, it is facing erosion and

field abandonment due to soil depletion, linked to unsustainable agricultural practices, and land-use change. The intensification process has been supported by heavy water management and overuse, often for irrigated, non-native, water consuming and fragile cultures leading to desertification and endangering freshwater ecosystems, as well as soil and water pollution due to plastics, and chemical overuse of fertilizers and pesticides. Moreover, the recent increasing livestock population, particularly in North Africa, creates threats to grasslands and forests due to overgrazing. Finally, both agricultural practices and the simplification of the range of crop and livestock varieties lead to a loss of habitats and species but also genetic diversity.

Overharvesting of biological resource use: fisheries, wildlife utilization



Like agriculture, fishing has always been part of the life of Mediterranean populations, being a source of food, of direct and indirect incomes and employment. Nowadays, large-scale fishing is limited in the Mediterranean Sea and 80% of the vessels are artisanal. Fish landing has been steadily decreasing since 1990 due to overexploitation of the halieutic resource accentuated by environmental degradation, coastal development, and pollution. Projections indicate a continuation of this downward trend in professional fishing activity in the coming years. Recreational fishing, on the contrary, is expected to increase with coastal development. Despite some management efforts resulting in encouraging indicators such as a recent 10% increase in the number of sustainably exploited species and a 15% decrease in the overall exploitation rate, the conservation status of marine species in the Mediterranean Sea remains worrying. Historically home to some of the most abundant marine diversity in the world, marine species are currently subject to several threats such as over-fishing, bycatch, pollution, habitat loss and human disturbances. According to the Food and Agriculture Organization of the United Nations, 75% of Mediterranean fish of commercial interest were overexploited in 2018. By catch is moreover estimated to represent 18% of total fish catches in the Mediterranean, which impacts many marine endangered species and vulnerable and sensitive habitats. In addition, the related decline of large predators such sharks, tunas, swordfish has led to major disruptions in marine food chains.



Wildlife utilization

Native species, especially large fauna like antelopes, birds of prey or primates, continue to be threatened by over-hunting, illegal taking and killing, especially in North Africa. They are mainly used for wild meat, as hunting trophies or in pet trade. Some amphibians and plants are also used in traditional medicine. Other activities such as wildlife watching and tourism contributes to changing wildlife habits, endangers their health, or exposes them to traffic accidents. Despite recent conservation efforts such as ban, hunt restrictions and population awareness, over-exploitation of wild fauna and flora is still ongoing.



Pollution and waste

Waste management is a major concern in the region since urbanization and improved living standards accelerate the production of solid waste, particularly in Southern and Eastern countries of the Mediterranean. This poor waste management is impacting species, natural ecosystems and human health both on terrestrial and marine areas. Currently, a large amount of solid waste is not collected daily in the region and 90% of it is disposed into dumpsites and unlined landfills inducing land and groundwater pollution. The Mediterranean is particularly vulnerable to plastic pollution as it is a semiclosed sea. It gathers 7% of all global microplastics, produced by the deterioration of macro waste on the sea floor.

In addition, water bodies and land are also widely affected by pollution (soil, rivers, aquifers and the sea). Land health is affected by pollution and waste (plastic, fertilizers, pesticides). The quality of freshwater is indeed unequal between European countries and Southern and Eastern countries of the Mediterranean. In Europe, surface water quality is generally improving, although a quarter of European groundwater was still in a chemically degraded state in 2015, mainly due to nitrates. In North-Africa and the Middle East, the opposite trend is observed due to population growth, industrial effluents, overuse of fertilizers and pesticides, landfills and mining activities and the absence or inefficiency of wastewater disposal systems. Generally located downstream of watersheds, wetlands, freshwater and coastal marine ecosystems receive much of the land-based pollution, leading to eutrophication, degradation of water quality and the ecosystem services they provide, with consequent negative impacts on human health and economic activities like agriculture, fisheries and tourism.



Natural system modification: dams & water management

Freshwater is a major issue in the region since it gathers more than half of the world's water-poor population holding only 3% of the world's freshwater resource. Since the middle of the 20th century, the total volume of freshwater withdrawals from both surface water and aquifer reserves has more than doubled in the Mediterranean region, along with population growth and the development of human societies. Water extraction and use is not homogenous across the region. While the average withdrawal in the Mediterranean today represents 30% of the total renewable water resource, it reaches 80% in some North African and Middle Eastern countries, mainly for the agriculture sector, exposing them to a severe risk of water stress. Some countries in the Middle East are even already highly dependent on the desalination process to meet their water needs.

Increased water supply has involved the construction of dams and water infrastructure and the transformation of natural wetlands and riparian habitats into artificial freshwater reservoirs, impacting ecosystems through habitat fragmentation and reduction. This has severe impacts on biodiversity (32% of freshwater fishes threatened by hydraulic installations in the Mediterranean basin), and could additionally have a dramatic effect on climate since natural wetlands, amongst others, absorb and sequester significant amount of carbon.



Invasive alien species

Alien species — sometimes termed exotic, introduced or non-native species — are plants and animals that have been intentionally or unintentionally introduced by human activities like tourism or shipping, have established populations and have spread into the wild in the new host region. They can become threats to the native ecosystems where they have been introduced due to direct or indirect competition for resources with native and endemic species, predation, disease transmission among others. It has been identified as one of the main causes for changing biodiversity communities and habitat modification, vegetal and animal species extinction and genetic diversity loss as well as having important socio-economic impacts in the Mediterranean. Invasive alien species are in addition sometimes difficult to detect and monitor.

Climate change

Climate change is a major concern in the Mediterranean region since it is occurring more rapidly than elsewhere on Earth. The temperature, for instance, has been increasing 20% faster than the global average. It is now 1.5°C above pre-industrial average (global average is +1.1°C). The region is already facing sea level rise, seawater acidification, and an increase in water surface temperature (more than 1.27 °C over the last 30 years). In addition, the frequency and intensity of dry spell and sea storms and flooding events have significantly increased since the 1950s.

Climate projections for the region indicate that these trends will continue. Temperature will increase (+2.2°C by 2040), the amount of precipitation will decrease (by 10% to 30% in most regions, sealevel rise will continue (between 9,8 cm and 25,6 cm by 2050) and the frequency of extreme events such as droughts and floods will increase.

Dry spell and water shortage are expected to increase pressure on streams and rivers. Their flow is therefore expected to decrease, accelerated by increasing demand from irrigated agriculture, households and industry. Both decreased streamflow and increased frequency of extreme precipitation events will endanger freshwater ecosystems, particularly wetlands and their associated ecosystem services and species, leading to desertification.

Climate change will have direct impacts on species and ecosystems. Terrestrial and marine species distribution will be altered, mainly due to changes in habitat conditions, leading to the extinction of species that lack adaptive capacities. Climate change will also impact human well-being and economies. Traditional irrigated and rain-fed agriculture is already suffering from a decline in crop productivity due to loss of soil fertility, increased temperatures, and water scarcity, which is expected to worsen. Climate change will moreover negatively impact the richness and distribution of species relevant to food, agriculture and fisheries. Food and water security could consequently be seriously challenged, which could lead to potential conflicts over resources and forced migrations. The concentration of human activities and settlements on the coastline makes the populations very vulnerable to future sea level rise and impacts of extreme events. Furthermore, the severity and frequency of heat waves, perceived with greater intensity in cities, have been increasing in recent decades caused by inadequate building materials and lack of vegetation resulting in deaths but also increased energy consumption, further exacerbating heat accumulation and water scarcity. Finally, climate change has also already been documented in the region as a risk, for instance, of damage to infrastructures, fires, or decrease in tourist frequentation.

Climate change thus acts as a direct and indirect threat to ecosystems and biodiversity, the magnitude of its current and future impacts is surely underestimated.

4. THE IUCN-MED PROGRAMME OF WORK

4.1 Intervention strategy and approach

IUCN-Med aims to contribute to tackle the identified drivers of biodiversity loss in the four coming years. Figure 2 below presents the theory of change (ToC) that summarizes IUCN-Med's strategic programme vision to achieve its dual global objective of biodiversity conservation and climate change adaptation and mitigation in the Mediterranean region, in alignment with the overall goal and priority focus areas of the IUCN Nature 2030 agenda.

IUCN-Med has defined five priority working lines, that are aligned with and contributing to the 5 areas of the IUCN's Nature 2030 agenda, translating its focus in the Mediterranean region. These 5 working lines will work all together in a synergistic and complementary way. Two of them are cross-cutting and presented vertically: Nature-based Solutions and Climate Change, and Biodiversity Standards and Indicators. They aim to improve knowledge and mainstream biodiversity conservation and Nature-based Solutions (NbS) into policies, management, spatial planning and sectors, and are therefore permanently linked to the activities carried out by the other working lines, which integrate these two cross-cutting themes in specific areas or sectors of activity such as, among others, coastal and urban planning, tourism, fisheries and agriculture. These three working lines are also interconnected and contribute to some joint activities.

The working lines' activities rely on IUCN core and complementary approaches that give its added value: knowledge and standard production, capacity building, policy influencing and convening and consensus building among various stakeholders, at regional, national and local levels.

This integrated and cross-sectoral vision, combined with these approaches, should make it possible to achieve the defined **intermediate results**, which are greening sectors, conserving biodiversity and reducing threats including climate change, contributing to the achievement of IUCN main goal: **conserve and value nature while addressing the climate change challenge**.

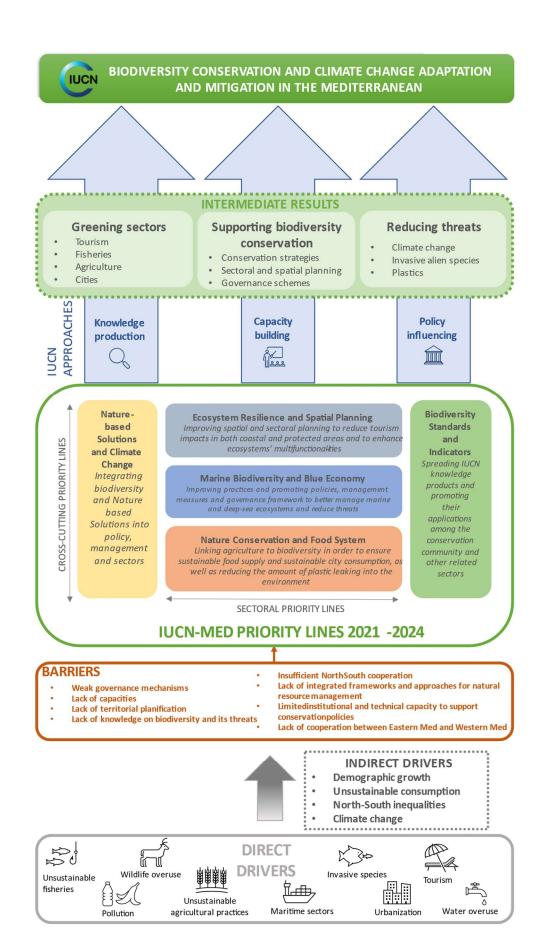


Figure 2: Theory of change summarizing IUCN-Med's strategic intervention vision 2021-2024

The IUCN-Med programme will be closely linked to and contribute to the impact area objectives of the IUCN Global programme:

Global IUCN	Contribution of IUCN-Med	Working lines	
impacts		involved	
(Programme			
areas)			
People	IUCN-Med will aim to strengthen the sustainability of practices		
_	in sectors that are essential to the economies and people		
	livelihoods in the region (agriculture, fisheries, tourism)		
Land	IUCN-Med will contribute to the protection of terrestrial		
	ecosystems through the development of conservation strategies		
	for threatened species, the strengthening of protected area		
	network through improved management effectiveness and		
	connectivity, the identification of additional KBAs, the		
	integration of biodiversity conservation in different sectors		
	(agricultural landscape approach, tourism, urban areas) and the		
	reduction and mitigation of certain threats (such as invasive		
	species and plastics).		
Water IUCN-Med will continue its work on the identification of threats to freshwater ecosystem species as well as mitigation measures			
	and guidelines to help key productive sectors to integrate		
	biodiversity into their activities and investments.		
Oceans	IUCN-Med will aim to improve the health of the Mediterranean		
	sea through the reduction of the impact of fisheries on vulnerable		
	marine and coastal ecosystems and species and sustainable		
	management;; and other human driven impacts. It will		
	moreover support the development of conservation strategies and		
	recovery plans for endangered marine biodiversity, incorporate		
	sea related NbS into policy and management practices,		
	strengthening MPAs and identify OECMs (Other Effective		
Conservation Measures) to increase conservation efforts.			
Climate	IUCN-Med will promote the deployment of NbS across sectors		
and different type of ecosystems (coastal and marine, urban a			
	agricultural) in a cross-cutting way.		

- Nature-based Solutions and Climate Change Biodiversity Standards and Indicators
- Ecosystem Resilience and Spatial Planning
- Marine Biodiversity and Blue Economy
- Nature Conservation and Food System

Interconnexions of the Med Programme with the IUCN Global programme is described more in detail in Annex 2.

4.2 Working lines

This section presents the specific objectives and types of action that will be deployed by the 5 IUCN-Med working lines in the next 4 years. A results framework (Annex 1) synthesizes the expected results and targets by 2024 for each working line, along with monitoring indicators. This results framework will allow regular monitoring, on an annual basis, of progress in the implementation of the programme.

4.2.1 Nature-based Solutions and Climate Change

NbS² are underpinned by benefits that flow from healthy ecosystems and target major challenges like climate change, disaster risk reduction, food and water security, health and are critical to economic development. IUCN has been leading a collaborative effort in designing the **Global NbS Standard**, which is intended to be a simple yet robust hands-on tool that enables the translation of the concept into targeted actions for implementation and enables verification of whether an action is NbS or not.

NbS implemented in the Mediterranean through restoration and improving conservation of ecosystems such as forests, wetlands and seagrass meadows, can help communities to address the climate and biodiversity crises and societal needs in a post Covid19 era. Forests and other types of vegetation help lower air temperature in urban areas or stabilise slopes. Wetlands can regulate floods and sea level rise and reduce and avoid further CO2 emissions. Coastal vegetation and natural features such as sand dunes and Posidonia banquettes on beaches can provide protection against storm surges and strong winds and diminish coastal erosion. Agro-biodiversity and aqua-biodiversity practices can enhance food production. NbS also aims to generate local employment and new economic opportunities in a fair and equitable way.

Effective implementation of NbS in the Mediterranean requires development of technical standards, increased knowledge of potential trade-offs and of their economic, social and environmental benefits, integration across policy sectors, collaborative governance, exchange of good practices and experiences, capacity building and financing.

IUCN-Med will continue to increase the awareness and build capacities to promote and implement effective NbS in the Mediterranean. By organizing dialogues and establishing partnerships among public and private stakeholders for exchange of knowledge, bringing together evidence, mapping policy and practice guidance for NbS across different types of ecosystems (marine or agricultural) at the Mediterranean, national and local levels, as well as in urban areas, investment in NbS will be promoted.

IUCN-Med will thus follow three specific objectives in that area:

Specific objectives		ves	Description
			IUCN-Med will continue to work on scientific tools on the valuation of
Promoting	the	NbS	ecosystem services to help generate reliable knowledge and promote the
standard	in	the	application of NbS in different sectors by public and private actors. In
Mediterranean across		across	marine ecosystems, it will particularly enhance the role that NbS can have on
different types of		of	improving coastal management and resilience, through the economic
ecosystems, through		through	assessment of the benefits generated by Posidonia meadows and coastal
knowledge production and		on and	wetlands in the Mediterranean. IUCN-Med will also contribute to
capacity building on NbS		NbS	disseminate knowledge and good practices on NbS in the urban sector
			through the setting up of a mapping and observatory of NbS practices at

² NbS are "actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits".

16

	the scale of Mediterranean cities and the production of methodological guidelines for local and regional governments.
	IUCN-Med will pay particular attention to capacity building, awareness raising and training of actors in the field of NbS, notably through the various tools it already has at its disposal. It will additionally develop a capacity building programme dedicated to local stakeholders, decision-makers and practitioners and ensure the constitution of a regional network of experts on this subject, which can be mobilised according to needs and sectors.
Supporting the deployment and uptake of NbS in the	IUCN-Med will encourage the development of local clusters on NbS gathering public and private stakeholders in Mediterranean cities to promote concrete investments and applications in several countries' urban areas. IUCN-Med will also seek to build partnerships and raise funds to develop new NbS-related projects in cities for green infrastructure deployment, as well as in agricultural landscapes and wetlands, to apply the NbS concept in different priority ecosystems. In agro-ecosystems for example, IUCN-Med
public and private sector	will promote the adoption of biodiversity-friendly agricultural practices at the landscape scale, in order to have a more holistic approach of the value of these territories and their benefits in terms of food security, human health and contribution to climate change adaptation and mitigation. Similarly, it will also encourage the NbS approach in wetland management and restoration projects to enhance their potential for disaster risk reduction and climate change adaptation and mitigation.
	IUCN-Med will continue policy influencing to enhance the integration of
Enhancing the framework conditions for NbS at policy level, including economic incentives	NbS measures into regional and national regulatory frameworks . At the regional level, it will particularly promote and help guide investment and policies in NbS to safeguard biodiversity as part of the Med Action Plan (MAP) of the Barcelona Convention and related programmes of work.
	IUCN-Med will also work to identify economic incentives for private actors to invest in blue natural capital and offset programmes.

4.2.2 Biodiversity Standards and Indicators

Information and knowledge about biodiversity is critical to ensure that appropriate and effective conservation and protection measures are put in place. IUCN is the lead authority in developing and applying knowledge products based on IUCN standards including Red Lists, Protected Planet, Key Biodiversity Areas³ (KBA), Global Invasive Species Database (GISD), NbS Standard, as well as specific tools such as the Green List of Protected and Conserved Areas ant the Species Threat Abatement and Recovery (STAR) Metric.

The Mediterranean Red List of Species is coordinated by IUCN-Med, in collaboration with the IUCN Global Species Programme and Specialist Groups of the IUCN Species Survival Commission (SSC), which has involved the contribution of nearly 700 scientists from across the region. It aims to provide reliable information on the conservation status, threats and pressures on Mediterranean fauna and flora to support the work of policy makers and practitioners. To date, more than 6,000 taxa have been assessed on the Mediterranean Red List with at least 20% threatened with extinction. These include

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³ Key Biodiversity Areas are sites contributing significantly to the global persistence of biodiversity, in terrestrial, freshwater, and marine ecosystems.

species and subspecies from various taxonomic groups⁴. In addition, IUCN-Med has contributed to the identification of KBAs for freshwater and plant species in the Mediterranean region since 2012, which represents the first baseline data set on the status of biodiversity throughout the entire Mediterranean region.

Despite these different knowledge products, readily available information on biodiversity remains heterogeneous and sometimes incomplete and limited in scope and accuracy in the region or may also be outdated. Moreover, the lack of information sharing and dissemination approaches make it difficult for institutions and organisations to effectively plan, monitor and evaluate their activities. There is therefore an increasing need for an effective management and efficient use of information and knowledge resources. IUCN-Med will continue to strengthen the knowledge on Mediterranean biodiversity conservation status in order to support the development of conservation strategies for threatened species and to reduce certain direct threats by mainstreaming biodiversity into different economic sectors.

It will focus over the next 4 years on the following priorities:

Specific objectives	Description			
Strengthening the communication around and the development of knowledge products to inform policies and sound decision making on biodiversity conservation in the Mediterranean	IUCN-Med will further expand the Mediterranean Red Lists of species to other key terrestrial and marine species groups under the 2021-2024 programme. Updating existing assessments of some Red Lists may also be needed and will be certainly useful to evaluate trends and assess the effectiveness of conservation measures implemented for threatened species. In addition, future publications on the conservation status and distribution of specific regional species are also planned, including Mediterranean cetaceans and breeding birds of prey of the Mediterranean. 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. IUCN-Med will moreover continue to engage with Member States in the region to further promote the take up of its key knowledge products. As such, IUCN-Med will also improve the dissemination and communication of KP and publications to political decision-makers and economic actors, in order to ensure the proper use and appropriation of the tools. In addition, IUCN-Med will continue supporting and promoting KBA identification in Mediterranean terrestrial, freshwater and marine biomes, involving scientists, conservation practitioners, governmental agencies, IUCN regional offices (EURO, ECARO, ROWA) and IUCN Members.			
Promoting the conservation of key marine and terrestrial species and ecosystem, through strategic planning and implementation of priority measures	IUCN-Med will continue to support the development of regional and national conservation strategies and action plans for threatened species and key ecosystems in the Mediterranean region, through training, workshops and technical assistance. More specifically, it will contribute to assess, develop and implement recovery plans to conserve Critically Endangered, Endangered and Vulnerable species.			

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⁴ Such as mammals; amphibians and reptiles; sharks, rays and chimaeras; anthozoans; marine fish; dragonflies and damselflies; pipefish; marine mammals and sea turtles; marine plants; dung and saproxylic beetles: monocotyledon plants; butterflies; marine plants; freshwater fish, plants and molluscs.

IUCN-Med will seek to **reduce human-induced threats to ecosystems** and strengthen biodiversity mainstreaming into the planning and practices of key economic sectors such as the energy production sector. It will do so by contributing to the production of knowledge on the threats and impacts generated on biodiversity by productive sectors, by issuing recommendations and guidelines and by raising awareness among economic actors.

Reinforcing the use and application of knowledge products as a tool to reduce human-induced threats to ecosystems, including impacts of key economic sectors and invasive alien species

More specifically, IUCN-Med will continue to develop activities for the conservation of threatened birds of prey in the region, involving actors from all sectors and from both shores, with a particular emphasis on their main threat, which is the collision and electrocution with energy infrastructures. It will also help assess the impact of water development infrastructure (such as dams) and invasive alien species (IAS) on freshwater ecosystems and species and make recommendations to stakeholders to mitigate these impacts.

Regarding IAS specifically, IUCN-Med will seek to prevent and reduce their unintentional introduction and spread in the Mediterranean by increasing public and stakeholder awareness through information and communication. It will moreover contribute to improve the identification, monitoring and mitigation of impacts caused by IAS, through the edition and dissemination of guidelines and standards dedicated to various stakeholders such as governments and administrations but also sectors (e.g. fishing related activities, hotels, private gardens, plant nurseries) with high risk of unintentional introductions. IUCN-Med will particularly bring together key stakeholders in various Mediterranean sites (e.g. in protected areas and/or urban areas) to jointly develop and apply adaptation measures and a prevention model against IAS invasions.

4.2.3 Ecosystem Resilience and Spatial Planning

The Mediterranean landscape has been shaped and modeled over the centuries as a result of human needs and interactions. Due to this co-evolution, the landscape is influenced by human activity, while Mediterranean cultures have evolved and adapted to the ecosystem services available. This historical relationship is now under increasing threat, as pressure over natural resources increases, due to growing anthropization, including urbanization and the development of tourist facilities, particularly on the coast.

The Mediterranean is indeed the world's leading tourism destination. The unplanned development of tourism in the region (practices, behaviors) threatens the Mediterranean biodiversity and ecosystems, and the projected growth of this sector risks exacerbating the current impacts. If managed responsibly, tourism can however become an opportunity for the socio-ecological systems it relies on. It requires sustainable business and destinations. Furthermore, tourists should become more aware and held accountable for their impacts. They all have an important role to play to ensure that tourism lives up to its promise to improve people's livelihoods and protect the environments they depend upon.

Over the next 4 years, IUCN-Med will work to strengthen ecosystem management in dedicated protected areas but will also contribute to improving the consideration of biodiversity and ecosystem services in spatial (urban areas) and sectoral (notably tourism) planning. It will thus strengthen its work on coastal zone management, ecotourism and protected areas, encompassing a holistic approach to re-balance the relationship between tourism economic sector, people and nature in the Mediterranean. It will focus its action more specifically on:

Specific objectives	Description
	IUCN-Med will aim to reduce tourism pressures within the socioecological limits of coastal destinations, managing tourism growth to achieve positive net impact. It will work both with local administrations to encourage the development of sustainable tourism strategies and policies, and with private sector actors to improve practices in tourism value chain.
Measuring and reducing impacts of tourism activities in coastal areas, by informing policies and developing the capacities of actors and decision-makers	IUCN-Med will advocate for policy change and mainstreaming of biodiversity conservation and sustainability agenda in tourism at Mediterranean, regional and local scales. It will develop new tools and guidelines to plan, manage and monitor the net impact of tourism on key ecosystem services in coastal areas for destinations and administrations managing the coastal environment, under the principles of Integrated Coastal Zone Management (ICZM).
	IUCN-Med will also contribute to mainstream biodiversity into the tourism industry, increasing the valorization of the Mediterranean natural coastal landscapes as a key tourism asset and enhanced awareness of the sector on marine and coastal biodiversity. It will finally work with the tourism supply chain on measuring and reducing its ecological footprint in Mediterranean coastal zones and protected areas.
	IUCN-Med will continue to promote the development of sustainable tourism models providing both indirect and direct positive impact to conservation within and around protected areas, increasing their role in the sustainable development of the destination.
Supporting Mediterranean terrestrial, coastal and marine protected areas in achieving their conservation and sustainable development objectives, in particular through the development of	It will build on previous achievements in this area, in particular the development of management and monitoring tools for ecotourism development in Protected Areas (PAs), such as a standard, guidelines and indicators, including an ecological footprint calculator tool adapted for ecotourism products. It will also rely on the Mediterranean Experience of Ecotourism (MEET) network, a non-profit association created in 2018 to support Mediterranean PAs to develop ecotourism which benefits conservation and local communities. The MEET approach brings together public and private sectors as well as protected area managers to engage in the development of ecotourism products.
ecotourism	IUCN-Med will build capacities for ecotourism development in PAs, through coaching, training workshops and MOOCs, giving PA managers the training and tools to measure, manage and maintain tourism impacts within limits of acceptable change. Il will contribute to create innovative ecotourism products in Mediterranean PAs as best practice examples, supporting local operators to gain market access through the community around the MEET network.
Safeguarding the ecosystems' multifunctionalities by enhancing effectiveness of spatial conservation measures and increasing connectivity	As initiated in previous programmes, IUCN-Med will continue to support the adoption of the Green List initiative in the Mediterranean, supporting the Expert Assessment Groups for the Green List (EAGL) of specific countries and for the Maghreb (a regional EAGL covering three countries). The Green List of Protected and Conserved Areas is a global standard that is used to highlight global successes in protected areas management.

In addition, IUCN-Med will work to build a partnership to improve the connectivity of the Mediterranean part of the European Natura 2000 network and link it with KBAs identification, on the basis of an already established methodology aimed at identifying connectivity corridors rich in biodiversity and ecosystem services, thus helping to strengthen the Green List for Natura 2000 network. IUCN-Med will also explore the topic of greening cities and infrastructure, to integrate the values of nature in city planning and development and strengthen the resilience of urban ecosystems. It will thus contribute to IUCN's global ambition to catalyze the much-needed support for cities to access cutting-edge knowledge and best practices, share experiences, join forces to mobilize financial resources to invest in NbS to tackle pressing Renaturing and greening societal challenges and to inspire others to do the same. coastal cities to enhance sustainability IUCN-Med will build partnerships with governments, the private sector and the scientific community to raise awareness on the benefits of these types of solutions. It will particularly promote the creation of networks of stakeholders at the local level in different regions of the Mediterranean to encourage the deployment of pilot projects on NbS in cities. It will work in close collaboration with the IUCN European Regional Office (EURO), which is also strongly involved in this subject, in order to develop a common approach.

4.2.4 Marine Biodiversity and Blue Economy

Despite notable progress over the last decades, the status of marine ecosystem health of the Mediterranean Sea is still worrying. Its semi-enclosed sea nature responds faster than the global ocean to environmental and climate induced changes. The coastal and marine ecosystems are threatened by the impacts of the increasing anthropogenic pressures such as overfishing (with 75% of assessed stocks still overexploited in 2020), illegal, unreported, and unregulated fishing and highly damaging practices, habitat degradation, increased terrestrial and marine pollution and the spreading of nonnative species along with the overall overwhelming impacts caused by climate change and cumulative impacts induced by coastal development.

The coverage of marine protected areas, even very close to the 10% Aichi target at the regional level today is far from being representative of the Mediterranean Sea biodiversity, while the majority are still ineffectively managed and largely underfinanced. In addition, knowledge and data availability for marine conservation management is still insufficient and patchy.

IUCN has been working to reduce these threats during previous programmes and will build on the results achieved such as the development of a collaborative strategy across Mediterranean countries to monitor and mitigate by-catch of vulnerable species. It also supported the implementation of effective spatial and temporal measures (MPAs, local management areas, gear fisheries closures) to protect marine resources and ecosystems from potentially harmful fishing activities. Over the next 4 years, IUCN will continue to contribute to the maintenance, restoration, and sustainable use of marine resources.

IUCN-Med will thus follow three specific objectives that are:

Specific objectives	Description
	IUCN-Med will contribute to restore a healthy Mediterranean by identifying, supporting new and strengthening the use of efficient area-based conservation measures (OECMs, fisheries reserves and MPAs) and technical and NbS (including in the fishery and coastal planning sector) to conserve and restore marine and coastal biodiversity.
Halting the loss of marine species and decline of marine ecosystem integrity and initiating restoration	It will work and contribute to assess, develop and implement recovery plans to conserve Critically Endangered, and Endangered and Vulnerable marine species, among them threatened endangered sharks and rays.
	The programme will develop stronger accounting for marine assets and natural blue capital as to also help guide investment for restoration and conservation efforts.
	The programme will moreover support government members and communities to enlarge the efforts for assessing the impact, mitigate and management of marine invasive alien species.
Promoting sustainable uses of marine natural resources in order to generate overall positive biodiversity outcomes and livelihood benefits for coastal communities	IUCN will work to expand sustainable fisheries management practices involving local authorities and stakeholders to enhance the socio-ecological resilience of fishing communities (including the generation of young fishers and the role of women). As such, it will sustain through capacity building and knowledge sharing the development of fisheries monitoring and efficient bycatch mitigation techniques that can be implemented for different fishing operations and gears used throughout the region, in particular from the results of the past MedBycatch project. IUCN-Med will also work to strengthen governance mechanisms through the development and implementation of policies and measures based on ecosystem-based fisheries management while strengthening the capacity for monitoring, control and surveillance. Efforts will be developed to reach other economic sectors, such as aquaculture and coastal tourism, to assess and develop the path to implement sustainable management practices and developing best practices guidelines.
Maintaining sea and coastal processes as a key foundation for planetary stability	To date, IUCN-Med has already worked to improve knowledge and guide policies to prevent significant adverse impacts on vulnerable deep-sea marine ecosystems and to protect threatened species and habitats. The Mediterranean programme will continue to promote and disseminate the application of spatial and adaptive management tools, as well as consistent assessment and scientific knowledge among Mediterranean stakeholders and decision-makers, in order to help protect and improve the Mediterranean coastal and deep-sea ecosystems. It will particularly aim to favour effective long-term management plans for
	coastal and deep-sea ecosystems that combine compliance with legislation, biological interactions, impacts on sensitive and protected species and

habitats, economic and social aspects of sector's operations and governance issues related to these matters. This will provide an increase in areas of marine ecosystems under spatial planning (ICZM and MSP) as well as to bring support to the implementation of UN resolutions (e.g. UNGA) and regional Conventions and Agreements.

4.2.5 Nature Conservation and Food System

Across the Mediterranean countries, agricultural landscapes are evolving in a polarizing trend towards abandonment or intensification. This actual conversion of agricultural systems is provoking the loss of the associated biodiversity, as numerous wild species depend on agro-silvo-pastoral practices in different and often complex and multidirectional ways. This is reducing their resilience and adaptation to variations, causing instability, and increasing the risk of collapse of the entire system.

Fortunately, some agricultural, pastoral and silvicultural practices maintain elements of wild diversity across the Mediterranean basin benefiting the equilibrium of the system. Those types of agriculture are being lost due to the economic difficultness of maintaining them, as most relate to lower productivity and profitability. This is partly due to lack of recognition and measurement of the ecosystems services that those cultural practices provide. To stop the loss of these valuable systems, it is decisive to enhance the link between biodiversity and agricultural practices that maintain it, promoting more action towards the support and the upholding of this type of farming.

Over the 4 next years, IUCN-Med will put its efforts towards encouraging sustainable practices that maintain biodiverse Mediterranean Landscapes and ensure the socio-economic stability of rural communities, as well as working in building bridges between urban population and rural landscapes. IUCN-Med's approach will be to work on a holistic way, as agricultural systems are complex and interlinked in many different ways. It will particularly aim to:

Specific objectives	Description
Promoting, communicating, and maintaining agricultural practices that preserve and generate positive feedback on native biodiversity and ecosystem services	IUCN-Med will contribute to strengthen the knowledge on linkages between cultural practices and biodiversity at the Mediterranean basin, analyzing the biodiversity associated to cultural practices in pilot sites, with the objective to recognize that many human practices can contribute to the ecological and functional integrity of the landscape. IUCN-Med will enhance these types of practices around all the Mediterranean countries, capitalizing on examples of the feedback loops between agricultural practices and biodiversity, to prove their benefits to maintain the correct functionality of the Mediterranean cultural landscapes.
Improving consumers trends in cities and connecting urban population to nature and rural world – improving the	Following the momentum created by the Milan Pact ⁵ , IUCN-Med will support the implementation of this global initiative at the Mediterranean level , enhancing practices that certain cities are implementing and having clear positive impact on biodiversity conservation in agricultural landscapes.

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⁵ Launched by the Milan Municipality in 2015, the Milan Urban Food Policy Pact is an international agreement among cities from all over the world, committed "to develop sustainable food systems that are inclusive, resilient, safe and diverse, that provide healthy and affordable food to all people in a human rights-based framework, that minimize waste and conserve biodiversity while adapting to and mitigating impacts of climate change". Its main aim is to support cities wishing to develop more sustainable urban food systems by fostering city to city cooperation and best practices exchange.

link between cities and rural areas	It will work to strengthen the agricultural landscape approach within the Milan Pact, to promote biodiversity-friendly agricultural practices.
Reducing the amount of	Plastic pollution can have a long-term negative impact on terrestrial ecosystems and biodiversity, which can affect food systems by polluting soils, landscapes and water sources. Used plastic in agriculture and other sectors may take up to 1,000 years to decompose, leaching potentially toxic substances into the soil, sediments and rivers. Plastic has also visible impacts on marine and land biodiversity, in particular the ingestion, suffocation and entanglement of species.
plastic leaking into the environment	IUCN-Med will aim to enhance the knowledge on the origins of marine plastics, improving knowledge of the current status of plastic pollution through identifying plastic leakage hotspots as well as policy and economic assessments to provide recommendations. It will also engage stakeholders to develop solutions to plastic leakage and reduce use, by developing a network of businesses in the Mediterranean basin and fostering innovative business solutions to accelerate the prevention of plastic pollution through the initiative Beyond Plastic Med (BeMed), that IUCN-Med joined in 2019 ⁶ .

5. PROGRAMME IMPLEMENTATION

5.1 One Programme approach

The IUCN-Med Work Programme 2021-2024 identifies regional priorities in the framework of the global IUCN Programme. It aims to guide action and strengthen collaboration between IUCN Members, Commissions and National Committees in the region, as well as between IUCN Secretariat offices involved in the Mediterranean, following the IUCN "One Programme approach". The respective roles, capacities and unique features of the constituent parts of the Union will be leveraged, towards its delivery.

IUCN Members are committed to the implementation of the Med 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.

Women participation and ensuring gender approach in the conservation of biodiversity and sustainable use of natural resources will be strengthened in all IUCN-Med activities, especially at the project level. It will also be important to strengthen the involvement of young generations in the implementation of actions under the Med-programme.

⁶ The Beyond Plastic Med association launched its Business Club to bring together companies and scientists and foster collaboration among them to develop concrete business solutions to reduce plastic pollution at source.

5.2 Enhanced cooperation and coordination

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 different IUCN constituent parts 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, especially in a post-Covid19 era.

In addition, a strong coordination is foreseen also at the Secretariat level with the IUCN European regional Office (EURO), the Central and Eastern European Office (ECARO) and the West Asia Office (RoWA). The strength of IUCN consists in a precise and multilateral approach. The work of one office would not be as effective without the support of and coordination with the other IUCN offices all around the world, especially those in the same geographical region. IUCN-Med's work covers the entire Mediterranean basin, integrating countries of Southern and Eastern Europe, the Balkans, and Western Asia, and therefore requires regular contact with the EURO, ECARO and RoWA offices. To ensure that IUCN displays a united voice within the Mediterranean basin, these IUCN regional offices will establish a steering coordination group to highlight synergies and to oversee the implementation of their respective programmes. The group will consist of one representative from each office and will meet on a regular basis, once every three months, to discuss the progress to date, discuss the feedback from members and to improve the mainstreaming of IUCN priorities. These coordination mechanisms will help identify opportunities to collaborate and will provide a platform to address one of the key priorities for all the offices: a stronger members' engagement. For this purpose, and to facilitate the process, the development of a common methodology to gather members' inputs and proposals will be explored. The new steering coordination group will also ensure that each office's strengths and priorities will be better supported by the other components of the secretariat. Finally, it will enable us to jointly address work areas of common interest, such as agriculture, PAs, restoration and NbS in urban areas.

This approach will be part of the organizational restructuring project of the secretariat underway⁷, which will aim to improve institutional integration and operational efficiency of the Nature 2030, clarifying staff roles and responsibilities at the thematic and regional levels. In this context, IUCN-Med is committed to fully implement and ensure the proper functioning of this new governance system.

5.3 Resource mobilization

The mobilization of resources for the programme implementation should be strengthened through looking for new donors and fundraising opportunities, with the withdrawal of the MAVA Foundation in 2022, one of IUCN-Med's main donors. In particular, new funding opportunities will be sought through participation in European programmes supported by development and regional cooperation funds for the Mediterranean and other EU funds (i.e. Life). IUCN-Med may also consider other donors such as foundations and bilateral cooperation agencies involved in the region. It will finally seek to exploit synergies with other regional programmes and initiatives that share similar objectives.

⁷ A new operational structure for the delivery of iucn's programmatic work, presented in August 2021.

6. PARTNERSHIPS

IUCN's scientific strength, its convening power, its global presence, its large and diverse membership and, underpinning it all, **its partnerships are integral to the work and functioning of IUCN**. This allows for the Union to respond at the scale needed for positive, timely, and transformative action for a more sustainable future.

In addition to engaging the numerous constituent parts of the Union in the Med programme implementation, IUCN-Med will strengthen existing partnerships and will seek to further diversify new and innovative collaboration with a wider range of actors. It will continue to work with its main partners in the region, including among other universities and academic centers, as well as regional organizations and initiatives that share the same vision of a healthy Mediterranean sea and coast that underpin sustainable development in the region, such as the Mediterranean Action Plan (UNEP-MAP) of the Barcelona Convention, ACCOBAMS or the General Fisheries Commission for the Mediterranean (GFCM). In 2020 alone, IUCN-Med signed 6 new partnership agreements with institutions such as the Mediterranean Wetlands Initiative of Ramsar (MedWET), the network of Marine Protected Areas managers in the Mediterranean (MedPAN) and the Specially Protected Areas Regional Activity Centre (RAC-SPA), demonstrating IUCN-Med's rich and collaborative approach in the region, which will be enhanced.

For example, synergies and cooperation on spatial-based protection and management measures for marine biodiversity in the Mediterranean area established between IUCN, UNEP/MAP and SPA/RAC, GFCM and ACCOBAMS should continue, by building on existing work at the relevant levels and fostering cooperation with the objectives to ensure the conservation and the sustainable use of the marine biodiversity in the Mediterranean through the application of ecosystem-based approach. Strong opportunities for further collaboration with regards to the MPA and OECM networks and restoration activities, promotion of NbS and climate change adaptation and marine spatial planning will be explored.

Moreover, IUCN-Med is part of the recently-created **Mediterranean Consortium for Biodiversity**, joining its forces to five other regional organisations⁸. This initiative will bring together each of these organisations' skills, experiences and scientific knowledge to achieve its common goals in the region, which are to effectively protect and restore Mediterranean biodiversity; identify, implement and promote NbS; mobilise and support local communities to preserve natural resources and manage their impacts on health and quality of life. The consortium will thus collaborate on leveraging funds to implement innovative solutions to respond to the challenges of biodiversity conservation, natural resources management and climate change in the Mediterranean basin.

More broadly, IUCN-Med will keep working 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. IUCN-Med will also continue to reach out across local authorities, sectors and businesses to promote constructive dialogue and find areas of common cause in order to build partnerships and coalitions that commit to ensuring nature recovery.

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⁸ MedWET, MedPan, the Tour du Valat, the Mediterranean Small Islands Initiative (PIM) and the International Association for Mediterranean Forests (AIFM).

7. ANNEXES

7.1 2021-2024 Med Programme Results Framework

Expected results / specific	L. P. C.		Contribution to IUCN Global programme results and other international goals		
objectives of Mediterranean Programme	Indicators	2024 Targets	IUCN global results	SDG	Post 2020 biodiversity targets
Nature-based Solutions and Clim Global objective: Integrating biod		NbS) into policy, management and sectors			
1.1 Promote the NbS standard in the Mediterranean, including capacity building in NbS	 Number of capacity building actions carried out at local level (capacity building programme, network of experts, mapping / database of NbS initiatives, elearning, workshops) Number of publications published on the NbS concept and standards and its benefits (economic, environmental) 	1 capacity building programme is implemented including:	СЗ	2.4, 6.6, 11.5, 12.8, 13.1	7, 10
1.2 Support the deployment and uptake of NbS in the public & private sectors	 Number of public private partnerships created Number of projects promoting NbS in different ecosystems (agro-ecosystems, urban areas, wetlands) submitted for funding calls 	 3 partnerships with public and private institutions in order to create a NbS network are built At least 3 projects promoting NbS in different ecosystems are identified and submitted for funding 	L3, C1, C2	6.6, 12.6	7, 10
1.3 Enhance the framework conditions for NbS at policy level, including economic incentives	Number of NDCs and other regional and national strategic frameworks including NbS measures	 NbS measures are mainstreamed into 5 regional and national frameworks and policies At least 2 private partners are investing in NbS and (blue) carbon offset projects 	C1, C2	13.2, 13.3	7, 10

Biodiversity Standards and Indica Global objective: Spreading IUCN 2.1 Strengthening the communication around and the development of knowledge products (KP) to inform policies and sound-decision making on nature conservation in the	Number of IUCN Med KP elaborated, re-assessed or further developed / expanded or facilitated (national and regional Red Lists, national species and	4 thematic reports / publications are edited to inform IUCN Members and partners in the Mediterranean on IUCN KP and on how to apply them for developing and influencing conservation policies	L1, O3	er related secto	ors 3, 19
Mediterranean	 ecosystems) Number of thematic reports / publications on key topics (biodiversity status and trends, conservation areas, ecosystem services, climate change impacts) Type of communication media used Number and type of key public and private stakeholders targeted Number of (new) Key biodiversity areas identified, updated, mapped and reported 	 IUCN Med KP (RLTS, RLE) are further developed and expanded to cover at least 2 new groups of species and ecosystems At least 2 critical issues for biodiversity communication are widely communicated using appropriate tools and media The process for identifying important areas for biodiversity conservation is promoted and facilitated in at least 2 countries in the Mediterranean region, and knowledge is available to assess their conservation challenges 			
2.2 Promoting the conservation of key marine and terrestrial species and ecosystems, through strategic planning and implementation of priority measures	Number of (new) regional and national conservation strategies and action plans prepared or updated	The process towards regional and national conservation strategies (or action plans) is facilitated and promoted for at least 2 key species and habitats in the Mediterranean At least 3 regional and national conservation strategies and action plans are developed or updated	L1, W1, O1, O3	15.5, 15.9	3, 4, 13

2.3 Reinforcing the use and application of knowledge products as a tool to reduce human-induced threats to ecosystems, including impacts of key economic sectors and invasive alien species	 Number of guidelines and standards on biodiversity conservation integrated in policies, sectors and procurement processes Number of sectoral impact assessment conducted Number of guidelines and standards on IAS produced and disseminated Number of sectors targeted by the promotion of IAS mitigation alternatives Number of Med sites bringing together key stakeholders to elaborate prevention plan against IAS 	 Guidelines and standards based on KP are integrated in policies, sectors and procurement processes in at least 2 national or regional instruments. The impacts of at least 2 key productive sectors on biodiversity are assessed and measured and actions are recommended for their mitigation At least 2 local administrations or governments are provided with guidelines on how to include IAS prevention and early detection in their policies and procurement standards Successful IAS mitigation alternatives are promoted for at least 2 different sectors (e.g. fishing related activities, hotels, private gardens, plant nurseries) Key stakeholders in 5 sites (e.g. protected areas/urban areas) work together to elaborate and apply adaptation measures and a prevention model against IAS invasion 	W1, W3	6.3, 6.4, 7.1, 9.4, 12.6, 15.8	3, 5, 13, 14, 15, 19
multifunctionalities	ial and sectoral planning to reduce tou	rism impacts in both coastal and protected areas a			
3.1 Measuring and reducing impacts of tourism activities in coastal areas by informing policies and developing the capacities of actors and decision-makers	 Number of methodologies developed and tested Number of pilot sites supported Number of local policy measures and practices promoting sustainable tourism adopted Number of tourism value chain applying the ecological footprint (EF) approach 	 Measuring impacts Ecosystem services (ES) in coastal tourism destinations are identified and valued, through the development of one methodology that is tested in at least 2 Med destinations An Ecosystem Based approach including IUCN knowledge products is available for integration by destination managers into decision making processes, through the 	P2	6.4, 12b	14

		development of a methodology that is tested in at least 1 destination in 3 countries Reducing impacts Stakeholders from at least 3 local administrations integrate sustainability in their tourism policies and practices Specific sustainable practices are adopted in at least one tourism private sector value chain (using the EF approach)			
3.2 Supporting Mediterranean terrestrial, coastal and marine protected areas in achieving their conservation and sustainable development objectives, in particular through the development of ecotourism	 Number of regional administration policies on ecotourism development Number of members of the MEET network Number of ecotourism products created or improved 	Framework development At least 7 Mediterranean regions develop specific ecotourism policies and promotional strategies in PAs, co-created by tourism and conservation sectors Management tools MEET Ecotourism model is widely adopted and enhanced with destination management tools, by at least 30 members Reducing impacts At least 3 ecotourism products promoted in the MEET Catalogue have improved their EF index, contributing to the reduction of tourism impact in PA	P2	14.5, 15.1	1, 2
3.3 Safeguarding the ecosystems' multifunctionalities by enhancing effectiveness of spatial conservation measures and increasing connectivity	 Tools and methodologies developed and tested to support conservation spatial planning (methodology for bio-corridor, vulnerability map of Natura2000 coastal network) Number of Mediterranean PAs registered in the IUCN Green List programme 	Using biodiversity and climate data in spatial planning One map, assessing the impacts of most updated climate change scenarios on Natura 2000 coastal network spatial distribution, is developed for the whole Med region Spatial conservation measure One methodology for identification and prioritization of most suitable areas/corridors	P2	15.9, 13.2	1, 2

	Number of new Med countries implementing the IUCN Green List programme	for improving Natura 2000 network connectivity is developed and tested in at least one Med Region, including incentives to key sectors (agriculture) for implementing good practices At least 20 Mediterranean PAs are registered in the IUCN Green List programme; and at least 2 new Mediterranean countries are implementing IUCN Green List programme			
3.4 Renaturing and greening coastal cities to enhance sustainability	 Number of networks of Med local authorities on NbS created Number of NbS-related pilot projects in urban areas identified Number of Med cities implementing an NbS-related pilot project 	 One network (involving IUCN Med) made of municipalities / provinces / regional administrations of at least 6 cities from at least 3 Med countries is created, and for each city a pilot project for applying NBS is identified/drafted (i.e. at least 6 NbS-related pilot projects) At least 3 cities are implementing an NbS-related pilot project in partnership with IUCN-Med, applying the IUCN standards 	L3, C1, C2	11.3, 11.6, 11.7	1, 11
Marine Biodiversity and Blue Eco <u>Global objective</u> : Improving practand reduce threats (including fish	tices and promoting policies, manag	ement measures and governance framework to bette	er manage mar	ine and deep se	ea ecosystems
4.1 Halting the loss of marine species and decline of marine ecosystem integrity and initiating restoration	 Number of efficient area-based conservation measures (OECM, Fisheries reserves, MPA) identified and/or supported Number of recovery plans to conserve critically endangered and endangered marine species developed or updated 	 At least 5 efficient area-based conservation measures are identified and/or supported 3 recovery plans for endangered marine species are developed or updated 	01	14.5	2

4.2. Promoting sustainable uses of marine natural resources in order to generate overall positive biodiversity outcomes and livelihood benefits for coastal communities	 Number of Med countries adopting management tools to reduce bycatch of vulnerable species Number of efficient by-catch mitigation techniques Number of Med countries adopting specific measures to improve conservation of VMEs and sustainability of the fisheries Number of Med countries applying sustainable fisheries management practices 	 At least 5 Med countries integrate already existing management tools in their national policies 5 efficient by-catch mitigation techniques and instruments that can be implemented for different fishing operations and gears are made available and used throughout the region Specific management measures are adopted by at least 2 Mediterranean countries to improve conservation of VMEs and sustainability of the fisheries Sustainable fisheries management practices involving local authorities and stakeholders and enhancing socio-ecological resilience in fishers' communities (including youth generation of fishers and women) are tested in at least 3 Med countries 	P2, O2	11.4, 12.2, 14.4, 14.b, 14.c, 15.5	8, 14
4.3 Maintaining sea and coastal processes as a key foundation for planetary stability	 Number of long-term coastal and deep-sea management plans developed Number of publications on deep-sea ecosystems produced and disseminated to decision-makers 	 Stakeholders in at least 2 Med countries are engaged in the development of a long-term coastal management plan 3 publications edited on deep-sea ecosystems and their resources are disseminated to decision-makers 	P2, P3, O3, C2	14.2	1
Nature Conservation and Food S Global objective: Linking agricult plastic leaking into the environment	ure to biodiversity in order to ensure	sustainable food supply and sustainable city consu	mption, as wel	l as reducing th	e amount of
5.1. Agriculture: Promoting, communicating and maintaining agricultural practices that preserve and generate positive feedback on native biodiversity and ecosystem services	Number of methodology assessing the link between biodiversity and agricultural practices developed and tested	 1 assessment model for evaluating feedback loops between biodiversity and agriculture is available for conservation community (ieIUCN Members, key partners and NGOs) 1 methodology for assessing the link between biodiversity and agricultural practices is tested 	P2, L1, L2, C1, C2	2.4, 12.2, 12.4, 14.1, 15.1	6, 8, 9, 14, 16

		in agricultural landscapes across a range of Mediterranean countries and systems			
5.2. Food supply in cities: Improving consumers trends in cities and connect urban population to nature and rural world	Number of Med cities that have developed a strategic plan aligned with the Milan Pact	At least 5 cities of at least 3 different countries have developed, and started applying a strategic plan for food aligned with the Milan Pact	L2, L3	12.3 11.6	8, 11, 14
5.3 Plastics: Reducing the amount of plastic leaking into the environment	 Number of Med islands implementing a plastic reduction policy Quantity and quality of data and information produced and disseminated on plastic waste Lessons learned / best practices on how to involve multistakeholder groups on plastic waste reduction 	 Enhance capacities to reduce plastics leakages of coastal cities and islands: Appropriate policies to encourage and change habits in order to reduce plastic leakage in 2 Med islands are implemented Assessing, monitoring and informing about plastic impacts 3publications edited on the characterization of plastics and waste presented for decision making to ensure better focus and higher impact of public policies - Networking 1 multi-stakeholder network of experts in reducing plastic leakage is created, (Lessons learned and best practices on how to involve multi-stakeholder in reducing plastic leakage are capitalized 	L1, 03	3.9 11.6 12.5 14.1	6
Cross-cutting area on programme		diameters and the second second			
6.1. Improving communication and dissemination of the Med programme and its targets and implementation to members	Number of meetings organised Number of participants	 One launch meeting One intermediate follow-up meeting One evaluation meeting 80% participation of members in meetings 	-	-	-

6.2 Ensuring regular monitoring of members' contribution to the implementation of the programme	 Number of regional meetings between IUCN-Med, the national committees and members on programme implementation and monitoring Number of monitoring mechanisms developed at country level 	 At least one meeting organised every two years to follow up on the programme implementation Xx M&E mechanisms developed at country level 	
6.3 Coordinating and proactively mobilising members in the programme implementation and project preparation	 Number of coordination dialogues and consultations with members for the implementation of the Med programme at the country level (identification of needs, pooling of resources and capacities between members and IUCN) Number of operational action plans developed at national level (between IUCN-Med and members) for the programme implementation (describing the tasks and responsibilities of each) Number of calls for projects issued Number of members supported in fund raising opportunities Number of partnerships/collaboration for the implementation of specific projects 	 At least one coordination dialogue organised at each country level at the launch of the programme Xx operational action plans developed at national level with IUCN-Med Xx calls for projects / fundraising opportunities issued Xx members supported in fundraising opportunities Xx partnerships/collaboration established for the implementation of specific projects 	

7.2. Alignment with the 2021-2024 IUCN Global Programme

IUCN-Med Programme Working lines	IUCN Nature 2030 - Global Programme														
	People		Land		Water		Oceans		Climate						
	P1	P2	P3	L1	L2	L3	W1	W2	W3	01	02	03	C1	C2	СЗ
Nature based Solutions and Climate Change						Х							X	Х	Х
Biodiversity Standards and Indicators				Х			X		X	X		X			
Ecosystem Resilience and Spatial Planning		Х				Х							Х	Х	
Marine Biodiversity and Blue Economy		Х	Х							Х	Х	Х		Х	
Nature Conservation and Food Systems		Х		Х	Х	Х	Х	Х				Х	х	Х	

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