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Draft Mediterranean Strategy for Sustainable Development 2016-2025

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Mediterranean Strategy for Sustainable Development 2016-2025

Investing in environmental sustainability to achieve social and economic development

Contents

1. INTRODUCTION AND BACKGROUND

Sustainable development seeks to address the needs of current and future generations, utilizing natural resources and ecosystems in ways that preserve and sustain them and ensure equitable access to them in the present and the future. It sets the framework for securing viable and lasting development and decent livelihoods for all, which are particularly important considerations in the current challenging Mediterranean socio-economic context.

The United Nations process on the Sustainable Development Goals, one of the key outcomes of the United Nations Conference on Sustainable Development (Rio+20), aims to build upon the Millennium Development Goals and proposes a set of goals that should be coherent with and integrated into the United Nations development agenda beyond 2015.

Sustainable development is of key importance for the Mediterranean: it is a closed sea, in which water renewal is limited by the narrow connection to the ocean, and therefore particularly sensitive to pollution. In addition, its mild climate makes it home to a large diversity of ecosystems and species. The Mediterranean is also subject to considerable pressures. With its rich history and exceptional natural and cultural landscapes, its coasts accounted for 31 per cent of global tourist arrivals in 2011, while in previous years the figure had reached more than 35 per cent. At the same time, international tourism receipts reached 190 billion Euros, representing approximately 26 per cent of the global total.[1] Urban agglomerations on the Mediterranean coasts, along with tourist infrastructure, have resulted in the development of large and mega-cities, with consequent pressures from the rising population levels and the accumulation of economic activities in a particularly fragile environment. Mediterranean agricultural produce, as well as Mediterranean diets, have a global reputation, but depend entirely on the sustainability of rural landscapes, resources and decent working conditions. Global shipping routes through the Mediterranean make the density of maritime traffic exceptional for a semi-closed sea. The recent surge of interest in the commercial exploitation of hydrocarbons and minerals under the Mediterranean seabed also poses increased risks for the Mediterranean environment.

Significant discrepancies in development levels and living standards between countries, together with the conflicts in the region, which are already negatively affecting investment and development, also pose challenges for envisaging a sustainable future of the Mediterranean region. The fragility of the region is further aggravated by its sensitivity to climate change: in its Fifth Assessment Report, the Intergovernmental Panel on Climate Change has identified Mediterranean ecosystems among the most impacted by global climate change drivers.

The aim of the Mediterranean Strategy for Sustainable Development is to provide a strategic policy framework, built upon a broad consultation process, for securing a sustainable future for the Mediterranean region. The rationale behind the Strategy is the need to harmonise the interactions between socio-economic and environmental goals, to adapt international commitments to regional conditions, to guide national sustainable development strategies and to stimulate regional cooperation between stakeholders in the achievement of sustainable development. The Strategy is underpinned by the conviction that investment in the environment is the best way to secure long-term, sustainable job creation and socio-economic development, and an essential vehicle for the achievement of social and economic objectives. For this reason, the Strategy focuses on addressing cross-cutting issues that lie in the interface between environment and development. It addresses issues across sectoral, institutional and legal boundaries, emphasizing the interlinkages between environmental issues and economic and social challenges, rather than specific economic sectors such as tourism or agriculture. The strategy is also expected to lead to synergies being forged between the work of important national and regional

players and stakeholders, by providing a commonly-agreed framework, thereby leading to increased efficiency in the achievement of sustainable development in the Mediterranean.

1.1. Background

At the 12th Conference of the Contracting Parties to Barcelona Convention in Monaco in November 2001, in line with the outcomes of the World Summit on Sustainable Development, the 21 Mediterranean countries and the European Community decided to prepare a Mediterranean Strategy for Sustainable Development.

The Strategy was developed as a result of a consultation process that mobilized Mediterranean stakeholders, including Governments and civil society through the participation of non-governmental organizations and key experts. The first Mediterranean Strategy for Sustainable Development was adopted by the Contracting Parties to the Barcelona Convention in 2005 at their 14th meeting in Portoroz, Slovenia.

The need for the Strategy remains strong today, as while the global and regional context has changed significantly, the pressures are even more pronounced. At the same time, new regional instruments have been developed, such as the ecosystem approach roadmap[2] and the Protocol for Integrated Coastal Zone Management in the Mediterranean under the Barcelona Convention, as well as the Sustainable Consumption and Production Action Plan for the Mediterranean, which is under preparation.

Above all, the present Strategy has been formulated taking into account the outcomes of the United Nations Conference on Sustainable Development (Rio +20), which put particular focus on the green economy in the context of sustainable development and poverty eradication, and included an agreement to draft Sustainable Development Goals.

At the same time, at the regional level, the landscape is characterized by the emergence and consolidation of initiatives focusing on increased collaboration between the south and north coasts of the Mediterranean, such as the Union for the Mediterranean, the intergovernmental organisation promoting concrete regional projects under the principle of co-ownership and variable geometry, which has launched the Horizon 2020 initiative to de-pollute the Mediterranean by 2020. Other regional initiatives focus on specific issues to be addressed at the Mediterranean level, addressing the most significant sources of environmental degradation in the region through tools such as maritime spatial planning and resource-efficiency.

Mandate for the review of the Mediterranean Strategy for Sustainable Development

In light of the outcomes of Rio+20, the Contracting Parties to the Barcelona Convention requested, at their 18th Ordinary Meeting held in Istanbul, Turkey, in December 2013, that a review of the Strategy be launched (Decision IG.21/11), with a view to submitting a revised strategy for consideration and adoption by the Contracting Parties at their 19th meeting, to be held in February 2016 in Greece. The Decision emphasizes the importance of synergies with the global Sustainable Development Goals process, in order to ensure coherence between global and Mediterranean regional objectives and targets, while allowing for regional innovation and specificities.

In addition, the Decision IG.21/11 emphasises the need for synergies and coherence between the Strategy and other regional initiatives, both those led by MAP and those led by other actors. As well as the need to consider policy initiatives and instruments at the regional level, the review of the Strategy will need to take on board key existing MAP initiatives and/or instruments, such as the roadmap for the implementation of an ecosystem approach in the Mediterranean, the Action Plan for the Implementation of the Protocol on Integrated Coastal Zone Management in the Mediterranean (2012-2019), the upcoming Regional Framework on Adaptation to Climate Change, the upcoming Sustainable

Consumption and Production Action Plan, and the upcoming Roadmap towards a comprehensive, ecologically representative, effectively connected and efficiently managed network of Mediterranean Marine Protected Areas by 2020. The reviewed Strategy will also need to develop linkages with other regional strategies (existing or to be finalized) and strategic frameworks.

Assessments of the implementation of the 2005-2015 Strategy for Sustainable Development

The revised Mediterranean Strategy for Sustainable Development 2016-2025 draws upon the findings of two assessments carried out to inform the review process, the first focussing on implementation between 2005 and 2011, and the second addressing the influence of the regional Strategy on national sustainable development strategies.

In 2011, an assessment of the implementation of the Strategy was carried out five years after its adoption, which offered a number of useful conclusions (UNEP(DEPI)/MED WG.358/4). It concluded that the major fulfilments at mid-term were in first place, the signature of the Protocol on Integrated Coastal Zone Management in the Mediterranean, and in second, the influencing of the development of recent national sustainable development strategies (i.e. France and Croatia), as well as the widespread perception that the Mediterranean Strategy for Sustainable Development was a useful background document for public authorities in the implementation of national strategies, without affecting the policy action in concrete terms. The key conclusions are summarized below:

➢ For some of the 2005 Strategy's objectives such as sanitation and access to electricity, the situation was improving, while for others such as climate change, energy intensity, water and sustainable tourism (particularly the environmental objectives), the situation was worsening,

➢ The revised Strategy should put more emphasis on emerging priorities, such as climate change adaptation and the green economy. New indicators, such as those related to population flows caused by climate change, among others, would allow the monitoring of adaptation processes in greater detail.

➢ Tangible targets and indicators for their measurement should be elaborated in the revised Strategy.

➢ The implementation of the Strategy had been strongly affected by the existing governance framework. A different organization of the roles and organization framework concerning the UNEP/MAP for the Barcelona Convention, including the role and expectations of focal points, is required to create the channels for effective implementation of the Strategy. MAP should create and adapt existing work units to provide a monitoring service for the existing programmes and push forward activities of technical assistance, knowledge sharing, capacity-building, information exchange and monitoring.

➢ The Strategy should include, as far as possible, opportunities for synergies with other programmes, organizations and initiatives and, when feasible, indicate timing and modalities by which those synergies might arise. The business community, local authorities or their representatives, academics and NGOs should be more involved at the national level and at the level of the Commission. Improving synergies between international and regional organizations operating in the Mediterranean region would also be appropriate in order to maximize the results of initiatives and reduce uncertainties.

➢ An explanation of the procedures, resources and organization for the transformation of the Strategy into actions at the national level was needed, as the passage from a regional strategic framework to national policies was neither automatic nor straightforward, especially taking into account the interlinkages between different sectors and levels of administration and governance in the countries.

In 2009, the MAP Secretariat carried out a review and assessment of national strategies for sustainable development in the Mediterranean region, in order to "provide an overall assessment of the actions and initiatives carried out so far by the Mediterranean countries for sustainable development and hence allow for a better appreciation of the state of play". The assessment also examined the relation and effect of the Strategy on the development and implementation of national strategies for sustainable development. It concluded that the Strategy has played a role more at the regional level than in effectively engaging the authorities at the national level to produce their national strategies for sustainable development. However, it noted that the MAP initiative to assist in the preparation of national strategies was worthwhile and had been embraced by a number of countries. In addition, although national strategies were structured around the three pillars of sustainable development, environmental issues often overshadowed the other two pillars. The assessment also reported that at a national level a single government institution, usually a ministry of the environment, generally coordinated the process. It was often the case that the entity responsible for coordinating the formulation and implementation of sustainable development strategies faced challenges in providing leadership and cross-government support, especially when sustainable development strategy processes were not connected with government planning and budgeting, as often occurred. In addition, there was the risk of cross-government commitment fading through time, especially in periods of economic crisis.

1.2. The Mediterranean Region

With its long history, its rich natural and cultural heritage, the Mediterranean is a meeting point between three continents: Africa, Asia and Europe. Surrounded by 21 countries, it is the world largest semi-enclosed sea.

Rich natural and cultural resources

Encompassing seven marine eco-regions[3], 75 coastal hydrological basins, and 224 coastal administrative regions, the Mediterranean Sea occupies a basin of almost 2.6 million km², has a coastline of 46,000km, with an average water depth of approximately 1,500m. The riverine systems that are the main source of nutrients and their related human activities have a significant impact on the health of the Mediterranean Sea.

With its variety of coastal and marine ecosystems, the Mediterranean region supports some of the richest fauna and flora in the world and has a wide diversity of habitats. It is recognized as one the 25 top global biodiversity hotspot and characterised as an area of exceptional biodiversity value, with a large number of endemic species and critical levels of habitat loss. There are an estimated 10,000–12,000 marine species in the Mediterranean, comprising approximately 8,500 macroscopic fauna, over 1,300 plant species and 2,500 species from other taxonomic groups. This represents 4–18 per cent of the world's known marine species, depending on the taxonomic group, in an area covering less than 1 per cent of the world's oceans and less than 0.3 per cent of its volume.[4]

The Mediterranean region is home to some of the oldest human settlements in the world giving it unique cultural heritage and cultural landscapes. This has forged, over thousands of years, strong bounds among the people of the region and given added meaning to the sense of belonging to the Mediterranean. Despite their diversity, the regional identity of the Mediterranean countries has been strengthened by centuries of commerce and communication. It is still one of the world's busiest shipping routes, with about one third of the world's total merchant shipping: 220 000 merchant vessels of more than 100t cross the sea each year[5].

The state of the coastal and marine environment in the Mediterranean is variable, but all parts of the region are subject to multiple pressures, acting simultaneously and in many cases chronically. The 2012 Report on the State of the Mediterranean Marine and Coastal Environment highlights the major issues

requiring coordinated policy and management responses in the coming years in order to stem the tide of degradation of Mediterranean ecosystems. The major drivers of environmental degradation listed are coastal development and sprawl, chemical contamination, marine litter, marine noise, invasive non-indigenous species, and, overexploitation of many of the commercially-exploited fish stocks. The principal impacts of these drivers are: chemical contamination of sediments and biota; alteration of marine food webs; alterations in hydrographic conditions; changes to sea-floor integrity; and eutrophication in coastal areas near large rivers and/or cities).[6] In addition, climate change is also emerging as a key driver of environmental change in the region.

Mediterranean coastal zones: A vital interface between land and sea

It is estimated that approximately one third of the Mediterranean population is concentrated in its coastal regions, whereas more than half of the population resides in the coastal hydrological basins. According to Plan Bleu[7] the population in the Mediterranean coastal regions is estimated at 150 million inhabitants and that of its hydrological basins totals approximately 250 million people, which represents 33 per cent and 55 per cent of the total population of the riparian states, respectively. This percentage reaches 65 per cent for the southern region, with around 120 million inhabitants.

The population of riparian states grew from 276 million in 1970 to 466 million in 2010, and is predicted to reach 529 million by 2025. However the distribution of population between the Mediterranean countries of the European Union and the southern and eastern Mediterranean countries has changed dramatically over this period: in 1960, the Southern and Eastern countries represented 41 per cent of the total population, while today this figure is 60 per cent. This population growth is associated with a significant increase of the urban population, which grew from 48 per cent in 1960 to 67 per cent in 2010 in Mediterranean region. Most of this urbanization has taken place along the coasts: cities such as Algiers and Tel-Aviv have seen their populations rise by 5 to 10 times between 1950 and 2010.

Socio-economic trends

In 2010, the Mediterranean states were responsible for 11.5 per cent of the world's gross domestic product, decreasing slightly from their 13.5 per cent share in 1990. Regionally, although the growth rates in Southern and Eastern countries are higher than those of the Mediterranean countries within the European Union, the gap remain high: in 2011, the average income per capita in Southern and Eastern countries (about 6,000 USD) was 4.6 times lower than the average income in the Mediterranean countries of the European Union.[8] The economic growth in the Southern and Eastern countries was accompanied by significant improvements in key social indicators as represented by the Human Development Index.[9]

Resource-based activities (i.e. fisheries, aquaculture, forestry, agriculture, and primary industries), secondary industries (e.g. food processing, housing and construction) and services (e.g. shipping and tourism). The potential for economic opportunities in coastal cities remains a strong attractive force, attracting populations from the hinterland and fuelling immigration from often economically depressed rural areas. These new coastal inhabitants will demand employment, food, water, energy, housing, and other goods and services, exerting further pressure on the coastal ecosystems and environments, and therefore presenting a substantial development challenge for the Mediterranean.

Within the region, poverty continues to afflict many: the Arab Forum for Environment and Development reports that it affects 65 million people in the Arab region.[10] Economic insecurity is further aggravated by high unemployment rates in the general population, which increase among youth. Sharp income disparities still exist among countries, and in some cases growth figures conceal deterioration in regenerative natural capital. In 2013 Plan Bleu reported that between 2000 and 2009 only six Mediterranean countries decreased their Ecological Footprint.[11] This raises questions about the ability of Mediterranean economies to create the millions of new jobs projected to be required by 2020 to accommodate new entrants into the labour force, while keeping current unemployment rates stable.

The aggregate impacts of poverty and unemployment have contributed to social marginalization, which is further compounded by income disparities, and gives rise to social and political instability. Demands for change across the Mediterranean reveal that the mounting economic, social, and environmental strains and the resultant implications on livelihood security have become unsustainable. In many countries it is because sustainable development planning was absent that civil and armed conflict has arisen. This indicates that in the medium and longer-term, it is more rather than less sustainable development that is required,

1.3. Formulating the Mediterranean Strategy for Sustainable Development

The review of the Strategy was carried out in three phases. The review process was launched in February 2014, and a consultation document drawn up. On the basis of that document a wide consultation process was carried out in April 2014, focusing on the vision and issues to be addressed in the review. During the meeting of the Steering Committee of the Mediterranean Commission on Sustainable Development in Malta in June 2014, the Committee proposed a vision and a structure for the new strategy, based on six themes – which later became the six overall objectives for the Strategy. The six themes were based on a grouping of the issues emerging from the Phase 1 consultation, as well as the themes emerging from 2014 proposal of the United Nations' Open Working Group on the Sustainable Development Goals. Echoing the decision taken at the 18th meeting of the Contracting Parties to the Barcelona Convention, the Steering Committee emphasized that the revised strategy should focus on the interface between the environment and socio-economic development. Socio-economic matters would be addressed insofar as they relate to the interfacing themes.

The second phase involved the drafting of the revised Strategy, based on the feedback received from the first phase. A participatory approach was also taken during this phase: six thematic working groups made up of key stakeholders and experts were constituted to provide input into the drafting of the thematic sections. Face-to-face meetings complemented the electronic communications of the groups during this period. In the final phase the draft revised Strategy will be submitted for endorsement by the 16th meeting of the Mediterranean Commission for Sustainable Development in June 2015 in Morocco, and final approval for the Strategy will be sought during the 19th Meeting of the Contracting Parties to the Barcelona Convention in 2016.

2. MEDITERRANEAN STRATEGY FOR SUSTAINABLE DEVELOPMENT: OBJECTIVES, STRATEGIC DIRECTIONS AND ACTIONS

The aim of this Strategy is to provide a strategic policy framework to secure a sustainable future for the Mediterranean region. The rationale behind the Strategy is the need to harmonise the interactions between socio-economic and environmental goals, to adapt international commitments to regional conditions, to guide national sustainable development strategies, and to stimulate regional cooperation between stakeholders in the achievement of sustainable development. In this respect sustainable development translates into the need to take into account environmental, social and economic goals in decision-making at all scales and across all sectors. The Strategy is underpinned by the conviction that investment in the environment is the best way to secure long-term, sustainable job creation and socio-economic development, and an essential vehicle for the achievement of social and economic objectives. The Strategy is built around the following vision:

> A prosperous and peaceful Mediterranean region in which people enjoy a high quality of life and where sustainable development takes place within the carrying capacity of healthy ecosystems. This is achieved through common objectives, strong involvement of all stakeholders, cooperation, solidarity, equity and participatory governance.

A set of guiding principles also informs the Strategy: the importance of an integrated approach to environmental and development planning; an openness to a plurality of future development models; a balanced approach to territorial development; the precautionary and polluter pays principles; a participatory approach to policy and decision-making; the importance of evidence-based policy; the reconciliation of long- and short-term in terms of planning and evaluation (at least over a few decades); transparency; and, partnership between the MAP system and other international and regional organizations.

The Strategy focuses on addressing cross-cutting issues that lie in the interface between environment and development. It is based on a set of cross-cutting themes that were chosen to provide scope for an integrated approach to addressing sustainability issues, as follows: Seas and coasts; Natural resources, rural development and food; Sustainable cities; Climate; Transition towards a green economy; Governance.

The first three themes reflect a territorial approach, where complex sustainability issues can be addressed together: a concern over seas and coasts was a major outcome of Rio +20, as well as a cornerstone of the cooperation under the Barcelona Convention. Rural areas provide a context for addressing a set of inter-related rural issues, and cities was the theme of the Istanbul 18th Conference of the Parties to the Barcelona Convention in 2013. The three cross-cutting themes that follow are climate change, which is a major sustainability issue from a global and regional perspective; the green economy, which provides a key link between the environment and the economy and is a major focus of the Rio+20 Summit; and governance, which emerged during the consultation as a key issue for implementing sustainability in the Mediterranean region. These themes have been used as a basis for formulating the six objectives of the Strategy, as follows:

1. Ensuring sustainable development in marine and coastal areas
2. Promoting resource management, food production and food security through sustainable forms of rural development
3. Planning and managing sustainable Mediterranean cities
4. Addressing climate change as a priority issue for the Mediterranean
5. Transition towards a green and blue economy
6. Improving governance in support of sustainable development

These objectives correspond closely to those covered by the 2014 proposal from the United Nation's Open Working Group on Sustainable Development Goals, submitted for consideration by the United Nations General Assembly at its 69th Session in 2014, as indicated in Table 1 below. Nevertheless, due to the cross-cutting nature of the objectives, almost all the proposed sustainable development goals are indirectly relevant to all the objectives.

Table 1. Linking the objectives of the Mediterranean Strategy for Sustainable Development to the 2014 proposal of the United Nation's Open Working Group on Sustainable Development Goals

Mediterranean Strategy for Sustainable Development objectives	Proposed sustainable development goals (2014)
1. Ensuring sustainable development in marine and coastal areas	14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
2. Promoting resource management, food production and food security through sustainable forms of rural development	2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss 6. Ensure availability and sustainable management of water and sanitation for all
3. Planning and managing sustainable Mediterranean cities	11. Make cities and human settlements inclusive, safe, resilient and sustainable 7. Ensure access to affordable, reliable, sustainable, and modern energy for all
4. Addressing climate change as a priority issue for the Mediterranean	13. Take urgent action to mitigate climate change and its impacts
5. Transition towards a green and blue economy	8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation 12. Ensure sustainable consumption and production patterns
6. Improving governance in support of sustainable development	16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development
Cross-cutting sustainable development goals related to social issues	1. End poverty in all its forms everywhere 3. Ensure healthy lives and promote well-being for all at all ages 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all 5. Achieve gender equality and empower all women and girls 10. Reduce inequality within and among countries

The six objectives provide the backbone of the Mediterranean Strategy for Sustainable Development. Each objective covers a range of sustainability issues, as presented in Box 1.

Box 1. List of issues addressed by the six objectives of the Mediterranean Strategy for Sustainable Development

1. Ensuring sustainable development in marine and coastal areas
 ➢ Continued environmental degradation and increased risks from marine pollution and marine noise
 ➢ Loss of biodiversity
 ➢ Ecosystem fragmentation and degradation
 ➢ Unsustainable exploitation of living resources and alien species in ecological systems
 ➢ Impacts from exploitation of non-living marine resources
 ➢ Incidental catches of endangered species
 ➢ Increased linear coastal urbanization resulting in inadequate protection and management of land, urban sprawl owing to illegal construction and gentrification of coasts, and unrestricted tourism development

2. Promoting resource management, food production and food security through sustainable forms of rural development

Natural resources and ecosystem services
 ➢ Loss of biodiversity and local varieties of crops and indigenous breeds from:
  ▪ Overexploitation or illegal use of water and other natural resources
  ▪ Habitat loss, degradation and fragmentation, and lack of appropriate valuation
  ▪ Alien and invasive species
  ▪ Genetically modified organisms
  ▪ Climate change
 ➢ Pollution of soil, water and air
 ➢ Degradation and fragmentation of terrestrial ecosystems, notably forests
 ➢ Protected areas at risk from insufficient spatial coverage, planning, management and funding
 ➢ Insufficient awareness of ecosystem services and their economic benefits from society, industries and policymakers, and lack of appropriate valuation
 ➢ Cross-border issues in the management of natural resources and livestock production.

Rural development and food
 ➢ Vulnerability of small producers to economic and climatic changes and natural resource scarcity
 ➢ Low provision of social services and infrastructure in certain rural areas
 ➢ Loss of agricultural land, erosion and desertification
 ➢ Socio-economic inequalities affecting rural populations, particularly women and youth
 ➢ Logistical deficit at local, national and regional levels, including lack of access of local and small producers to land, water, credit, and markets
 ➢ Agricultural production and market controlled by large players, leaving limited access for small-scale producers and local products
 ➢ Loss of traditional know-how and aging farmers
 ➢ Insufficient collective organization and lack of participation of local communities in natural resource management
 ➢ Insufficient consideration of water, land and food security nexus.

3. Planning and managing sustainable Mediterranean cities
 ➢ Urban quality of life and health degraded by traffic congestion, noise, poor air quality, inadequate supply of sanitation and increased generation of urban waste
 ➢ Resilience reduced by natural and human-induced risks, particularly those triggered by climate change
 ➢ Unsatisfactory urban economic and social cohesion, especially in slums and informal urban settlements, which is further increased by regional territorial imbalances, resulting in rural migration to large cities that increases urban poverty
 ➢ Increased demand for energy, coupled with inefficient use of energy
 ➢ Degradation of historic urban areas
 ➢ Continued rise in waste generation due to growing population and increased consumption.

> ➤ Low capacity of local authorities for integrated forms of urban management.

4. Addressing climate change as a priority issue for the Mediterranean
> ➤ Scientific knowledge and tools on climate change not sufficiently accessible and used for decision-making
> ➤ The damage caused by climate change, including extreme events and long-term steady changes, increases in key vulnerable areas and sectors
> ➤ Growing trend of greenhouse gas emissions within and beyond the energy sector
> ➤ Slow pace in emergence of climate-friendly societies due to limited access to best available technologies and alternative development practices
> ➤ Climate change adaptation and mitigation costs largely unmet at national and local levels
> ➤ Over-reliance on public funding and state-led initiatives

5. Transition towards a green and blue economy
> ➤ Socio-economic inequalities between and within countries and high unemployment in particular for youth and women
> ➤ Economic growth that does not take into account environmental and social impacts
> ➤ Unsustainable lifestyles based on high resource-consumption patterns and low recycling rates, limited consumer awareness and insufficient product information
> ➤ Environmentally-harmful and inefficient production facilities
> ➤ Investment flows financing unsustainable facilities and inefficient infrastructure,
> ➤ Policy uncertainties increasing the risk of investments in green technologies and processes
> ➤ Wrong price/market signals and fiscal incentives not valuing intangible and natural capital and externalities
> ➤ Inefficient trade markets and cooperation at regional level
> ➤ Low level of regional economic competitiveness
> ➤ Relatively high dependence on natural resources for economic development.

6. Improving governance in support of sustainable development
> ➤ Poor capacities for responding to emergencies, and poor understanding of the relationship between population flows and environmental sustainability
> ➤ Low level of participation in decision-making at various levels
> ➤ Fragmentation of responsibility in different levels of governance and between sectors, and lack of decentralisation
> ➤ Lack of coherence and subsidiarity between the different levels of decision-making
> ➤ Insufficient planning, management and implementation of existing legal instruments
> ➤ Inadequate awareness, education, and research and innovation regarding sustainable development
> ➤ Need to advance public trusteeship concepts in the existing instruments for better and more equitable governance and more effective and efficient public participation
> ➤ Insufficiency, unavailability and unreliability of scientific knowledge and data.

A set of strategic directions has been formulated for each of the six objectives of the Strategy, in order to ensure that the relevant issues are addressed. Table 2 lists the strategic directions for each objective. Due to the cross-cutting nature of the objectives, there are interlinkages between the strategic directions, and the implementation of one strategic direction may synergistically affect the implementation of another. Further strategic directions and actions have been elaborated in Chapter 3, which focuses on ensuring its implementation and monitoring of the Strategy.

Table 2. Strategic directions under the objectives of the Mediterranean Strategy for Sustainable Development

Objective	Strategic direction
1. Ensuring sustainable development in marine and coastal areas	**1.1:** Strengthen implementation of and compliance with the Protocols of the Barcelona Convention and other regional policy instruments and initiatives supplemented by national approaches
	1.2: Establish and enforce regulatory mechanisms, including Marine Spatial Planning,, to prevent and control unsustainable open ocean resource exploitation
2. Promoting resource management, food production and food security through sustainable forms of rural development	**2.1:** Promote the sustainable use, management and conservation of natural resources and ecosystems
	2.2: Promote conservation and use of indigenous or traditional plant varieties and domestic animal breeds, value traditional knowledge and practices in rural management decisions
	2.3: Promote networks of ecologically protected areas at national and Mediterranean level and enhance stakeholder awareness on the value of ecosystem services and the implications of biodiversity loss
	2.4: Promote inclusive and sustainable rural development, with a specific focus on poverty eradication, women's empowerment and youth employment, including equitable and sustainable access to basic local services for rural communities
	2.5: Ensure access of local producers to distribution channels and markets, including the tourism market
3. Planning and managing sustainable Mediterranean cities	**3.1:** Apply holistic and integrated spatial planning processes and other related instruments, as well as improved compliance with respective rules and regulations, to increase economic, social and territorial cohesion and reduce pressures on the environment
	3.2: Encourage inclusive urbanization and strengthen capacities for participatory and integrated human settlement planning and management
	3.3: Promote the protection and rehabilitation of Mediterranean historic urban areas
	3.4: Promote sustainable waste management within the context of a more circular economy
	3.5: Promote urban spatial patterns and technological options that reduce the demand for transportation, stimulate sustainable mobility and accessibility in urban areas
	3.6. Promote green buildings to contribute towards reducing the ecological footprint of the built environment
	3.7: Enhance urban resilience in order to reduce vulnerability to risks from natural and human-induced hazards including climate change
4. Addressing climate change as a priority issue for the Mediterranean	**4.1:** Increase scientific knowledge, raise awareness, and develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems
	4.2: Accelerate the uptake of climate smart and climate resilient responses
	4.3: Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors
	4.4: Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector
5. Transition towards a green and blue economy	**5.1:** Create green and decent jobs for all, particularly youth and women, to eradicate poverty and enhance social inclusion
	5.2: Review the definitions and measurement of development, progress and well-being
	5.3: Promote sustainable consumption and production patterns
	5.4: Encourage environmentally-friendly and social innovation
	5.5: Promote the integration of sustainability principles and criteria into decision-making on public and private investment
	5.6: Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities
6. Improving governance in support of sustainable development	**6.1:** Enhance regional, sub-regional and cross-border dialogue and cooperation, including on emergency-preparedness
	6.2: Promote the engagement of civil society, scientists, local communities and other stakeholders in the governance process at all levels, in order to secure inclusive processes and integrity in decision-making
	6.3: Promote implementation and compliance with environmental obligations and agreements including through policy coherence based on inter-ministerial coordination
	6.4: Promote education and research for sustainable development
	6.5: Enhance regional capabilities for information management

The strategic directions are complemented by actions to be taken at national and regional levels, which are accompanied by a broad indication of owners, timeframes and indicators. Flagship initiatives are also identified, which demonstrate the vision of the Strategy in an exemplary way are indicative of a regional or (multi) national action that carries significant potential for results, demonstration and visibility.

A set of targets has also been developed for the Strategy, bearing in mind its focus on the interface between the environment and socio-economic development. The main source for the targets was the 2014 proposal of the United Nations Open Working Group on Sustainable Development Goals, and as such, their approval will need to proceed in line with negotiations at the global level. The targets are summarised by objective in Table 3 below and appear in the Strategy under the relevant objective and strategic direction.

Table 3. Targets in the Mediterranean Strategy for Sustainable Development

Objective	Target (the bracketed numbers refer to the targets in the 2014 proposal of the Open Working Group on Sustainable Development Goals, where relevant)
1	By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information (14.5)
1	By 2020, effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated (IUU) fishing and destructive fishing practices and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics (14.4)
2	By 2020 protect and prevent the extinction of threatened species (15.5)
3	By 2030 enhance inclusive and sustainable urbanization and capacities for participatory, integrated and sustainable human settlement planning and management in all countries (11.3)
3	By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse (12.5)
4	Double the regional rate of improvement in energy efficiency by 2030 (7.3)
5	By 2025 the majority of Mediterranean countries are committed to green or sustainable public procurement programmes
6	By 2025 two-thirds of Mediterranean countries have acceded to the Aarhus Convention

The Strategy takes as a given the implementation of all national and international obligations, even if it does not explicitly mention them. These include the relevant European Union policies and strategies including the Europe 2020 Strategy and the Roadmap to a Resource-Efficient Europe for those parties where they constitute obligations.

The actions proposed are aimed at providing guidance and inspiration, as they summarize the opportunities for developing national actions and regional collaboration within and outside the MAP system for the most effective implementation of the Strategy. It is understood that not all countries may have the necessity or the resources to undertake all the proposed national level actions. It may be preferable, in line with national planning procedures, to adapt the proposed actions to national needs. National actions should therefore serve as a reference framework to help countries design national policies to implement the strategic directions. For the purposes of this strategy, which has a focus on the Mediterranean region, sub-national regional authorities are included under the term 'local authorities'.

Objective 1: Ensuring sustainable development in marine and coastal areas

The objective of seas and coasts sits firmly and historically in the basin approach taken by the Mediterranean Action Plan and the Barcelona Convention. The 1975 Mediterranean Action Plan was the first ever regional seas programme under the UNEP umbrella. The Barcelona Convention was adopted in 1976 by 16 Mediterranean countries and the European Community. Since then various protocols have been adopted under the Convention to help with the protection of the Mediterranean Sea and its coastal regions. The protocols currently cover dumping from ships and aircraft, oil and harmful pollution emergencies, land-based pollution, specially protected areas and biological diversity, pollution from exploitation of the continental shelf, hazardous wastes and, most recently, integrated coastal zone management[12].

The 2005 Strategy established seas and coasts as one of its seven priority fields of action, deeming this priority as essential in making real progress in the sustainable development of the Mediterranean. In the years since its adoption, there have been a number of sub-regional, regional and global developments relevant to this objective, which include:

- ➢ **Higher profile for marine issues within sustainable development**. Rio+20 increased the focus on marine issues through its chapter on oceans and seas. In addition, there is increasing recognition of the role of marine areas in economic development, as the concept of the blue economy illustrates. In addition to its higher profile at the global level, at the Mediterranean level the Istanbul Declaration[13] contains a commitment from the Contracting Parties to the Barcelona Convention, "to make the Mediterranean an exemplary model in implementing activities effectively protecting the marine and coastal environment as well as contributing to sustainable development".

- ➢ **Stronger regional policy instruments under the Barcelona Convention**. The adoption and entry into force of the Protocol on Integrated Coastal Zone Management in the Mediterranean in 2008 recognized the importance of an integrated management approach for the sustainable development of coastal zones.

- ➢ **Sub-regional policy development**. The European Union Marine Strategy Framework Directive (2008) and the associated criteria and indicators have become applicable to European Union Member States. In addition, Maritime Spatial Planning (MSP) is recognised as an important tool for integrated planning.[14]

- ➢ **Launch of regional process in 2008 aiming at the establishment of protected areas in the areas beyond national jurisdiction,** on the basis of joint proposals by neighbouring countries for inclusion in the List of Specially Protected Areas of Mediterranean Importance.

- ➢ **Global recognition of Mediterranean marine areas in need of protection, including areas of national jurisdiction and deep sea habitats.** The 12th meeting of the Conference of the Parties to the Convention on Biological Diversity in 2014 listed 15 Mediterranean areas meeting the scientific criteria for ecologically- or biologically-significant marine areas, due to issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction.

Increased realization of the economic value of the open sea and the need for blue growth has promoted an increase in the exploration for, and exploitation of, non-living open sea resources (e.g. oil, gas) and emphasized the need for robust integrated marine planning to support sustainable development.[15] Therefore the Strategy promotes the blue economy concept through strong partnerships between maritime sectors and public authorities in regard to the sustainable and equitable use of marine areas and resources. In addition, the global momentum behind assessing vulnerabilities and the impacts of climate change and delivering an effective and efficient response has grown rapidly over the last decade,

leading to the increased inclusion and mainstreaming of climate change in many sectors associated with coastal and marine areas.

The strategy for marine and coastal areas rest on two pillars:

➢ Improving implementation of and compliance with existing legal commitments (strategic direction 1.1)
➢ Establishing and enforcing regulatory mechanisms to prevent and control unsustainable exploitation in the open ocean (strategic direction 1.2).

National actions under strategic direction 1.1 include strengthening implementation of the Barcelona Convention and its Protocols, with special focus on the Protocol on Integrated Coastal Zone Management, national coastal conservation initiatives, and the Roadmap on the Mediterranean Ecosystem-based Approach, as well as delivery of ratified protocols through strengthened national policies and priority actions, including coastal conservation. These processes, developed in more detail in the strategic direction 6.3 (Governance objective), will be supported by regional/sub-regional roadmaps for delivery of protocols and enhanced coordination, exchange of good practices, including technology transfer, and local knowledge. Joint efforts will be initiated for the coastal and marine protected areas in the Mediterranean Sea, including the areas beyond national jurisdiction, as part of the wider efforts to implement the Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean region. The target for this strategic direction is, to conserve at least ten per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information by 2020. Supporting the Trust Fund for Mediterranean Marine Protected Areas is highlighted as a flagship initiative.

Strategic direction 1.1: Strengthen implementation of and compliance with the Protocols of the Barcelona Convention and other regional policy instruments and initiatives supplemented by national approaches			
Actions	**Owners**	**Time frame**	**Indicators**
National			
1.1.1. Strengthen the implementation of the Barcelona Convention and its Protocols and other regional policy instruments, through enhanced prioritization and results-based management through ministries with environmental and budget portfolios and implementing line agencies.	National and local governments, regional institutions, private sector, civil society	Ongoing	Number of ratifications and level of compliance as reported by Contracting Parties

Percentage of marine areas in Mediterranean conserved |
1.1.2. Implement the ecosystem approach roadmap to achieve healthy marine ecosystems and conserve marine biodiversity.	UNEP/MAP and national governments	Ongoing	Condition of the (marine) habitat-defining species and communities
1.1.3. Transpose the Protocol on Integrated Coastal Zone Management (where ratified) and its Action Plan into national policies and further its implementation.	National and local governments, regional institutions, with the support of UNEP/MAP (PAP/RAC)	2016-2020	Status of implementation of articles of the Protocol
1.1.4. Support national coastal conservation initiatives and strengthen or develop specific national laws for conservation of coastal areas, building on concepts such as public trusteeships.	National governments	Ongoing	Number of initiatives and legal instruments addressing specifically coastal conservation

1.1.5. Create or strengthen delivery nodes for ratified Protocols through national prioritization and policy strengthening.	National governments	2016-2020	List of delivery nodes per Contracting Party
1.1.6. Implement the Regional Programme of Work for Coastal and Marine Protected Areas in the Mediterranean, including areas beyond national jurisdiction, and its related roadmaps.	Regional institutions, national governments	Ongoing	Progress on implementation of the Regional Programme of Work for Coastal and Marine Protected Areas in the Mediterranean
1.1.7. Implement the Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean region (SAP BIO), and its related national action plans.	SPA/RAC in cooperation with regional institutions, national governments, civil society	Ongoing	Status of implementation of SAP BIO and its related national action plans
Regional			
1.1.8. Improve regional/sub regional coordination, exchange of good practices, including technology and local knowledge transfer.	Regional institutions, national and local governments, civil society, UNEP/MAP	Ongoing	Number of regional meetings on regional/sub-regional coordination on seas and coasts

Number of good practice exchange programmes on seas and coasts annually |
1.1.9. Develop regional and sub-regional roadmaps, where lacking, for delivery of all Barcelona Convention Protocols in synergy with other regional policy instruments as relevant.	Regional institutions, national governments	2016-2020	Number of roadmaps in place and the status of their implementation
Flagship initiative			
1.1.10. Support the Trust Fund for Mediterranean marine protected areas.	France, Monaco, Tunisia and the other countries	Ongoing	Number of States supporting/benefitting from the Fund

In order to address the issues resulting from the unsustainable exploitation of living and non-living marine resources (strategic direction 1.2), the Strategy calls for promotion the blue economy for a sustainable and equitable use of marine areas and resources. It also highlights the vital need for implementation of the relevant legislation and policy measures at national level, including the requirements of the Barcelona Convention, in particular the Offshore Protocol and its draft Action Plan, and procedures for environmental impact assessment (EIA) and strategic environmental assessment (SEA), with special emphasis on open ocean exploration and exploitation of non-living resources. A regional integrated marine planning process based on the Maritime Spatial Planning approach, integrating SEA, EIA and ecosystem approach principles will support the implementation of the strategic direction. A target under this strategic direction is to, effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics by 2020.

Strategic direction 1.2: Establish and enforce regulatory mechanisms, including Maritime Spatial Planning,, to prevent and control unsustainable open ocean resource exploitation			
Actions	**Owners**	**Time frame**	**Indicators**
National			
1.2.1. Promote and support the blue economy concept through strong partnership between maritime sectors and public authorities in regard to the sustainable and equitable use of marine areas and resources.	National governments, regional institutions, UNEP-MAP	On-going	Percentage of contribution of marine-related activities to the gross national product Coastal livelihoods and economies (element of Ocean Health Index)
1.2.2. Ensure that the necessary regulatory instruments, including strategic environmental assessment and environmental impact assessment, national development guidelines, and exploration and extraction tender criteria are effectively in place, and amend national regulatory framework as required.	National governments, regional institutions	2016-2019	Status of regulatory capacity for open ocean exploitation
1.2.3. Implement relevant legislative and policy measures to control open ocean exploitation within national and regional requirements, including liability regimes.	National governments, regional institutions, private sector	Ongoing	Share of open ocean exploitation projects on which regulatory controls are exercised
1.2.4. Translate the Offshore Protocol (where ratified) and its Action Plan into national policies and further its implementation.	National and local governments, regional institutions, with the support of UNEP/MAP (REMPEC)	Ongoing	Percentage of the goals defined under the Mediterranean Offshore Action Plan achieved (Target: 100 per cent of the goals achieved by 2024)
1.2.5. Safeguard the Mediterranean fisheries by ensuring that all fish stocks are being fished sustainably and effectively.	National governments, regional institutions	2016-2020	Conservation status of commercial fish stocks in the Mediterranean
Regional			
1.2.6. Prepare a regional programme on assessment and control regarding open ocean exploration and exploitation of non-living resources, based on the Maritime Spatial Planning approach, and including standards for open ocean exploitation compatible with good environmental status.	Regional institutions, private sector, with support of UNEP/MAP (REMPEC)	2016-2020	Status of regional programme on assessment and control opportunities for open ocean exploitation and exploitation of non-living resources Number of countries utilizing Marine Spatial Planning by 2020 and by 2025
1.2.7. Set up process to further the exchange of good practice on control approaches.	UNEP/MAP and other regional institutions, private sector	2020-2025	Status of good practice exchange process

Objective 2: Promoting resource management, food production and food security through sustainable forms of rural development

Rural areas in the Mediterranean are relatively diverse in their history, culture, natural conditions, population density, settlements, economic structure, and human resources and thus require different policy interventions, but share a potential for the establishment of new bases for economic and social development.[16] Nevertheless, when addressing the use of natural resources in rural areas, attention must be paid to the protection of terrestrial ecosystems, which provide essential goods and services for human development. Those range from food and water to medicinal plants, fuel, timber and housing materials. The maintenance of the good status and health of those ecosystems is therefore fundamental for both biodiversity conservation and human well-being.

The three objectives of the Convention on Biological Diversity – conservation of biological diversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the utilization of genetic resources – reflect the importance of this theme. The Strategic Plan for Biodiversity 2011-2020 sets 5 strategic goals and 20 targets to be achieved by 2020.[17] The intention is not only to guarantee the conservation of all biodiversity components, but also to address key socioeconomic aspects, such as poverty reduction, sustainable agriculture, aquaculture and forestry, the needs of women, local communities, and traditional knowledge and public participation.

In the northern Mediterranean countries, there has been agricultural and pastoral land abandonment and reforestation campaigns have been effective, while in southern and eastern Mediterranean countries the pressures on ecosystems remain strong, particularly in North African countries because of the high population pressure on land and water resources, urban sprawl, over-exploitation of forests and overgrazing; in addition, desertification processes are exacerbated by climate change, causing increased aridity and extreme events (long periods of drought, devastating floods of land and livestock, large cold spells), with strong socio-economic impacts on farmers. In this context, food cooperation among Mediterranean countries is also a main issue as regards the situation of the southern and eastern Mediterranean countries and the existing complementarities between the North and the South.

The Mediterranean agri-food sector consumes significant rural resources and constitutes one of the main drivers of environmental degradation through processes such as desertification of marginal lands and pollution run-off from farming. At the same time the sector is a key player in the conservation of the Mediterranean agricultural landscape and in providing livelihoods and employment. The sustainable management of natural resources, rural development and food production and security are interdependent aspects that ensure the well-being of rural communities and provide significant inputs to downstream industries, from food processing to tourism.

All around the Mediterranean's rural areas, food production and food security are of paramount importance. Given the importance of small and medium-sized farms in the agrarian landscape of the southern and eastern Mediterranean countries and their mobilization of the family workforce, family farms contribute to food security of farm households and local communities by the supply of domestic markets. Furthermore, the intra-family and intergenerational solidarity prevailing in farm households contribute significantly to the fight against food insecurity and social vulnerability of rural populations. However access to land is increasingly open to foreign capital and investors without much consideration of the effects on local agricultural and rural societies. The southern and eastern Mediterranean countries are also vulnerable to changes in international agricultural prices due to their high dependence on cereal imports. This context makes agricultural and food security issues particularly sensitive. Furthermore, since the impacts of climate change are likely to include the degradation of agricultural water resources and loss of fertile soils, to ensure food security and rural vitality adapting agriculture to climate change is necessary. Indeed small farmers will be directly affected, which represents risks in terms of the stability of rural areas. This calls for adaptation strategies and services for agricultural and rural areas, as well as public and private support for those adaptations: such as promotion of agri-environmental

practices, alternative agricultural methods, crop diversification, controlling and limiting use of genetically modified organisms; and conservation of water and soil, limiting the consumption of such natural resources.

The Strategy underlines the need for compliance of national legal measures with international and regional commitments to conserve biodiversity and ecosystem services (strategic direction 2.1). It calls for effective and participatory management of protected areas and exploitation of renewable natural resources for a regulated development in rural areas, including through Environmental Impact Assessment, Strategic Environmental Assessment and permitting processes. It aims to address the limits to sustainable rural development caused by the unsustainable use of natural resources and ecosystem goods and services, particularly energy, food and water, through improving efficiency; introducing institutional and legal reforms and fostering water cooperation programmes among sectors and cross-borders. The Strategy also suggests adopting policies, regulatory measures and instruments for sustainable exploitation of non-renewable resources and related post-extraction restoration.

Strategic direction 2.1: Promote the sustainable use, management and conservation of natural resources and ecosystems			
Actions	**Owners**	**Time frame**	**Indicators**
National			
2.1.1. Ensure that legal measures are in place to conserve biodiversity and ecosystem services in line with international and regional commitments as applicable.	National governments, civil society	Ongoing	Status of legal measures that are in place to conserve biodiversity and ecosystem services in line with international and regional commitments Condition of the (terrestrial) habitat-defining species and communities
2.1.2. Ensure that management processes are in place for protected areas.	National and local governments, regional institutions, civil society	Ongoing	Share of protected areas with management processes in place
2.1.3. Ensure Environmental Impact Assessment, Strategic Environmental Assessment and permitting processes are in place to regulate development in rural areas, as well as monitoring and adaptive management of interventions.	National and local governments, regional institutions, civil society, private sector	Ongoing	Share of contracting parties with permitting processes in place to regulate development in rural areas
2.1.4. Put in place participative cross-sectoral resource management strategies to ensure that renewable natural resources are extracted in ways that do not threaten the future use of the resources, and without exceeding their maximum sustainable yield.	National and local governments, civil society, private sector	Ongoing	Water efficiency index Percentage of water used in sustainable water management practices for agriculture Number of river basins with integrated water resources management schemes in place Share of Mediterranean forests under sustainable management

2.1.5. To achieve a sustainable balance between use of energy, production of food and use of water, through improving efficiency and promoting the use of renewable energy sources, as well as through the introduction of institutional and legal reforms.	National and local governments, civil society, private sector	Ongoing	Water use efficiency (domestic, industrial, agricultural) Energy use efficiency Rate of renewable energy used in provision of water and sanitation services Percentage of wastewater treated by country (target is 90 per cent by 2025); percentage of wastewater reused by country
2.1.6. Develop socio-economic models for national strategic choices for water allocation between agriculture, industry and domestic uses, taking into account environmental, social aspects and economic development needs.	National and local governments, civil society, private sector	Ongoing	Economic efficiency for water use in domestic, industrial and agricultural sectors
2.1.7. Ensure that extraction and management of non-renewable resources are carried out in ways that minimize environmental impacts, and that permitting systems include post-extraction restoration.	National and local governments, civil society, private sector	Ongoing	Share of contracting parties implementing permitting systems on extractive sectors
2.1.8. Develop action plans for the restoration of land from historic extractive activities.	National and local governments, civil society, private sector	Ongoing	Status of action plans
Regional			
2.1.9. Develop or strengthen cross border water cooperation programmes.	Regional institutions, National and local governments, civil society, private sector	Ongoing	Participation of countries in cross border integrated water resources management processes

The Strategy calls for establishing national seed banks and knowledge repositories and encourages them to engage in regional collaboration (strategic direction 2.2). It promotes the valorisation of traditional knowledge and land races, emphasizing the need for supporting their integration in education and training for rural and agricultural practices.

Strategic direction 2.2: Promote conservation and use of indigenous or traditional plant varieties and domestic animal breeds, value traditional knowledge and practices in rural management decisions			
Actions	**Owners**	**Time frame**	**Indicators**
National			
2.2.1. Establish national seed banks and knowledge repositories of indigenous or traditional plant varieties and domestic animal breeds.	National and local governments, agricultural associations and cooperatives, civil society, academia, private sector	2016-2025	Number of seed banks and knowledge repositories in place

2.2.2. Support the integration of traditional knowledge in education and training for rural and agricultural practices at national level.	National governments, civil society, academia, private sector	Ongoing	Share of agricultural training courses that include traditional knowledge
2.2.3. Promote the valorisation of traditional knowledge and land races in rural development funding programmes.	National governments, donor agencies	Ongoing	Number of rural development programmes that include support for traditional agricultural practices and landraces
2.2.4 Support the integration of traditional knowledge and land races in education and training for rural and agricultural practices at national level.	National governments, donor agencies	Ongoing	Number of rural development programmes that include support for traditional agricultural practices and landraces
Regional			
2.2.5. Establish regional collaboration between seed banks and knowledge repositories around the Mediterranean.	Regional institutions, civil society	2016-2025	Number of seed banks operating in the region

Strategic direction 2.3 focuses on the promotion of networks of ecologically protected areas, at national and Mediterranean level, as well as the enhancement of stakeholder awareness on the value of ecosystem services and the implications of biodiversity loss. The pressures on protected areas created by insufficient spatial coverage, planning and management call for, at a national level, programmes that strengthen the protection of biodiversity and the actual management of such areas. Legal or financing mechanisms accompany actions that raise awareness on the economic, social and environmental value of ecosystem services. The promotion of national and regional networking processes aims at reuniting directors and managers for enhancing the synergies of their actions. At the regional level, the Strategy supports further networking, as well as the promotion of the new "Green List" initiative agreed between IUCN and IUCN national committees to assess the effectiveness of park management bodies.[18]

Strategic direction 2.3: Promote networks of ecologically protected areas at national and Mediterranean level and enhance stakeholder awareness on the value of ecosystem services and the implications of biodiversity loss			
Actions	**Owners**	**Time frame**	**Indicators**
National			
2.3.1. Promote national networking activities for ecologically protected areas with similar and different protection status.	National and local governments, civil society	2016-2019	Number of national networking initiatives for ecologically protected areas
2.3.2. Establish programmes to enhance awareness among local stakeholders on the economic, environmental and social value of ecosystem services and the implications of biodiversity loss for their daily lives.	National and local governments, rural communities, civil society	2016-2020	Number of programmes established to enhance awareness among local stakeholders on the economic, environmental and social value of ecosystem services and the implications of biodiversity loss
2.3.3. Set up financial mechanisms (national funds, payment for ecosystem services, compensations) to support policies ensuring the provision of environmental and social services.	National and local governments	Ongoing	Status of financial mechanisms
Regional			
2.3.4 Promote a regional network of managers of ecologically protected areas building on the experiences of existing initiatives.	Regional institutions	2016-2020	Status of project to promote a regional network of managers of ecologically protected areas

Flagship initiative			
2.3.5. Promote the "Green list" in riparian states to assess the efficiency and effectiveness of parks managing bodies created at the IUCN World Parks Congress.	IUCN-Med and IUCN national committees	Ongoing	Number of countries participating in the Green list initiative

The Strategy addresses the social and environmental consequences created by inequalities affecting rural populations, particularly women and youth, by developing skills and opportunities through participatory rural development programmes that take into account traditional knowledge, skills and crafts in order to add value to rural territories and local cultural assets. The strategic direction 2.4 promotes inclusive and sustainable rural development, with a specific focus on poverty eradication. At a national level, policy measures and fiscal arrangements should encourage rural multi-functionality, coupling tourism and agriculture, benefiting to women's empowerment and youth employment. Such actions should also lead to equitable and sustainable access to basic local services. A regional action focuses on international partnerships and networks to build capacity in the promotion of traditional knowledge, skills and crafts, as well as the establishment of capacity development programmes for local communities.

Strategic direction 2.4: Promote inclusive and sustainable rural development, with a specific focus on poverty eradication, women's empowerment and youth employment, including equitable and sustainable access to basic local services for rural communities			
Actions	**Owners**	**Time frame**	**Indicators**
National			
2.4.1. Develop participatory rural development programmes and adapt measures and fiscal arrangements to encourage rural pluriactivity and sustainable economic development of vulnerable rural communities, particularly for the benefit of women and youth, taking into account also the vulnerability of such communities to natural and human-induced hazards, which recognise the multi-functionality of rural areas.	National governments	Ongoing	Number of rural development programmes that include sustainability considerations, including in relation to women and youth

Number of rural jobs created in SMEs for young and women

Rural poverty rates per country (with women and youth reported separately) |
| 2.4.2. Develop training programmes to encourage the reviving of traditional skills, arts and crafts in view of the protection and preservation of the local cultural as well as a means to establish economic activities locally. | National governments | 2016 - 2020 | Number of participants in the training programmes and businesses established |
| 2.4.3. Prepare action plans to support the development of rural tourism that will alleviate overcrowding in cities and resorts, stimulate the utilization of locally produced products and generate local employment opportunities. | National governments | Ongoing | Number of such action plans prepared |

Regional			
2.4.4. Develop international partnerships and networks to build capacity in the promotion of traditional knowledge, skills and crafts as well as establishment of capacity development programmes for local communities.	Regional institutions	2016 - 2020	Number of international partnerships established to build capacity in the promotion of traditional knowledge, skills and crafts as well as establishment of capacity development programmes for local communities

In order to ensure an equitable access of local producers and small scale farmers to distribution channels and markets, including the tourism market (strategic direction 2.5), national programmes supporting agro-ecological and organic technologies will add value to local assets, products, and processes. This will be achieved through the use of innovative products and processes, cooperation schemes, market instruments, marketing plans and labelling schemes. The Strategy focuses on the added-value of organic, labelled, and conservation agriculture, while controlling and limiting the use of genetically modified organisms. On the demand side, awareness-raising campaigns will be developed in order to sensitise consumers regarding local economic benefits.

Strategic direction 2.5: Ensure access of local producers to distribution channels and markets, including the tourism market			
Actions	**Owners**	**Time frame**	**Indicators**
National			
2.5.1. Undertake actions to improve access of small-scale producers to markets, including tourism markets, through the use of innovative products and processes, cooperation schemes, market instruments, marketing plans and labelling schemes.	National, regional and local environment, civil society, local cooperatives	2016-2020	Market efficiency rate for small producers Number of countries with actions to improve access of small scale producers to markets
2.5.2. Undertake initiatives to raise awareness on environmental and social benefits of consuming local products, including in the tourism sector.	National, regional and local environment, civil society, local cooperatives	2016-2020	Number of countries with initiatives to raise awareness on environmental and social benefits of consuming local products
2.5.3 Develop and strengthen agriculture based on agro-environmental and organic technologies, including organic, labelled, and conservation agricultures, controlling and limiting the use of genetically modified organisms, with special support to small-scale farmers.	National, regional and local environment, civil society, rural communities, local cooperatives, private sector	On-going	Number of countries with such national actions undertaken

Objective 3: Planning and managing sustainable Mediterranean cities

Although affected by the economic crisis, the urbanization of the Mediterranean population continues at a fast pace, in particular along its southern shores. Two in every three people are already living in the urban areas of Mediterranean countries, which is higher than the world average. By around 2050, the United Nations Human Settlements Programme predicts that the urban population will grow to around 170 million in the countries on the northern shore (140 million in 2005) and to over 300 million to the south and east (151 million in 2005). This fact generates serious challenges: for example, by 2030 some 42 million additional dwellings will be required, mainly in cities.[19] In addition, most Mediterranean cities, in particular those located on its coasts, are not currently being managed sustainably, particularly in relation to the carrying capacity of those coasts. At the same time, the potential of cities as drivers of innovative and sustainable social and economic change is insufficiently recognized.

Mediterranean cities are sometimes insufficiently resilient in terms of coping with natural and human-made risks and hazards. They are also highly energy-dependent, with low shares of renewable energy used, and their productive capacity in terms of renewable energy, urban agriculture and waste recycling is highly underutilized. Waste generation in the region has grown over the last decade, mostly due to a growing population and increased consumption. Waste management needs significant improvement: while three-quarters of waste is collected, most is disposed of in open dumps, which may have negative health and environmental impacts. Less than 10 per cent of the waste collected in the Mediterranean region was recycled in 2014.[20] The participation of residents in decision-making on urban matters in many municipalities remains low, as does the level of access to urban services.

Urban growth prospects in the Mediterranean cities point towards an exacerbation of the current challenges: excessive land uptake; more rapid degradation of architectural heritage; aquifer pollution; inefficient waste management; atmospheric air pollution and noise; and the cumulative effect of all these factors on the environment and on human health. On this basis, if actions and initiatives aimed at correcting the impacts of urban territorial, environmental, economic and social imbalances are not taken, Mediterranean societies and ecosystems may suffer serious consequences, particularly in combination with the expected impacts of climate variability and change. Those are likely to impact most strongly the shores of the Mediterranean, where the majority of the population lives in cities.

Sound policies in favor of social and territorial cohesion in rural areas, which are addressed under objective 2, are also necessary for ensuring sustainable urban areas. Urban sustainability is linked to food security and sustainable forms of rural development: poor rural conditions have strong social and political impacts also on cities, as urban areas are largely populated by rural migrants.

Cities are critical for sustainable development in the Mediterranean, because they are engines of economic development, innovation and creativity: the climate friendly cities agenda is an example of the potential of urban areas to contribute to sustainability. For those reasons, a new, sustainable and creative approach to planning and managing Mediterranean urban agglomerations, offering longer-term sustainable solutions, and building on common aspirations and understandings among the relevant stakeholders, is the best hope for the Mediterranean urban future.

Urban green and blue areas in the city have a multitude of positive environmental and socio-cultural functions: mitigating environmental pressures, improving aesthetics, reducing the urban heat island effect, mitigating flooding, and providing direct or indirect urban ecosystem services. Urban green and blue areas, or 'green and blue infrastructures' are networks of natural and engineered ecological systems providing a diverse range of services to increase the resilience of urban systems. While the simple addition of a green area could have a minor effect on the global city sustainability, and a park planned in an inaccessible area would not satisfy the needs of citizens, while requiring many resources to be managed, the same park could acquire greater value if its resultant overall potential ecosystem services (including water management) are taken into account. Several urban best management practices can be

applied in cities. Moreover, urban regeneration projects and new urban settlements may also be planned and designed on the basis of urban best management practices related to multifunctional green and blue infrastructure. This will contribute to the transition to environments which are more resilient to changing future conditions.[21]

The Strategy addresses pressures on the environment caused by urban expansion, where in some cases triggered by tourism development (strategic direction 3.1). The proposed solutions include strengthening the development of small and medium sized towns as focal points for sustainable regional development, and monitoring and control of coastal urbanization and encroachment. It underlines the need for strong regulations and tools for spatial planning and tourism. It calls for the promotion of blue and green infrastructure, safe and green public open spaces, which will provide urban ecosystem services that will contribute to improved resilience to climate change and variability. This requires use of spatial planning systems, capacity building and sharing of best practices at the national level, as well as the preparation of regional guidelines for planning multi-functional green and blue infrastructures in the Mediterranean.

Strategic direction 3.1: Apply holistic and integrated spatial planning processes and other related instruments, as well as improved compliance with respective rules and regulations, to increase economic, social and territorial cohesion and reduce pressures on the environment			
Actions	**Owners**	**Time frame**	**Indicators**
National			
3.1.1. Utilize spatial planning systems to ensure balanced development in urban areas that incorporate measures for infrastructure provision, and land-take reduction where possible, as well as the provision of multifunctional urban green and blue infrastructures, which provide urban ecosystem services that are also important for climate change adaptation.	National and local governments, planning authorities	2016-2025	Number of countries utilizing spatial planning systems for coastal urban development
3.1.2. Ensure that legally-binding strategies for tourism development are put in place for those areas that suffer from tourism pressures, and related real-estate expansion and coastal deterioration.	National and local governments, planning authorities	2016-2025	Legally-binding strategies for tourism development are put in place
3.1.3. Strengthen small and medium-sized towns as focal points for regional development that will reduce population pressures on urban agglomerations, including by ensuring appropriate transport links from major urban centres to medium and small ones.	National and local governments, planning authorities, civil society	2016-2020	Population trends in large, medium and small urban settlements by country
3.1.4. Promote the protection, upgrading and creation of additional public open space that is safe, green and shady, and part of a network of green infrastructure.	National and local governments, planning authorities, civil society	Ongoing	Number of countries and large cities with initiatives to improve public open space Urban public open space per capita (m^2 per capita)
Regional			
3.1.5. Monitor coastal urbanization and encroachment at regional level and provide monitoring support to national and local authorities.	Regional and international institutions, national and local governments,	2016-2020	Status of projects for the monitoring of coastal urbanization and encroachment at regional level and of projects

			supporting national and local authorities
			Number of capacity development and technical assistance projects in relation to the monitoring of coastal urbanization and encroachment at regional level
3.1.6. Establish a regional process to build capacity and share good practices on improving compliance with spatial planning regulations.	Regional and international institutions, national and local governments, civil society	2016-2020	Status of regional process to build capacity and share good practices on improving compliance with spatial planning regulations
3.1.7. Set up a process to prepare regional guidelines for planning multifunctional green and blue infrastructures, and provide opportunities for exchange of related urban best management practices.	Regional and international institutions, national and local governments, civil society, private sector	2016-2020	Blue and green urban area (m^2 per number of inhabitants) Permeable surfaces (m^2 per number of inhabitants)
3.1.8. Identify Mediterranean urban biodiversity hotspots and share experiences on their protection.	International and regional institutions, National and local governments, planning authorities, civil society	2016-2020	Number of countries with identified urban biodiversity hotspots

The Strategy promotes participation of urban populations in planning and decision–making to aid sustainable urban planning and management (strategic direction 3.2). In this respect securing the flow of information and enhancing capacities for participation are key, in line with the 2014 Nafplion Declaration on Promoting Territorial Democracy in Spatial Planning.[22] At the national level, participatory mechanisms will be established, and governance regimes put in place that allow urban jurisdictions to regulate, register and manage land, within a rights-based framework. In addition, planning measures will support the development of urban models integrating informal settlements within the urban fabric through forward-looking territorial planning. Regional networks of cities will be developed or strengthened, and a sustainable urban toolbox for the Mediterranean will be developed in cooperation with the networks. This will help as to ensure that Mediterranean cities are planned cities to be inclusive, safe, resilient and sustainable. A target associated with this strategic direction is to enhance inclusive and sustainable urbanization and capacities for participatory, integrated and sustainable human settlement planning and management in all countries by 2030.

Strategic direction 3.2: Encourage inclusive urbanization and strengthen capacities for participatory and integrated human settlement planning and management			
Actions	**Owners**	**Time frame**	**Indicators**
National			
3.2.1. Strengthen urban governance by establishing communication and participation mechanisms to enhance urban stakeholders' involvement and engagement in decision-making.	National and local governments, planning authorities, civil society private sector	2016-2020	Number of countries with such participatory mechanisms enshrined in planning legislation
3.2.2. Structure and integrate informal settlements into cities and anticipate the expected rates of urban growth through more balanced territorial planning and the provision of decent and affordable housing.	National and local governments, planning authorities, civil society	2016-2020	Number of countries with informal settlements integration processes in place People living in informal settlements Urban poverty rates
3.2.3. Put in place governance regimes that allow urban jurisdictions to regulate, register and manage land, within a rights-based framework.	National and local governments, planning authorities, civil society	2016-onward	Number of countries with national legislation providing for free access to coast
Regional			
3.2.4. Develop or strengthen regional networking and partnership programmes between cities and at the city-region level around the Mediterranean to promote knowledge-sharing and capacity building on sustainable cities.	Regional and international institutions, Local governments, civil society, national governments	2016-onward	Number of partnership programmes of networks running in area of sustainable cities Status of UNESCO World Heritage Sites in Mediterranean Countries
Flagship initiative			
3.2.5. Create a sustainable urban toolbox for the Mediterranean, with a view to planning cities that will work for everyone, in order to make them inclusive, safe, resilient and sustainable.	Regional and international institutions, national and local governments, planning authorities, civil society, private sector	2016-2020	Status of sustainable urban toolbox for the Mediterranean

The Strategy focuses on the protection and rehabilitation of historic urban centres as a means to retain population and economic activity, against the trend of increased dereliction and marginalization, based on fiscal and planning incentives (strategic direction 3.3). It also focuses on creating opportunities to strengthen local distinctive character both in planning and in project development in order to enhance local attractiveness. This recognises that retaining the distinctiveness of territories has a potential for economic development and competitive advantage. The Strategy recommends developing or strengthening existing networks of historic cities, involving economic players, including the tourism sector and that representing traditional industries. In addition adequate social dwelling provision coupled with fiscal incentives and the rehabilitation of historic centres could enhance the attractiveness of the historic stock in comparison with peripheral urban expansions. At a regional level, networking between historic centres and connecting them to economic activities are promoted as a means to secure viability.

Strategic direction 3.3: Promote the protection and rehabilitation of Mediterranean historic urban areas			
Actions	**Owners**	**Time frame**	**Indicators**
National			
3.3.1. Utilize forms of integrated and sustainable rehabilitation of historic urban centres, building on good practice to maintain the population in historic centres.	National and local governments, planning authorities, civil society, private sector	2016-2020	Population migration between newer and older urban areas by sub-region
3.3.2. Provide fiscal and planning incentives to utilize and rehabilitate historic urban centres.	National and local governments, planning authorities	2016-2020	Number of countries utilizing fiscal and planning incentives to utilize and rehabilitate historic urban centres
3.3.3. Create opportunities to strengthen local distinctive character both in planning and in project development in order to enhance local attractiveness, as a tool for economic development and enhancing competitive advantage.	National and local governments, planning authorities	Ongoing	Tools created
3.3.4. Provide adequate social housing coupled with fiscal incentives and the rehabilitation of historic centres to enhance the attractiveness of the historic housing stock in comparison with peripheral urban expansions.	National and local governments, planning authorities	Ongoing	Projects of rehabilitation of historic centres
Regional			
3.3.5. Develop or strengthen existing networks of historic cities in the Mediterranean, involving economic players, including the tourism sector and that representing traditional industries.	International and regional institutions, national and local governments, planning authorities, civil society, private sector	2016-2020	Coverage of Mediterranean historic cities in international networks

Solid and liquid waste production and management remain major concerns in many urban regions in the Mediterranean (strategic direction 3.4). The Strategy promotes national measures for implementing innovative waste management solutions, in line with the waste hierarchy: prevention; reuse; recycling; recovery, and, as the least preferred option, disposal. It is also a priority to develop behavioural change schemes that will lead to reduction in waste volumes and to develop legal and financial frameworks to support sustainable waste management. At the regional level, an assessment of the effectiveness high-tech and low-tech solutions, including but not limited to awareness-raising and economic measures that have been implemented, will be carried out with a view to their more widespread utilization in waste reduction efforts. Finally the Strategy also includes a regional action to develop a database of generated and treated waste and related material flows. A target associated with this strategic direction is to substantially reduce waste generation through prevention, reduction, recycling, and reuse by 2030.

Strategic direction 3.4: Promote sustainable waste management within the context of a more circular economy			
Actions	**Owners**	**Time frame**	**Indicators**
National			
3.4.1. Implement innovative, integrated and sustainable waste management solutions, in line with the waste hierarchy: prevention; reuse; recycling; recovery; sorting; and, disposal.	National and local governments, civil society, private sector	Ongoing	Percentage of waste treated by treatment type Waste generated by type per country
3.4.2. Develop schemes to encourage and educate local communities to change their behaviour with regard to waste.	Local governments, civil society, national governments, private sector	Ongoing	Municipal waste generated
3.4.3. Develop legal and financial frameworks for sustainable waste management.	Local governments, civil society, national governments, private sector	Ongoing	Status of the frameworks
Regional			
3.4.4. Develop robust database of generated and treaded waste and related material flows.	Regional organisations, national governments	2016-2020	Database created and updated
Flagship initiative			
3.4.5. Undertake regional assessments, as well as knowledge exchanges, of high- and low-tech solutions, that have been successfully implemented to achieve waste reduction.	Regional institutions, National and local governments, academia, civil society, private sector	2018-onward	Status of the assessment initiative Waste generated by type per country

Many Mediterranean cities have increased their dependence on private vehicles, an increase that is further aggravated by urban sprawl, leading to pollution, congestion, high economic and social costs and land sealing for traffic management and parking. The Strategy, under strategic direction 3.5, calls for a reduced dependence on private vehicles by developing efficient integrated public transport systems between coastal cities and their functional regions; and by anticipating future growth and transport needs to be provided mainly by collective forms of transport, accompanied by economic and regulatory instruments and increase virtual connectivity. At the regional level, the development of a sustainable transport and mobility framework for the Mediterranean is included.

Strategic direction 3.5: Promote urban spatial patterns and technological options that reduce the demand for transportation, stimulate sustainable mobility and accessibility in urban areas			
Actions	**Owners**	**Time frame**	**Indicators**
National			
3.5.1. Put in place spatial planning provisions that reduce the need for personal private mobility.	National and local governments, urban planning authorities, civil society, private sector	Ongoing	Number of countries with spatial planning provisions in place that reduce the need for personal private mobility

| 3.5.2. Reduce urban traffic congestion and pollution through economic and regulatory instruments promoting low-pollution collective transport systems at the local urban level, and maritime public transport (blue ways), multi-modal links and more sustainable freight transport. | National and local governments, urban planning authorities, civil society, private sector | 2016-2020 | Number of coastal cities with integrated public transport systems

Percentage of the urban population using public transport

Per capita number of private vehicle ownership per urban inhabitant |
|---|---|---|---|
| 3.5.3. Increase virtual connectivity at least to basic services in order to reduce the need to travel. | National and local governments, urban planning authorities, civil society, private sector | 2016-2020 | |
| **Regional** | | | |
| 3.5.4. Develop a sustainable Mediterranean transport and mobility framework, taking into account the objectives of the European Union transport policy and other relevant regional initiatives, including guidelines for compact cities, in order to minimize transport and service delivery costs. | Regional institutions, national and local governments, civil society | 2016-2020 | Status of sustainable Mediterranean transport and mobility framework |

The Strategy promotes green buildings, including the retro-fitting of the existing building stock, to contribute towards reducing the ecological footprint of the built environment (strategic direction 3.6). At a national level, various instruments are to be put in place to construct green buildings and retrofit existing buildings (e.g. institutional and legal arrangements, strategies, support schemes, training programmes and standards), while where regional standards, certification and quality frameworks will provide guidance to national level efforts to encourage green buildings suitable for the Mediterranean climate. At a regional level, the Strategy focuses on the development of regional standards, certification and quality frameworks to encourage green buildings suitable for the Mediterranean climate.

Strategic direction 3.6: Promote green buildings to contribute towards reducing the ecological footprint of the built environment			
Actions	**Owners**	**Time frame**	**Indicators**
National			
3.6.1. Put in place institutional and legal arrangements, strategies, support schemes, training programmes and standards to construct green buildings and retrofit existing buildings.	National and local governments, civil society, private sector, professional associations (architects, civil engineers)	2016-onward	Number of countries with green building standards
Regional			
3.6.2. Develop regional standards, certification and quality frameworks to encourage green buildings suitable for the Mediterranean climate.	Regional institutions, national and local governments, civil society, private sector, professional associations	2016-2020	Status of regional standards, certification and quality frameworks for green buildings

Urban areas, particularly those situated close to the coast, are vulnerable to natural and human-induced disasters and large-scale changes, including climate change. Strategic direction 3.7 focuses on enhancing urban resilience, in order to reduce their vulnerability to risks from natural and human-induced hazards including climate change. Besides the regional measures relating to emergency-preparedness under governance, the Strategy also highlights a number of actions required to be undertaken by cities with regard to resilience. At a national level, climate proofing is addressed in the implementation of programmes increasing urban resilience. That includes preparation and implementation of action plans, based on prevention, preparedness and response approaches, to improve urban resilience to natural and human induced risks, including through natural solutions, smart development and awareness-raising. National guidelines for planning of green and blue infrastructure will be prepared, which will also support urban level climate change adaptation plans. The third national action involves the preparation and implementation of action plans to improve urban resilience to natural and human induced risks, including through natural solutions, smart development and awareness-raising. A fourth national action focuses on undertaking a set of integrated measures to support the productivity of cities in terms of energy production, composting and urban and peri-urban agriculture, including through the recognition of such activities as urban land uses and economic activities, ensuring that necessary health safeguards are in place. At the regional level, the Strategy calls for an inventory of local authorities in the region which are developing natural risk response mechanisms.

Strategic direction 3.7: Enhance urban resilience in order to reduce vulnerability to risks from natural and human-induced hazards including climate change			
Actions	Owners	Time frame	Indicators
National			
3.7.1. Ensure urban spatial plans are subject to climate proofing.	National and local governments, urban planning authorities, civil society, private sector	Ongoing	Number of countries that have enacted legal provisions for climate proofing of spatial plans
3.7.2. Develop national guidelines for auditing and planning of green and blue infrastructure, with reference to natural and human-induced risks, including climate change.	National and local governments, urban planning authorities, private sector, civil society	Ongoing	Number of countries that have national risk reduction guidelines for planning of green and blue infrastructure
3.7.3. Prepare and implement action plans, based on prevention, preparedness and response approaches, to improve urban resilience to natural and human induced risks, including through natural solutions, smart development and awareness-raising.	National and local governments, urban planning authorities, civil society	Ongoing	Number of countries with action plans to improve urban resilience to natural and human induced risks-based on prevention, preparedness and response approaches

3.7.4. Undertake a set of integrated measures to support the productivity of cities in terms of energy production, composting and urban and peri-urban agriculture, including through the recognition of such activities as urban land uses and economic activities, while ensuring that necessary environmental health safeguards are in place.	National and local governments, urban planning authorities, civil society, private sector	Ongoing	Number of countries with emergency preparedness plans addressing major installations
Regional			
3.7.5. Set up an inventory of Mediterranean local authorities developing natural risk response mechanisms, including climate change adaptation actions and relevant good practices.	Regional institutions, national and local governments, civil society	2016-2020	Status of inventory of Mediterranean local authorities developing natural risk response mechanisms

Objective 4: Addressing climate change as a priority issue for the Mediterranean

Addressing climate change is a priority for the Mediterranean. As highlighted in the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, the Mediterranean region, considered one of the world's major climate change hotspots, is highly vulnerable to the negative impacts of global warming.

Climate variability and change is already becoming increasingly evident in the Mediterranean. In recent decades, warm days and nights, heat waves, extreme precipitation and soil dryness have increased and cold days and nights have decreased. Regarding sea level rise, there are areas in the Mediterranean Sea with current average increases of more than 6 mm/year, but also with decreases of more than 4 mm/year.[23] All model projections agree on the region's future warming and drying with potential huge risks and costs to the region's economy, population centres and biodiversity. More specifically, in the Panel's Fifth Assessment Report, medium-low emissions scenario (RCP 4.5), the mean surface air temperature in the region is expected to increase by 2-4°C by 2081-2100 compared to 1986-2005 and the mean annual precipitation to decrease by 10-20 per cent. In the worst case scenario, by 2100 the mean temperatures could increase by up to 7.5°C and mean precipitation could decrease by up to 60 per cent. Regarding sea level, an average rise of 0.4-0.5m is projected for most of the Mediterranean.

Depending on the extent of climatic disruption, the consequences of climate change are expected to worsen already critical situations present in the region. The Mediterranean will face an increased risk of desertification and soil degradation, sea level rise, an increase in the duration and intensity of droughts, changes in species composition, habitat losses, and agricultural and forests production losses resulting in an increased risk of coastal erosion, infrastructure damage and threatened water and food security. The Middle East and North Africa region, which already has one of the lowest water availabilities per capita world-wide, is expected to be more severely affected. These risks all have social and human impacts related to increased vulnerability, particularly for the groups already living in poor conditions. In addition, given the inherent physical characteristics of small islands, the Fifth Assessment Report reconfirms the high level of vulnerability of small islands, which are characteristic of the Mediterranean Sea, to climate stressors.

The contribution of the region to global greenhouse gas emissions varies considerably, with the northern, European Union countries of the Mediterranean contributing to a much greater extent to global greenhouse gas emissions than the southern rim countries. Nevertheless, carbon footprints are increasing steadily in southern Mediterranean countries as well, which highlights the need to mitigate climate change. In particular, the energy sector, accounting for 85 per cent of greenhouse gas emissions in the Middle East and North Africa region,[24] and the transport sector play a crucial role in mitigation efforts.

In the 2005 Mediterranean Strategy for Sustainable Development a range of actions were recommended to address common adaptation and mitigation challenges. Other climate change-related initiatives have followed, in particular the Union for the Mediterranean Expert Group on Climate Change, with a mandate to provide a multilateral and multi-stakeholder platform for exchange of information, best practices, and opportunities for cross-border cooperation.

However, progress towards a green, low-carbon and climate-resilient Mediterranean region remains limited and constrained by a number of issues and barriers that still need to be addressed. Scientific knowledge, data and information from research and monitoring systems remain insufficiently developed. When such information resources have been developed, they are often not easily utilisable in decision-making processes. Moreover, even when information is utilisable, it is often not used. Awareness of the co-benefits of climate change policies for economic development is low, which hampers their implementation. Regional cooperation efforts are scattered and would benefit from

coordination. Persistent market distortions and substantial financing and technology gaps across the region limit the shift towards more climate-friendly development models, especially in the area of renewable energies and energy efficiency. In addition, public participation, the involvement of the private and finance sectors, and the capacity to benefit from international funding mechanisms need to be fostered.

Adapting to climate change is as important as addressing its root causes. The Mediterranean countries need to identify and develop a regional approach to climate change adaptation, with common regional priorities in order to increase the resilience of the Mediterranean to climate change. This is the main purpose of the Strategic Framework for Adaptation to Climate Change in the Mediterranean Marine and Coastal Zones, which is currently being developed by UNEP/MAP. This framework will assist stakeholders and policy makers at all levels across the Mediterranean in order to: (i) promote the right enabling environment for mainstreaming adaptation in national and local planning, (ii) promote and exchange best practices and low-regret measures, (iii) promote leveraging of necessary funding, and (iv) exchange and access best available data, knowledge, assessments and tools for effective and informed decision making on adaptation.

The Mediterranean region is at a crossroads with regard to climate change and development. If left unaddressed, climate change will pose a serious risk to economic growth and may jeopardize achievement of the Sustainable Development Goals in most Mediterranean countries. Climate change is no longer considered an environmental or scientific issue but rather a developmental challenge that requires urgent and dynamic policy and technical responses at the regional, national and local levels. Adaptation is not only about responding directly to the impacts of climate change but also about addressing wider sources of existing vulnerabilities. Mitigation is not only about avoiding dangerous climate change but also an opportunity to re-orientate the way natural resources are used, in more sustainable directions.

Climate change policies need to be based on sound scientific knowledge and data, coupled with awareness raising and technical capacities to ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems (Strategic direction 4.1). At a national level, the Strategy focuses on the strengthening of monitoring systems and the establishment of innovative communication programmes with the cooperation of academic institutions, centres of excellence and national and intergovernmental institutions, and also through dedicated education programmes and sensitization campaigns. It also emphasizes assessment and enhancing the climate change adaptation capacity of ecosystems such as coasts and wetlands, as well as their mitigation services, as in the case of forests and marine areas - considering that these actions are often already available without the need for upfront investment. At a regional level, the Strategy promotes a Mediterranean research agenda to be implemented through synergies, data sharing and harmonization, and regional level education through various schemes such as massive open online course (MOOC) programmes on Mediterranean climate change issues. This section contains also a regional action for enhancing regional capacities for climate change monitoring and analysis through multi-country data-sharing agreements and integration of existing climate observation and early warning systems. This calls for the promotion of harmonised indicators and tools for climate change vulnerability and mitigation assessments such as climate risk analysis and adaptation planning under uncertainty, disaster risk management, climate change economic costs, as well as monitoring, reporting and verification of emissions/reductions in greenhouse gases. A flagship initiative focuses on the establishment of a regional science-policy interface mechanism, including the social and behavioural sciences, endorsed by all the Contracting Parties to the Barcelona Convention, with a view to preparing consolidated regional scientific assessments and guidance on climate change trends, impacts and adaptation and mitigation options.

Strategic direction 4.1: Increase scientific knowledge, raise awareness, and develop technical capacities to deal with climate change and ensure informed decision-making at all levels, recognising and protecting the climate adaptation and mitigation services of natural ecosystems			
Actions	**Owners**	**Time frame**	**Indicators**
National			
4.1.1. Upgrade, sustain and expand climate, weather and water monitoring systems.	National governments, government specialized agencies, regional and global institutions, academia	2016-2022	Climate, weather and water monitoring systems in place and operational
4.1.2. Assess and communicate, protect and enhance the climate change adaptation capacity of ecosystems such as coasts and wetlands, as well as their mitigation services, as in the case of forests and marine areas.	National governments, government specialized agencies, regional and global institutions, academia	2016-2022	
4.1.3. Establish national climate clearinghouses to ensure that the relevant knowledge, data and information reach the various types of stakeholders.	National governments, academia, regional and global institutions, private sector	2016-2020	Number of countries with national climate clearinghouses set up
4.1.4. Raise public awareness through environmental education campaigns and ensure climate change is mainstreamed in the formal educational curricula, including through dedicated courses.	National, regional and local governments, regional and global institutions, academia, civil society	Ongoing	Number of countries with environmental education campaigns and courses set up Number of countries where climate change is mainstreamed into educational curricula
Regional			
4.1.5. Promote a Mediterranean research agenda on climate change by encouraging collaborative programmes and networking amongst regional research centres and universities.	Regional and global institutions, academia, governmental research centres, civil society	Ongoing	Number of collaborative initiatives at the regional and sub-regional levels
4.1.6. Enhance regional capacities for climate change monitoring and analysis through multi-country data-sharing agreements and integration of existing climate observation and early warning systems.	Regional and global institutions, academia, governmental research centres, civil society	2016-2022	Number of multi-country data-sharing agreements Number of countries with climate observation and early warning systems

4.1.7. Promote harmonised indicators and tools for climate change vulnerability and mitigation assessments, including climate risk analysis and adaptation planning under uncertainty, disaster risk management, climate change economic costs as well as monitoring, reporting and verification of emissions/reductions in greenhouse gases.	Regional and global institutions, academia, specialized governmental agencies, civil society	2016-2020	Number of harmonised indicators and tools for climate change vulnerability and mitigation assessments Number of collaborative workshops, and capacity building activities on indicators and harmonisation
4.1.8. Establish regional courses and diplomas; promote cutting-edge e-learning and massive open online course (MOOC) programmes on Mediterranean climate change issues.	Regional and global institutions, academic networks, specialized governmental agencies, civil society	2016-2020	Number of e-learning and massive open online course (MOOC) programmes on climate change
Flagship initiative			
4.1.9. Establish a regional science-policy interface mechanism, including the social and behavioural sciences, endorsed by all the Contracting Parties to the Barcelona Convention, with a view to preparing consolidated regional scientific assessments and guidance on climate change trends, impacts and adaptation and mitigation options.	Regional and global institutions, academic networks, specialized governmental agencies, civil society	2016-2020	Status of Mediterranean regional scientific assessment and guidance on climate change trends, impacts and adaptation and mitigation options

Strategic direction 4.2 seeks acceleration in the uptake of climate-smart and climate-resilient responses that can assist in addressing climate change issues. At a national level, a key action to be undertaken is the designing, financing and implementation of national technology investment plans for climate change. The Strategy, at the Mediterranean level, calls for climate change adaptation and mitigation knowledge-sharing platforms and support mechanisms aiming at fostering collaborative R&D and innovation programmes between universities, governments and businesses, including start-ups and SMEs. This calls for the utilisation of existing structures within the MAP system to promote the dissemination of regional climate knowledge, also hosting a web-based regional climate change clearinghouse mechanism that will contain information on climate change monitoring, research, practical tools and projects. A regional action focuses on the creation of a Mediterranean Climate Technology Initiative, taking advantage of such existing initiatives at the global, European and national levels.

Strategic direction 4.2: Accelerate the uptake of climate-smart and climate-resilient responses			
Actions	**Owners**	**Time frame**	**Indicators**
National			
4.2.1. Design, finance and implement national technology investment plans for climate change.	National governments, regional and global institutions, private sector	2016-2020	Number of countries with national technology investment plans in place
Regional			
4.2.2. Develop regional climate change adaptation and mitigation knowledge-sharing platforms and support mechanisms aiming at fostering collaborative R&D and innovation	Regional and global institutions, academia, civil society, private sector	2016-2020	Number of regional climate change adaptation and mitigation knowledge-sharing platforms and support mechanisms aimed at

programmes between universities, governments and businesses, including start-ups and SMEs.			fostering collaborative R&D and innovation programmes set up
4.2.3. Create climate change specific funding lines on innovation open to southern and eastern Mediterranean countries under large-scale international programmes (e.g. European Union Horizon 2020, Climate KIC).	Regional and global institutions, national governments, private sector, civil society	2016-2020	Number of funding lines on climate change innovation open to southern and eastern Mediterranean countries
4.2.4. Utilize existing structures within the MAP system to promote the dissemination of regional climate knowledge, also hosting a web-based regional climate change clearinghouse mechanism that will contain information on climate change monitoring, research, practical tools and projects.	Regional and global institutions, civil society	2016-2020	Status of project disseminating regional climate knowledge
4.2.5. Launch a Mediterranean Climate Technology Initiative in conjunction with the European Union Climate KIC, UNFCCC CTI platform, and Climate Innovation Centre in Morocco (World Bank).	Regional and global institutions, civil society	2016-2020	Status of the Mediterranean Climate Technology Initiative

Strategic direction 4.3 focusses on the leverage of existing and emerging climate finance mechanisms, including international and domestic instruments, and on enhancing the engagement of the private and finance sectors. Financing in support of climate change will be mobilised through various instruments including pricing, targeted subsidies, national funds, eco-taxes, concessional interest rates, and others as appropriate, at the national level, while encouraging the shift of public and private spending and consumption habits towards green and climate-friendly practices, processes and products. Conducive legal frameworks are also required. At a regional level, the focus is on assisting countries to strengthen institutional and technical capacities to improve access to international climate funding mechanisms, including non-conventional and innovative funding, and ensure effective delivery of funds. As a flagship initiative, a Mediterranean investment facility is proposed, in collaboration with regional and international political and financial institutions and instruments (such as the Clean Development Mechanism, the Green Climate Fund, and the Global Environment Facility), will support national and regional actions.

Strategic direction 4.3: Leverage existing and emerging climate finance mechanisms, including international and domestic instruments, and enhance the engagement of the private and finance sectors			
Actions	**Owners**	**Time frame**	**Indicators**
National			
4.3.1. Set up suitable domestic financial instruments to finance the costs of adaptation and mitigation efforts at national level while encouraging climate -friendly investment.	National and local governments, private sector	2016-2020	Number of countries using financial instruments to finance the costs of adaptation and mitigation
4.3.2. Establish conducive legal frameworks for leveraging private sector investments and developing partnerships between public and private actors in the delivery of climate change actions.	National governments, civil society, private sector	2016-2020	Number of countries establishing conducive legal frameworks for leveraging public private partnerships on climate change

Regional			
4.3.3. Assist countries as well as relevant international organisations to strengthen institutional and technical capacities to improve access to international climate funding mechanisms, including non-conventional and innovative funding, and ensure effective delivery of funds.	Regional institutions, national governments, civil society	2016-2020	Regional share within international mechanisms (Carbon finance, Green Climate Fund, Global Environment Facility, etc.)
Flagship initiative			
4.3.4. Create a climate change Mediterranean investment facility bringing together European Union, international financial institutions, development banks and bilateral donor agencies.	International funding institutes, donors	2016-2025	Number of donors who participate in the Mediterranean climate change investment facility

Strategic direction 4.4 addresses mainstreaming climate change at the legislative and policy levels. It provides a particular focus on measures concerning energy and transport, and delivering sustainable no/low regret adaptation measures across all vulnerable sectors such as coastal and urban development, water management, agriculture, health, and tourism. In particular, the inclusion of climate measures into coastal policies and plans is highlighted. With respect to energy, the Strategy seeks to mainstream climate change through scaling up investments in energy efficiency and renewable energy, promoting universal energy access, reforming energy subsidies and ensuring that energy projects are assessed for their climate impact. Coordination mechanisms will be reinforced and the effective involvement of local authorities in planning and implementation will be enhanced. The strategy calls at the regional level for enhancing national structures and strengthening the implementation of commitments under the United Nations Framework Convention on Climate Change (UNFCCC), as well as implementing high-level regional initiatives including the UNEP/MAP Regional Climate Change Adaptation Framework, and other regional initiatives. The national efforts will be supported by a regional climate change knowledge and innovation centre contributing also to the regional coordination and cooperation. A target associated with this strategic direction is to double the regional rate of improvement in energy efficiency by 2030.

Strategic direction 4.4: Encourage institutional, policy and legal reforms for the effective mainstreaming of climate change responses into national and local development frameworks, particularly in the energy sector Then the new action			
Actions	**Owners**	**Time frame**	**Indicators**
National			
4.4.1. Mainstream climate change into national legislation and policies with a focus on measures concerning energy and transport and on delivering no/low regret adaptation measures across all vulnerable sectors, and coastal areas via integration of climate change measures into coastal policies and plans.	National and local governments, civil society, private sector	2016-2018	Status of updated policies and programmes in sensitive sectors and territories fully addressing climate change
4.4.2. Mainstream climate change in the energy sector through scaling up investments in energy efficiency and renewable energy, promoting universal energy access and reforming energy subsidies and ensuring that energy projects are assessed for their climate impact.	National and local governments, civil society, private sector	2016-2018	Percentage decrease in regional greenhouse gas emissions Trends in energy consumption per country Number of countries where climate impact assessment for large-scale energy projects is carried out

4.4.3. Establish designated climate change coordination mechanisms or utilize existing mechanisms within countries involving all relevant stakeholders.	National and local governments, regional and international organizations, academia, civil society, private sector	2016-2018	Number of countries with participatory national coordination mechanisms on climate change in place
4.4.4. Enhance the leadership and capacity of local authorities addressing climate change issues, through twinning and capacity-building programmes and greater access to climate finance.	National and local governments, regional and international organizations, academia, civil society, private sector	2016-2020	Number of countries with leadership and local capacity development programmes addressing climate change issues
4.4.5. Implement and monitor commitments and obligations under the new UNFCCC climate agreement and its future implementation mechanisms.	National and local governments, civil society	2016-onwards	Status of implementation of the commitments and obligations under the new UNFCCC climate agreement
4.4.6. Implement high-level regional initiatives, including the UNEP/MAP Regional Climate Change Adaptation Framework, and other regional initiatives as appropriate.	Regional and international organizations, national and local governments, academia, civil society	2016-2020	Status of implementation of relevant regional climate change strategies and policies
Regional			
4.4.7. Provide policy tools and guidance through the climate change knowledge and innovation centre for enhancing national governance, legal and investment frameworks in terms of climate change strategies and action plans and regional coordination and cooperation.	Regional and international organisations, national governments	2016-2025	Status of project providing policy tools and guidance through the climate change knowledge and innovation centre
4.4.8. Mobilize resources and support for the development of trans-Mediterranean power grids for efficient utilization of renewable energy sources in the region, including solar energy.	Regional institutions, national and local governments, private sector	2018-onwards	Status of initiative towards the development of trans-Mediterranean renewable energy power grids

Objective 5: Transition towards a green and blue economy

Despite being a relatively new concept launched by UNEP, the green economy[25] in the context of sustainable development and poverty eradication has attracted much attention from the international community at a time when the financial crisis is seriously affecting socio-economic development. A green economy – called blue economy when applied to the coastal, marine and maritime sectors of the Mediterranean[26] – is one that promotes sustainable development whilst improving human well-being and social equity, and significantly reducing environmental risks and ecological scarcities. In other words, a green economy promotes resilient, low-carbon, resource-efficient and socially-inclusive economic development.

A Mediterranean green and blue economy will generate sustainable development and employment through public and private investments, while reducing carbon emissions and pollution, enhancing energy and resource efficiency and preventing the loss of biodiversity and ecosystem services. The related green investments would be catalysed by targeted public and private expenditure, innovative policy and regulatory changes, awareness, training and research initiatives, innovation and the uptake of new technologies and processes, progressive tax and job reforms, the promotion of sustainable consumption and production patterns in general, as well as by increasing the role of social enterprises. This green development path would maintain, enhance and, where necessary, rebuild natural capital as a critical economic asset and a source of public benefits, especially for people whose livelihoods and security depend heavily on nature. Indeed, the Arab Forum for Environment and Development, in advocating a development model rooted in a green economy as a sound foundation for addressing the shortcomings of Arab economies, also emphasises the efficient use and deployment of natural assets to diversify the economy, which in turn provides immunity against the volatilities and recessionary pressures of the global economy.

This objective is crucial for the achievement of Strategy's vision. Besides being about renewable energy, waste management, and sustainable consumption and production, the green economy concept draws on new and emerging paradigms such as the circular economy, the collaborative economy and the functional economy. These new paradigms are likely to illuminate the paths for the necessary decoupling between prosperity and use of resources, and to provide credible responses to the sustainability challenges being faced today. In addition, through its first objective on coastal and marine areas, the Strategy promotes the blue economy concept through strong partnership between maritime sectors and public authorities in regard to the sustainable and equitable use of marine and coastal areas and resources.

The green economy explicitly includes the objectives of job creation and social inclusion, in order to promote a more healthy and just society. In this context, the social economy, including cooperatives and the voluntary sector, has an important role to play in the green economy. In addition, the active participation of all relevant stakeholders in the necessary transition would be guaranteed in an efficient, consistent and transparent manner, engaging with local communities and respecting cultural contexts. The link with the Strategy's sixth objective on Governance, another cross-cutting objective, is therefore fundamental in facilitating the transition to the green economy. Making the transition to green development will not be a one-time event. Rather, it must be viewed as a long and demanding process guided both by top-down policy prescription as well as bottom-up public participation. This approach will give the ecological transition the political and social legitimacy needed to ensure the wide-scale mobilization of efforts required.

Addressing socio-economic inequalities between and within countries, owing partly to the high unemployment rate, is a key concern for the green economy. The creation of green and fair jobs for all is therefore critical, in particular for youth and women (strategic direction 5.1). New jobs would be gender-inclusive and provide social solidarity mechanism to workers. The Strategy includes an action to strengthen the role of green jobs in eradicating poverty and enhancing social inclusion through skills

assessment and gap analysis for green jobs, which will help develop tailored capacity-development programmes. At an international level, the compilation and dissemination of best practice guidelines, including harmonised regional definitions, to promote the growth in green jobs and green and social entrepreneurship is envisaged.

Strategic direction 5.1: Create green and decent jobs for all, particularly youth and women, to eradicate poverty and enhance social inclusion			
Actions	Owners	Time frame	Indicators
National			
5.1.1. Undertake a skills assessment and gap analysis, monitor and forecast demand for green jobs to strengthen the role of green jobs in eradicating poverty and enhancing social inclusion.	National and local governments, civil society, private sector	2016-2018	Number of countries undertaking skills assessment and gap analysis on green jobs Number of countries with administrative processes in place for monitoring and forecasting green job demand
5.1.2. Develop training and capacity building programmes for green skills and green jobs, particularly for youth and women.	National and local governments, regional institutions, civil society, private sector, academia	2016-2020	Number of countries with training and capacity building programmes for green jobs
5.1.3. Raise awareness, particularly among decision-makers, about the potential of the green economy transition to promote resilient, low-carbon, resource-efficient and socially-inclusive economic development.	National and local governments, regional institutions, civil society, private sector, academia	2016-2020	Status of projects
Regional actions			
5.1.4. Compile and disseminate best practice guidelines, including harmonised regional definitions, to promote the growth in green jobs and green and social entrepreneurship.	Regional institutions, national, governments, specialised agencies	2016-2020	Status of guidelines and number of related dissemination activities carried out

It has been widely recognized that the standard economic indicators, such as gross domestic product, do not give a full picture of the socioeconomic development of a country and could lead to misinterpretations. New indicators and indices that incorporate environmental and social criteria of progress, such as the Index of Sustainable Economic Welfare and the Human Development Index, will be utilised to support decision-making processes (strategic direction 5.2). A regional open database covering societal progress and well-being, including integrated environmental and economic accounting, and data on the environmental goods and services sector, as well as state of the environment assessments, will complement national efforts.

Strategic direction 5.2: Review the definitions and measurement of development, progress and well-being			
Actions	Owners	Time frame	Indicators
National			
5.2.1. Embed indicators that are more inclusive of environmental and social aspects of progress, including resource efficiency indicators that take into account national specificities, within statistics databases and environmental assessments.	National governments, academia, civil society, private sector	2016-2020	Number of countries where indicators that are more inclusive of environmental and social aspects of progress are included in the national statistics databases
Regional			
5.2.2. Identify, collect and share in an open database alternative statistics and indicators on societal progress and well-being, including integrated environmental and economic accounting and data on the environmental goods and services sector.	Regional institutions, national and local governments, civil society, academia	2016-2020	Status of open database with alternative statistics and indicators on societal progress and well-being

Fundamental changes in the way societies consume and produce are indispensable for achieving global sustainable development. Therefore the Strategy is complemented by the Sustainable Consumption and Production Regional Action Plan for the Mediterranean, which is currently under preparation. The draft Action Plan highlights four priority areas of consumption and production, namely food, agriculture and fisheries; goods manufacturing; tourism; and, housing and construction. In the priority area of food, agriculture and fisheries, operational objectives are provided on: the promotion of best environmental practices, technologies and innovation in growing and harvesting; policy and legal frameworks to promote sustainable agriculture, fisheries and food production and consumption; the education of food producers, retailers and consumers; and support to the development of appropriate market tools and information to promote sustainability. In the priority area of goods manufacturing, operational objectives are provided on: the integration of best available technologies and practices throughout the value chain of goods production; integrated policy-making and legal framework to promote sustainable consumption, production and recovery, to move towards a circular economy; and, raising awareness of consumers and stakeholders and supporting the development of market structures, increasing the visibility and market share of sustainable and alternative goods and services.

With respect to tourism, the draft Action Plan provides operational objectives addressing: practices and solutions for efficient use of natural resources and reducing the environmental impacts of tourism, respecting the carrying capacities of the destination; regulatory, legislative and financial measures to mainstream sustainable consumption and production in tourism to reduce tourism seasonality and promote local community engagement and empowerment; and, awareness, capacities and skills to support sustainable destinations and green tourism services, and marketing schemes for a competitive and sustainable Mediterranean tourism sector. Finally, for the priority area on housing and construction, the draft Action Plan provides operational objectives on the following topics: innovation, knowledge and integration of best available technologies and environmental practices for achieving resource efficiency throughout the life cycle of a building; regulatory and legal frameworks to enhance the contribution of housing and construction to sustainable development, social integration and cohesion; and, awareness-raising and capacity-building with stakeholders in urban planning, housing and construction to mainstream sustainable urban development. Implementation of the action plan, thus the strategic direction 5.3, will be secured through awareness raising programmes on sustainable lifestyles targeting the wider public. Regional capacity building to support countries in implementing the Action Plan is also envisaged.

Strategic direction 5.3: Promote sustainable consumption and production patterns			
Actions	**Owners**	**Time frame**	**Indicators**
National			
5.3.1. Implement the Sustainable Consumption and Production Regional Action Plan for the Mediterranean.	National and local governments, civil society, private sector, academia	2016 - 2025	Status of implementation of the Sustainable Consumption and Production Regional Action Plan
5.3.2. Undertake awareness-raising programmes on sustainable lifestyles for promoting sustainable behaviour.	National and local governments, civil society	2016-onwards	Number of countries with awareness-raising programmes on sustainable lifestyles
Regional			
5.3.3. Carry out capacity building programme to support countries in implementing the Sustainable Consumption and Production Regional Action Plan for the Mediterranean.	UNEP/MAP	Ongoing	Status of capacity-building programme on the implementation of the Sustainable Consumption and Production Regional Action Plan for the Mediterranean

A large part of the pollution in the Mediterranean is due to inefficient industrial processes and poor management of waste. Apart from harming the environment and health, it also jeopardizes the competitiveness and long-term sustainability of industries. In strategic direction 5.4, the Strategy promotes resource efficiency and eco-innovation as critical tools to allow businesses and economies to be more productive, while reducing cost, waste and use of raw materials. Creating and connecting green and social incubators and training programmes, including through partnerships between universities, businesses and research centres at national and regional scales is also necessary. At a regional level, a Mediterranean network of green and social incubators and training programmes is envisaged. A flagship initiative to create a Mediterranean business award for environmental innovation is also included.

Strategic direction 5.4: Encourage environmentally-friendly and social innovation			
Actions	**Owners**	**Time frame**	**Indicators**
National			
5.4.1. Increase capacity for eco-innovation in the industry and service sectors, through regulatory measures and economic incentives, including to promote market uptake.	National governments, civil society, academia, private sector	Ongoing	Number of countries with regulatory measures and financial incentives supporting eco-innovation in the industry and service sectors Number of countries with programmes to support the market share of green products
5.4.2. Support networks of "eco-incubators" and clusters for green and social businesses and entrepreneurs	National and local governments, civil society, private sector	2016-2020	Number of countries with networks of "eco-incubators" and clusters for green and social businesses and entrepreneurs
5.4.3. Promote and support collaborative partnerships between universities, businesses and research centres.	National and local governments, civil society, academia, private sector	Ongoing	Number of countries with collaborative partnerships between universities, businesses and research centres in place

Regional			
5.4.4. Create a Mediterranean network of green and social incubators and training programmes.	Regional institutions, national and local governments, civil society, private sector	2018-2020	Status of Mediterranean network of green and social incubators and training programmes
Flagship initiative			
5.4.5. Create a Mediterranean business award for environmental innovation.	Regional institutions, national governments	2016-2020	Business award created

Misallocation of capital contributes to the development of inefficient, underused and environmentally-harmful infrastructure. The Strategy promotes the integration of sustainability principles and criteria into decision-making on public and private investment (strategic direction 5.5) through the provision of tools and guidelines. This is linked to strategic direction 1.2 under the marine and coastal areas objective. The integration of sustainability principles into public procurement at national and local levels and promoting key instruments such as eco-design criteria and the environmental certification of products and services are also envisaged. At a regional level, capacity-building is required, in addition to improved dialogue with international donors will secure the mainstreaming of economic and social criteria in investments. A target associated with this strategic direction is for the majority of Mediterranean countries to commit to green or sustainable public procurement programmes by 2025.

Strategic direction 5.5: Promote the integration of sustainability principles and criteria into decision-making on public and private investment			
Actions	**Owners**	**Time frame**	**Indicators**
National			
5.5.1. Raise the awareness of financial actors on the economic risks arising due to lack of environmental and social impact assessments, encouraging them to mainstream such assessments through the provision of tools and guidelines.	National governments, private sector, civil society	2016-2020	Number of countries with awareness initiatives on the economic risks arising due to lack of environmental and social impact assessments
5.5.2. Promote eco-design criteria and environmental certification of products and services.	National governments, academia, private sector	Ongoing	Number of countries promoting eco-design criteria and environmental certification of products and services
Regional			
5.5.3. Build capacity of national agencies on sustainable investment and corporate social responsibility, including corporate environmental responsibility.	International institutions, national governments and agencies, private sector	2016-2020	Status of capacity building programmes for national agencies on sustainable investment and corporate social responsibility
5.5.4. Initiate or strengthen dialogue with international funding institutions with a view to obtaining a commitment regarding the use of environmental and social criteria for investments.	International institutions, national governments, private sector	Ongoing	Status of dialogue with international funding institutions on the use of environmental and social criteria for investments

Environmental and social externalities are often not sufficiently addressed by markets and policies, creating misleading price signals and incentives for business-as-usual practices linked to a high-carbon economy. Within the framework of existing global initiatives, the Strategy promotes a greener and more inclusive market in the region (strategic direction 5.6) by integrating the polluter-pays principle, extended producer responsibility and payment for ecosystem services based on economic valuation,. The Strategy also includes an action to carry out reviews on the environmental impacts of public subsidies with a view to the phasing out of environmentally-harmful subsidies. At a regional level, capacity building in market instruments is envisaged, as well as an action to promote trade cooperation between countries, with a focus on moving towards more upmarket goods and services and sharing added value.

Strategic direction 5.6: Ensure a greener and more inclusive market that integrates the true environmental and social cost of products and services to reduce social and environmental externalities			
Actions	**Owners**	**Time frame**	**Indicators**
National			
5.6.1. Promote environmental tax reform to reduce tax on labour and integrate the polluter-pays principle and extended producer responsibility into finance policy.	National governments	2016-2020	Number of countries undertaking environmental tax reform
5.6.2. Carry out reviews on the environmental impacts of public subsidies with a view to the phasing out of environmentally-harmful subsidies.	National and local governments	2016-2025	Share of sustainable public procurement
Regional			
5.6.3. Provide assistance to countries interested in integrating the polluter-pays principle, extended producer responsibility and payments for ecosystem services into national finance policies.	International institutions, national governments, private sector	Ongoing	Status of advisory programme on integrating the polluter pays principle and extended producer responsibility into national finance policies
5.6.4. Promote trade cooperation between countries, to contribute towards sustainable and more inclusive economic development and job creation, with a focus on moving towards more upmarket goods and services and sharing added value.	International institutions, national governments, private sector	ongoing	Number of "green" companies identified in the Mediterranean coproduction Observatory.
Flagship initiative			
5.6.5. Integrate sustainability principles into public procurement at national and local levels.	National and local governments	2016-2025	Share of green or sustainable public procurement

Objective 6: Improving governance in support of sustainable development

Governance is a cross-cutting objective, relevant to each of the other objectives of the Strategy. This objective focuses on improving environmental governance at a national level, while aspects of governance related to the implementation of the Strategy are addressed in Chapter 3. Governance is characterized by the inclusion of non-state actors in the decision-making process, such as civil society, private corporations, and international organizations. This also involves new forms of cooperation arrangements, either at a national or a transnational level, such as public-private partnerships. Consequently there is multi-level governance, vertically, with increased decentralization of authority at all levels of government, and also multi-polar governance, horizontally, with different parallel yet interlinked rule-making systems. This extends to putting in place multi-stakeholder processes for monitoring policy implementation.

Governance issues in the Mediterranean region range from endangered peace in the region, to inequalities among and within countries and weak public engagement, involvement and participation. Challenges for environmental governance include horizontal and vertical (due to lack of subsidiarity) fragmentation of responsibility for the environmental dossier, insufficient, uncoordinated and non-results-based planning, management and implementation, as well as weak human and financial resources in the public sector, particularly at the local level. Finally, inadequate awareness and education, research and innovation, and sharing of knowledge and information, are also environmental governance challenges faced in Mediterranean countries.

Effective governance requires that participation in decision-making and cooperation to ensure social justice considerations are taken into account need to be strengthened and more sustainable development opportunities to address inequalities should be found. It has to be flexible and adaptive and devise new forms of institutions based on discussion and participation, as well as innovative legal conceptions and constructive practices directly related to sustainability governance, taking also into account the new digital world and the opportunities it offers. Finally, wide variations in the development models of Mediterranean countries do not allow a "one policy for all" approach and therefore emphasis needs to be placed on their specific needs and contexts. Fragmentation of responsibility needs to be addressed through increased policy integration and coordination. Horizontal institutional reforms including, inter alia, legal, administrative and taxation reforms (such as green national accounting, green tax reform) and efforts to fight corruption, are some of the approaches to be considered. The science-policy-governance interface should also be expanded to provide better information for decision makers and the public.

The strategic direction 6.1 addresses enhanced regional, sub-regional and cross-border dialogue, cooperation, and networking processes, including emergency-preparedness mechanisms. The Strategy focuses, at a national level, on preparedness / prevention plans and alert systems in case of disasters, as well as adaptive actions. At a regional level, an action to strengthen regional dialogue through cooperation and networking, including on emergency-preparedness is included, along with an action to strengthen regional and sub-regional dialogue and cooperation to better understand the relationship between environmentally-sustainable development and the challenges and opportunities related to population flows.

Strategic direction 6.1: Enhance regional, sub-regional and cross-border dialogue and cooperation, including on emergency-preparedness			
Actions	Owners	Time frame	Indicators
National			
6.1.1. Strengthen preparedness / prevention and cooperation plans and alert mechanisms in case of (natural and human-made) disasters, as well as adaptive actions.	National and local governments, civil society	Ongoing	Number of countries implementing alert mechanisms for preparedness/prevention and cooperation measures

Regional			
6.1.2. Strengthen regional and sub-regional dialogue, cooperation and networking processes, including on emergency-preparedness.	National governments, International institutions, civil society	Ongoing	Progress of key international cooperation initiatives Status of cooperation plans optimizing environmental surveillance of the Mediterranean Sea
6.1.3. Strengthen regional and sub-regional dialogue and cooperation in order to better understand the relationship between environmentally-sustainable development and the challenges and opportunities related to population flows.	International institutions, national governments, local authorities, academia, civil society	2018-2025	Status of dialogue programme aimed at better understanding the relationship between environmentally-sustainable development and challenges and opportunities related to population flows

The Strategy promotes the engagement of civil society, scientists, local communities and other stakeholders in the governance process at all levels, in order to secure inclusive processes and integrity in decision-making (strategic direction 6.2). Public participation is particularly important at the local level, which is the level of government closest to the people, and the level of decision-making where many environment-related decisions are taken. Increased public participation is to be achieved through support for national and local governments and institutions by means of improved legal frameworks and human and financial resources, and is to include skills related to partnership- building, negotiation and conflict resolution. The Strategy also envisages support for and strengthening of the organizational capacity of local, national and regional stakeholders, including voluntary organizations, cooperatives, associations, networks, and producer groups, in terms of legal frameworks and human and financial resources. This will contribute to better decision-making, implementation of policies, plans and projects, and monitoring. At a regional level, accession to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters[27] (Aarhus Convention) is encouraged. A target associated with this strategic direction is that by 2025, two-thirds of Mediterranean countries will have acceded to the Aarhus Convention.

Strategic direction 6.2: Promote the engagement of civil society, scientists, local communities and other stakeholders in the governance process at all levels, in order to secure inclusive processes and integrity in decision-making			
Actions	**Owners**	**Time frame**	**Indicators**
National			
6.2.1. Set up where relevant, and strengthen the capacity of national and local governments for public participation in terms of legal frameworks and human and financial resources.	International institutions, national and local governments, academia, civil society	Ongoing	Number of countries with legal provisions in place for public participation in decision-making that affects the environment
6.2.2. Support and strengthen the organizational capacity of local, national and regional stakeholders in terms of legal frameworks and human and financial resources.	International institutions, national and local governments	2016-2020	Number of countries with legal frameworks in place for regulating voluntary organisations
Flagship initiative			
6.2.3. Encourage the adoption and implementation of the Aarhus Convention on Public Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters in the region.	International institutions, national and local governments, civil society	2016-2020	Number of countries adopting the Aarhus Convention

The Strategy promotes implementation and compliance with environmental obligations and agreements to guide actions at national and regional levels (strategic direction 6.3). It highlights the importance of ensuring policy coherence, based on mechanisms for inter-ministerial coordination and cross-sectoral planning The Strategy promotes the implementation of the precautionary principle through instruments such as environmental impact assessments and strategic environmental assessments. It encourages the support, through legal provisions where relevant, of partnerships in planning and implementation, including but not limited to private sector involvement, public-private partnerships, and innovative financing at regional and/or local level. A flagship initiative is included to develop capacity-building programmes on issues related to implementation and compliance with environmental obligations and agreements, including environmental impact assessments and strategic environmental assessments.

Strategic direction 6.3: Promote implementation and compliance with environmental obligations and agreements including through policy coherence based on inter-ministerial coordination			
Actions	Owners	Time frame	Indicators
National			
6.3.1. Ensure ratification, compliance and implementation of global and regional agreements related to environmental sustainability, to guide actions at national and regional levels.	International institutions, national and local governments, academia, civil society	Ongoing 2016-2020	Regional and global agreements related to environmental sustainability adopted by countries
6.3.2. Ensure the adoption of the precautionary principle and its application by undertaking environmental impact assessments, strategic environmental assessments and other relevant procedures.	National and local governments, academia, civil society, private sector	2016-2025	Number of countries with application of environmental integrated assessment and strategic environmental assessment in development policies
6.3.3. Enhance policy coherence through inter-ministerial coordination and cross-sectoral planning.	National and local governments, civil society	2016-2025	Number of countries with inter-ministerial coordination mechanisms
6.3.4. Encourage and support, through legal provisions where relevant, partnerships in planning and implementation, including but not limited to private sector involvement, public-private partnerships, and innovative financing at regional and/or local level.	International institutions, national and local governments, academia, civil society, private sector	2016-2025	Number of countries with partnership initiatives in planning and implementation at regional and/or local level
Flagship initiative			
6.3.5. Develop capacity building programmes on issues related to implementation and compliance with environmental obligations and agreements, including environmental impact assessments, strategic environmental assessments.	International institutions, national and local governments, academia, civil society, private sector	2016-2020	Number of countries where capacity development programmes developed on issues related to implementation and compliance with environmental obligations and agreements

The Strategy promotes education and research for sustainable development (strategic direction 6.4), in particular through the implementation of the Mediterranean Strategy on Education for Sustainable Development[28]. The aim of the latter Strategy is to encourage Mediterranean countries to develop and incorporate education for sustainable development into their formal education systems, in all relevant subjects, and in non-formal and informal education. The objectives of this Strategy focus on the following aspects of education for sustainable development: policy, legislation and other regulatory and operational support frameworks; promotion through formal, non-formal and informal learning;

equipping educators with the competence to include sustainable development in their teaching; accessible and adequate tools and materials; research and development; and, cooperation at all levels, including exchange of experience and technologies within the region.

The Mediterranean Strategy for Sustainable Development also includes an action to strengthen research capabilities in the area of sustainable development, as well as the science–policy interface. Protected area management is highlighted as a particular area where skills need to be upgraded. At a regional level, the Strategy underlines the value of large-scale programmes (e.g. European Union Horizon 2020) to promote sustainable development research and innovation, and the importance of encouraging and supporting partnerships amongst countries at the regional level and the exchange of good practices and knowledge in all aspects of education and learning for sustainable development.

Strategic direction 6.4: Promote education and research for sustainable development			
Actions	Owners	Time frame	Indicators
National			
6.4.1. Implement the Mediterranean Strategy on Education for Sustainable Development, which promotes the integration of the principles, values and practices of sustainable development into all aspects of education and learning.	Regional institutions, national and local governments, civil society, academia and educators	Ongoing	Status of implementation of the Strategy Number of countries that have launched national strategies on education for sustainable development
6.4.2. Strengthen knowledge and research capacity at national level, through long-term provision of training opportunities, particularly in the specialised professions, transfer of knowledge and research infrastructure development.	International institutions, national and local authorities, the educational and scientific communities, the private sector and civil society	2016-2025	Number of countries with such initiatives Percentage of GDP spend on research
6.4.3. Strengthen the science–policy interface, to support policymaking by scientific analysis and data, through research fora, seminars and other opportunities for exchange.	International institutions, national and local governments, local authorities, academia, civil society	Ongoing	Number of countries with science-policy dialogue processes
6.4.4. Provide professional and vocational training for protected area management.	International institutions, national and local governments, local authorities, academia, civil society	Ongoing	Number of countries providing professional and vocational training for protected area management
Regional			
6.4.5. Promote research and innovation by ensuring that large-scale programmes (e.g. European Union Horizon 2020) take on Mediterranean priorities for sustainable development.	International institutions, academia, civil society	2016-2025	Number of such programmes embedding Mediterranean priorities for sustainable development European Union Research and Innovation Funding allocated to research entities in Mediterranean countries Number of projects of total addressing Mediterranean issues

| 6.4.6. Encourage and support partnerships amongst countries at regional level and the exchange of good practices and knowledge in all aspects of education and learning for sustainable development. | National and local governments, academia | | Number of partnerships for the exchange of good practice on education for sustainable development |

Strategic direction 6.5 addresses regional capabilities for information management. In order to allow for appropriate knowledge-based decision- and policy-making, national information centres will be established, which will collect existing and new information. Joint knowledge-creation and knowledge-sharing initiatives with stakeholders, including the scientific community, the private sector and civil society are envisaged, which follow the European Union's Shared Environmental Information System principles on data-sharing. At a regional level, capacity-building on data and information production and sharing and the coordination of national monitoring programmes are included. A flagship initiative is also envisaged to establish a publicly-accessible Mediterranean integrated information system, through which synergy is established between national Governments, international institutions and the private sector, to collect and transparently display information on the state of the environment and the status of delivery on the Protocols to the Barcelona Convention. This will draw on data and support systems already in place, for example that supporting the implementation of Horizon 2020.

Strategic direction 6.5: Enhance regional capabilities for information management			
Actions	**Owners**	**Time frame**	**Indicators**
National			
6.5.1. Establish or strengthen support for data monitoring processes, including through survey information, as well as national centres providing integrated and publicly-accessible information.	National governments, regional institutions, civil society, private sector	Ongoing	Coverage of marine areas surveyed as per national obligations
6.5.2. Foster joint knowledge-creation and knowledge-sharing initiatives between stakeholders that respect the European Union's Shared Environmental Information System principles on data-sharing.	International institutions, national and local governments, academia, civil society	2016-2020	Number of countries with such initiatives
Regional			
6.5.3. Develop capacity on data and information production and sharing and enhance technology where necessary to create comparable and compatible data.	Regional institutions, national governments, academia	2018-2025	Cooperation and networking activities carried out
6.5.4. Coordinate national monitoring programmes at regional level, including through annual workshops.	Regional institutions, national governments	Ongoing	Cooperation, networking and joint monitoring activities carried out
Flagship initiative			
6.5.5. Establish a publicly-accessible Mediterranean integrated information system through a triumvirate of national Governments, international entities and the private sector to collate and transparently display information on the state of the environment.	UNEP/MAP and other regional institutions, national governments, civil society, academia, private sector	2018-2022	Status of integrated information system project

3. Ensure the implementation and monitoring of the Mediterranean Strategy for Sustainable Development

The implementation of the Mediterranean Strategy for Sustainable Development is a collective process. Although facilitated by the MAP system, it is the participation and active role of all stakeholders that will play a decisive role in its delivery of the Strategy.

The MAP system, which includes the UNEP/MAP Secretariat and the Regional Activity Centres, as well as the Mediterranean Commission for Sustainable Development, will provide leadership and guidance with respect to implementing the Strategy. Indeed the main UNEP/MAP action plans formulated with a view to implementing the Protocols to the Barcelona Convention as well as other key existing regional mechanisms and instruments are essential tools for the implementation of the Strategy (see list of essential tools for implementation in Box 2). In addition to these essential tools for implementation, the MAP system will provide support and technical guidance to the Contracting Parties to the Convention as well as the coordination of implementation actions and monitoring processes. In addition, the MAP system provides a platform for the exchange of relevant information, experience and synergies that can be developed at regional or sub-regional level.

The Mediterranean Commission for Sustainable Development is a key structure within MAP for supporting the development and implementation of the Strategy. As a central point of reference and bringing together the Contracting Parties and all stakeholders involved with sustainable development, it will work closely, supported by the UNEP/MAP Secretariat, with the relevant organizations for the effective implementation of the Strategy. For the Commission, the Strategy represents an organising framework for its work.

The Contracting Parties are invited to use the Strategy as a starting point for better integration of sustainable development into their national policies. The Strategy provides the Contracting Parties with tools to integrate sustainable development into their national policies and build horizontal synergies between different government sectors and vertical synergies between different levels of government, from local to central and vice-versa. That will allow for better coordination and integration of policies around the objective of sustainability.

Intergovernmental and regional and sub-regional institutions also have a very important role to play in the implementation of the Strategy. As mentioned in chapter 1, there are already a number of regional and sub-regional institutions with strategies and actions aimed at supporting sustainable development in the Mediterranean region, as well as addressing significant environmental challenges. Working in tandem with each other and with the MAP system, as well as facilitating synergies with Contracting Parties using the Strategy as a common platform, they can be critical for successful implementation. They will not only create an important critical mass of significant national and regional players working in a coordinated way towards sustainable development, but will also have a positive effect on using the limited human and financial resources needed for the implementation of joint activities more efficiently. For these partners, the Strategy represents a coherent and integrated set of priority strategic directions and actions that need to be implemented to achieve sustainable development in the region, in which their actions and objectives are placed within an overall framework for the region.

The private sector is a key partner for the implementation of the Strategy. As a key player in the emerging green economy, the private sector can be one of the strongest allies in the process of implementing the Mediterranean Strategy. This is not only through corporate social responsibility, but also through more sustainable consumption and production processes that are part of its core business, through the integration of innovative technologies, and through and improved upstream and downstream processes of the industrial, artisanal and marketing chains. This will also contribute towards the sustainability of its own operations. For the private sector, the Strategy provides an indication of issues, directions and actions that are to be implemented to further sustainable

development goals at regional, national and local level, and the type of discussions that are to be held within the context of sustainable development in the near future. This indication is of prime importance for business planning.

Box 2: Existing regional programmes and frameworks constituting essential tools for implementing the Mediterranean Strategy for Sustainable Development

> ➢ Integrated coastal zone management is recognised as the way forward for the sustainable development of coastal zones and is characterised by a distinctive integrated approach to providing solutions to the complex environmental, social, economic and institutional problems of the coastal zones. As indicated by Article 2 of the **Protocol on Integrated Coastal Zone Management for the Mediterranean** under the Barcelona Convention, "Integrated coastal zone management means a dynamic process for the sustainable management and use of coastal zones, taking into account at the same time the fragility of coastal ecosystems and landscapes, the diversity of activities and uses, their interactions, the maritime orientation of certain activities and uses and their impact on both the marine and land parts". The adoption of this Protocol is a fully achieved policy-objective of the initial Mediterranean Strategy for Sustainable Development (2005). Its implementation is supported by the Action Plan 2012-2019.
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> ➢ The Contracting Parties of the Barcelona Convention committed to apply the ecosystem-based approach – through the **Ecosystem Approach Roadmap** – to the management of human activities while enabling a sustainable use of marine goods and services, with the view to achieving or maintaining good environmental status of the Mediterranean Sea and its coastal regions, their protection and preservation, as well as preventing their subsequent deterioration. They recognize the ecosystem approach as an integrated operational approach for the successful implementation of the Barcelona Convention and its protocols while enhancing sustainable development in the region, as well as a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.
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> ➢ The **Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean** (entered into force in 1999) is implemented through the **Strategic Action Programme for the conservation of Biological diversity in the Mediterranean region** (adopted in 2003). In addition, the extension of the network of Specially Protected Areas of Mediterranean Importance and the adoption and implementation of a Regional Working Programme for the Coastal and Marine Protected Areas in the Mediterranean Sea represent important achievements for the region.
>
> ➢ **The Sustainable Consumption and Production Action Plan for the Mediterranean**, which is under preparation, aims at achieving the shift to sustainable patterns of consumption and production in priority economic sectors while addressing related environmental degradation challenges. It supports the implementation of Sustainable Consumption and Production actions at the regional level and identifies actions to guide the implementation of the Sustainable Consumption and Production at the national level, addressing key human activities which have a particular impact on the marine and coastal environment and related transversal and cross-cutting issues.
>
> ➢ The preparation and adoption by the Contracting Parties of the Barcelona Convention of a **Strategic Action Programme of regional and national activities to address land-based pollution** is one of the major breakthroughs in the Mediterranean countries' efforts to combat land-based pollution. This action-oriented initiative is implemented under the MED POL Programme - identifying priority target categories of polluting substances and activities to be eliminated or controlled by the Mediterranean countries through a planned timetable for the implementation of specific pollution reduction measures and interventions.
>
> ➢ Entered into force in 2014, the **Marine Litter Regional Plan** is the first Regional Plan on Marine Litter under a Regional Sea Convention. It presents measures and operational targets to achieve good environmental status and respective targets on marine litter; develop and implement appropriate policy, legal instruments and institutional arrangements, including solid waste and sewer system management plans which shall incorporate marine litter prevention and reduction measures; raise awareness by the development education programmes by the Contracting Parties; ensure institutional coordination and close coordination and collaboration between national regional and local authorities in the field of marine litter; mobilize the producers, manufacturer brand owners and first importers to be more

> responsible for the entire life-cycle of the product and also sustainable procurement policies contributing to the promotion of the consumption of recycled plastic-made products; and identify hotspots and implement national programmes to remove disposal in a sound manner regularly.

> ➢ The draft **Offshore Action Plan** includes priority actions and measures for the Contracting Parties to the Barcelona Convention and its Protocols to ratify the Offshore Protocol; designate Contracting Parties' Representatives to participate to the regional governing bodies; establish a technical cooperation and capacity building programme; establish a financial mechanism for the implementation of the Action Plan; promote access to information and public participation in decision-making; enhance the regional transfer of technology; develop and adopt regional offshore standards; develop and adopt regional offshore guidelines; establish regional offshore monitoring procedures and programmes; and, report on the implementation of the Action Plan.

> ➢ **The Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas,** which is under preparation, aims to increase the resilience of the Mediterranean marine and coastal areas to climate change through the development of a regional approach to climate change adaptation. Once adopted, the Framework will form the basis for the development of a detailed Regional Climate Change Adaptation Action Plan.

> ➢ **The action programmes of the Union for the Mediterranean:** On launching the Union, the heads of State and Government of Mediterranean countries agreed six priority areas of action, including depollution of the Mediterranean and alternative energies. At its Ministerial Meeting on Environment and Climate change (Athens, 2014), the Union for the Mediterranean affirmed its commitment to accelerate the shift towards sustainable consumption and production patterns and the transition to a green and low-emission economy, among others. The Horizon 2020 initiative aims to depollute the Mediterranean by 2020, by tackling the sources of pollution that account for around 80 per cent of the overall pollution of the Mediterranean: municipal waste, urban waste water and industrial pollution.

> ➢ Endorsed at the Ministerial Conference on Environment and Climate Change of the Union for the Mediterranean, the **Mediterranean Strategy on Education for Sustainable Development** encourages the Mediterranean countries to develop and incorporate education on sustainable development into their formal education systems, in all relevant subjects, and in non-formal and informal education. This will equip people with knowledge of and skills in sustainable development, making them more competent and confident and increasing their opportunities for acting for a healthy and productive life in harmony with nature and with concern for social values, gender equity and cultural diversity.

Science is key to success: all action and policy development at a national or regional level must rely on a strong evidence bases. The analytical tools that will allow the forecasting, planning and assessment of sustainable development-related impacts and actions need to be developed with the scientific community, which itself needs to direct its research capacity in support of policymaking. For these partners, the Strategy contains a series of sustainable development concerns that require assistance from science to understand.

Civil society has always been an important group of stakeholders in the Commission. In the implementation of the revised Strategy, its role becomes more pronounced: besides being a catalyst for supporting and monitoring the implementation process at a regional and national level, civil society can take up important tasks related to awareness and sensitization, as well as acting as the third pillar of democracy, along with decision makers and judicial entities, to ensure transparency and secure the participation of the people. For civil society, the Strategy contains a set of strategic directions that at once inform its work along with other partners, and provides fertile grounds for the development of projects.

Funding bodies are also key partners for the implementation of the Strategy. For these partners, the Strategy contains a set of widely-agreed regional objectives as well as strategic directions within these objectives, which will help such bodies to position and assess funding proposals aimed at advancing sustainable development in the region.

This final chapter of the Strategy addresses the implementation of the Strategy, focussing on three critical areas:

- institutional structures and processes for implementation,

- financing the strategy, and,

- monitoring mechanisms.

3.1. Institutional structures and processes for implementation

Putting in place adequate institutional structures is a key priority in providing for effective implementation of the Strategy. The existing management system for the Strategy implementation faces a number of challenges.

One of the major challenges for implementing sustainability strategies in any context is that of complexity: in the Mediterranean there is complexity both in terms of management scales (international, national and local), and in terms of the various competencies of the related international organizations. In addition, in the national context, complexity also arises from the need to coordinate the remits and competencies of the various ministries and regulators at various scales. While there are many established cooperation forums at the international level, cooperation between the various stakeholders, at multiple scales, is not always integrated in the processes and activities relevant for the implementation of the Strategy. Such a complex management system runs the risk of excessive simplification of activities and lack of harmonization of practical actions to apply sustainability principles. Efficient coordination and capacity building of relevant stakeholders is therefore an urgent requirement for implementation. As noted under the Environmental governance section (2.6), timely consultations on proposed contents, which, implemented early enough, would help avoiding misunderstandings, divergent objectives and overlapping of competencies. Consultations that begin at the early stages of policy development are more likely to motivate stakeholders to provide good quality professional contributions. A commitment towards transparency also helps to build trust, which increases the changes of policy, programme and project implementation. This is an area where capacity-building is required.

A second key challenge relates to defining clear policy objectives and the expected results of plans, programmes and projects, and to a lack of tradition to act in accordance with determined objectives. Objectives often lack clear indicators for performance assessment or responsibility for the achievement of results. Capacity-building is also required here. A third key challenge for implementation relates to the difficulty of successfully integrating economic, social, cultural and environmental objectives when faced with the over-riding expectation that governments achieve immediate economic goals. Related to this is the fact that the environment and social implications of development are often not clearly understood, in particular at national and local scales.

Fourthly, organisation building and restructuring for the implementation of sustainable development is often hampered by inadequate institutional system capacity to efficiently carry out duties within the scope of its competencies. Lack of capacities, of human resources and financing sources, at various scales, was identified as a shortcoming by numerous stakeholders in the process of consultations during the review of the Mediterranean Strategy for Sustainable Development.

In the context of the above challenges facing the management system for sustainable development in the Mediterranean region, the following strategic directions and actions are required. In order to improve sustainable development governance it is essential that the right structures are put in place or strengthened, and properly resourced (strategic direction 7.1). At a national level, it is essential to ensure

the wide participation of relevant organizations in sustainable development management through the setting up of sustainable development commissions, councils, fora, and networks as appropriate in each national context. These coordination bodies should serve to achieve wide and high-level political support at national level, particularly with key ministries whose competencies affect or are effected by, sustainable development, including the prime minister, where relevant, and must be supported by adequate human and financial resources.

At a regional level, it is essential that the Mediterranean Commission on Sustainable Development should have its proper funding and its human resources and that MAP's own governance and funding programmes are designed to take the need for resources for sustainable development into account. In this context, the establishment of the Mediterranean Commission on Sustainable Development Secretariat, within UNEP/MAP Coordinating Unit, with at least two employed officers to focus on the Secretariat role and the formulation and implementation of projects related to the implementation of the Strategy, are essential. A second regional action reflects to need to enlarge the Mediterranean Commission on Sustainable Development to ensure the participation of a larger number of relevant international organizations and stakeholder groups from the Mediterranean Region involved sustainable development.

A third regional action involves the creation of a Mediterranean Guardian for Future Generations. The Guardian would be a person or entity authorized to represent future generations at international and regional fora and institutions whose decisions could affect significantly the future of men and women in the Mediterranean region, arguing a case on behalf of future generations, thus emphasizing the long-term implications of actions or processes and, where possible, presenting acceptable alternatives. It would not be the Guardian's role to decide but to advocate in the perspective of the rights and needs of future generations, and, in this way,' introducing a new dimension, that of the time horizon, into the resolution of issues traditionally confined to the here and now. The fourth action under this strategic direction focuses on improving Mediterranean Commission on Sustainable Development visibility, particularly within the United Nations system, such as within the Conferences of the Parties to the Barcelona Convention and at the United Nations High-Level Political Forum on sustainable development.[29] This would entail the establishment of a ministerial level of action through organization of regular four-yearly sessions dedicated to sustainable development of the Mediterranean at the ministerial level within the framework of the Conferences of the Parties to the Barcelona Convention. The final action under this strategic direction focuses on ensuring that the Mediterranean Commission on Sustainable Development fulfils its role in promoting the exchange of good practice and networking in areas relevant to its remit.

Strategic direction 7.1: Put in place or strengthen structures for sustainable development implementation at national and regional scale, and ensure their adequate resourcing			
Actions	Owners	Time frame	Indicators
National			
7.1.1. Ensure a wide participation of relevant organizations in sustainable development management at the national level through the setting up of sustainable development commissions, councils, fora, and networks as appropriate.	National governments	2016-2025	Number of national commissions, councils, fora or networks created
Regional			
7.1.2 Improve the impact of the Mediterranean Commission on Sustainable Development in the regional context through strengthening of the administrative and financial support for its operation in particular by strengthening the	UNEP/MAP	2016	Trends in Mediterranean Commission on Sustainable Development resourcing

UNEP/MAP Coordination Unit as the Mediterranean Commission on Sustainable Development Secretariat for it to be able to coordinating the implementation and monitoring of the Mediterranean Strategy for Sustainable Development and the regular reporting on progress.			
7.1.3 Enlarge the Mediterranean Commission on Sustainable Development to ensure the participation of a larger number of relevant international organizations and stakeholder groups from the Mediterranean Region involved sustainable development.	Steering Committee of the Mediterranean Commission on Sustainable Development, UNEP/MAP	2016	List of Mediterranean Commission on Sustainable Development members by stakeholder group
7.1.4 Create a Mediterranean Guardian for Future Generations, which would be a person or entity authorized to represent future generations at international and regional fora and institutions whose decisions could affect significantly the future of men and women in the Mediterranean region.	UNEP/MAP	2018	Status of project
7.1.5 Improve Mediterranean Commission on Sustainable Development visibility, particularly within the United Nations system, such as within the Conferences of the Parties to the Barcelona Convention and at the United Nations High-Level Political Forum on sustainable development , to complement the four-yearly ministerial sessions on sustainable development at the Conference of the Parties to the Barcelona Convention.	Steering Committee of the Mediterranean Commission on Sustainable Development, UNEP/MAP	2016-2020	Number of sessions on sustainable development in the Mediterranean held at Conferences of the Parties to the Barcelona Convention, Number of times Mediterranean Commission on Sustainable Development presented at the United Nations High-Level Political Forum
7.1.6 Ensure that the Mediterranean Commission on Sustainable Development fulfils its role in promoting the exchange of good practice and networking in areas relevant to its remit on sustainable development, as well as through appointing 'champions' where relevant.	Steering Committee of the Mediterranean Commission on Sustainable Development, UNEP/MAP	ongoing	Good practice exchanges undertaken Networking activities undertaken

The second strategic direction in this section focuses on establishing processes for management of sustainable development processes, in particular the Mediterranean Strategy for Sustainable Development, at a regional level (strategic direction 7.2). These actions take on board the understanding that policies and strategies exist within a policy cycle, beginning with policy formulation and continuing with policy monitoring and implementation and then policy review. The first action under this strategic direction focuses on the need to integrate the Mediterranean Commission on Sustainable Development Secretariat role and the implementation and monitoring of the Mediterranean Strategy for Sustainable Development into the regular programmes of work of UNEP/MAP. A second action concerns the drafting of an implementation plan for the Strategy, which identifies the optimal mechanisms for the

participation of national institutional frameworks responsible for sustainable development in the implementation of the Mediterranean Strategy for Sustainable Development actions at national level. This implementation plan should include the possibility of achieving voluntary agreements with key stakeholders in the region regarding implementation, thus contributing to the coherence of the common work in the Mediterranean basin towards sustainable development. It should also' take into consideration the need to regularly communicate the work on implementation of the Strategy in order to retain momentum.

The third action relates to the need for national guidelines and capacity-building measures to help countries adapt the Strategy to their national contexts in terms of procedures, resources and organisation, particularly in the area of working with stakeholders, inter-ministerial cooperation, utilising research and consultancy to inform the writing-up and implementation of national strategies, managing conflicts between national and regional policy frameworks, fundraising, and competencies and skills needed for these tasks.[30] This process should determine the national-level modalities regarding how Mediterranean Strategy for Sustainable Development objectives and actions may be integrated into national sustainable development strategies, and related sectoral policies. The fourth action under this strategic direction focuses on the need for a mid-term review based on the first 5 years of data regarding the implementation of the Mediterranean Strategy for Sustainable Development, based on indicators associated with the actions, as well as the proposed dashboard of Sustainability Indicators. In addition this dashboard will draw on the indicators already selected in connection with the Protocol on Integrated Coastal Zone Management in the Mediterranean and the ecosystem approach roadmap. The Strategy will be reviewed after ten years, taking into consideration global developments, and a revised Strategy will then need to be adopted by 2025.

Strategic direction 7.2: Establish regional processes for the implementation and monitoring of the Mediterranean Strategy for Sustainable Development			
Actions	**Owners**	**Time frame**	**Indicators**
Regional			
7.2.1 Ensure that the regular programmes of work of UNEP/MAP allocate the necessary resources for leading the implementation and monitoring of the Mediterranean Strategy for Sustainable Development.	Steering Committee of the Mediterranean Commission on Sustainable Development, UNEP/MAP, Parties to the Barcelona Convention	ongoing	Human and financial resources allocated to sustainable development within UNEP/MAP system
7.2.2 Prepare an implementation plan for the Mediterranean Strategy for Sustainable Development , which identifies the optimal mechanisms for the participation of national institutional frameworks responsible for sustainable development in the implementation of the MSSD actions at national level.	UNEP/MAP	2018	Status of development of implementation plan
7.2.3 Strengthen Mediterranean Commission on Sustainable Development support to national systems implementing sustainable development policies with the aim to establish connections between national policies and Mediterranean Strategy for Sustainable Development objectives, by preparing guidelines to help countries adapt the Strategy to	UNEP/MAP	2018	Capacity building measures carried out, Status of guidelines

their national contexts as well as through capacity-building measures.			
7.2.4 Undertake a mid-term review based on first 5 years of data regarding the implementation of the Mediterranean Strategy for Sustainable Development, based on indicators associated with the actions, as well as the proposed dashboard of Sustainability Indicators.	UNEP/MAP	2022	Status of mid-term review
7.2.5 Review the Mediterranean Strategy for Sustainable Development, issuing a revised Strategy for the period 2026-2036.	UNEP/MAP	2023-2025	Status of review

3.2.   Financing the implementation of the Strategy

Implementation of the Strategy, based on the ambitious but necessary and realistic vision of establishing a sustainable Mediterranean on strong economic and social foundations, needs significant financial resources. The resources for financing the strategy implementation cannot and should not be expected to come from only one or a few sources. It is, again, a collective effort, though which the sum will be much greater than the addition of the parts, thanks to the synergies developed and economies of scale achieved.

In that sense, the national budgets of the Contracting Parties to the Barcelona Convention, allocating funds for the implementation of strategic targets aligned with the Strategy and the mobilization of resources for participation in regional/sub-regional actions aligned with the Strategy, can significantly assist in promoting implementation, while at the same time serving national objectives and policies.
The proposed activities within the Strategy are designed in such a way as to allow the Contracting Parties to adhere to existing activities, or to develop actions that fit within one or more strategic directions and relevant actions, thus directing national funding for sustainable development in the direction proposed in the Strategy.

Similarly, the coordination between MAP and other regional and sub-regional intergovernmental institutions and development agencies can be streamlined around selected topics and actions in the Strategy, so that collective support can produce the necessary resources for significant action in the region. The development of flagship initiatives is aimed at concentrating the efforts of all involved partners and stakeholders on actions that will gain significant impetus, through publicity and promotion, and increased effectiveness through the synergies developed and the focusing of resources on common targets.

The private sector needs to be in a central place in the process. By mobilizing resources for its own research, development and integration of technologies into the production process, and shifting some of the resources invested annually in marketing and promotion activities, it can play a very significant role in critically strengthening the process of implementation. For that purpose, the MAP system, as well as the Contracting Parties and other stakeholders, such as civil society, need to develop close working relations with the private sector and construct a platform of trust and synergy through which 'win-win' collaborations will be established for the implementation of actions in the context of the Strategy.

Strategic direction 7.3 addresses the need to strengthen capacity for financing the Strategy. The first action in this regard relates to the development of a project portfolio drawn from the Strategy to support fundraising activities. The second action relates to the provision of capacity-building workshops on fundraising.

Strategic direction 7.3: Strengthen capacity for financing the Mediterranean Strategy for Sustainable Development			
Actions	**Owners**	**Time frame**	**Indicators**
Regional			
7.3.1. Build a project portfolio aimed at supporting the implementation of Mediterranean Strategy for Sustainable Development actions, and associate possible funding sources with the portfolio.	UNEP/MAP	2018	Status of portfolios development, number of projects financed.
7.3.2. Provide capacity-building workshops to national governments and stakeholders, as well as sub-regional bodies in fundraising to improve their access to funding.	UNEP/MAP, other regional and international organisations	ongoing	Workshops undertaken

3.3. Towards a monitoring system and a regional dashboard on the implementation of the Strategy

A comprehensive monitoring system and relevant indicators are necessary for the implementation of the Strategy. The following two requirements must be adequately covered:

1. Monitoring the implementation of the actions recommended in the Strategy: the level of implementation and gaps in the objectives in terms of actions (for example, the number of countries complying with an action).
2. Monitoring the progress of sustainable development issues: the sustainability dashboard in relation to the objectives in terms of sustainability (for example, reduction in greenhouse gas emissions).

Both are relevant to monitoring the Strategy, but the indicators and approaches are different.

The first set of indicators is mainly "response indicators" related to the implementation of the actions, as per the tables in the Strategy. The second set of indicators, generally structured according to the DPSIR (Driving forces - pressures - state - impact - responses) framework[31] related to a systemic analysis of the issues, was used for the 2009 report entitled "State of the Environment and Development in the Mediterranean". Implementation of the data-sharing principles on the indicators and data related to the monitoring system for the Strategy is needed. That process should be promoted and facilitated by a consistent platform for the exchange of information, experience and synergies, based on the European Union's Shared Environment Information Systems principles on data sharing. The selection of the dashboard of sustainability indicators should be the result of a participative collaborative process in which the Mediterranean Commission on Sustainable Development can play an advisory role though a sub-committee of the Commission.

Data and information sharing is facilitated by the Aarhus Convention. The UNEP Live knowledge platform aims to fill the gaps between data providers and consumers.[32] The crowd-sourcing of data could complement the institutional data sources generally used in international reporting. In addition to the traditional data sources, the population of the indicators in the Strategy should also mobilize a data revolution for sustainable development[33] taking into consideration more open data.

Strategic direction 7.4 contains four actions to ensure the regular monitoring of the Strategy, the first being for national governments and regional organisations to support the monitoring process through regular and timely provision of regular data. Although much data is found through international databases, there is also the need for national governments and other stakeholders to provide some

information directly. A second action highlights the potential of meetings of the Mediterranean Commission for Sustainable Development to assist with monitoring the implementation of the Strategy through discussions in breakout groups. A third action concerns the need to ensure that Mediterranean Strategy for Sustainable Development monitoring systems are built taking into account the existing and planned data-sharing and information systems of the UNEP/MAP systems. The final action focuses on the development and population of a dashboard of sustainability indicators for the Mediterranean, with the Mediterranean Commission on Sustainable Development playing an advisory role in the selection process though a sub-committee, as discussed above. The monitoring of the Mediterranean Strategy for Sustainable Development (dashboard) need to identify new and appropriate indicators for the Mediterranean sea that integrate the three dimensions of sustainable development, more particularly in relation with livelihoods, trade and other socio-economic issues. Those indicators should take stock of the various global (such as the Ocean Health Index) and regional (such as the UNEP/MAP ecosystem approach indicators) ocean monitoring and assessment efforts underway, including definitions, baselines, data storage and reporting, and data quality and accessibility; that is linking to the proposed Ocean SDG 14 and UNEP messages (such as 'the Ocean and its linkages to livelihoods, trade and other socio-economic issues').[34]

Strategic direction 7.4: Ensure the regular monitoring of the Mediterranean Strategy for Sustainable Development			
Actions	Owners	Time frame	Indicators
National			
7.4.1 Provide regular biannual support to UNEP/MAP in providing data for monitoring the Mediterranean Strategy for Sustainable Development.	National governments, regional organisations	ongoing	Status of collection of indicators
Regional			
7.4.2 Ensure the utilisation of the potential of Mediterranean Commission on Sustainable Development meetings for monitoring the implementing of the Mediterranean Strategy for Sustainable Development using breakout groups.	Steering Committee of the Mediterranean Commission on Sustainable Development, UNEP/MAP	ongoing	Number of monitoring sessions held during Mediterranean Commission on Sustainable Development meetings
7.4.3. Ensure that the Mediterranean Strategy for Sustainable Development monitoring systems are built taking into account the existing and planned data-sharing and information systems of the UNEP/MAP system.	UNEP/MAP, national governments, regional organisations	ongoing	Status of monitoring.
7.4.4 Develop and populate a dashboard of sustainability indicators for the Mediterranean, with the Mediterranean Commission on Sustainable Development playing an advisory role in the selection process though a sub-committee of the Mediterranean Commission on Sustainable Development.	UNEP/MAP, Plan Bleu	2018	Status of dashboard

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