

1. Introduction

The Mediterranean Region has common environmental problems and challenges which have led to the adoption of the Mediterranean Action Plan (hereinafter UNEP/MAP) in 1975 and the Barcelona Convention in 1976. This Convention provides a unique regional governance framework bringing together all the Mediterranean countries to address the root causes of the region's problems on marine and coastal environment and its future development prospects.

While some progress has been achieved, the existence of regional environmental institutions, agreements and strategies has not eliminated the environmental challenges faced by the Mediterranean. On the contrary, the current pattern of economic development of the 21 countries of the Barcelona Convention characterized by wasteful production processes and the adoption of "consumption intensive" lifestyles is increasing the pressure on the local and regional environment. This pressure, results in, inter-alia, by water scarcity, growing waste generation and intense tourism, is compounded by population growth and rapid urbanization in coastal areas.

In order to address these challenges, it is paramount to deliver a green and socially inclusive economy through sustainable consumption and production patterns, thus decoupling development from environmental degradation and resource depletion. The Sustainable Consumption and Production (hereinafter SCP) approach is at the core of the Green Economy concept since it involves a radical transformation in the way goods and services are produced and consumed so that human development is effectively decoupled from planet degradation.

2. SCP at the Global and Mediterranean Policy Agendas for Sustainable Development: articulation of milestones

At the UN Conference on Environment and Development held in Rio de Janeiro in 1992, the notion of unsustainable patterns of consumption and production first came to the fore. World leaders acknowledged that "the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production" (UN, 1992). The final declaration of the Rio conference proclaimed that in order to achieve sustainable development, SCP needed to be adopted.

At the World Summit for Sustainable Development (Johannesburg) in 2002, SCP was recognized as a central concept for achieving sustainable development and was identified as one of the overarching objectives of the Johannesburg Plan of Implementation.

Recently, at the Rio+20 Summit, Heads of State and Government reaffirmed that promoting sustainable patterns of consumption and production was an overarching objective of, and essential requirement for, sustainable development. They also reiterated that fundamental changes in the way societies consume and produce are indispensable for achieving global sustainable development. Accordingly they strengthened their commitment to accelerate the shift towards SCP patterns with the adoption of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP) – as stated in paragraph 226 of the Rio+20 Outcome Document "The Future We Want".

In the Mediterranean region SCP has been identified as major objective for sustainable development by the Contracting Parties of the Barcelona Convention through the following milestones:

- 2005: Approval of the Mediterranean Strategy for Sustainable Development which establishes SCP as major crosscutting objective to attain sustainable development.

- 2009: The 16th Conference of the Parties of the Barcelona Convention (COP) held in Marrakesh, Morocco identifies SCP as one of the six thematic priorities of MAP's Five-Year Programme 2010-2014 and the second SCP Programme of Work 2010-2011;
- 2011: The 14th Meeting of the MCDSD held in Budva, Montenegro requested the Contracting Parties of the Barcelona Convention to strengthen SCP actions to advance towards sustainable development;
- 2012: The COP 17th held in Paris approved the third biennial PoW on SCP 2012-2013. Likewise, the Paris Declaration reaffirmed the commitment of the Barcelona Convention to:

“support, at Mediterranean level, capacity building and other activities associated with green economy as means to achieve sustainable development, such as the promotion of sustainable production and consumption patterns”

The above mentioned milestones clearly reflect the world's forefront position of the Mediterranean region in addressing SCP. Since 2005 many actions have been developed through the main programmes for regional cooperation (e.g. MAP, Horizon 2020, MedPartnership) to raise awareness on SCP and to provide capacity building and technical assistance to the countries of the region.

3. SCP in the regulatory framework of the Barcelona Conventions and its Protocols

Through the milestones referred to in the chapter above, SCP has been formally acknowledged by the MAP as a key objective to attain sustainable development in the Mediterranean. It therefore directly entailed the integration of SCP in the regulatory framework of the Barcelona Convention as Art. 4 of the Convention expressly refer to sustainable development as objective.

“The Contracting Parties shall individually or jointly take all appropriate measures in accordance with the provisions of this Convention and those Protocols in force to which they are party to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area and to protect and enhance the marine environment in that Area so as to contribute towards its sustainable development (art 4.1, General Obligations, Barcelona Convention).”

SCP refers to a transversal approach involving the combined implementation of measures, including, among others, regulatory, fiscal and economic instruments to promote sustainable development through the:

- Application of resource efficiency and cleaner production (RECP) in the production of goods and services;
- Integration of life cycle development in products and services (Life Cycle Assessment, Cradle to Cradle);
- Innovation for the creation of new business models and jobs generating economic, environmental and social values
- Mainstreaming of sustainable products/services in the market (sustainable public procurement, eco-labeling);
- Introduction of fiscal and economic instruments for SCP (green financing, environmental accounts, etc)
- Introduction of education on the impact of our patterns of consumption and

production in the environment and on sustainable and healthier lifestyles in formal and informal education programmes;

- Empowering civil society as SCP driver through eco and social innovation.

As explained below, SCP tools are expressly referred to in several of the Protocols as means to be covered in the regional and national action plans to be prepared by the countries of the Convention.

3.1. SCP tools in the LBS and Hazardous Waste Protocols

According to the LBS Protocol, countries must develop and implement Regional and National Action Plans to fight against LBS pollution with special emphasis on certain priority pollutants (Arts. 5.1 and 5.2). In the development of those plans, Best Available Techniques (BAT), Best Environmental Practices (BEP) and Cleaner Production are identified as key tools to effectively address pollution reduction (Art 5.4). Likewise, Art. 9 of the Protocol states that *countries shall promote access to and transfer of cleaner production technology*.

According to UNEP the definition of Cleaner Production *includes resource efficiency which is a key element of the transitions towards Green Industry and [Green Economy](#)*.

Resource Efficient and Cleaner Production (RECP) continuously applies integrated and preventive strategies to processes, products and services. This increases efficiency and reduces risks to humans and the environment. RECP specifically works to advance

- *Production Efficiency – through optimization of productive use of natural resources (materials, energy, water) at all stages of the production cycle;*
- *Environmental Management - through minimization of the adverse impacts of industrial production systems on nature and the environment;*
- *Human development – through minimization of risks to people and communities, and support to their development.*

(UNEP's definition on RECP)

RECP tools include, among others, Life Cycle Thinking; Material/Substance Flow Analysis, Life Cycle Analysis, product (Eco) design, Cradle to Cradle, Substitution Approach, and so on. UNEP variously refers to those tools as RECP and SCP tools for they go beyond the implementation of environmental technologies in industrial processes and cover the overall consumption and production cycle of products and services.

Likewise SCP tools are covered in the definition of BAT and BEP established by Annex IV of the LBS Protocol. A table with some of the criteria for the definition of BEP and the related SCP tools is shown below:

| BEP criteria (Annex IV) | SCP tool |
|---|---|
| (a) the provision of information and education to the public and to users about the environmental consequences of choice of particular activities and choice of products, their use, potential recycling, and ultimate disposal | Eco-labelling; awareness raising designed to target different stakeholders on sustainable production and consumption and lifestyles |
| (b) the development and application of codes of good environmental practice which cover all aspects of the activity in | product (eco) design; producers responsibility, eco-labelling |

| | |
|---|---|
| the product's life; | |
| (d) saving resources, including energy and water | RECP |
| (f) avoiding the use of hazardous substances or products and the generation of hazardous waste; | RECP, product (eco) design, Life Cycle Analysis, Cradle-to-cradle design |
| (g) avoidance, recycling, recovery and re-use; waste to energy and waste to compost | RECP, Product (eco) design |
| (h) the design and application of economic instruments products or groups of products to influence production patterns towards more sustainable practices | green banking, tax and subsidy reform, including ecological taxation and the phasing out of environmental harmful subsidies |

Out of the SCP tools referred to in the table above some are techniques addressing the minimization of the environmental and health impact associated with the life cycle of products and services (RECP, product design, Life Cycle Analysis, Cradle-to-cradle design). Others refer to regulatory (eco-labelling), economic and financial instruments (green banking, tax and subsidy reform, ecological taxation and green tax reform, etc) through which encouraging producers/industry to implement SCP tools in the production of services and products. Others to the necessary awareness raising of citizens (eco-labelling; awareness raising on sustainable consumption and lifestyles).

With regard to the Hazardous Waste Protocol according to its Article 5.2:

“Parties shall take all appropriate measures to reduce to a minimum, and where possible eliminate, the generation of hazardous wastes. “

The implementation of the SCP tools referred to above is critical to achieve that aim. In the business as usual scenario hazardous waste is generated during exploitation of resource for production (e.g. mine tails), in production processes and by consumption (generation of E-waste or POPs containing household waste). As seen above SCP covers specific instruments to reduce and particularly avoid hazardous waste in the production phase (RECP, Ecodesign, Life Cycle Thinking tools, circular economy/closed loop economy, Cradle-to-cradle design, producers responsibility, economic instruments, Extended Producer Responsibility) and in the consumption phase (Eco-labelling; Green Consumption). By applying those tools, materials which generate hazardous waste and releases are phased out/ minimized both in the production phase and in the end of life of a product. While most of those are tools of producers/industry, several of them need a legislative and policy framing by the government.

3.2. SCP tools in the ICZM Protocol

The same like in the Barcelona Convention text, sustainable development is identified as one of the objectives of the ICZM Protocol. Hence the implementation of SCP tools is needed to achieve that aim.

“The objectives of integrated coastal zone management are to: (a) facilitate, through the rational planning of activities, the sustainable development of coastal zones by ensuring that the environment and landscapes are taken into account in harmony with economic, social and cultural development (art 5)”

“In conformity with the objectives and principles set out in Articles 5 and 6 of this Protocol, the Parties shall endeavour to ensure the sustainable use and management of coastal zones in order to preserve the coastal natural habitats, landscapes, natural

resources and ecosystems, in compliance with international and regional legal instruments (art. 8)”

Likewise, the achievement of the objectives of some of the main articles of the Protocol requires the implementation of SCP tools as explained below.

According to Art. 9 of the Protocol Parties shall ensure that the various economic activities minimize the use of natural resources and take into account the needs of future generations and to ensure that the coastal and maritime economy is adapted to the fragile nature of coastal zones and that resources of the sea are protected from pollution (art 9.1,b and d). In doing so codes of good practice among public authorities, economic actors and non-governmental organizations must be promoted (art 9.1, f).

The same article identifies the key economic sectors within the scope of the ICZM Protocol and requires the countries to implement measures for their sustainable development (art. 9.2):

(a) Agriculture and industry, to guarantee a high level of protection of the environment in the location and operation of agricultural and industrial activities so as to preserve coastal ecosystems and landscapes and prevent pollution of the sea, water, air and soil;

(b) Fishing, (ii) to ensure that fishing practices are compatible with sustainable use of natural marine resources;

(d) Tourism, sporting and recreational activities, (i) to encourage sustainable coastal tourism that preserves coastal ecosystems, natural resources, cultural heritage and landscapes; (ii) to promote specific forms of coastal tourism, including cultural, rural and ecotourism, while respecting the traditions of local populations;

The achievement of those objectives requires that the planning and management of coastal areas integrates the implementation of a range of technical, regulatory, economic and market oriented measures through which the models of consumption and production driving the development of those economic activities shift to sustainable patterns. The development and implementation of those tools will require the involvement of policy makers, private sector (producers), civil society and citizen (consumers).

4. The Mediterranean Roadmap for SCP: a strategic process through which introducing SCP measures enhancing the implementation of the region's common priorities for pollution reduction, sustainable development and the protection of the coastal and marine environment

4.1. Why a Mediterranean Roadmap for SCP? Need for coordinated actions and measures to attain clear SCP objectives at the Regional level

As seen in the chapters above, SCP is a key objective for sustainable development in the Mediterranean and the application of SCP tools is needed to achieve the objectives of both pollution reduction (in its different shapes) and sustainable development established in the Protocols.

Nevertheless, most SCP measures have not yet been fully integrated in the regional and national action plans developed in the framework of the Barcelona Convention and the Protocols. That has involved that many times SCP support to Mediterranean countries has been delivered through one-off disperse actions that are developed with scarce coordination/communication between concerned agents as there is no regional framework or

policy for the identification of SCP priorities nor for the implementation of SCP tools that can be used as a common framework for action for the Mediterranean countries. This situation may have resulted in duplication of efforts, no consideration of synergies and insufficient dissemination and replication of the results and outputs obtained in the projects developed.

The design and implementation of a regional policy framework for SCP in the Mediterranean could contribute to identify common SCP strategic objectives and measures and to ensure their integration in the development and review of relevant Action Plans and Programmes to fight against pollution and ensure sustainable development in the region.

The SCP approach has particular relevance to the Barcelona Convention implementation. As is demonstrated in the previous chapters, reaching the end objectives of all the Convention protocols can be significantly enhanced by applying the SCP methodology and tools. At the same time, the Convention, can establish by forming strategic partnerships with regional partners a uniquely-positioned platform in the Mediterranean region to make a significant difference in the perspective of sustainable development.

4.2. SWITCH-Med programme to support the development of a Regional Framework on SCP

To establish and develop such a regional policy framework a Roadmap must be firstly designed and agreed among the relevant regional actors. The preparation of that Roadmap is one of the objectives of the SWITCH-Med Programme to support the Mediterranean countries to shift to SCP.

SWITCH-Med has been designed according to the SCP milestones in the Mediterranean region above mentioned. The programme covers a set of actions for the period 2013-2017 and combines support at the strategic and policy level with activities on the ground.

SWITCH-Med has been designed through the collaborative effort between UNEP/MAP, UNEP/DTIE and UNIDO, and has been funded by the EU. The development of the structure and contents of the programme have been based on the SCP priorities of the MAP PoW and the recommendations of the last MCSD Meeting held in Budva in 2011. Those priorities can be summarized as follows:

1. Developing a regional roadmap identifying SCP priorities and objectives common for all Mediterranean countries with a special focus on regional priorities (e.g. relevant Protocols, Regional Plans, ECAP),
2. Introducing SCP specific measures and indicators in the MSSD revision,
3. Mainstreaming SCP in existing development policies and developing strategic guidelines with that objective,
4. Supporting green entrepreneurship and the creation of green jobs to build green and socially inclusive economies,
5. Providing support to companies for clean technology innovation and dissemination,
6. Focusing on actions on the ground (pilot activities) and technical assistance.

For more information on the SWITCH-Med refer to Annex I of this document.

4.3. *A Mediterranean SCP Roadmap anchored into the existing regional framework and hooked on already identified priorities*

The design of a Mediterranean Roadmap for SCP requires to fully take into account the environmental challenges and objectives that have been identified by the Mediterranean countries throughout the years through common regional governance frameworks as the Barcelona Convention and its Protocols, together with legally binding measures facilitating their implementation.

In that framework, the last Conference of the Parties to the Barcelona Convention, held in Paris, identified some of the Mediterranean priorities and related regional measures on which SCP actions may focus: POPs and toxic chemicals, mercury, nutrients, marine litter and coastal areas management.

All those topics are included in one way or another in the set of pressures to the marine and coastal ecosystems identified in the implementation of the Ecosystem Approach (ECAP), the key implementation strategy by which UNEP/MAP aims at effectively improving the state of the Marine and coastal environment in the Mediterranean.

The ECAP has the objective of implementing an integrated approach to the state of the marine and coastal ecosystems, the anthropogenic pressures causing their degradation and their drivers. The ECAP sets ecological and operational objectives on all relevant features of the marine and coastal ecosystem in order to define, monitor and manage their good status. In order to meet this Good Environmental Status for the Mediterranean ecosystems, the adaptation and sustainable management of human activities is critical.

Indeed, the state of the marine and coastal Mediterranean ecosystems depends on the level of pressures caused by the human activities, and therefore, linked to the models of production and consumption on which those activities are based. Thus, a shift to sustainable consumption and production models is needed to achieve the ecological objectives established by UNEP/MAP.

Accordingly, the elements of a SCP Med Roadmap could be integrated along the process of implementation of the ECAP, especially in the Development and Review of Relevant Action Plans and Programmes.

In this sense, as referred to in chapter 3 of this document, the SCP approach includes a range tools and measures oriented to redesign the way in which goods and services for human needs are produced and consumed to reduce their Pressures on the ecosystems. Those tools and measures will therefore be acting at Pressure but also at Driver level, as they address the models of consumption and production and therefore the upstream issues that result in an unhealthy marine and coastal ecosystem.

The role of the SCP tools in addressing the drivers and pressures of Marine and Coastal Ecosystems is further explained the Report "*Addressing the drivers of the Mediterranean ecosystem degradation: the SCP approach in the application of the Ecosystem Approach to the management of human activities in the Mediterranean*" that CP/RAC will distribute during the Meeting.

Likewise, an example on how the implementation of SCP measures address the drivers and pressures to coastal and marine ecosystems in relation to the Tourism sector is shown in Annex II of this document.

4.4. *Measuring the progress on SCP in the Region*

On the other hand the SCP approach includes also a set of tools for the assessment of the complex interactions between, on one hand, the consumption demand and production activities, and on the other hand, the final Pressures produced on the ecosystems.

Including the knowledge of these interactions as element in the SCP Roadmap together with specific SCP indicators, as requested by the 14th Meeting of the MCSD held in Budva, Montenegro, could contribute to the definition of more accurate and effective policies to facilitate the achievement of Good Environmental Status.

A first attempt for the identification of a Framework of SCP Indicators for the Mediterranean is provided in the document prepared by CP RAC “*SCP Indicator Framework for the Mediterranean*”. The framework supports policy makers and experts on SCP with a comprehensive tool to systematize information on SCP and to provide an overview on relevant areas and topics related to SCP in the region. The document will be distributed during the meeting.

4.5. *The Draft SCP Roadmap for the Mediterranean*

The first draft of **SCP Roadmap for the Mediterranean region**, including a vision, methodology, strategic and operational objectives is presented for the comments and guidance of MCSD..

- a) An SCP Roadmap for the Mediterranean: 5 W’s (Why, What, Where, for Whom and When?)

The main strengths, weaknesses, opportunities and threats emerging though the adoption of an SCP Roadmap by the Barcelona Convention are demonstrated in the SWOT analysis table below:

| Strengths | Weaknesses |
|---|--|
| <ul style="list-style-type: none"> • Legislative work for environmental protection by the Barcelona Convention, • Expertise on a broad number of environmental issues, • Unique position in the Mediterranean Region, • Partnership with EU, Union for the Mediterranean and other strong institutions, • SCP is already a priority in the Barcelona Convention framework. | <ul style="list-style-type: none"> • Partial implementation of legislation and Protocols, • Outreach to the private sector and public is limited, • Limited experience in non-legislative tools, • Scattered SCP activities in the Region. |
| Opportunities | Threats |
| <ul style="list-style-type: none"> • SWITCH-Med programme is a funded platform to establish the Roadmap, • Network of countries and partners in the Barcelona Convention to adopt and use the Roadmap, • 7th EU EAP (Draft) sets a path that we can follow, | <ul style="list-style-type: none"> • Legislative work and tax measures will not be supported by policy makers in a setting of crisis, • Internal weaknesses of the Barcelona Convention should not hamper the SWITCH-Med process, • Unstable political situation in the |

| | |
|---|----------------|
| <ul style="list-style-type: none"> • Economic crisis could open opportunities for new approaches, • Relating SCP to development and job creation can be a strong line for the introduction of concepts and tools. | <p>region,</p> |
|---|----------------|

From the above analysis it emerges that the Barcelona Convention a centrally placed point of reference, ideal for the development and implementation of an SCP Roadmap in the region:

- It has extensive experience in developing legislative and institutional frameworks for the protection of the environment in the Mediterranean region. It also brings together significant expertise in a very broad range of issues, from Coastal Zone Management to Pollution, and from SCP to Ecosystems, drawing from in-house expertise, contracting parties, and various partners, including the European Commission and the Union for the Mediterranean. Finally, SCP is already a priority in the framework of the Barcelona Convention, and the development of the Roadmap can contribute significantly in putting in place the tools for its full implementation.
- There are however limiting factors, for which the Convention needs to develop its strengths: The delayed and partial implementation of some of its Protocols and the difficulty for Contracting Parties in fully adopting the variety of measures can be overcome through the implementation of the Roadmap. At the same time the Roadmap can become an important tool for reaching out to the private sector and public opinion, forging alliances necessary to reach the objectives of the Barcelona Convention. Finally, the use of non-legislative tools, such as market-based measures and incentives is have not so far been central tools of the Convention, but are necessary for the implementation of the SCP Roadmap.
- The development of the SCP Roadmap brings along significant opportunities that need to be taken into account: The fact that through the SWITCH-Med project there is a synergy between the Barcelona Convention, the EU, and Union for the Mediterranean, and there is secured funding for the development of regional and national policies, as well as the implementation of pilot actions on the ground, is in itself a major opportunity at a time of financial constraints that does not allow the development of fully-fledged actions. At the same time, the prevailing economic crisis can also be seen as an opportunity, through which the countries, the private sector and people are looking for new ways to enhance development, innovation, and job creation. Providing guidance and examples of how this can be achieved through actions implementing SCP can be a combined success, and a strong incentive for adopting new policies for development in the region.
- Finally, the political and economic conditions in the region pose important threats to the process: the political instability and peace issues in parts of the region are limiting factors as they impose a whole different set of priorities to governments and people alike, very often not allowing the consideration of some measures that could be important for the implementation of the SCP Roadmap. As regards the Convention itself, it needs to rise above administrative and organizational issues and incorporate the SCP Roadmap and approach as a central part of its *“operating DNA”* that can help it in developing itself to address the modern and future challenges and reach more effective implementation

In brief, the main points about the need to develop an SCP Roadmap in the Mediterranean region can be summarized as follows:

- **What?** → Provide the Mediterranean region with a unique framework for SCP, within

the UNEP 10-Year Framework of Programmes on SCP (10YFP), that can support the implementation of the Barcelona Convention and protocols through SCP tools, and support the implementation of the Ecosystem Approach and ECAP Roadmap

- **Where?** → The SCP Roadmap is aimed at covering the 21 contracting parties of the Barcelona Convention, and open to neighbouring countries whose activities have an influence in the Barcelona Convention area. However, due to the nature of SCP, the roadmap covers the entire countries but it will have a specific focus on the economic activities situated around the Coastal areas and river basins feeding the Mediterranean.
- **Whom?** → The Roadmap need to cover the broadest possible range of stakeholders, who need to be actively involved in the implementation of SCP tools. It is important to underline that the success of the SCP Roadmap lies with the fact that its implementation cannot come by only from the Contracting Parties and administration, but needs to create broad partnerships with the private sector, people and the civil society.
- **When** → The opportunity of the engagement at Rio+20 should be used to develop an SCP road map, planning of regional and national actions and carry out pilot projects for which funding is foreseen under the Switch-Med project (to be completed by June 2015) However, the measurement of success of the project will have to be made against specific targets. As it can be seen in the table under point 6 below (Operational Objectives) most of the targets have been set for 2020 to coincide with objectives set under the Horizon 2020 programme of the EU, and other targets such as the 20-20-20 on energy and climate change.

b) Guiding Principles and measurable indicators

A set of guiding principles should be accepted as a basis for the development of the SCP Roadmap. These principles are building blocks to be taken into account in its development:

- SCP need to be viewed as interacting processes and methodologies, and not in isolation: it is the right mix and matching of approaches and tools that can lead to a circular economy based on sustainability.
- The SCP Roadmap needs to be a tool that provides solutions to actual economic priorities, taking into account the historical momentum in the Region; in this way the value added of SCP is demonstrated through its environmental, economic and social benefits it creates.
- The entire SCP Roadmap and its implementation needs to happen through the existing framework; it is important to not create a parallel process/mechanisms, but instead link it well with existing strategies, and connect it to the existing legal framework, primarily the MAP protocols and regional plans.
- The already existing SCP activities must be articulated under a single policy framework, therefore linked with the global framework on SCP.
- The implementation of the SCP Roadmap needs to come through an appropriate mix with a broad range of instruments, including legal, market-based, voluntary/incentive tools and others.
- A common denominator needs to be reached for the development of the regional framework.

- An action-oriented and inclusive approach must be followed from the start, taking at all stages into account the end users (governments, private sector, civil society, but also internal structures, such as the Barcelona Convention itself).
- Enhance synergies with key stakeholders in the Region and develop strong partnerships.
- Work on innovative solutions to tackle traditional problems.
- Diversify the target group and improve the way the SCP Roadmap is communicated to all stakeholders, and especially the private sector and economic actors.

Measurable results can be assessed against the following points:

1. Include the SCP approach in the Mediterranean Regional Governance and Policy Framework for Environmental Protection and Sustainable Development.
2. Adopt SCP measures at the national level to favour the mainstreaming of sustainable products and services in the market.
3. Integrate SCP at the core of development policies in the Mediterranean as driver for the revitalization of the region's economy.
4. Create a strong network of SCP stakeholders to exchange and up-scale SCP initiatives in the Mediterranean countries (Partnership).
5. Create an enabling framework to finance and coordinate SCP actions at the regional and national levels.
6. Measure the overall progress of SCP.

Methodology

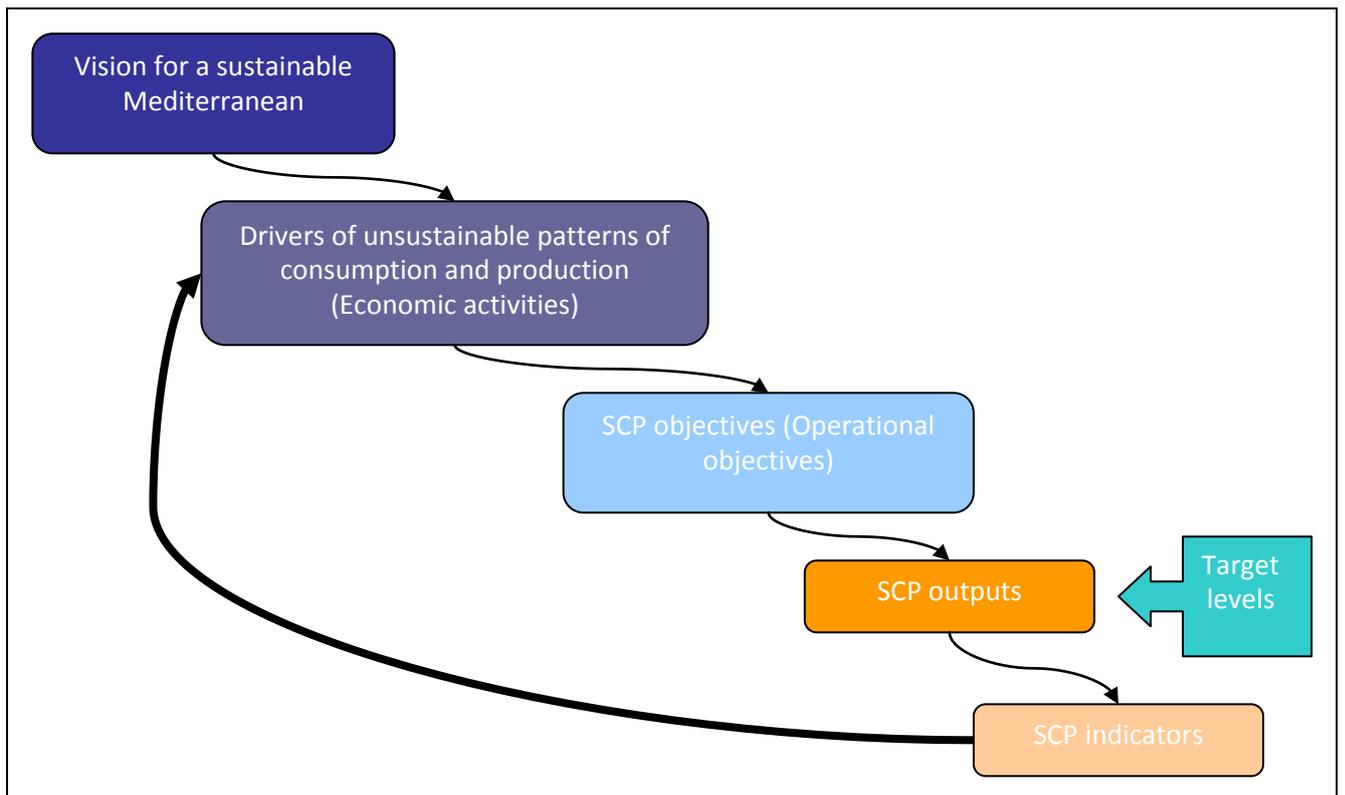
The methodology followed for the development of the SCP Roadmap hinges on the understanding that the entire process should be based on the vision to reach a sustainable Mediterranean, through new models of Consumption and production, which will allow the involvement of all stakeholders in reaching a new paradigm of socio-economic development in the region that is decoupled from environmental degradation and contributes to the ecosystems protection.

Going from an overall vision to a detailed Roadmap and subsequently a programme of activities in the context of an Action Plan requires a coordinated effort. To achieve this, a Logical Framework Analysis was adopted, leading from the Strategic Objective, Indicators, and Means of Verification of the results achieved, to the specific Operational Objectives and means to assess the delivery of results and retro-fitting modifications in the strategy and action plan as appropriate.

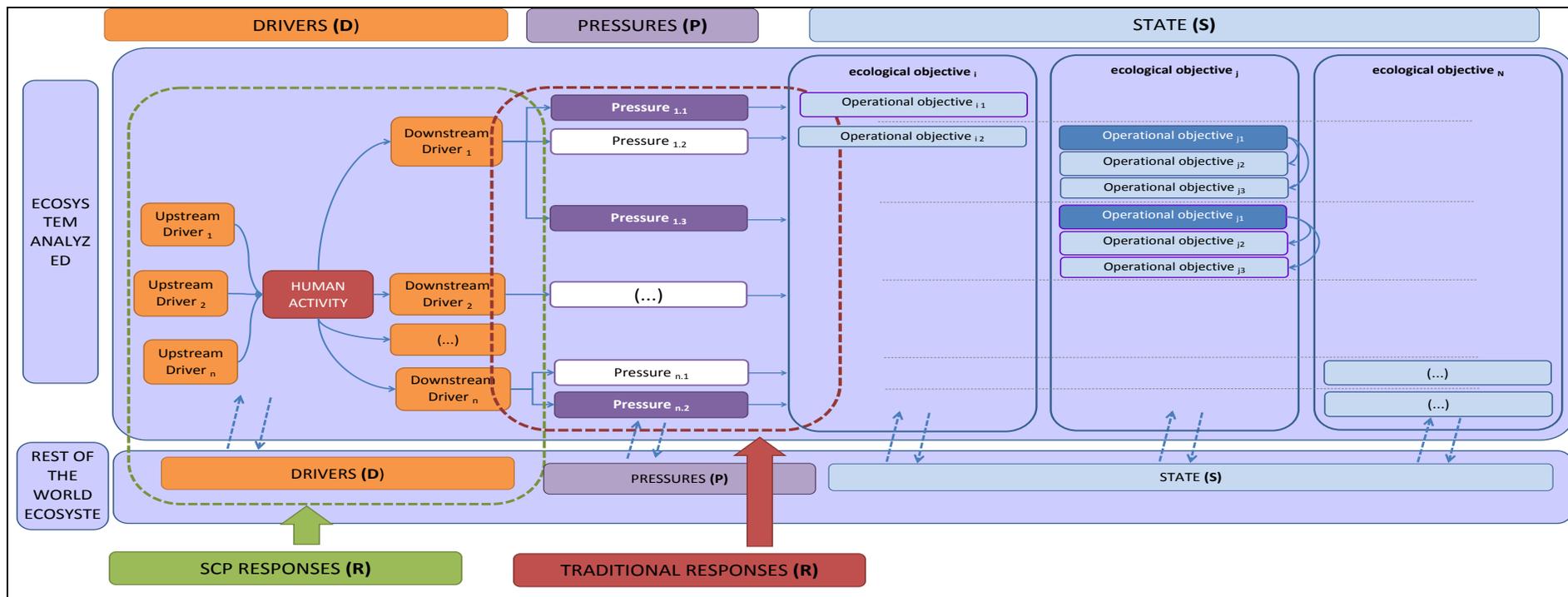
In doing so, the following key approaches were introduced:

- A sectoral approach: in order to make a difference the Roadmap should address sustainability issues at the root cause level, therefore approaching the Operational Objectives through the Economic Activities (**Drivers**) that create inefficiencies in resource use, environmental problems and restrictions on sustainable development (**Pressures**).
- By approaching the combination of Drivers and Pressures, and counterposing them against the **State** that is sought as a result of the process, the methodology can indicate the appropriate **Tools** to be adopted in the SCP roadmap and subsequently **Actions** to be implemented within the Action Plan.

These two steps can be seen in the diagram below:



- The third step is about introducing the objectives of the Barcelona Convention Protocols themselves in the process, therefore making the SCP Roadmap an effective implementation platform for the Convention itself. By translating objectives of the Barcelona Convention Protocols into the **State** to be reached through the implementation of the Roadmap, the appropriate tools and actions can be adopted.



Source: Report on “Addressing the drivers of the Mediterranean ecosystem degradation – the SCP approach in the application of the Ecosystem Approach to the management of human activities in the Mediterranean” (CP/RAC – January 2013).

Vision

By 2030 a prosperous Mediterranean region is established, with sustainable and socially inclusive economies based on sustainable consumption and production patterns, ensuring the well-being of societies and contributing to a clean and healthy environment that provides goods and services for present and future generations.

c) Strategic Objective

| Strategic Objective | Impact Indicators | Means of Verification | Assumptions/Risks |
|---|--|---|--|
| <p>To develop and implement the SCP roadmap for the Mediterranean, in a way that stakeholders (decision makers / business sector / consumers / civil society) engage in Sustainable Consumption and Production models, leading to high resource efficiency, reduced pollution, and decoupling of the development process from environmental degradation.</p> | <p>A sustainable, circular economy is reached in the Mediterranean.</p> <p>Actions regarding Consumers, Producers, Government and Administration, Civil Society described in the roadmap are adopted and implemented by the relevant actors.</p> <p>Evaluation by the appropriate tools¹ indicates that production and Consumption patterns have been moved towards sustainability, as per the direction of the roadmap.</p> <p>Implementation of the BC Protocols and ECAP Roadmap becomes a key field of application of the SCP Roadmap.</p> <p>Successful partnerships have been created to cover measures of the Roadmap not covered by the mandate of the Barcelona convention</p> | <p>Administrative and market-based measures and initiatives are adopted for the implementation of the SCP Roadmap at a region and country level.</p> <p>Resource efficiency, as measured by appropriate tools, has at least doubled by 2020.</p> <p>Development indexes and resource utilization are effectively delinked in the Mediterranean region by 2020.</p> <p>Sustainably produced goods and services, identified by labelling and certification schemes have gained an overall 50% share of the market by 2020, and 70% by 2030.</p> <p>At least 20 major goods and services companies operating in the Mediterranean have adhered to the SCP work plan by 2016, committing to engage their upstream and downstream partners in the process.</p> <p>Successful SCP Civil society lead and grassroots initiatives have tripled and being up-scaled.</p> | <p>Political and economic conditions allow the implementation of the Switch-Med project and adoption of the SCP Roadmap.</p> <p>Sufficient resources are channelled by governments, financial institutions and the Civil Society to promoting SCP in the Mediterranean.</p> <p>A critic and representative mass of citizens for SCP is created</p> |

¹ See Annex III: *Brief Description of the main tools and initiatives for evaluating the environmental impact of consumption and production*

d) Operational Objectives

| Operational Objectives (by Driver) | Outputs | Means of Verification | Assumptions / Risks | Relevance to Protocols of the Convention and other Priorities (EU 7 th FP, UfM) |
|--|--|---|--|--|
| <p>1. Food Production and Consumption is based on cleaner production models that use efficiently resources (land, water, air and species), do not contribute to point and non-point source pollution, and secure sufficient food production for present and future generations.</p> | <p>All resources used for food production, including food processing), are accounted for through fiscal instruments to increase their efficiency and to limit waste and degradation.</p> <p>Point and diffuse pollution resulting from agricultural practices are significantly reduced as a result of cleaner production adopted in the agricultural sectors and food processing.</p> <p>Market and Labelling schemes for sustainable production of food are introduced as a means to empower consumers to decide in favour of sustainable consumption.</p> <p>Consumers changed practices and ask for healthier food products thank to awareness raising on SCP and improvements in labelling of food products</p> | <p>Market share of sustainable food products is increasing steadily reaching more than 50% by 2030</p> <p>Sustainable food becomes a comparative advantage of tourism and other services in the Mediterranean (Mediterranean diet).</p> <p>Labelling and incentive schemes are launched by 50% of producers by 2030 in support of sustainable food production.</p> <p>Pollution and POP contamination as a result of industrial and agricultural practices is phased out by 2020??</p> <p>Waste production from and agricultural production is eliminated and waste-to-energy schemes are introduced by 2030 in a circular economy system.</p> <p>Food value chains are redesigned to reduce environmental and social impacts and facilitate contact and information between producers and consumers.</p> | <p>Climate and natural conditions remain such that allow sufficient quality food production in the Mediterranean.</p> <p>Governments and consumer unions recognize the pivotal role of food production in the development and sustainability of the Mediterranean.</p> | <p><i>Section to be completed following Baseline report (section 3)</i></p> |

| Operational Objectives (by Driver) | Outputs | Means of Verification | Assumptions / Risks | Relevance to Protocols of the Convention and other Priorities (EU 7 th FP, UfM) |
|--|---|---|--|--|
| <p>2. Industrial and artisanal Production of Goods and their Consumption is based on cleaner production models that use efficiently resources (energy, raw materials, water, air), do not contribute to point and non-point source pollution, and secure sufficient production of goods for present and future generations.</p> | <p>All resources used for production of goods, are accounted for through fiscal instruments to increase their efficiency and to limit waste and degradation.</p> <p>Point and diffuse pollution resulting from industrial and artisanal practices are significantly reduced as a result of cleaner production adopted in the industrial and artisanal sectors.</p> <p>Market and Labelling schemes for sustainable production of goods are introduced as a means to empower consumers to decide in favour of sustainable consumption.</p> <p>New business models based on SCP tools are created to better respond to environmental and social challenges.</p> | <p>Market share of goods products is increasing steadily reaching more than 50% by 2030</p> <p>Sustainable production becomes a comparative advantage of the economy of the Mediterranean region.</p> <p>Labelling and incentive schemes are launched by 50% of producers by 2030 in support of sustainable production.</p> <p>Waste production from industrial and artisanal production is eliminated and waste-to-energy schemes are introduced by 2030 in a circular economy system.</p> | <p>Agreements and trans-Mediterranean commercial activities allow the promotion of cleaner goods in the entire region, and the adoption of a common cleaner consumption attitude.</p> <p>Governments and consumer unions recognize the pivotal role of food production in the development and sustainability of the Mediterranean.</p> | <p><i>Section to be completed following Baseline report (section 3)</i></p> |

| Operational Objectives (by Driver) | Outputs | Means of Verification | Assumptions / Risks | Relevance to Protocols of the Convention and other Priorities (EU 7 th FP, UfM) |
|---|---|--|--|--|
| <p>3. Sustainable models are applied for Energy production, Transfer and Use, curbing GHG emissions and decoupling economic development from increasing energy consumption in goods and services Production and Consumption.</p> | <p>Energy production in the region is based on BEP s and BATs, including renewable energy and cleaner fuels.</p> <p>GHG emission is curbed by 10% by 2020 in the Mediterranean region.</p> <p>Energy efficient transfer systems, including HVDC and Smart Grids are developed in the Mediterranean, interconnecting the region and reaching energy consumers.</p> <p>Energy production and transfer, including fossil fuel exploration, renewables and energy grid development is designed taking into account ecosystem integrity.</p> <p>Measures are adopted by the government to favour the production and distribution of renewable energy</p> | <p>Energy production from renewables has reached 20% by 2020 for the region.</p> <p>The Mediterranean adopts the target of curbing GHG emissions by 10% by 2020 and by 30% by 2050.</p> <p>Economic development and economic indicators growth is effectively decoupled from energy use and GHG emissions by 2020.</p> <p>Voluntary, market-based and legislative measures are adopted by Mediterranean CPs to promote sustainable energy production and consumption.</p> <p>Energy efficiency becomes an integral part of the BC Protocols by 2020.</p> | <p>Sufficient resources are channelled in the Mediterranean region in support of sustainable energy production, transfer and use.</p> <p>Governments and agencies agree to apply BAT and BEPs to oil and gas exploration in the Mediterranean.</p> | <p><i>Section to be completed following Baseline report (section 3)</i></p> |

| Operational Objectives (by Driver) | Outputs | Means of Verification | Assumptions / Risks | Relevance to Protocols of the Convention and other Priorities (EU 7 th FP, UfM) |
|--|--|--|--|--|
| <p>4. Tourism, based on an integrated and sustainable approach, is the model of tourist development in the Mediterranean, becoming a comparative advantage attracting visitors in the region.</p> | <p>Tourism development, including establishment of facilities and infrastructure, services, and goods integrates SCP approach as regards ecosystems, and resource utilization.</p> <p>Tourism is an integral part of a circular economy in the Mediterranean region</p> <p>Government regulation, market-based tools and voluntary schemes are developed for Mediterranean tourism providing incentives for providers of tourism goods and services and visitors to support sustainable tourism.</p> | <p>3 major tour operators have entered voluntary sustainable tourism schemes for the Mediterranean by 2020.</p> <p>Labelling schemes for sustainable tourism are adopted by at least 50% of coastal tourism resorts in the Mediterranean by 2030</p> <p>Waste production is effectively decoupled from the annual fluctuation of tourism in the Mediterranean by 2030</p> <p>Legal and fiscal instruments are introduced in all coastal areas to ensure that Ecosystems are not damaged by tourism by 2020 and establishment of tourist activities becomes a steward of natural ecosystems by 2030</p> <p>Sustainable tourism campaigns are launched and visitors prefer the Mediterranean as destination for its sustainable tourism profile.</p> <p>Tourist offer is diversified in favour of Eco-tourism as alternative to mass tourism</p> <p>Setback zones as defined by the ICZM Protocol are integrated and respected by local coastal government and private operators</p> | <p>Governments and tour operators agree on the long-term benefits of tourism development models, based on an integrated and sustainable approach, for the Mediterranean region.</p> <p>Economic downturn in the Mediterranean is not perceived as an opportunity to lower sustainability standards in tourism to attract more visitors.</p> | <p><i>Section to be completed following Baseline report (section 3)</i></p> |

| Operational Objectives (by Driver) | Outputs | Means of Verification | Assumptions / Risks | Relevance to Protocols of the Convention and other Priorities (EU 7 th FP, UfM) |
|---|--|--|---|--|
| <p>5. Transportation (Marine / Land / Air) is based on sustainability principles, by adopting policies and targets regarding reduced GHG emissions, ecosystem integrity, phasing out of land-based and marine pollution.</p> | <p>Transportation infrastructure development is designed taking into account the integrity of ecosystems.</p> <p>Transportation means and logistics use BATs and BEPs to reduce GHG emissions and to increase resource use efficiency.</p> <p>The environmental cost of transportation is accounted for in the production of goods and services, and legislative / voluntary schemes are adopted to inform consumers on it.</p> <p>Mediterranean citizens live in healthier urban areas thanks to news models of transportation reducing air pollution and noise (could be also added in next operational objective)</p> | <p>Transportation development fully integrates processes for taking into account ICZM and Ecosystem protection methodologies by 2018.</p> <p>Transportation volume and mileage covered is decoupled from the increase in fuel consumption and GHG emissions by 2020.</p> <p>Governments have adopted legislative and incentive measures to encourage citizens to utilize more resource efficient and renewable energy based transportation patterns, by incorporating environmental costs and by adopting information and labelling schemes by 2018.</p> | <p>Innovative technologies and logistics become available and are fully integrated in transportation planning in the Mediterranean region.</p> <p>Resources become available for applying BATs and BEPs in the transportation sector.</p> | <p><i>Section to be completed following Baseline report (section 3)</i></p> |

| Operational Objectives (by Driver) | Outputs | Means of Verification | Assumptions / Risks | Relevance to Protocols of the Convention and other Priorities (EU 7 th FP, UfM) |
|--|--|--|--|--|
| <p>6. Sustainable development of Housing and Urban Development becomes a key priority in the Mediterranean region, leading to increased efficiency in resource use and developing the geographical web of a circular economy.</p> | <p>Housing and Urban development take into account resource use, including construction material, energy use (for construction, use of buildings and commuting), water availability and re-use, and availability of other resources for the operation of urban agglomerations so as to avoid excessive transportation of goods.</p> <p>Legislative and incentive measures are adopted in order to account for the sustainability indicator of housing developments, taking into account all factors, and provide a decision platform for citizens.</p> <p>Polluting and contaminating materials are phased out of construction, whilst recyclable materials and sustainable construction techniques are promoted through market and non-market incentives.</p> | <p>Ecosystem, resource and ICZM principles are fully integrated in the urban development and construction policies in the Mediterranean by 2020.</p> <p>Sustainability audits (<i>ex-ante</i> and <i>ex-post</i>) are carried out for urban development plans, and are taken into account by licensing authorities.</p> <p>Recycling of construction materials is introduced in the entire Mediterranean region by 2018, and becomes a fully developed practice by 2025.</p> <p>Construction material using polluting substances and POPs are entirely phased out by ...(TBC)</p> <p>“Smart cities” projects are launched in at least three Mediterranean countries by 2020.</p> | <p>Substantial population moves are not created in the Mediterranean region due to natural disasters or conflicts.</p> | <p><i>Section to be completed following Baseline report (section 3)</i></p> |

e) Road Map – Narrative description

Operational Objective 1: Food Production and Consumption is based on cleaner production models that use efficiently resources (land, water, air and species), do not contribute to point and non-point source pollution, and secure sufficient food production for present and future generations.

This Operational Objective aims at ensuring that all resources used for production of food are accounted for through legal and fiscal instruments to increase their efficiency and to limit waste and environmental degradation. This would be achieved through the strengthening of the relevant institutional set ups in charge of the agricultural sector, adherence to the principles of SCP in view of introducing a circular economy, and achieving significant reductions in waste and other polluting substances, through the adoption of waste-to-energy schemes, wastewater treatment and reuse and recovery and recycling of waste products.

Operational Objective 1 also aims at reducing point and diffuse pollution resulting from agricultural practices through the adoption of cleaner production in the agricultural sector, through the provision of needed technical expertise and exchange among the Mediterranean countries. As a result, pollution levels including POPs will be significantly reduced in industrial and agricultural practices by 2030.

Finally, Operational Objective 1 promotes market and labelling schemes for sustainable production of food as a means to empower consumers to decide in favour of sustainable consumption. It supports the need to change behaviours and attitudes in order for sustainable production patterns to become a comparative advantage of tourism and other services in the Mediterranean. It also plans to achieve that the market share of sustainable food products is increasing steadily to reaching more than 50% by 2030 and that labelling and incentive schemes are launched by 50% of producers by 2030 in support of sustainable production.

Operational Objective 2: Industrial and artisanal Production of Goods and their Consumption is based on cleaner production models that use efficiently resources (energy, raw materials, water, air), do not contribute to point and non-point source pollution, and secure sufficient production of goods for present and future generations.

This Operational Objective aims at bringing the Mediterranean region to a level where all resources used for production of goods, in industrial and artisanal production processes, are accounted for through fiscal instruments to increase their efficiency and to limit waste and degradation. By introducing BEP and BATs in those processes, and through the transfer of know-how and innovation, as well as by introducing market and labelling schemes for sustainable production of goods. In this way consumers will be empowered to decide in favour of sustainable consumption, and producers will be given the appropriate tools and incentives to shift to cleaner production models.

Through the implementation of Operational Objective 2 it is expected that Point and diffuse pollution resulting from industrial and artisanal practices will be significantly reduced as a result of cleaner production adopted in the industrial and artisanal sectors. At the same time waste production from industrial and artisanal activities is eliminated and waste-to-energy schemes are introduced by 2030 in a circular economy model.

By achieving the launching of labelling and incentive schemes by 50% of producers by 2030 it is expected that the market share of cleaner goods is increasing steadily and reaches more than 50% by 2030, while sustainable production becomes a comparative advantage of the economy of the Mediterranean region.

Operational Objective 3: Sustainable models are applied for **Energy production, Transfer and Use**, curbing GHG emissions and decoupling economic development from increasing energy consumption in goods and services Production and Consumption.

Energy production in the Mediterranean region, needs to be adapted to the challenges of modern times, including increased energy efficiency in all uses, especially as energy is one of the main polluting sectors in the Mediterranean and the potential for cleaner energy is considerable. Through Operational Objective 3 it is expected that energy production in the region will shift to being based on BEP s and BATs, including renewable energy and cleaner fuels for production, and significantly increased efficiency and savings in urban, industrial, transport and food production activities.

Accordingly, through Operational Objective 3 it is expected that GHG emission can be curbed by 10% by 2020 in the Mediterranean region, while efficient energy transfer systems, including High Voltage DC facilities and Smart Grids are developed in the Mediterranean, interconnecting the region and reaching energy consumers. At a macro-economic level, economic development and economic indicators growth is effectively decoupled from energy use and GHG emissions, and voluntary, market-based and legislative measures are adopted by Mediterranean CPs to promote sustainable energy production and consumption.

Following the introduction of Operational Objective 3 of Energy efficiency becomes integrated horizontally in the implementation of the BC Protocols by 2020, while Energy production and transfer, including fossil fuel exploration, renewables and energy grid development is designed taking into account ecosystem integrity.

By implementing the Operational Objective 3, Energy production from renewables will reach 20% by 2020 for the region, and the Mediterranean region will adopt the target of curbing GHG emissions by 10% by 2020 and by 30% by 2050.

Operational Objective 4: Tourism, based on an integrated and sustainable approach, is the model of tourist development in the Mediterranean, becoming a comparative advantage attracting visitors in the region.

This Operational Objective aims at directing one of the most important industries in the Mediterranean region, tourism and its development, into becoming a reference point for sustainability and cleaner production and consumption. Through government regulation, market-based tools and voluntary schemes incentives are given to providers of tourism goods and services and visitors to support sustainable tourism.

Tourism development, including establishment of facilities and infrastructure, services, and goods is guided and encouraged to follow a sustainable model taking into account ecosystems and resource utilization, therefore becoming an integral part of a circular economy in the Mediterranean region.

Under Operational Objective 4 sustainable tourism campaigns are launched and cleaner production and provision of goods and services, as well as cleaner consumption is supported, and visitors are encouraged to choose the Mediterranean as a destination for its sustainable tourism profile. As a means of measuring success, a number of major tour operators enter voluntary sustainable tourism schemes for the Mediterranean by 2020, and labelling schemes for sustainable tourism are adopted by at least 50% of coastal tourism resorts in the Mediterranean by 2030

In addition, regarding efficiency and resource use, waste production is effectively decoupled from the annual fluctuation of tourism in the Mediterranean by 2030, while legal and fiscal instruments are introduced in all coastal areas to ensure that Ecosystems are not damaged by tourism by 2020, and establishment of tourist activities becomes a steward of natural ecosystems by 2030.

Operational Objective 5: Transportation (Marine / Land / Air) is based on sustainability principles, by adopting policies and targets regarding reduced GHG emissions, ecosystem integrity, phasing out of land-based and marine pollution.

This Operational Objective aims at reducing the multiple effects of the various forms of transportation (marine/land/air) around and through the Mediterranean Sea, by integrating cleaner consumption and production patterns in it. By introducing BATs and BEPs in the transportation infrastructure, means, and logistics, it takes into account the integrity of ecosystems, and increased resource use efficiency / reduced GHG emissions are achieved. In addition, transportation development fully integrates processes for taking into account ICZM and Ecosystem protection methodologies.

By accounting for the environmental cost of transportation in the production of goods and services, and adopting legislative/voluntary schemes to inform consumers on it, transportation volume and mileage covered will be effectively decoupled from the increase in fuel consumption and GHG emissions, setting as a target to achieve this 2020.

Operational Objective 6: Sustainable development of Housing and Urban Development becomes a key priority in the Mediterranean region, leading to increased efficiency in resource use and developing the geographical web of a circular economy.

Under Operational Objective 6, the issues of urbanization, land use and construction practices, which constitute important economic and social activities, but at the same time have significant effects on the Mediterranean environment, are addressed from the standpoint of cleaner production and consumption. Housing and Urban development take into account resource use, including construction materials, energy use (for construction, use of buildings and commuting), water availability and re-use, and availability of other resources for the operation of urban agglomerations, so as to avoid excessive transportation of goods.

Legislative and incentive measures are adopted in order to account for the sustainability indicator of housing developments, taking into account all factors, providing, through legislative and incentive/labeling measures, a decision platform for citizens.

Polluting and contaminating materials are phased out of construction, whilst recyclable materials and sustainable construction techniques are promoted through market and non-market incentives. Ecosystem, resource and ICZM principles are fully integrated in the urban development and construction policies in the Mediterranean by 2020 and sustainability audits (*ex-ante* and *ex-post*) are carried out for urban development plans, and are taken into account by licensing authorities.

The introduction of recycling of construction materials should be introduced in the entire Mediterranean region by 2018, and becomes a fully developed practice by 2025, and "Smart cities" projects are launched in at least three Mediterranean countries by 2020.

Annex I

SWITCH-Med: a Programme to strengthen the Mediterranean region's leading role in the implementation of regional and national programmes for SCP

Annex I



SWITCH-Med: a Programme to strengthen the Mediterranean region's leading role in the implementation of regional and national programmes for SCP

The Mediterranean Region has common environmental problems and challenges which have led to the adoption of the Mediterranean Action Plan (hereinafter UNEP/MAP) in 1975 and the Barcelona Convention in 1976. This Convention provides a unique regional governance framework bringing together all the Mediterranean neighboring countries to address the root causes of the region's problems and its future prospects of development and protect the marine and coastal environment.

While some progress has been achieved, the existence of regional environmental institutions, agreements and strategies has not eliminated the environmental challenges faced by the Mediterranean. On the contrary, mainly wasteful production processes and the adoption of "consumption intensive" lifestyles are increasing the pressure on the local and regional environment. This pressure, which is characterized, inter-alia, by water scarcity, growing waste generation and intense tourism, is compounded by population growth and rapid urbanization in coastal areas.

In order to address these challenges, it is paramount to deliver a green and socially inclusive economy through sustainable consumption and production patterns, thus decoupling development from environmental degradation and resource depletion. That approach has been strongly supported by the last UN Conference on Sustainable Development held in Rio de Janeiro (Rio+20) in which the world's Heads of States reaffirmed its strong commitment with the Ten Year Framework Programme on Sustainable Consumption and Production Patterns (SCP).

The SCP approach is at the core of the Green Economy concept since it involves a radical transformation in the way goods and services are produced and consumed so that human development is effectively decoupled from planet degradation. A first formal acknowledgment by the 21 Mediterranean countries on the need to shift to SCP is clearly reflected in the Mediterranean Strategy for Sustainable Development (MSSD), a regional strategy coordinated by the Mediterranean Commission for Sustainable Development (MCSD) and approved by the Contracting Parties of the Barcelona Convention in 2005, which established sustainable consumption and production as major crosscutting objective to attain sustainable development. Likewise, UNEP/MAP has identified SCP as one of its key thematic priorities in the current 5-year Work Programme 2010-2014. Accordingly, one of the MAP components, the Regional Activity Centre for Cleaner Production (CP/RAC), has a specific mandate and a programme of actions assigned and endorsed by the Contracting Parties of the Barcelona Convention to promote SCP in the Mediterranean region.

According to all that the SWITCH-Med programme will address the need in the Mediterranean to promote sustainable consumption and production. The SWITCH-Med project will be implemented in the context of renewed interest for regional cooperation in the Mediterranean in the wake of the important political changes occurring in a number of Southern Mediterranean countries. These changes will only be sustained by a real economic integration which is itself conditioned by the mainstreaming of SCP in the less advanced countries of the region.

SWITCH-Med is a multi-component programme supported by the EU, with approximately 21 million €, addressing the need of the Mediterranean countries to promote sustainable consumption and production. It consists of two major components: a) a policy component; and b) a demonstration component.

The SWITCH-Med Policy Component focuses on strengthening the regional environmental governance and policy frameworks as provided by the Barcelona Convention and UNEP/MAP as well as on the development and implementation of national SCP policy action plans in nine Mediterranean countries.

The SWITCH-Med regional policy component will target the Barcelona Convention and its Contracting Parties² as well as Jordan and PoT. The main outputs from this component will include the submission to the Contracting Parties of the Barcelona Convention of a SCP Road Map for the Mediterranean, a SCP Med Methodology/Toolkit (COP 18th 2013) and a set of specific measures and objectives and corresponding timeline based on that Roadmap for the integration of SCP in the Regional Mediterranean policy & governance framework (COP 19th, 2015).

The SWITCH-Med national policy component will target the 9 ENPI South beneficiary countries (Morocco, Algeria, Tunisia, Libya, Egypt, Jordan, Israel, PoT and Lebanon) and will support them in the process of development and approval of their SCP National Action Plans (from hereafter NAPs).

UNEP/MAP will have the overall project's responsibility and will coordinate the project's regional component through CP/RAC. The UNEP's Division of Technology Industry and Economics (hereinafter UNEP/DTIE) will coordinate the national component and will associate CP/RAC in the implementation of all the corresponding activities.

The **SWITCH-Med Demonstration Component** will focus on the implementation of concrete actions tackling the barriers faced by key actors responsible for the shift toward SCP patterns. It consists of four major components:

Component 1, UNIDO MED TEST³ up-scaling: stimulating the demand and the supply of sustainable production services to industry.

Industry is facing numerous challenges in its effort to be competitive while also reducing its ecological footprint. Pressure from the stakeholders and throughout the supply chain is increasing, requiring internalization of the environmental costs associated to manufacturing, a more efficient use of resources and production inputs, compliance with national environmental regulation and adoption of international standards. In order to assist companies in dealing with such challenges and to direct them toward a sustainable production and the "green industry" paradigm, UNIDO designed a specific methodology, the Transfer of Environmentally Sound Technology (TEST), an integrated approach and a global program. In 2009 under the framework of the "Strategic Partnership for the Mediterranean Large Marine Ecosystem (LME)⁴ of UNEP/MAP, UNIDO launched the MED TEST initiative⁵ with the financial support of the GEF and the Italian government to promote the transfer and adoption of best available technologies in industries of the Southern Mediterranean Region. The upscale of MED TEST pilot initiative will enlarge the Mediterranean country coverage by including 6 new countries (Algeria, Israel, Lebanon, Jordan, PoT and Lybia), in addition to those already targeted during the first MED TEST pilot initiative (Tunisia, Morocco and Egypt), building on the UNIDO TEST methodology, on the existing network

² Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, the European Community, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia, Turkey

³ MED TEST is a UNIDO project under the MedPartnership initiative – www.unido.org/MEDTEST

⁴ UNEP/MAP initiative <http://www.medpartnership.org/>

⁵ www.unido.org/MEDTEST

of service providers already trained and on the valuable catalogue/database of sustainable production practices and documented industry cases implemented in the various industrial sectors in Tunisia, Morocco and Egypt.

Component 2, Green entrepreneurship and civil society empowerment: supporting the creation of new green and socially inclusive business models, targeting start-ups, and advocating sustainable consumption patterns and values among consumers and civil society at broad

Entrepreneurs are considered, according to the World economic Forum, key drivers of economic progress, contributors to technological innovation and new job growth. Accordingly, green entrepreneurs are called to have a leading role in the transition to economies that integrate the environmental capital as an asset for development and that are socially inclusive. Green entrepreneurs propose business models contributing to the integration of the socio-economic development of the human kind within the world's ecosystems. In summary, green entrepreneurs:

1. are visionaries aware of the need of changing the approach with which human beings have understood development and prosperity during the last century
2. aim at integrating the environmental, economic & social axis into the core business of the company.
3. provide eco-innovative solutions to the way goods and services are produced, consumed & offered with the objective of creating positive environmental and social externalities
4. propose business models whose scaling-up contributes to the greening of the economy
5. identify market opportunities inspired from the increasing citizens' shift to new consumption patterns and lifestyles adapted to the key factors shaping the socio-economic development of the XXI century (e.g. information and communication technologies, reformulation of the financial system, collaborative consumption, environmental degradation, resource efficiency, etc)

Market opportunities for green entrepreneurs mostly arise within societies with an increasing and empowered civil society local organizations (CSO) and a critic mass of citizens that are aware and are critical with the environmental and social impacts associated to current unsustainable models of consumption and production

Under the Demo Component of SWITCH-Med, a training and support Programme to empower Green Entrepreneurs and Civil Society will be developed in five selected Mediterranean countries. Through that Programme 2,000 Green Entrepreneurs will be trained, out of which, 20 will be granted with access to financial mechanisms and coaching-advising services. Likewise between 100 and 150 Local Leaders from Civil Society organizations will be trained on Sustainable Consumption and Production and the establishment of 5 civil society-led initiatives for sustainable lifestyles will be supported.

Component 3, SCP NAPs demonstration activities: implementing demonstration activities on SCP within the SWITCH Med policy component.

This component will consists of the development of demonstration activities on SCP in support of the implementation of ongoing national SCP, green economy related policy/planning processes and the SCP NAPs developed, as required, by the target countries with the coordination and support of UNEP/DTIE and CP/RAC in the time frame 2013/2016 under the SWITCH policy component. In this context, particular attention will be paid to developing synergies between the priorities and recommendations evolving from the SCP national policy and planning processes in the targeted countries and the demonstration activities to be undertaken in this subcomponent.

Component 4, Network Facility: establishing a SCP regional platform for sharing knowledge, disseminate best practices and facilitate networking among SCP key players (exchange, distil, connect and improve)

The Network Facility is set up within the SWITCH-Med initiative to maximize its impact by effective knowledge sharing and dissemination. The Networking Facility will be answering the need for networking (i) amongst SWITCH-Med projects and between these and related regional projects as well as between and with key stakeholders, (ii) disseminating lessons learned enhancing the impact and long-term improvements, (iii) distilling knowledge on the replication potential while (iv) reaching out to stakeholders and key policy makers within the Barcelona Convention network to increase ownership and sustainability. The Networking Facility will also provide a mechanism for disseminating lessons learned, capacity building tools and best practices from SWITCH-Med beyond the region, as well as drawing on similar lessons, tools and practices developed to promote the shift to SCP developed outside the region. Accordingly, the Networking Facility will pro-actively identify the key information needs, events, networking opportunities and policy intervention points for effective networking. Strategic interventions will be carried out in tandem with planned events and back-to-back with other events to maximize synergies. Networking efforts will also focus on how to play an effective advocacy role in raising awareness for and promotion of economic, environmental, social and other benefits among governments, business sectors and civil society.

Annex II
Tourism and recreational activities

Annex II

Tourism and recreational activities

Tourism is a major industry in the Mediterranean and a major source of income for some countries. In the period from 1995-2004, average annual growth in the number of foreign visitors was shooting up in countries such as Croatia (20%), Syria (15.7%), Egypt (11.7%), Algeria and Turkey (10.1%) (UNEP/MAP/BLUE PLAN, 2008). In 2007, 275 million international tourists visited the Mediterranean states, representing 30% of global international tourism (UNEP/MAP-PLAN BLEU, 2009). Forecasts of international tourist arrivals indicate that it is in the countries to the south and east of the Mediterranean and in the eastern Adriatic that the most marked growth will occur.

Although the activity cruise travelling has been analysed above as a form of passenger transport, the cruise market share is valued at around 4% of the global tourist market, with massive growth potential. In Europe, for example, sector forecasters are talking of a 60% increase in passengers from 2005 to 2015, with the Mediterranean being largely responsible for this growth.

Mediterranean tourism is characterised by the demand for cheap package holidays and budget airlines and low cost flights from Northern Europe. Moreover, it is characterised by a low consumer awareness of the environmental impacts of mass tourism.

The most popular destinations are coastal zones, where tourism and recreation are one of the human activities most directly related to the environment, since the natural characteristics of the coast attract tourists. However, the diversity and fragility of these coastal and marine ecosystems may suffer greatly from tourism-related impacts.

Tourism and biodiversity are closely linked. Although tourism contributes to the loss of biodiversity by causing land and marine areas to become built-over, outstanding sites to become degraded or non-native species to be introduced by the very resources which it generates, it can also contribute to their protection and help safeguard the force of attraction of biodiversity.

On the other hand, in 2006, international tourist spending in the Mediterranean amounted to some 208 billion USD (UNEP/MAP/PLAN BLEU, 2009). Being a job-creating and foreign currency-generating sector, international tourism contributes to the countries' economic development. However, the development sustainability of this sector implies an equitable redistribution of the wealth it generates, as well as a minimisation of its environmental impacts.

Tourism implies a rise in the coastal population, which increases demands for resources such as water, food, energy and construction material, and also increases waste and wastewater generation. Moreover, the artificial surfaces due to housing, services and recreation in the coastal zones (harbours and marinas, transport, waste and water treatment facilities, etc.) and the high level of armouring of the shorelines by coastal defences and harbours lead to an alteration of coastal landscape, the occupation of land and sea, land reclamation, the alteration of local hydrodynamics and coastal erosion.

The increase in the frequentation of coastal areas (dunes, wetlands, beaches and sea-cliffs) has an impact on the conservation status of natural sites and species.

Regarding beach-related activities, the beach nourishment needed to maintain beaches functionality causes physical damage to the seafloor, alters marine water quality and disturbs benthic communities.

Recreational boating activities may cause damage to habitats and species, in particular due to

collisions, underwater noise; boat anchors, especially in sites containing meadows or coralligenous formations; pollution by oil, wastes and wastewater discharges; the use of products for the maintenance of boat hulls; and the voluntary or involuntary introduction of non-indigenous species stuck to the hulls of the boats or hanging to their anchors.

The watching of species (whales watching) and underwater landscapes (scuba diving) may cause damage if the rules necessary for the safeguarding of the species and habitats are not considered and enforced, or if endangered or threatened species are taken out of their environment.

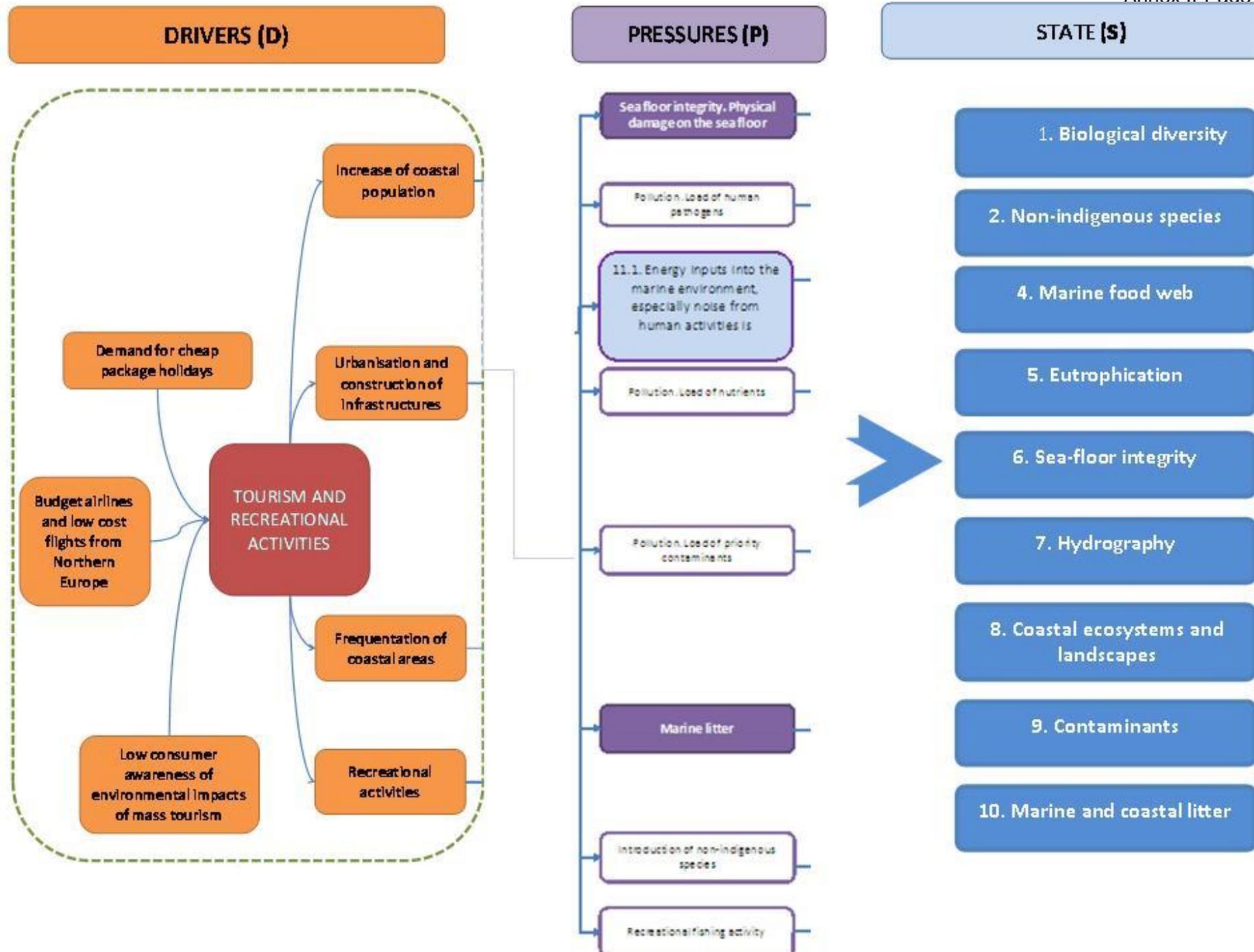
Finally, recreational fishing activity may lead to depletion in fish stocks.

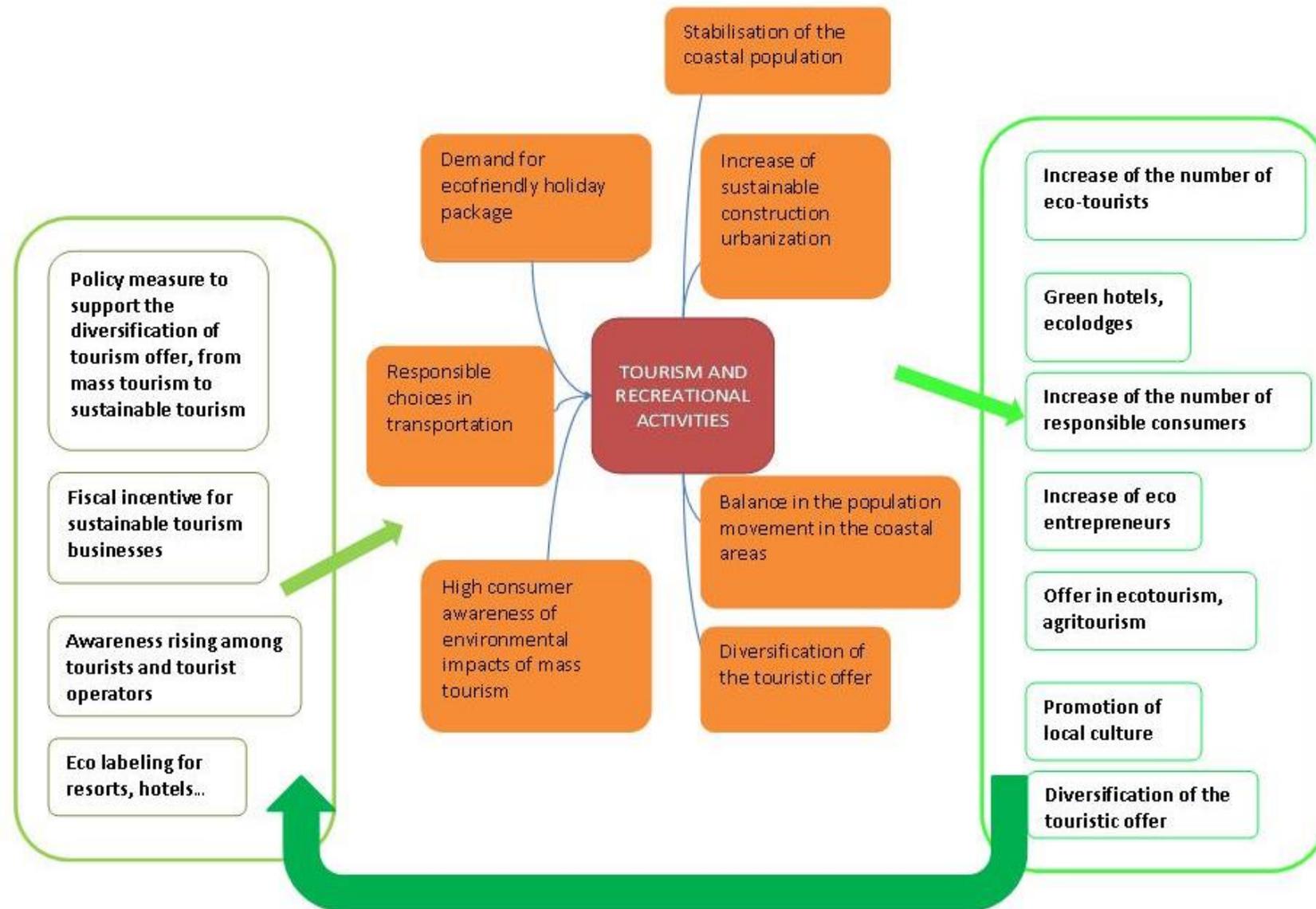
Therefore, as discussed above, tourism and recreational activities in the Mediterranean have a direct impact on the following ecological status descriptors:

1. Biological diversity
2. Non-indigenous species
3. Harvest of commercially exploited fish and shellfish
4. Marine food webs
5. Eutrophication
6. Sea-floor integrity
7. Hydrography
8. Coastal ecosystems and landscapes
9. Contaminants
10. Marine and coastal litter
11. Underwater noise

In the figure below all these relations between tourism and recreational activities and specific drivers, and the environmental pressures and states affected expressed as operative objectives established by MAP Ecosystem Approach roadmap are displayed in a graphical format.

In the second figure, some SCP solutions are presented, allowing to make a change on the upstream factor that determine tourism, like for instance raising the awareness about certain mass tourism patterns make people ask for more environmental friendly tourist facilities . This has a positive effect on the environment, reducing the primary source of all the negative impacts.





Source: Report on "Addressing the drivers of the Mediterranean ecosystem degradation – the SCP approach in the application of the Ecosystem Approach to the management of human activities in the Mediterranean" (CP/RAC – January 2013).

Annex III

Brief Description of the main tools and initiatives for evaluating the environmental impact of consumption and production

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| CONCEPT | DEFINITION |
|--|--|
| <p>Life Cycle Assessment (LCA) / Environmental Life Cycle Assessment (ELCA)</p> | <p>Tool for the systematic evaluation of the environmental aspects of a product or service system through all stages of its life cycle.</p> <p>The extraction and consumption of resources (including energy), as well as releases into air, water and soil, are quantified through all stages of the life cycle. Their potential contribution to important environmental impact categories is then assessed. These include climate change, toxicity, ecosystem damage and deterioration of the natural resource base. LCA provides an adequate instrument for environmental decision support. Reliable LCA performance is crucial for achieving a life-cycle economy. The International Organization for Standardization (ISO), a worldwide federation of national standards bodies, has standardized this framework within the series ISO 14040 on LCA.</p> |
| <p>Environmentally Extended Input-Output Analyses (EE-IOA)</p> | <p>EE-IOA is a tool for following the links between the final use of products and global environmental emissions. The EE-IOA model is formed around an input-output table (IOT) showing monetary flows between all the sectors in the economy, and between them and final use (i.e. by households, government or sale on the export market). It also includes values and flows of imports. The IOT is then extended with environmental satellite accounts (e.g. the direct emissions to air from each industry) to give an environmentally-extended input-output table (EE-IOT). The EE-IOT is then processed to produce tables, which follow the full production chains of products and estimate the environmental pressures caused along this production chain. In this way, the direct and indirect pressures caused by the purchase of different final product groups can be estimated and compared.</p> |

Source: Report on "Addressing the drivers of the Mediterranean ecosystem degradation – the SCP approach in the application of the Ecosystem Approach to the management of human activities in the Mediterranean" (CP/RAC – January 2013).