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Analysis of coherence between regional documents adopted under the SPA/BD Protocol and the ICZM policy framework

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Analysis of coherence between regional documents adopted under the SPA/BD Protocol and the ICZM policy framework

I. Introduction

The rationale for carrying out the herewith presented coherence analysis is found in the UNEP/MAP Mid-Term Strategy 2016-2021¹ (MTS), which *inter alia* calls for ‘synergy, harmonisation of efforts and optimisation of the use of resources in implementing the Barcelona Convention and its Protocols’. As a collaborative effort of PAP/RAC and SPA/RAC, the analysis is meant to contribute to integrated implementation of the Barcelona Convention (BC) sectoral policies and to streamlining the Integrated Coastal Zone Management (ICZM).

Within the Barcelona Convention system, the ICZM is seen as a cross-cutting theme and a ‘transversal policy, with strategic options, plans and management measures, which can integrate and reflect on the same coastal geographic unit (with its terrestrial and marine parts) all thematic policies and horizontal dimensions, encompassing development measures, environmental protection, SCP², adaptation to climate change, etc.’³

The analyses focuses on the coherence between Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (SAP BIO) and the ICZM Protocol, including the Common Regional Framework (CRF) for ICZM as a strategic instrument meant to facilitate implementation of the ICZM Protocol. Moreover, consistency of the SAP BIO with the Conceptual Framework for Marine Spatial Planning⁴ (CF for MSP) was reviewed. The analysis also looked into the implementation of SAP BIO (as evaluated in the UNEP(DEPI)/MED WG. 459/3) to identify areas where application of the ICZM tools and instruments could have made a stronger contribution to the implementation of the SAP BIO regional priority actions. The intent was to identify areas where consistency and complementarity could be improved, and to draw recommendations for streamlining the ICZM Protocol provisions into a new SAP BIO (preparation of which is expected to be mandated for the biennium 2020-21).

Other documents adopted under the SPA/ BD Protocol⁵ were also taken into account in carrying out the coherence analysis, and their consistency with the main elements of the ICZM Protocol, CRF and CF for MSP was assessed (but on a much more limited scale compared to the assessment conducted for the SAP BIO). The aspects related to the issue of artificial reefs were considered too.

The overall aim of the analysis was to identify ICZM approaches, tools and instruments that can play a more prominent role in the next SAP BIO cycle and in further implementation of the SPA/ BD Protocol i.e. to identify areas where the two policy frameworks could complement each other thus advancing biodiversity protection agenda in the Mediterranean and contributing to MTS goals.

The methodology developed to support the analysis (presented in a separate document) provides for a structured assessment of coherence between various regional documents adopted under the SPA/ BD Protocol on one, and provisions of the ICZM Protocol and the evolving policy frameworks for ICZM and marine spatial planning on the other side. Assessment of coherence for the SAP BIO was based on a four grades scale, ranging from strong, through moderate and weak, to a lack of coherence⁶.

¹ Decision IG.22/1

² Sustainable Consumption and Production

³ UNEP/MAP Programme of Work 2016-2017, Decision IG.22/0

⁴ Decision IG.23/7

⁵ Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean

⁶ ‘Strong coherence’ was used to describe situations where most of the examined ICZM/ MSP provisions were taken into account in the assessed document, ‘moderate coherence’ when this was the case for many, ‘weak coherence’ for few, and ‘lack of coherence’ where none of the relevant provisions were integrated in the SAP BIO/ other assessed documents.

Recommendations were mainly drawn for the elements/ areas where weak or lack of coherence were established.

II. Analysis of the SAP BIO coherence with the ICZM Protocol and Common Regional Framework

II.1. Key features of the SAP BIO in the context of coherence analysis

SAP BIO was adopted in 2003 following a participatory preparation process. The purpose of preparing the Programme was to establish a basis for the implementation of the 1995 SPA Protocol (now the SPA/BD Protocol), as well as to provide principles, measures and concrete and coordinated actions for the conservation of the Mediterranean marine and coastal biodiversity within the framework of its sustainable use. The document comprises 30 regional priority actions (RPAs) and 63 National Action Plans (NAPs).

The SAP BIO regional level analysis was derived from the national analyses conducted in 18 countries⁷, whereas the document contains a detailed assessment of the status, threats and trends of the Mediterranean coastal and marine biodiversity. Main threats that have been identified include: pollution; exploitation of natural resources (fishing); uncontrolled urbanisation and construction of infrastructure; invasive species; international trade in endangered species; global warming and related effects; changes in land use; uncontrolled recreational activities; fresh water scarcity; and aquaculture (inadequate practices). Gaps in the knowledge of the Mediterranean biodiversity have been identified at individual/ population (genetic diversity), species and community/ habitat levels.

The ICZM Protocol was adopted five years into the implementation of SAP BIO, nevertheless the concept of Integrated Coastal Area Management (ICAM) was in place at the time of the SAP BIO preparation and the importance of integrated management for effective biodiversity conservation is recognised in the Programme. Consequently, a number of typical ICZM approaches and tools were considered and/ or integrated.

The SAP BIO for example recognizes that land-based activities constitute a strong pressure on marine biodiversity and that integrated management approaches are needed in all the preservation initiatives, addressing activities on land as well as land-sea interactions. At the same time, the SAP BIO recognizes the need for a better understanding of socio-economic aspects of bio-conservation (while acknowledging little had been achieved in that respect by the time of the document's drafting).

The SAP BIO analysis of administrative responsibilities clearly pinpoints lack of coordination and overlapping responsibilities (which is one of the central ICZM topics) as a problem for effective biodiversity conservation. A set of typical ICZM issues (issues to be tackled through integrated approaches) was also identified in relation to the management of marine protected areas (MPAs), including: inadequate legal frameworks; lack of coordination/ overlapping competencies; interference with other human activities (primarily tourism); lack of participation in decision-making processes; low awareness; insufficient capacities, data and monitoring; lack of resources; lack of effective conservation measure; poor enforcement, and others.

Importance and diverse roles of different stakeholders are elaborated in the SAP BIO, which is consistent with the participatory approach as an essential tool for ICZM. For the cooperation on international level, the need for transfer/ exchange of knowledge and experiences (as another important ICZM topic) is recognised.

In the analysis of commercial fishing as an activity with pronounced negative impacts on marine biodiversity, unsustainable practices have been identified and a general failure of traditional

⁷ Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, Greece, Israel, Italy, Lebanon, Libya, Malta, Morocco, Slovenia, Syria, Spain, Tunisia and Turkey.

management measures observed. Several identified problems – e.g. lack of coordinated management, rapid disappearance of traditional knowledge, weak statistics – correspond with the issues that ICZM approaches and tools are targeting.

Alignment between SAP BIO and ICZM agendas is visible from the Programme's priority setting too. The SAP BIO priorities have been identified in order to reduce the stresses and prevent/ mitigate impacts on marine and coastal biodiversity as well as to:

- Promote bio-conservation friendly sector policies, procedures and techniques in the key sectors (tourism, fisheries, agriculture);
- Identify gaps, uncertainties and trends in scientific knowledge;
- Improve legal frameworks;
- Provide for capacity building;
- Integrate SAP BIO actions into regional and national contexts;
- Strengthen cooperation;
- Provide for implementation of joint actions of MAP centres;
- Promote and implement participatory actions.

In line with the above, seven SAP BIO priorities have been determined, and corresponding priority actions formulated. Moreover, targets, objectives and specific actions have been elaborated for 30 SAP BIO RPAs. The seven priorities are: 1) Inventorying, mapping and monitoring Mediterranean coastal and marine biodiversity; 2) Conservation of sensitive habitats, species and sites; 3) Assessing and mitigating the impact of threats to biodiversity; 4) Developing research to complete knowledge and filling in gaps on biodiversity; 5) Capacity-building to ensure coordination and technical support; 6) Information and participation; and 7) Awareness raising.

Another especially relevant part of SAP BIO (from the coherence analysis perspective) is its governance chapter. A range of interventions needed to improve governance for sustainable use and conservation of biodiversity was identified in this part of the document. The interventions include promotion of practices compatible with biodiversity protection (such as sustainable and integrated management; investment in education, science and technology; public participation; protection of cultural heritage); integration of environment and socio-economic issues in developing management strategies; promotion of transboundary initiatives, and others. Especially important is recognition of the need for the development of integrated management strategies while taking into account land-sea interactions and complexity of ecological and economic processes occurring in the coastal zone.

The need for synergy and cooperation among all organisations with roles in implementing the SAP BIO is also emphasised, calling for coordination and collaboration at national level, among inter-governmental organisations, and among NGOs whose activities spread across the Mediterranean.

II.1.1 Main challenges for the assessment

In carrying out the assessment of SAP BIO's coherence with provisions of the ICZM Protocol, as well as with contents and recommendations laid out in the CRF for ICZM, several challenges were faced. They are listed below, alongside with the approaches taken to overcome them:

1. The BC policy framework evolved substantially over the course of 15 years since the SAP BIO adoption⁸, which made comparison and assessment of coherence (between the

⁸ The EcAp (ecosystem approach) process is underway, including definition of Good Environmental Status (GES) for 11 Ecological Objectives and implementation of Integrated Monitoring and Assessment Programme (IMAP) with related indicators (consistent with the EU Marine Strategy Framework Directive – MSFD –

documents reflecting different stages in the development of policies to protect the Mediterranean marine and coastal environment) less clear-cut. This challenge was overcome by interpreting concepts and approaches introduced/ elaborated after the Programme has been adopted, and by linking them to the ones integrated in the SAP BIO whenever reasonable/ possible, whereas in some instances (for example for the CRF recommendations on reaching the Good Environmental Status through ICZM) it was concluded the assessment was not applicable.

2. A similar challenge originates from the fact that SAP BIO precedes the ICZM Protocol. Nevertheless, the concept of integrated management and related principles (such as participation, coordination, and cooperation) were already recognised and integrated in the SAP BIO, which largely helped with overcoming this particular challenge in the assessment of coherence.
3. Different scopes and nature of compared documents represented another challenge for the assessment. The SPA/ BD Protocol and SAP BIO focus on biodiversity protection, while the ICZM Protocol and CRF address a wide range of issues arising from a multitude of processes and activities in the coastal zones. To address this challenge, the assessment was done having in mind the objectives, approaches, tools and instruments embedded in the compared documents (rather than their specific content in each and every case).
4. The SAP BIO played an important role as a regional framework for biodiversity conservation over the past 15 years, and the period of its applicability is almost over: elaboration of a new SAP BIO is expected for the period after 2020. For this reason, evaluation of the SAP BIO implementation was also included in the coherence analysis, primarily for RPAs that by their nature correspond to various ICZM topics. Both the assessment of the document itself and of the report on its implementation⁹ were conducted with a view to identify elements the future SAP BIO should contain to ensure synergy, harmonisation of efforts and optimal use of resources in implementing the Barcelona Convention biodiversity and ICZM policies.

II.2. Detailed assessment: the main findings

The detailed analysis of consistency and complementarity of the SAP BIO with the ICZM policy framework was carried out by using the assessment matrices presented in Annex 1. As a first step, coherence was assessed on the level of principles and objectives. In the second step, the coherence was assessed for different ICZM provisions following the CRF structure and themes addressed in the document. The main findings of the assessment are presented in the subsequent sections. The third step of the analysis referred to the coherence between the SAP BIO and CF for MSP; these findings are presented in section III.

Part of the assessment related to the SAP BIO implementation is presented in section IV.

II.2.1 Objectives, general principles and related ICZM requirements

The ICZM Protocol and CRF objectives focus on the sustainable development of coastal zones/ sustainable use of its natural resources, including preservation of the coastal zone and of integrity of its ecosystems. The SAP BIO objectives are primarily set to provide for conservation of marine and coastal biodiversity and are thus highly supportive of the ICZM ones. Coordination/ good governance feature prominently in both (SAP BIO and ICZM) sets of objectives. The SAP BIO objectives can be described as a subset of the ICZM objectives, exhibiting strong coherence and complementarity with them. A gap has been identified in relation to climate change aspects, which are covered in the ICZM Protocol/ CRF

approach). The ICZM Protocol came into force in 2011 and the Conceptual Framework for the introduction of MSP has been adopted in 2017.

⁹ Evaluation of the implementation of SAP BIO - preliminary draft report (UNEP(DEPI)/MED WG. 459/3) presented at the Fifth Meeting of National Correspondents of the SAP BIO held in February 2014 in Marseille.

objectives, but not addressed under the SAP BIO objectives. The relevance of climate change for biodiversity conservation in the Mediterranean has however been recognised and addressed through the 2009 SAP BIO climate change updates.

The overall coherence between the ICZM Protocol/ CRF and SAP BIO principles has been assessed as moderate. The SAP BIO principles mirror global policy developments at the time of the document's adoption and are strongly referenced to Rio and Johannesburg summits on sustainable development (from 1992 and 2002). By and large, they are coherent with the ICZM Protocol principles as both sets of postulations incorporate the ecosystem and participatory approaches, and a prevention principle. The ICZM Protocol principles, on the other hand, are more diversified and address a range of issues pertinent to the management of coastal zones.

Several other elements of the ICZM Protocol¹⁰ are considered in the CRF in conjunction with the ICZM objectives and general principles (set out in Articles 5 and 6 of the ICZM Protocol). The assessment for these elements showed strong coherence of the SAP BIO regarding coordination and the ICZM Protocol requirements on formulation of national strategies, implementation plans and programmes. On the other hand, weak (or lack of) coherence was established for natural hazards and for environmental assessments (including transboundary ones). Environmental assessments (EAs) are not addressed in the SAP BIO¹¹ even though Article 17 of the SPA/ BD Protocol explicitly calls for implementation of environmental impact assessment (EIA) procedures. The SAP BIO does not address natural hazards, which is compatible with the scope and purpose of the document; significance of climate change in biodiversity conservation is recognised (but its implications are addressed in the SAP BIO climate change updates).

II.2.2 The need for integrated management and sustainable development; regional and national strategies, plans and programmes

A strong coherence has been established for the SAP BIO's treatment of a range of the ICZM Protocols provisions related to integrated management, sustainable development, cooperation and development of regional and national strategies, plans and programmes, as for example:

- The SAP BIO recognizes and strongly endorses the need for integrated coastal zone planning and management, calling for the implementation of Integrated Coastal Area Management (equivalent to ICZM) schemes;
- The need for cooperation is identified in reference to: enhancing the biodiversity-related knowledge; SAP BIO general priorities; assessment and mitigation of impacts from various threats to biodiversity; and follow up activities;
- The emphasis on sustainable use of natural resources and sustainable development is found throughout the document (in particular in relation to improving the governance structures);
- The SAP BIO envisages (*inter alia*) preparation of National Action Plans (NAPs) for the conservation and/or management of specific species or groups of species.

II.2.3 Geographical coverage, transboundary cooperation and different geographic scales

In terms of geographical scope, the SAP BIO covers an area wider than the coastal zone (as defined in Article 3.1 of the ICZM Protocol) since it considers priority habitats and priority actions located in and/or referring to areas outside the coastal zone boundaries (for example in offshore areas and high seas, or

¹⁰ As elaborated in Article 7 on coordination, Article 18 on national coastal strategies, plans and programmes, Article 19 on environmental assessments, Article 22 on natural hazards, Article 28 on transboundary cooperation, and Article 29 on transboundary environmental assessments.

¹¹ In the evaluation of the document's implementation, however, a note is taken of and relevance of Environmental Impact Assessments and Strategic Environmental Assessments practices in the Mediterranean is discussed at length for a range of regional priority actions.

beyond the borders of competent coastal units on land). This is in line with the ecosystem approach, and hence strongly coherent with the ICZM Protocol/ CRF approach.

The same finding (on strong coherence) applies to transboundary cooperation, which is emphasised throughout the SAP BIO; coordination and development of common tools for implementing National Action Plans (NAPs) is, for example, one of the RPAs where such cooperation is necessary. The SAP BIO RPAs and NAPs refer to different scales/ levels, which is in line with the requirement that ICZM should be approached at various geographic scales and administrative levels (regional, sub-regional, national and sub-national).

II.2.4 Preserving coastal zone's integrity and regulation of economic activities

The CRF addresses the ICZM Protocol articles on the protection of coastal zones (Article 8) and regulation of economic activities (Article 9) within a headline on ecosystem-based management for Good Environmental Status (GES) and sustainable development. In conjunction with these, the ICZM Protocol articles on specific coastal ecosystems, coastal landscapes, islands, cultural heritage, participation and awareness raising (Articles 10 – 15) are addressed within the same CRF section, as well as articles on natural hazards, coastal erosion and response to natural disasters (Articles 22 – 24).

Even though direct references to GES are not found in the SAP BIO (understandably so as the EcAp process and introduction of GES came after its adoption), strong coherence with the respective Protocol's provisions and CRF recommendations has been established for the SAP BIO's treatment of protection of specific coastal ecosystems, protection of (small) islands, participation and awareness raising.

There is a high level of consistency between priority coastal and wetland ecosystems identified in the ICZM Protocol and the sensitive habitats identified in the SAP BIO – the only differences being that the SAP BIO does not include coastal forests and woods, but prioritizes rocky coasts (whereas both documents focus on sand dunes and coastal wetlands). Small islands are identified as another sensitive habitat in the SAP BIO, and the need for their protection is especially emphasised. The SAP BIO provides specification of priority marine habitats, including seagrass meadows, mid-littoral bio-constructions, bio-constructions of *Cladocora caespitose*, coralligenous communities, marine caves, and others. Involvement of various stakeholders is duly considered/ emphasised throughout the SAP BIO, and a strong focus on awareness raising and capacity building (for biodiversity protection) included.

As regards the ICZM Protocol's provisions on protection of coastal zones and regulation of economic activities, moderate coherence has been established.

The SAP BIO addresses provisions of the ICZM Protocol Article 8 (on preserving the coastal habitats, landscapes, natural resources and ecosystems) in a consistent manner as regards their intent, but less so in terms of promoting the use of planning tools and criteria¹² to achieve preservation/ integrity of the coastal zone. Urbanisation and infrastructure development are, on the other hand, recognised as important threats to biodiversity in the SAP BIO.

The SAP BIO describes economic activities with a view to threats they pose to coastal and marine biodiversity; consistency with the ICZM Protocol/ CRF is obvious as regards the key sectors (tourism, fisheries, agriculture). The SAP BIO calls for economic, social, institutional and environmental indicators, primarily to monitor implementation of proposed measures, which is consistent with but different compared to the ICZM requirement (Article 9) on indicators of development to ensure sustainable development of the coastal zone and reduce pressures that exceed carrying capacity. The ICZM calls to minimise the use of natural resources, promote good practices etc. are integrated in the SAP BIO.

¹² Such as set-back zone, open areas with restricted/ prohibited urban development, limiting linear extension and new transport infrastructure, free access to the sea, etc.

Weak coherence has been identified for the protection of landscapes and cultural heritage, as well as for the development of policies to prevent natural hazards and coastal erosion; as regards response to natural disasters, lack of coherence was found. The identified inconsistencies cannot be necessarily labelled as a contradiction or weakness on the part of SAP BIO given the fact that these do not represent a major factor for biodiversity conservation. An exception is the issue of climate change (addressed in the 2009 SAP BIO updates) and to some extent coastal erosion¹³ which could be paid more attention in the new SAP BIO (provided its impacts on biodiversity are assessed as significant on a regional scale).

As already mentioned, the SAP BIO predates elaboration of the ecosystem approach within the Barcelona Convention including the definition of Ecological Objectives and GES¹⁴. Assessment of coherence between the SAP BIO and CRF references to GES was therefore deemed as non-applicable. Nevertheless, it is worth reiterating the ecosystem approach/ integrated management represent constituent elements of SAP BIO.

According to the CRF for ICZM, understanding and addressing the land-sea interactions (in terms of natural processes, land and sea uses and activities, and planning processes) is crucial to ensure sustainable management and development of coastal zones, and coherent planning of land- and sea-based activities. The SAP BIO treatment of land-sea interactions (LSI) is to a large extent coherent with that of the CRF, whereas LSI is addressed in the context of the need to improve governance mechanisms and introduce Integrated Coastal Area Management (ICAM) schemes to manage complex ecological and economic processes that occur in the coastal zone.

II.2.5 Tools and instruments to implement the ICZM and CRF

The SAP BIO pays much attention to monitoring and overall there is a strong coherence between the document and the ICZM provisions on monitoring, observation and keeping up to date inventories. Inventorying, mapping and monitoring is one of the seven SAP BIO priorities that focuses on sensitive coastal, wetland and marine habitats, main biodiversity threats, and indicators. The same conclusion (on strong coherence) applies to the requirements on exchange of scientific and technical information. Several SAP BIO priorities are directly relevant here, including: Developing research to complete knowledge and filling in gaps on biodiversity; Capacity-building to ensure coordination and technical support; Information and participation; and Awareness raising.

The ICZM Protocol requirement to ensure public access to monitoring information is not directly/ fully addressed¹⁵ in the SAP BIO. Similarly, some inconsistencies or partial coverage of the ICZM Protocol calls for cooperation in defining and using coastal management, resource use and economic activities indicators have been identified. In the SAP BIO, indicators are primarily addressed under RPAs 1, 3 and 4, focusing on biodiversity and effectiveness of management measures.

CRF recommendation on implementation of appropriate assessments on the use and management of coastal zones (while ensuring their results are utilised for formulation of adequate policy responses) is partly addressed in the SAP BIO. Assessing and mitigating impacts of threats is elaborated under priority 3, but there is a gap as regards SAP BIO treatment of environmental impact and strategic environmental assessments (EIA and SEA), including the nature appropriate assessments.

¹³ Coastal erosion is discussed in the current SAP BIO as a problem affecting biodiversity (in the context of desertification and habitat loss/ fragmentation) but not addressed on the level of prevention/ mitigation measures and other requirements of the ICZM Protocol Article 23 (e.g. anticipating the impacts of coastal erosion, taking measures to maintain or restore the natural capacity of the coast to adapt to changes, etc.).

¹⁴ Decision IG. 20/4 on EcAp Implementation Roadmap from 2012 and Decision IG.21/3 on the Ecosystems Approach including adopting definitions of Good Environmental Status (GES) and targets from 2013.

¹⁵ Partly addressed through the RPA 26 - Facilitate access to information for managers and decision-makers, as well as stakeholders and the general public.

The assessment of the SAP BIO provisions against those of the ICZM Protocol and CRF showed a lack of coherence for environmental assessments: the SAP BIO calls for the assessment and mitigation of impacts of threats to biodiversity overall, but does not specifically mention EIA, SEA or nature appropriate assessments. The only exception is a specific action calling for standard EIAs to be conducted in relation to controlling the aquaculture practices (under RPA 20). The report on the implementation of SAP BIO, however, pays much attention to environmental assessments (more information in section IV).

Moderate coherence has been determined for the SAP BIO's treatment of coordination and governance mechanisms. The ICZM requirements on coordination and establishment of adequate governance structures¹⁶ are addressed in the SAP BIO in a manner pertinent to biodiversity protection, most notably through the document's section on coordination and synergy between relevant organisations (including cooperation with other MAP components), as well as through several priority actions and considerations of governance issues. The document, however, does not refer to the use of ICZM governance structures (if/ when established) for biodiversity-related planning and management. Requirement on early stakeholder engagement is thoroughly addressed in the SAP BIO.

As regards the marine spatial planning (MSP) and land policy, the assessment showed weak coherence between the SAP BIO and the ICZM Protocol/ CRF.

The SAP BIO recognizes and emphasises the need for better planning (and endorses integrated approaches to it) for biodiversity conservation; it also advocates a focus on LSI, and contains objectives (linked to RPA 17) related to land use planning and its potential to contribute to biodiversity protection. The document however does not refer to MSP – understandably so as recommendations on the application of MSP entered the BC policy arena after the document was adopted. The use of MSP should nevertheless be strongly promoted and integrated in the new SAP BIO for post 2020 period, mainly for the potential of this tool to reduce pressures, to reduce conflicts between various maritime uses, to identify areas deserving protection and elements for ensuring connectivity among relevant habitats.

Land use (spatial) planning did not receive much attention in the SAP BIO, even though changes in land uses were identified as a major threat to biodiversity; the document does call for elaboration of measures to control impact of land use changes on biodiversity.

The CRF recommendation on diagnosing sensitive coastal zones (threatened by urbanisation and climate change) is partly addressed through priority actions related to the assessment and mitigation of impacts of threats to biodiversity (e.g. RPAs 12, 16 and 17). On the other hand, the use of specific land policy instruments (such as land acquisition, concessions, land stewardship etc.) has not been taken up in the SAP BIO. The CRF calls for the application of land policy instruments and mechanisms in coordination with spatial planning (including marine spatial planning), recognizing land policy is an essential tool to limit land-based pressures. Continuous scientific observation and exchange of experiences – addressed in another CRF recommendation – are, generally speaking, duly covered in the SAP BIO, but without specific references to land policy.

Treatment and importance attached to economic instruments in the SAP BIO is strongly coherent with the ICZM Protocol and CRF.

SAP BIO recognizes fund raising potential of economic instruments and recommends their use (where appropriate) in relation to elaboration of national funding and implementation strategies. Better redistribution of public revenues as a potential funding source for biodiversity protection is not directly identified in the SAP BIO, but the need to use appropriate approaches to access national/ local budgets and funds is recognised in the document.

¹⁶ The CRF, for example, notes 'the establishment and smooth functioning of a multi-level governance mechanism is fundamental for achieving complex and ambitious goals of ICZM...'

Promotion and use of various market-based instruments is strongly advocated in the SAP BIO. For example, eco-taxes for protected areas visits and other economic and financial tools to protect biodiversity are recommended (RPA 18). Use of market-based instruments is also discussed in the governance section of the SAP BIO. However, the document does not contain specific actions dedicated to sharing information on good practices with the use of these instruments.

There are no considerations on environmentally harmful subsidies and how their removal could aid biodiversity conservation goals. The need for better use of economic analysis and assessments for biodiversity protection, on the other hand, is emphasized in the SAP BIO (e.g. the need to include all the benefits and services of biodiversity in economic analyses and modelling is recognised).

A strong coherence with the ICZM and CRF provisions on training, communication and information has been determined. Research (including dissemination of results), training and awareness raising activities are at the core of SAP BIO, elaborated through various priority actions, most notably through RPAs 22, 23, 26, 29 and 30. Regional priority actions 18, 20 and 21 are also relevant as they refer to promotion of practices that contribute to sustainability of economic sectors (tourism, aquaculture and fisheries); promotion of practices compatible with biodiversity conservation is addressed in the SAP BIO sections on necessary governance improvements too. Public participation (and information) are one of the seven SAP BIO priorities.

Overall coherence in the way international cooperation has been addressed in the SAP BIO (compared to the ICZM Protocol/ CRF requirements and recommendations) was assessed as moderate.

Networking/ use of networks was recommended under a large number of SAP BIO priority actions. Standardisation of sampling and monitoring protocols is integrated (as specific action/s) under RPAs 1, 2, 3, 4 on inventorying and monitoring, as well as under RPA 25 referring to the development of common tools to implement NAPs. International cooperation in exchanging information is emphasised under RPA 15 (referring to control of alien and invasive species). Under RPA 21 (on taxonomic expertise), the need for information exchange platforms is addressed through a definition of a specific action. Establishment of networking systems and exchange protocols is also called for under RPA 24 on a clearing house mechanism (envisaged as a central information point on all aspects of Mediterranean biodiversity).

Cooperation and coordination on international level is considered in detail in the SAP BIO and is consistent with the ICZM requirements. Nevertheless, some of the ICZM Protocol/ CRF requirements and recommendations – such as cooperation to strengthen capacities for research, data sharing and use of information exchange platforms, and exchange of good practices - could have been paid more attention.

III. Analysis of the SAP BIO coherence with the Conceptual Framework for MSP

Conceptual Framework for the introduction of MSP into the BC system was adopted in 2017 (Decision IG.23/7), providing a context and guiding elements for MSP in the Mediterranean region based on common principles, contents and steps. Given the different adoption timeframes of the SAP BIO and the CF, the same challenges as those identified for the assessment of coherence with the ICZM Protocol/ CRF provisions apply, whereas the one related to differing scopes (in terms of content) and nature of the two documents is even more pronounced. Moreover, the CF for MSP is only elaborated on the level of general principles and approaches, as the MSP implementation in the framework of Barcelona Convention is a relatively new development. For these reasons, the analysis of the SAP BIO coherence with respective provisions of the CF for MSP was limited to the key elements, while for a number of the CF topics, the assessment was deemed non-applicable¹⁷.

¹⁷ Due to different scope and nature of the two documents, it was deemed inapplicable to assess the SAP BIO coherence with the following elements of the CF for MSP: four dimensions of MSP (surface, water column,

The assessment conducted by using the matrix presented in Annex 1 showed a strong coherence between SAP BIO and several elements of the CF for MSP, including the application of ecosystem approach, the key principles of MSP, application of adaptive and multi-scale approaches, integration, and cross-border cooperation.

Ecosystem approach is an integral part of the SAP BIO and several MSP key principles (as set out in the EC COM(2008)791)¹⁸ are coherent with the SAP BIO ones, including: planning in a transparent manner; stakeholder participation; cross-border cooperation and consultation; incorporating monitoring and evaluation in the planning process; and use of strong data and knowledge base. The SAP BIO was developed in a manner consistent to the CF recommendations on the design of the MSP process and it includes monitoring, evaluation, and development of indicators; a medium to long-term perspective is also a SAP BIO characteristic (as suggested for the MSP). The regional priority actions and national action plans included in the SAP BIO were elaborated to address biodiversity threats at different levels (regional, sub-regional, national and sub-national), which is consistent with the multi-scale approach to MSP. Finally, the SAP BIO strongly endorses integrated approaches and cross-border cooperation in a manner similar to what is recommended under the CF.

A moderate coherence between the SAP BIO and the CF for MSP has been established for the general provisions and CF objectives, expected benefits of MSP, and land-sea interactions.

The SAP BIO objectives on improving the knowledge of marine and coastal biodiversity, and on improving the management of existing/ creation of new (marine) protected areas are consistent with the CF objective of planning and managing maritime human activities according to EcAp goals. Many of the expected benefits of MSP (as identified in the CF) correspond with the SAP BIO needs and priorities. Horizontal and vertical coordination, resolving conflicts from competing uses, stakeholder involvement, public participation and information sharing, and improved protection of the environment are all examples of topics that are highly relevant from the SAP BIO perspective and where MSP can make a significant contribution. As already mentioned, importance of taking into account land-sea interactions for the attainment of biodiversity conservation goals is recognised in the SAP BIO.

On the other hand, MSP is not mentioned in the SAP BIO. Contribution to the equitable access to marine resources and encouragement of investments (by instilling predictability, transparency and clearer rules) are examples of the expected benefits of MSP that are not highly relevant from the SAP BIO perspective therefore corresponding provisions cannot be found in the document. Even though its importance is recognised in the document, land-sea interactions do not feature prominently in the SAP BIO.

Finally, the CF elements on the treatment of MSP as a knowledge based project and on the application of connectivity principle were the ones for which weak or lack of coherence was found.

Even though the SAP BIO is strongly supporting improvements in data and knowledge on biodiversity (through data collection, research, keeping up to date inventories etc.), the CF provisions on conducting the MSP as a knowledge based project are more comprehensive. They are meant to ensure that MSP is based on the best available knowledge and that all the information needed to enable the planning of marine uses in line with 'ecosystem limits' is obtained. This should be taken into account in developing the new SAP BIO to ensure that adequate biodiversity information is made available for the MSP processes and that the MSP products are conducive to the attainment of biodiversity related EcAp objectives, fully integrating IMAp and other relevant indicators.

seabed, time); suitability and spatial efficiency (approaches used in allocating sea spaces); and MSP steps (referring to a sequence of steps in preparing the plan).

¹⁸ Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU; the EU MSP Directive was adopted in 2014 (Directive 2014/89/EU).

Last but not least, a number of issues identified in the SAP BIO in relation to MPAs establishment and management (e.g. conflicts between various maritime uses, difficulties with establishing new MPAs due to lack of coordination/ overlapping competencies, lack of participation in decision-making processes, and similar) could be addressed through the MSP by ensuring more weight is given to the MSP connectivity principle in designing strategies for conservation of biodiversity.

IV. Implementation of the SAP BIO and links with ICZM

The coherence analysis showed that document-wise, the SAP BIO as the main strategic instrument to implement the SPA/ BD Protocol was to a large extent aligned with provisions of the ICZM Protocol/ CRF, as well as with the evolving framework for MSP implementation. Following up on recommendations from the Fifth Meeting of National Correspondents of the SAP BIO¹⁹, implementation of the SAP BIO (as evaluated in the UNEP(DEPI)/MED WG. 459/3) was also examined with the aim to identify areas where a more comprehensive application of ICZM approaches and tools could have contributed to or accelerated implementation of the SAP BIO regional priority actions.

Table IV-1: Main issues with the implementation of selected SAP BIO priority actions

Regional Priority Actions (RPAs)	Main difficulties for implementation (selected information)
RPA 5 - Update, coordinate and enforce legislation to conserve biodiversity	Lack of coordination and cooperation between different parts of administration.
RPA 9 - Develop existing Marine and Coastal Protected Areas	Lack of integrated decision between all components and activities in and around MPAs (ICZM, MSP and management); lack of participation of all relevant stakeholders; lack of education and awareness.
RPA 11 - Establish a regional monitoring programme following up the socioeconomic impact of changes in biodiversity	Limited results and visibility reported, main difficulties not identified.
RPA 12 - Assess the potential impact of climate change and rise in sea level on Mediterranean coastal and marine biodiversity	Need for a multi sectorial approach and inter-ministerial coordination.
RPA 16 - Control and mitigate coastal urbanization and construction of coastal infrastructure	Strong pressure on the coastal area, particularly from tourism and urban sprawl.
RPA 17 - Control and mitigate the effect of changes in land use	Difficulties not specified.
RPA 21 - Assessment, control and elaboration of strategies to prevent impact of fisheries on biodiversity	Lack of adequate cooperation between relevant sectors.
RPA 24 - Achieve 'clearing-house' mechanism to focus on marine and coastal conservation activities	Dispersion of information on biodiversity among different institutions at the national level; lack of standardisation of mapping approaches.
RPA 26 - Facilitate the access to information for managers and decision-makers, as well as stakeholders and the general public	Information not adequately communicated to general public; short consultation periods.
RPA 27 - Promote public participation, within an integrated management scheme	No information on the implementation of this RPA.
RPA 29 - Develop international collaboration in order to enhance regional public awareness	Only few examples of international collaboration to enhance regional public awareness identified/ reported.

Source: Evaluation of the implementation of SAP BIO, preliminary draft report (UNEP(DEPI)/MED WG. 459/3)
The assessment was primarily conducted by looking into cases where either regional priority actions or the main difficulties for their implementation were linked to typical ICZM issues (such as lack of coordination, pressures from urbanisation etc.). The identified actions and related difficulties are presented in the table below.

¹⁹ Held in February 2019 in Marseille.

Information presented in table 4-1 clearly indicates that weak/ insufficient implementation is recorded for a number of RPAs that could easily be labelled as ICZM related (e.g. RPAs 16, 17, 27). Moreover, several identified implementation difficulties belong to a group of problems that are normally targeted and resolved through the application of ICZM approaches and tools.

For RPA 11 (regional monitoring of socioeconomic impact of changes in biodiversity), for example, main difficulties for the implementation were not reported but would presumably include lack of information and research, and insufficient sharing of data and experiences, both of which could be addressed through ICZM. The fact that only half the BC Contracting Parties have ratified the ICZM Protocol is pointed out in the evaluation for the RPA 16 (control of urbanisation and infrastructure development pressures). Coastal Area Management Programme (CAMPs)²⁰ are mentioned as positive examples contributing to the implementation of this priority action. For RPA 17 (control of pressures from land use changes) difficulties in implementation were not specified but it was highlighted that EIA, SEA and ICZM measures contributed to mitigation of adverse impacts of coastal development on natural habitats in most countries. Lack of adequate cooperation between sectors was identified as a major hindrance for the implementation of RPA 21 on prevention of negative impacts of fisheries on biodiversity, and so on.

All this allows for a conclusion that potential of ICZM (and MSP) to contribute to the achievement of biodiversity protection has not been sufficiently utilised in the SAP BIO implementation, notwithstanding the fact that positive examples have been identified and highlighted in the SAP BIO evaluation report. The positive examples primarily refer to CAMPs and implementation of environmental assessments (the latter applying not only to some of the RPAs included in table 4-1 but also for a number of others).

V. MPAs Roadmap

Roadmap for a Comprehensive Coherent Network of Well-managed Marine Protected Areas to Achieve Aichi Target 11 in the Mediterranean (MPAs Roadmap) was adopted in 2016²¹ to guide and harmonise the efforts of the BC Contracting Parties towards achievement of the Aichi Target 11 by 2020. The Roadmap recommends actions that are fully in line with the orientations set out in the main strategic documents of the MAP system, in particular the Mid-Term Strategy (MTS), the SAP BIO, the EcAp process and the Mediterranean Strategy on Sustainable Development (MSSD).

The four objectives of the MPAs Roadmap are:

1. Strengthen networks of protected areas at national and Mediterranean levels, including in areas beyond national jurisdiction (ABNJ), as a contribution to the relevant globally agreed goals and targets;
2. Improve the Mediterranean MPA network through effective and equitable management;
3. Promote the sharing of environmental and socio-economic benefits of Mediterranean MPAs and the MPAs integration into the broader context of sustainable use of the marine environment and the implementation of the ecosystem and marine spatial planning approaches;
4. Ensure the stability of the Mediterranean MPA network by enhancing their financial sustainability.

MPAs Roadmap is an action oriented document that proposes a range of measures (for the Contracting Parties as well as for regional and international organisations) to achieve the set objectives. It strongly endorses the ecosystem based management and marine spatial planning, thus ensuring the overall alignment with the ICZM policy framework.

²⁰ CAMPs are collaborative efforts of the MAP components coordinated by PAP/ RAC.

²¹ Decision IG.22/13

As the scope and content of the Roadmap is dedicated to a specific issue (establishment and management of MPAs), the assessment of coherence was not carried out for the whole range of ICMZ provisions. Instead, a limited assessment was conducted to determine coherence on a strategic level (i.e. at the level of objectives) as well as to evaluate whether/ how the applicable ICZM and MSP approaches were incorporated in the key elements of the MPAs Roadmap.

The main findings of the assessment indicate there is a strong coherence between the MPAs Roadmap on one, and the ICMZ Protocol/ CRF and CF for MSP on the other side. The MPAs Roadmap objectives are coherent with the ICZM Protocol/ CRF objectives, in particular as regards good governance and objectives on long-term sustainability and preservation of coastal ecosystems. As regards the geographical coverage, the Roadmap only addresses marine area but goes beyond the seaward limit of the coastal zone (as defined in the ICZM Protocol) up to and including the ABNJ.

The actions included under Objective 1 (on strengthening and extending the network of MPAs) are consistent with several ICZM provisions, most notably those on research; preparation of coastal zones inventories and information exchange; preparation of national plans; scientific and technical assistance, and transboundary cooperation. The CF for MSP provisions on cross-border cooperation and consultations, connectivity, and suitability and spatial efficiency, are also integrated in the Objective 1 actions.

For the Objective 2 of the MPAs Roadmap (on effective and equitable MPAs management), coherence with the ICZM provisions has been established for coordination; protection and sustainable use of coastal zone; awareness raising, training, and education; participation; scientific and technical assistance; exchange of information; and transboundary cooperation. As regards the CF for MSP, the measures set under objective 2 are consistent with the CF recommendations on applying the adaptive approach to planning, use of best available knowledge, suitability and spatial efficiency, and especially on connectivity.

The expected benefits from MSP (as identified in the CF)²² are highly relevant for the objective 2, and the same applies for objectives 3 and 4 (on sharing of environmental and socioeconomic benefits and enhancing financial sustainability of the Mediterranean MPAs). This points to a conclusion that the use of MSP should be strongly advocated in the future policies and plans on strengthening the MPAs network in the Mediterranean, and its implementation strongly supported in a coordinated manner.

The measures recommended to attain objective 3 of the MPAs Roadmap are consistent with EcAp implementation and the ICZM provisions on sustainable use of marine environment, regulation of economic activities, coordination, participation, and monitoring and networking. Promotion of cross-sectoral policies and mechanisms as a typical ICZM topic is directly integrated in one of the actions recommended for the national level (promotion of cross-sectoral policies and mechanisms for integrating the MPA national strategies and policies with other sectors, in particular fisheries and tourism).

Even though marine spatial planning is directly mentioned in the objective 3, specific actions suggested for implementation at national and international levels do not contain many references to MSP and do not advocate strongly for the use of MSP in attaining this objective; an exception is the action 3.2 calling, *inter alia*, for adoption of MSP legislation. Nevertheless, coherence with the CF for MSP is achieved, mainly through the endorsement of EcAp (as a guiding principle for MSP) and through the consistency of the objective 3 actions with the CF provisions on suitability and spatial efficiency.

²² These include but are not limited to: increased horizontal and vertical coordination between administrations and among different sectors using a single process (MSP) to balance the development of a range of maritime activities; reduction of conflicts and exploitation of synergies among different uses of the marine space; contribution to the equitable access to marine resources; and increased stakeholder involvement, public participation and information sharing.

Under objective 4, a set of measures is recommended in the MPAs Roadmap to contribute to stability and financial sustainability of the Mediterranean MPAs network. One recommendation for the BC Contracting Parties refers to the identification of financial needs, development of funding strategies and making use of innovative funding approaches. Application of “user/payer” and “payment for (marine) ecosystem services” concepts is also called for, which is fully consistent with the treatment of economic, financial and fiscal instruments in the ICZM Protocol and CRF. Other ICZM elements that are integrated into objective 4 actions include training, capacity building, promoting exchange of experience and dissemination of information on best practices, and research (for high seas) and technical assistance.

VI. SAP BIO climate change updates

To update the SAP BIO and integrate climate change considerations, a process coordinated by the MAP and SPA/ RAC was implemented in 2008 – 2009. The first step in the analysis was conducted on the national level, comprising 18 Mediterranean countries²³. Sub-regional analysis followed for the three groups of countries/ clusters, including Adriatic, North Mediterranean non-Adriatic countries and Israel, and North African and Middle-East Arab Mediterranean countries. Finally, the key findings were aggregated on the regional level and presented in the Synthesis of National Overviews on Vulnerability and Impacts of Climate Change on Marine and Coastal Biological Diversity in the Mediterranean Region (CC Synthesis report). This Synthesis report was used for the assessment of coherence with the ICZM policy framework.

The Synthesis report contains findings on vulnerability, impacts and critical marine and coastal biodiversity areas and sites; priority national needs and urgent actions; funding sources and constraints; and it ends with a set of conclusions and recommendations applicable to the entire region. The coherence assessment focused on the recommendations provided in the Report whereas an effort was made to determine to what extent these recommendations integrated applicable ICZM tools and approaches.

Assessment of coherence with the CF for MSP was not carried out as the CF provisions are not directly comparable with the structure and content of the CC Synthesis report. Importance of marine spatial planning in addressing the impacts of climate change on marine and coastal biodiversity in the Mediterranean is however recognised, and appropriate recommendations drawn (presented in section IX).

Objectives of the CC Synthesis report are mainly of technical nature (they refer to the purpose and outcome of the SAP BIO update process) and thus not relevant for the coherence assessment. The only exception is a reference to the 2008 Almeria Declaration, which is coherent with the ICZM Protocol’s treatment of climate change. The Declaration (among other things) calls for rapid ratification of the ICZM Protocol, identification of marine species and habitats that are most sensitive to climate change, reporting on the observed impacts of climate change, valuation of services provided by marine and coastal ecosystems, etc.

A strong coherence has been established between the CC Synthesis report and ICZM provisions on natural hazards (Article 22 of the ICZM Protocol), and the document recognizes ICZM as an appropriate planning framework to address climate change impacts on marine and coastal biodiversity. Specific recommendations of the CC Synthesis report that are fully consistent with the ICZM policy framework refer to: the need for improved cross-sectoral coordination and integrated management; raising public awareness on climate change impacts; data and information sharing; preparation of national inventories on hot spot areas; monitoring and research; strengthening ecosystem resilience (including through MPAs connectivity and adjustments of coastal land use legislation and plans to predicted climate change impacts); reinforcement of legal and institutional frameworks; capacity building and training; implementation of mitigation/ adaptation measures; and cooperation. The CC Synthesis report also

²³ Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, Greece, Israel, Italy, Lebanon, Malta, Montenegro, Morocco, Slovenia, Syria, Spain, Tunisia and Turkey.

recommends valuation of services provided by marine and coastal ecosystems as well as estimation of costs of inaction, which is consistent with CRF recommendations on economic, financial and fiscal instruments.

It is worth noting that information on the implementation of the CC Synthesis report recommendations is not included in the draft SAP BIO evaluation report (UNEP(DEPI)/MED WG. 459/3) used in this coherence analysis, pending further contributions by countries for the next draft version.

VII. Species/habitats Action Plans

Since the SAP BIO adoption in 2003, nine action plans/ strategies (APs) were adopted or updated in the framework of the Barcelona Convention to set priorities for preservation of specific species and habitats. Timetables for the implementation of these documents, including updates for some of the first action plans, usually refer to 2019/ 2020.

The APs derive from the SPA/ BD Protocol and the SAP BIO, and are aligned with them. They are also consistent with and complementary to the ICZM Protocol/ CRF, albeit different scopes. The scope of the APs (in terms of their content) is limited to a set of issues relevant for the management and protection of targeted habitats and species, and is much narrower compared to a range of issues addressed under the ICZM Protocol and its implementation framework. This fundamental difference affected the type and method of the coherence analysis, which was carried out at two levels:

- Strategic level – whereas coherence between objectives of the AP in question was assessed against the ICZM Protocol/ CRF objectives (the same was done for principles i.e. for the visions/ approaches to the APs' development whenever these were specified); and
- At the level of main elements elaborated in the APs; as a rule, the main elements include description of threats and identification of priorities and actions needed to reach the objectives.

The assessment of coherence between the APs and the CF for MSP was not conducted as for a majority of APs, their structure and content does not allow for a direct assessment (provision by provision) of coherence with the CF guiding framework. In case of some action plans (e.g. the Invasive species AP), the assessment was deemed inapplicable. This however does not preclude a conclusion (presented in section IX) that MSP as an ICZM tool is highly relevant for many of the species/ habitats APs; MSP should therefore be included in future revisions/ updates of these documents, and more importantly – used to contribute to their implementation.

The nine documents reviewed for the purpose of coherence analysis (listed chronologically by creation or update) are:

1. Action Plan for the Conservation of Bird Species listed in Annex II of the Protocol Concerning Specially Protected Areas (SPAs) and Biological Diversity in the Mediterranean (Birds AP, 2003), with updated timetable for 2014 – 2019;
2. Action Plan for the Conservation of Cartilaginous Fishes (Chondrichthyans) in the Mediterranean Sea (Cartilaginous fishes AP, 2003);
3. Action Plan for the Conservation of Mediterranean Marine Turtles with updated timetable for the period 2014 – 2019 (Marine turtles AP, 2007);
4. Action Plan for the Conservation of Marine Vegetation in the Mediterranean Sea with work programme and timetable 2012 – 2017 (Marine vegetation AP, 2012);
5. Regional Strategy for the Conservation of Monk Seals in the Mediterranean 2014 – 2019 (Monk seal strategy, 2013) and Action Plan for the Management of the Mediterranean Monk Seal (1985);

6. Action Plan for the Conservation of Habitats and Species Associated with Seamounts, Underwater Caves and Canyons, Aphotic Hard Beds and Chemo-synthetic Phenomena in the Mediterranean Sea (Dark habitats AP, 2013);
7. Action Plan for the Conservation of Cetaceans in the Mediterranean Sea (Cetaceans AP, 2016);
8. Action Plan for the Conservation of the Coralligenous and Other Calcareous Bio-concretions in the Mediterranean Sea (Coralligenous bio-concretions AP, 2016);
9. Action Plan concerning Species Introductions and Invasive Species in the Mediterranean Sea (Invasive species AP, 2016).

The approach employed in preparing the **Birds AP** is consistent with the ICZM principles inasmuch as the document endorses strengthening of cooperation and information exchange, promotes and supports identification of areas at sea which are important for birds, and promotes creation of protected areas at coastal and marine locations important for birds. Coherence between the Birds AP and the ICZM Protocol/ CRF is also visible as regards the AP's purpose and objectives. The Plan is meant to maintain and/or restore the population levels of bird species from the SPA/ BD Protocol Annex II to a favourable conservation status and to ensure their long-term conservation, through (*inter alia*) sharing of knowledge and expertise, coordination of efforts among the Mediterranean countries, and encouraging synergetic approaches and research.

The plan covers the sea and countries with a Mediterranean coastline, excluding the parts of these countries which are not of a Mediterranean bio-climate (which is different but not inconsistent with the geographical coverage of the ICZM Protocol). Consistency is also obvious for the ICZM approaches, tools and instruments pertinent to the matters addressed under the Birds AP: research; awareness, education and training; and preparation of National Action Plans, are for example, all identified as important actions to achieve the Plan's objectives. The AP also calls for the use of dissuasive penalties (which is consistent with the ICZM Protocol/ CRF treatment of economic, financial and fiscal instruments) as well as for mandatory assessment of environmental impacts from any type of development on the species and their habitats. Other ICZM features that are integrated in the Birds AP include regional coordination and participation, as well as (part of the updated timetable 2014 – 2019) call for synergies with other international agreements and organisations, networking, monitoring, mapping, establishment of protected areas, and similar.

The ICZM elements that could arguably contribute to protection of birds yet are not integrated in the AP include provisions on protection and sustainable use of coastal zones, specific coastal ecosystems, land-sea interactions, land policy and marine spatial planning, and others.

Principles of the **Cartilaginous fishes AP** are not specified *per se*, nevertheless the guidelines for the elaboration of the AP are consistent with the ICZM principles as they refer to: species conservation; biodiversity maintenance; habitat protection; management for sustainable use; scientific research; monitoring; funding for research, implementation and monitoring; public awareness, and international cooperation for controls in the open sea; it is also emphasised the implementation of the AP is to involve a large number of stakeholders.

Objectives, priorities and implementation measures identified in the Cartilaginous fishes AP are interconnected and consistent with the ICZM provisions on coordination; awareness raising, education and research; training; scientific and technical assessments; exchange of information; and transboundary cooperation.

Among the implementation measures, those referring to fisheries management (where the need to cooperative management is emphasised) and calling for identification, legal protection status and protection measures for critical habitats indicate areas where ICZM tools could be further deployed for advancing the protection of cartilaginous fishes.

For the **Marine turtles AP**, consistence of the Plan's objectives with those of the ICZM Protocol/ CRF has been established, with the AP objectives referring to adequate protection, conservation and management of marine turtle habitats, as well as to strengthened research and monitoring to improve knowledge.

Similar to other species/ habitats-specific APs, priorities and implementation measures identified in the Marine turtles AP are consistent with corresponding ICZM provisions as they focus on: protection and management of species and their habitats (by using legislative, protection and measures to minimise incidental catches and eliminate intentional killings); scientific research and monitoring; public awareness and education; capacity building; preparation of national action plans; coordination; and participation.

Provisions of the ICZM Protocol that could have been better addressed in the Plan to contribute to the achievement of its objectives refer to the protection and sustainable use of coastal zones, specific coastal ecosystems, land policy (and marine spatial planning), coastal erosion and transboundary cooperation.

According to the **Marine vegetation AP**, the main threats for the priority species (on which the AP focuses) include: infrastructure development on the littoral; pollution; turbidity; anchorage; bottom trawling; uncontrolled development of aquaculture; use of explosives; laying of sea cables; recovery; modification of sedimentary flow; accumulation of sedimentation originating from watersheds; sand extracting from the sea bed and enlargement of beaches; competition with non-indigenous species; and trampling. This points to a conclusion that there is a large room for utilisation of the ICZM approaches and tools to address the threats and to: 1) ensure conservation of marine vegetation, 2) avoid loss and degradation of the seagrass meadows and of other important vegetal assemblages; and 3) ensure conservation of marine vegetal assemblages that could be considered natural monuments (the three points referring to the AP objectives, which are consistent with those of the ICZM Protocol/ CRF).

Priorities determined at national and regional levels and implementation actions (including legislative measures, MPAs establishment, scientific research, collection and dissemination of data, training, national plans, regional coordination and others) are consistent with ICZM provisions on coordination, specific coastal ecosystems, participation, awareness raising, monitoring, training and research, etc. However, potential of other ICZM tools (e.g. preservation of coastal habitats/ ecosystems, regulation of economic activities, environmental assessments, addressing land-sea interactions/ use of marine spatial planning) seems to have been neglected in the elaboration of the Marine vegetation AP.

The vision²⁴ set out in the **Monk seal strategy** is consistent with the ecosystem approach as well as with the principle of prevention/ restoration of damages to coastal environment. Consistency has also been established between the Strategy goals and several ICZM objectives, including those that refer to the achievement of good governance, preservation of the coastal zone and maintaining integrity of its ecosystems. The potential role of MSP to contribute to fulfilling the Strategy's vision and goals has not been recognised.

Actions identified in the **Monk seal AP** to reduce pressures and allow for a gradual recovery of populations are coherent with the ICZM Protocol articles on coordination; protection of specific coastal ecosystems; awareness raising, training and education; monitoring; research; scientific and technical assistance; exchange of information; and trans-boundary cooperation. The actions refer to reduction in adult mortality (including measures targeting fishing and legal protection measures), establishment of a network of marine reserves, research, data collection and rehabilitation, and information programme.

²⁴ The vision is as follows: Over the next two decades, the ecological recovery of monk seals in the Mediterranean will deem to have occurred, when multiple colonies have become established within all major habitats of their historic range, interacting in ecologically significant ways with the fullest possible set of other species, and inspiring and connecting human cultures.

Objectives of the **Dark habitats AP** include the following: conservation of habitats' integrity and functionality, maintenance of the key ecosystem services and biodiversity; encouraging natural restoration of degraded habitats (through reduction of anthropogenic impacts); and improvements in knowledge about dark habitats. In general terms, these objectives are coherent with the ICZM ones, in particular with those referring to long-term sustainability and preservation of coastal ecosystems (i.e. objectives set out in Article 5.b and 5.d of the ICZM Protocol).

The main threats to dark habitats depend on their location (distance from coast, presence of rivers, proximity of big population centres and industrial complexes), their depth, morphology and the uses to which they are put. The main activities causing pressures include gathering red corals, specific fishing practices (trawling, fishing with palangres, or mesh nets) and lost/ abandoned fishing gear, waste accumulations, research activities, and undersea prospecting (drilling, hydrocarbons exploitation).

Actions required to address the threats and attain the objectives of the AP include improvements in knowledge; management measures (legal protection, MPAs, other management measures to be identified with a view to precautionary principle); national plans; public awareness raising and education; and national capacities building.

As with the other reviewed APs, a high level of consistency regarding the application of typical ICZM approaches such as research, information exchange, awareness raising etc. has been established, but also a room for improving coherence through the use of other ICZM tools (for example coordination and MSP).

The **Cetaceans AP** has the two main objectives – protection and conservation of cetacean habitats, and protection, conservation and recovery of cetacean populations in the Mediterranean Sea Area – which are complementary with the set of the ICZM Protocol/ CRF objectives.

Similar to other APs, the key ICZM approaches are integrated in the AP's priorities, primarily through the implementation actions referring to monitoring, research, data collection and dissemination, and awareness raising. Other protection measures that constitute the Cetaceans AP include prohibition of deliberate taking, prevention of pollution, elimination of accidental catches, and protection of feeding, breeding and calving grounds, which are all consistent with the ICZM requirements on the protection of the coastal zone and its ecosystems, and regulation of economic activities. Here also a consistency gap can be identified in relation to the use of MSP, which is not addressed in the document.

Description of the baseline and identification of threats are dominant parts of the **Coralligenous bio-concretions AP**, whereas the diversity of coralligenous/maërl assemblages and their importance from the aspect of species diversity are emphasised alongside with the need to strengthen research and monitoring activities targeting these habitats.

From the main threats identified, the need for coordination in protection of coralligenous assemblages is obvious. The ecosystem approach is integrated (a reference is made to the attainment of Good Environmental Status of assemblages), and the AP is consistent with the ICZM provisions on monitoring and observation, keeping and updating national inventories, exchange of information, coordination, regulation of economic activities and specific coastal ecosystems. Lack of coherence has been identified as regards the use of MSP, whereas the tool could clearly contribute to the protection of coralligenous and other calcareous bio-concretions.

The **Invasive species AP** objectives are strongly coherent with ICZM approaches and objectives. The main objective of the Plan is to promote the development of coordinated efforts and management measures throughout the Mediterranean in order to prevent as appropriate, minimize and limit, monitor, and control marine biological invasions and their impacts on biodiversity, human health, and ecosystem services. Other (specific) objectives refer to capacity building; regional policies and networking; development of online platforms; strengthening of institutional and legal frameworks; baseline studies

and monitoring programmes; setting up of coordination and information exchange mechanisms; and development of guidelines.

A set of national and regional priorities is identified in the AP alongside with actions required to attain the Plan's objectives. They are coherent with requirements of the ICZM Protocol (specifically with those set out in article 7 on coordination, articles 14 – 16 on participation, awareness and monitoring, as well as with requirements from articles 25 – 28 on training and research, scientific and technical assistance, exchange of information, and trans-boundary cooperation) and respective CRF recommendations. It was assessed that MSP was not relevant for the Invasive species AP.

VIII. Artificial reefs

The purpose of the Updated Guidelines for Regulating the Placement of Artificial Reefs at Sea²⁵ is to assist the BC Contracting Parties to consider consequences of the placement of artificial reefs for the marine environment, as well as to ensure that issuing of permits on artificial reefs (AR) is compliant with relevant provisions of the Protocol for the Prevention and Elimination of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea (Dumping Protocol).²⁶

The Updated Guidelines were developed by building up on the 2005 MAP **Guidelines for the Placement at Sea of Matter for Purpose other than Mere Disposal (Construction of Artificial Reefs)**, and by taking into account lessons learnt in their implementation. At the same time, the alignment with the overall BC policy developments was carried out and coherence with biodiversity and ICZM policies was cross-checked. The new elements included in the Updated Guidelines refer to:

- Incorporation of the BC Ecological Objectives (related to the placement of artificial reefs) and linking the monitoring operations to IMAP and related assessment criteria;
- Alignment with provisions of the SPA/BD Protocol and of the SAP BIO²⁷, as well as with practical experiences gained with establishment and management of MPAs and with conservation of key species and habitats;
- Adjustments proposed based on a general review of coherence between the Updated Guidelines and the ICZM Protocol.

Taking into account the use of vessels as artificial reefs is not allowed in some of the Contracting Parties, a paragraph was added (in the draft Decision IG. 23/15 and in the Updated Guidelines) to say they shall apply 'without prejudice to stricter provisions with respect to the placement for artificial reefs in the Mediterranean Sea Area contained in other existing or future national or international instruments or programmes'. The draft Decision IG. 23/15 was used as a basis for the herewith presented analysis and for the recommendations drawn in section IX.

Recommendations on how to address artificial reefs in the coherence analysis were provided at the Fifth Meeting of National Correspondents of the SAP BIO (held in February 2019 in Marseille). The delegates expressed (in principle) a negative attitude towards artificial reefs pointing out that highly restrictive/prohibitive legislation applies to the placement of such structures in several countries. Nevertheless, it was acknowledged the interest for artificial reefs existed and further efforts were needed to come to a common understanding on what is acceptable. In this context, it is also worthwhile recalling conclusions

²⁵ Developed by the UN Environment/ MAP and presented in the Draft Decision IG.23/15; the Decision was proposed to the COP 20 but not adopted.

²⁶ Including Article 4.2 on the prohibition of dumping of vessels and Article 3.4(b) that excludes from the definition of dumping 'the placement of matter for a purpose other than mere disposal' if it is not contrary to the aims of the Protocol.

²⁷ Requirements from the Guidelines for impact assessment on seagrass meadows, elaborated under the Action Plan for the Conservation of Marine Vegetation, were also taken into account.

and recommendations of the 2018 MedPAN Regional Experience Sharing Workshop²⁸ on AR, as presented below:

- Artificial reefs do not replace natural ecosystems, but depend on them; conservation should be considered as a priority over ecological restoration, as natural areas remain the most important to protect.
- Successful ARs require careful planning and management; possible negative impacts of artificial reefs can be mitigated by careful planning and appropriate selection of sites, appropriate design and construction materials based both on the purpose of the reef and the oceanographic and ecological conditions at the proposed site;
- Environmental impact assessments are needed for successful placements as well as reef monitoring after deployment;
- MPAs and ARs are increasingly regarded as interesting management measures, in that they contribute to the conservation of ecosystems, the sustainability of fisheries, and because they can be helpful in zoning coastal areas in order to reduce conflicts between users; the two (MPAs and ARs) can be complementary under certain conditions.

In 2017, PAP/RAC conducted an assessment of the Updated Guidelines and concluded the document was not in contradiction with the relevant requirements of the ICZM Protocol, which were respected and covered by the Guidelines in particular in the sections related to: Definitions (paragraph 10); Placement (paragraphs 18-20); Assessment of potential effect-impact hypothesis (paragraphs 24-26, 28 and 30); Requirements for a permit application (paragraph 33); Criteria for the evaluation of a permit application (paragraph 34); Conditions for issuing a permit (paragraph 37); Supplemental conditions (paragraph 40); Consultation procedure in case of transboundary impacts (paragraphs 41-50); Recommendations and Considerations (paragraph 56); and in the Part D on monitoring (paragraphs 101-102).

The assessment of coherence conducted as a part of the current analysis confirmed these findings and identified other elements of the Updated Guidelines that are coherent with the Protocol. These are found in:

- Preamble (emphasis on the need to assess proposals for AR on the basis of scientifically sound criteria, and to pay special attention to the effects of AR placement in MPAs including SPAMIs²⁹; strengthening cooperation and synergies for the implementation of the Guidelines);
- Introduction (paragraph 3: EcAp Operational Objectives and GES to be considered in the placement activities; paragraph 6: placement of AR for ecosystem enhancement in the framework of precautionary principle);
- Scope (paragraph 7: ARs intended for various uses including: reduction of flooding and erosion; restricting fishing in areas where stocks or ecosystems are in need of protection; mitigation of habitat loss elsewhere);
- Definitions and purpose (paragraph 9: objectives of an AR may also include protection, restoration and regeneration of aquatic habitats; promotion of research; recreational opportunities; and educational use);
- Assessment of potential effect-impact hypothesis (paragraph 27: monitoring programme to be linked to hypothesis; sources and consequences of uncertainty should be identified; paragraph 29: detailed impact assessment to be done whenever AR placement is intended within the limits of an MPA);

²⁸ MedPAN (2018), Proceedings of the 2018 Regional Experience Sharing Workshop: Mediterranean challenges for Marine Protected Areas and Small Scale Fisheries & FishMPABlue2 Conference.

²⁹ Specially Protected Areas of Mediterranean Importance

- Criteria for the evaluation of a permit application (paragraph 35: if adequate information is not available to determine the likely effects, the placement should not be considered further; paragraph 36: opportunities should be provided for public review and participation in the permit evaluation process);
- Conditions for issuing a permit (paragraph 38: permit conditions to ensure minimisation of environmental detriment and maximisation of benefits; preventive, mitigating and corrective measures to be specified);
- Part D monitoring on monitoring (paragraph 104: monitoring to be aligned with IMAP and related Assessment Criteria whenever possible; paragraph 112: reports on monitoring to be made available to relevant stakeholders/ other interested parties; paragraph 115: results of any reviews of monitoring activities to be communicated to all the concerned Contracting Parties).

IX. Conclusions and recommendations

The detailed comparison of the SAP BIO and ICZM provisions showed a strong coherence for many elements. Areas of weak coherence were also identified, and in a number of cases they referred to topics that are not directly relevant for biodiversity conservation. Nevertheless, the assessment of coherence flagged up a significant number of elements where improvements in coherence would be needed and beneficial – not only for ICZM streamlining but also for the implementation of the SPA/ BD Protocol requirements. Table 9-1 presents summarised (according to the CRF structure) findings of the coherence assessment for the SAP BIO and the ICZM Protocol/ CRF.

The SAP BIO principles and objectives are generally consistent with the ICZM ones, with some room for further alignment for the SAP BIO principles.

A strong coherence has been established for the SAP BIO's treatment of a range of the ICZM Protocols provisions related to integrated management, sustainable development, cooperation and development of regional and national strategies, plans and programmes. Similarly, requirements of the ICZM Protocol (and related CRF recommendations) on coordination, participation and awareness raising and educations have all been adequately addressed and integrated in the SAP BIO. A high level of consistency was also established between priority coastal and wetland ecosystems identified in the ICZM Protocol, and sensitive habitats identified in the SAP BIO.

Partial gaps/areas where further integration of ICZM provisions is possible are identified for promotion and use of planning tools and criteria envisaged under Article 8 of the ICZM Protocol. Similarly, there is a room for improvement as regards indicators: in the SAP BIO they are primarily used to monitor implementation of proposed measures, while the ICZM Protocol calls for the use of indicators to ensure sustainable development of the coastal zone and reduce pressures that exceed carrying capacity.

Weak coherence has been identified for the protection of landscapes and cultural heritage, as well as for the development of polices to prevent natural hazards and coastal erosion; as regards response to natural disasters, lack of coherence was found. The identified inconsistencies cannot be necessarily labelled as a weakness on the part of SAP BIO: with the exception of climate change (addressed in the SAP BIO updates) and to some extent of coastal erosion, these do not represent major factors for biodiversity conservation policies.

Table IX-1: Main findings of the coherence analysis between the SAP BIO and the ICZM Protocol/CRF provisions

ICZM Protocol/ CRF elements	Coherence
<i>General provisions</i>	
Geographical coverage	STRONG
ICZM objectives	STRONG (complementarity)

ICZM principles	MODERATE
Coordination (between sectors, for land and marine parts, local to national level)	STRONG
<i>ICZM elements (ecosystem based management for SD and GES)</i>	
Protection and sustainable use of coastal zone	MODERATE
Regulation of economic activities	MODERATE
Specific coastal ecosystems	STRONG
Coastal landscapes	WEAK
Islands	STRONG
Cultural heritage	WEAK
Involvement of stakeholders	STRONG
Awareness raising, education	STRONG
Natural hazards, coastal erosion, response to natural disasters	WEAK/ LACK OF COHERENCE
<i>Tools and instruments for the ICZM Protocol/ CRF implementation</i>	
Monitoring and observation	STRONG
Environmental assessments	LACK OF COHERENCE
Coordination of planning process and governance mechanisms	MODERATE
Marine spatial planning	WEAK
Land policy	WEAK
Economic, financial and fiscal instruments	STRONG
Training, communication and information	STRONG
International cooperation	MODERATE

As regards the use of ICZM tools and instruments, strong coherence has been established for monitoring; economic instruments; and training, communication and information. In these areas, minor gaps and possibilities for further integration were identified for ensuring public access to monitoring information, (potentially) for removal of environmentally harmful subsidies, and similar.

More significant possibilities for further integration of the ICZM Protocol/ CRF provisions are identified for the areas where moderate, weak or lack of coherence was established, including:

- Coordination of planning processes and governance mechanisms;
- International cooperation (in areas such as cooperation to strengthen capacities for research; data sharing and use of information exchange platforms; exchange of good practices; and others);
- Marine spatial planning and land policy; the use of MSP is important in view of its potential to reduce pressures and conflicts, and to identify areas worthy of protection; the use of land policy tools has not been addressed in the SAP BIO; and
- Environmental assessments (which have been neglected in the document).

The SAP BIO assessment showed strong coherence for most of the elements elaborated in the Conceptual Framework for MSP, including application of the ecosystem approach, the key principles of MSP, application of adaptive and multi-scale approaches, integration, and cross-border cooperation. Weak or lack of coherence was assessed for the MSP principles and approaches related to the use of best available knowledge and connectivity. This points out to the need for better integration of these aspects in the new SAP BIO to ensure synergy, harmonisation of efforts and optimal use of resources in compiling, exchanging and using biodiversity information for the MSP, and utilising connectivity (and other MSP approaches where SAP BIO coherence could be improved) to maximise benefits for biodiversity conservation. Better integration is also possible in the area of land-sea interactions: the

importance of taking into account LSI for the attainment of biodiversity conservation goals is recognised in the SAP BIO, but not addressed thoroughly.

A review of the report on the SAP BIO implementation showed that potential of ICZM to contribute to the achievement of biodiversity protection has not been fully utilised, and that a number of hindrances could have been alleviated and/or avoided through more integrated efforts. Positive examples (e.g. CAMPs and environmental assessments) have been identified and highlighted in the SAP BIO evaluation report.

The assessment showed a strong coherence between the MPAs Roadmap on one, and the ICMZ Protocol/ CRF and CF for MSP on the other side. Coherence with the ICZM provisions has been established for majority of actions recommended in the MPAs Roadmap, some of which entail promotion of cross-sectoral policies and mechanisms (as a typical ICZM topic).

A strong coherence has been established between the CC Synthesis report and ICZM provisions on natural hazards (Article 22 of the ICZM Protocol). Moreover, ICZM is recognised as an appropriate planning framework to address climate change impacts on marine and coastal biodiversity. Specific recommendations of the CC Synthesis report that are fully consistent with the ICZM policy framework refer to: the need for improved cross-sectoral coordination and integrated management; raising public awareness on climate change impacts; data and information sharing; preparation of national inventories on hot spot areas; monitoring and research; strengthening ecosystem resilience; capacity building and training; and others. The report also recommends valuation of services provided by marine and coastal ecosystems, which is consistent with CRF recommendations on economic, financial and fiscal instruments. Information on the implementation of the CC Synthesis report recommendations is not included in the draft SAP BIO evaluation report version of 21 January 2019, therefore it is not possible to assess to what extent is the established 'paper' coherence realised in practice.

The nine Regional Action Plans adopted in the framework of the Barcelona Convention for conservation of specific species and habitats are largely consistent with and complementary to the ICZM Protocol/ the CRF, albeit the different scopes. As a rule, the APs are consistent with the ICZM provisions on coordination; preparation of national action plans; participation; awareness raising, education and research; monitoring; training; scientific and technical assessments; exchange of information; and transboundary cooperation. In some cases, coherence has been also established for economic instruments and other ICZM tools.

The ICZM elements that could arguably contribute to better protection of habitats and species yet are not integrated in the Regional APs include particular provisions on protection and sustainable use of coastal zones, specific coastal ecosystems, land-sea interactions, environmental assessments, land policy and marine spatial planning, and others. Consistence with the CF for MSP was not assessed however it is clear MSP is highly relevant for the species/ habitats APs. Overall, potential of ICZM/ MSP to contribute to the achievement of conservation objectives set in the APs can be better utilised.

The previous (conducted by PAP/RAC in 2017) and current coherence assessments confirmed the Updated Guidelines on the placement of artificial reefs are consistent with the ICZM Protocol requirements. Recent experiences with placement and management of artificial reefs also indicate it is possible to create and manage such structures in a sustainable manner and for the benefit of marine environment, which coupled with the existing interest in artificial reefs remits further attention within the Barcelona Convention system. The analysis conducted in this report highlighted areas that would possibly need further consideration and regional-level guidance.

Overall, the coherence analysis showed a high level of consistency and complementarity between the regional documents adopted under the SPA/BD Protocol and the ICZM/MSP policy framework. Some gaps/areas where further integration is possible have been identified (and are addressed through subsequent recommendations), but no significant contradictions. The coherence analysis and related recommendations are timely in a sense that most of the regional biodiversity strategies and action plans

refer to the period until 2020, and that preparation of a new Post 2020 SAP BIO is anticipated. The expected updates represent an opportunity to streamline ICZM and provide for a higher level of integration of the BC sectoral policies, in the spirit of MTS' call for synergy, harmonisation of efforts and optimal use of resources. At the same time, the expected updating of the documents adopted under the SPA/BD Protocol represents an important opportunity to strengthen the BC biodiversity policies through better use of ICZM/MSP approaches and tools.

It is equally (if not more) important to work on coherence and synergies in the implementation i.e. to ensure that approaches and instruments integrated in the documents are implemented in practice. The current analysis showed implementation is an area where significant improvements are necessary and possible, and that joint, coordinated and stepped up efforts of the BC system and the Contracting Parties are needed to that end.

Recommendations

In elaborating the new Post 2020 SAP BIO, relevant policy developments within the BC system (such as EcAp, ICZM and MSP developments, MSSD) will be taken into account; the same will be done with other relevant processes (the EU and other Regional Seas processes). Integration of the state of the art policy developments will bring along improvements in the areas where the present coherence analysis indicated gaps and potential for further integration. Strong efforts should be made to identify from the onset areas where synergy and complementarities could be achieved with other legal and policy instruments within the Barcelona Convention, as well as with other frameworks. The draft Action plan for joint implementation of the ICZM Protocol through CRF, for example, identifies a number of measures (for the period until 2027) that can strengthen and expedite implementation of biodiversity policies, and it is recommended that the new SAP BIO makes the best use of them (not necessarily by repeating but rather by referring to and relying on these measures for the attainment of GES for biodiversity related Ecological Objectives).

The following specific recommendations are drawn:

- The new Post 2020 SAP BIO should maintain the already achieved level of coherence with the ICZM Protocol/CRF provisions and address areas where weak coherence (or a lack of it) was identified for the current SAP BIO.
- Principles for the new SAP BIO should be better aligned with the ICZM (and other relevant) principles.
- The new SAP BIO should rely on the IMAP indicators, whereas other indicators (including those referring to economic activities) should be used to ensure pressures on biodiversity do not exceed sustainability limits; the ICZM indicators should be reviewed and used to the extent possible, in particular for the socio-economic factors and their effects on biodiversity.
- Climate change and its impacts on coastal and marine biodiversity should be addressed as constituent part of the new SAP BIO as more information is available now, and to provide for integrated implementation. Higher level of uncertainties brought by climate change impacts on coastal zones (as well as by other natural hazards) should be taken into account.
- Coastal erosion should be addressed as a potential threat to biodiversity.
- More attention should be given to exchange of information and in particular of good practices on biodiversity conservation (including use of common data platforms, harmonisation of national inventories, etc.).
- Exchanges of data and experiences in IMAP implementation with other Regional Seas Conventions and the European Environment Agency (EEA), as well as exchanges with the EC/ EU Member States on the implementation of MSFD and MSP Directives should be promoted in the new SAP BIO.

- As regards monitoring, public access to monitoring data should be ensured.
- Use of the existing ICZM coordination and governance structures (whenever established) for advancing the biodiversity agenda and overcoming biodiversity conservation obstacles linked to the lack of coordination should be strongly encouraged.
- The new SAP BIO should pay due attention to EIA, SEA and nature appropriate assessments in line with Article 17 of the SPA/ BD Protocol and Articles 19 and 29 of the ICZM Protocol.
- The new SAP BIO should explore the potential of (and if appropriate, call for their implementation) various land policy instruments in respect to the achievement of biodiversity protection goals.
- Use of the ICZM planning tools and criteria (e.g. use open areas – outside protected areas – where urban development is limited or prohibited) should be promoted.
- Taking into account current knowledge and policy developments, the new SAP BIO should pay more attention to understanding and addressing LSI as a crucial factor to ensure sustainable management and development of coastal zones (with a view to biodiversity protection).
- The achieved level of coherence with MSP objectives, approaches and principles laid out in the CF for MSP should be maintained for the new SAP BIO, and appropriate actions added to ensure joining of efforts/ synergies between MSP and biodiversity conservation processes, primarily as regards knowledge and data collection, and identification, proclamation and management of MPAs (and their connectivity).
- Potential of economic instruments to contribute to biodiversity protection could be better utilised (in particular as regards accounting for biodiversity/ ecosystem values, provision of means for biodiversity protection and possibly provision of arguments for removal of environmentally harmful subsidies).
- Cooperation to strengthen biodiversity research should be paid more attention.
- Joint, collaborative, synergetic actions of the MAP regional centres towards GES for biodiversity related Ecological Objectives should be at the centre of attention of the new SAP BIO; measures identified in the Action plan for joint implementation of the ICZM Protocol should be utilised, as appropriate.
- Lessons learnt from the implementation of the 2003 SAP BIO should be taken into account and opportunities for the ICZM and MSP to contribute to the new Post 2020 SAP BIO implementation identified and tapped, including in addressing the climate change impacts.
- The new SAP BIO should include actions to demonstrate how ICZM and MSP projects can have positive impacts on biodiversity conservation; ratification of the ICZM Protocol and uptake of MSP across the region should be promoted.
- Periodic updates of the new SAP BIO should be called for to allow for regular evaluations and timely alignment with future policy developments.

The use of MSP should be strongly advocated in the future policies and plans on strengthening the MPAs network in the Mediterranean (including possible update of the MPAs Roadmap for the period after 2020), and its implementation strongly supported in a coordinated manner.

In aligning the species and habitats RAPs with the new SAP BIO and/ or in updating them for the post 2020 period, identified gaps should be addressed to better integrate the ICZM Protocol/ CRF elements such as EcAp, ICZM planning tools and criteria, environmental assessments, LSI considerations, land policy and others. MSP should be included in the future revisions/ updates of these documents, and more importantly – used to contribute to their implementation. On the other hand, research, mapping, inventorying and monitoring actions proposed under the APs should be systematically used to build up necessary databases for MSP implementation.

Taking into account the existing interest for the placement of artificial reefs, recent experiences with their management and the main findings of the assessments of the Updated Guidelines from the ICZM Protocol's perspective, the following recommendations are drawn:

- The MAP should proceed towards the adoption of the Updated Guidelines, possibly by addressing parts pertinent to clean-up of vessels in a separate document (or as an annex to the Guidelines);
- More attention should be paid to the following topics:
 - Criteria for the selection of sites and other planning requirements to ensure appropriate design and placement;
 - Guidance to ensure complementarity between MPAs and artificial reefs.

Annex 1: SAP BIO assessment matrices

Step 1: Assessment of coherence at the level of ICZM Protocol/ CRF principles and objectives

Summarised general ICZM principles (ICZM Protocol Art 6)		SAP BIO Principles	Assessment of coherence
<ol style="list-style-type: none"> 1. Complementarity and interdependence of marine and land parts 2. Integrated consideration of all the coastal zone elements not to exceed carrying capacity and to prevent negative effects of natural disasters and of development 3. Application of ecosystem approach to coastal planning and management to ensure sustainable development 4. Appropriate governance allowing adequate and timely participation in a transparent decision-making process 5. Cross-sectorally organised institutional coordination 6. Formulation of land use strategies, plans and programmes as well as of other relevant sectoral policies 7. Consideration of multiplicity and diversity of activities, prioritising public services and activities requiring immediate proximity of the sea 8. Balanced allocation of uses, avoidance of unnecessary concentration and urban sprawl 9. Preliminary assessments of risks associated with human activities and infrastructure to prevent and reduce negative impact on coastal zones 10. Prevention and (where it occurs) appropriate restoration of damages to coastal environment 		<p>SAP BIO endorses principles adopted at 1992 Rio Summit, including a polluter pays principle, and is based on the following principles/ approaches (referenced to Johannesburg Summit 2002): participatory approach; holistic and ecosystem approaches; consistency principle; management and conservation principle; preventive, precautionary and anticipatory principle; responsible fisheries principle; "no adverse effect" principle; prevention better than last minute cure" principle; common but differentiated responsibility principle; principle of assistance, cooperation and partnership, in particular at regional level, not excluding potential bilateral and multilateral initiatives.</p>	<p>SAP BIO principles mirror global policy developments at the time of the document's adoption and are strongly referenced to Rio and Johannesburg summits on sustainable development (from 1992 and 2002 respectively).</p> <p>On a general level, SAP BIO principles are coherent with those of the ICZM Protocol as they both encompass the ecosystem and participatory approaches, and prevention principle. The ICZM Protocol principles, on the other hand, are more diversified and address issues specific to the coastal zone's management.</p> <p>Overall assessment of coherence: MODERATE</p>
ICZM Protocol Objectives	CRF Objectives	SAP BIO objectives	Assessment of coherence
<ol style="list-style-type: none"> 1. 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 2. Preserve coastal zones for the benefit of current and future generations 3. Ensure the sustainable use of natural resources, particularly with regard to water use 4. Ensure preservation of the integrity of coastal ecosystems, landscapes and geomorphology 	<p>Use the ecosystem-based management to ensure sustainable development and integrity of the coastal zone, its ecosystems and related services and landscapes</p> <p>Address natural hazards and the effects of natural disasters, in particular coastal erosion and climate change</p>	<p>Principal objective: establish a base for implementing the 1995 SPA Protocol; provide principles, measures and concrete and coordinated actions for the conservation of the Mediterranean marine and coastal biodiversity, within the framework of sustainable use.</p> <p>Basic objectives (in conjunction to SPA Protocol) is to:</p> <ul style="list-style-type: none"> ▪ foster the improving of knowledge of marine and coastal biodiversity; ▪ improve the management of existing, and favour the creation of new, Marine and Coastal Protected Areas; 	<p>Both the ICZM Protocol and CRF objectives focus on the sustainable development of coastal zones/ sustainable use of its natural resources, including preservation of the coastal zone and of integrity of its ecosystems. SAP BIO objectives are primarily set to provide for conservation of the marine and coastal biodiversity and are thus highly supportive of the ICZM ones. Coordination/ good governance are also important features of both (SAP BIO and ICZM) sets of objectives.</p> <p>Basic objectives of the SAP BIO refer to specific needs (improvements in knowledge on marine and coastal biodiversity, marine and coastal protected areas management and creation, protection of endangered habitats and species etc.) for biodiversity protection and</p>

ICZM Protocol Objectives	CRF Objectives	SAP BIO objectives	Assessment of coherence
<p>5. Prevent and/or reduce the effects of natural hazards and in particular of climate change, which can be induced by natural or human activities</p> <p>6. Achieve coherence between public and private initiatives and between all decisions by the public authorities, at the national, regional and local levels, which affect the use of the coastal zone</p>	<p>Achieve good governance among actors involved in and/or related to coastal zones</p>	<ul style="list-style-type: none"> ▪ enhance the protection of endangered species and habitats; ▪ contribute to the reinforcement of relevant national legislation and national and international capacity building; ▪ contribute to fund-raising efforts. 	<p>their consistence with the ICZM objectives is not direct/ obvious on the basis of one to one comparison, however they are highly relevant for the accomplishment of ICZM objectives.</p> <p>The climate change aspects (which are integrated in both the ICZM Protocol and CRF objectives) are not addressed through the SAP BIO – instead they are dealt with in the SAP BIO climate change updates.</p> <p>The SAP BIO objectives can be described as a subset of the ICZM objectives that are STRONGLY coherent and complementary.</p>

Step 2: Assessment of coherence with the ICZM Protocol/ CRF (approaches, instruments/ tools)

Relevant CRF themes/ sections	ICZM Protocol (relevant articles)	ICZM requirements/ implementation guidance	SAP BIO: key observations/ comments on coherence with respective ICZM provisions	Assessment of coherence
1 Introduction	1, 17 and 18	<p>Establish a common framework for the integrated management of the Mediterranean coastal zone (CZ), strengthen regional cooperation</p> <p>Cooperation for sustainable development (SD) and integrated management taking into account Mediterranean Strategy for Sustainable Development (MSSD); define common framework for ICZM</p> <p>Formulate national ICZM strategies and coastal implementation plans and programmes</p>	<p>SAP BIO recognizes and strongly endorses the need for integrated coastal zone planning and management, calling for the implementation of Integrated Coastal Area Management (equivalent to ICZM) schemes.</p> <p>The need for cooperation is identified in reference to: enhancing the biodiversity-related knowledge; SAP BIO general priorities; assessment and mitigation of impacts from various threats to biodiversity; and follow up activities. The emphasis on sustainable use of natural resources and sustainable development is found throughout the document (in particular in relation to improving the governance structures).</p> <p>SAP BIO envisages (<i>inter alia</i>) preparation of National Action Plans (NAPs) for the conservation and/or management of specific species or groups of species.</p>	STRONG COHERENCE
2 Scope of CRF	3 and 28	<p>Geographical coverage of the CZ: seaward limit – external limit of the territorial sea; landward limit – competent coastal units</p>	<p>SAP BIO considerations include priority habitats and priority actions located outside of the CZ boundaries (i.e. SAP BIO geographical scope exceeds the CZ coverage as defined in the Protocol), e.g. river basins; marine protected areas (MPAs) in offshore areas and high seas.</p>	STRONG

Relevant CRF themes/ sections	ICZM Protocol (relevant articles)	ICZM requirements/ implementation guidance	SAP BIO: key observations/ comments on coherence with respective ICZM provisions	Assessment of coherence
		<p>Transboundary cooperation: coordination of national coastal strategies, plans and programmes related to contiguous CZs</p> <p>ICZM to be approached at different geographic scales and administrative levels: Mediterranean/ regional, sub-regional, national and sub-national (local)</p>	<p>Transboundary cooperation strongly emphasised in SAP BIO; coordination and development of common tools for implementing NAPs is, for example, one of priority actions.</p> <p>SAP BIO priority actions refer to different scales/ levels (regional, sub-regional, national and sub-national).</p>	
3 Objectives and general principles of the CRF	5 – 7, 18, 19, 22, 28 and 29	<p><i>Objectives and principles of ICZM (Art 5 and 6) addressed in Step 1</i></p> <p>Ensure institutional coordination, avoid sectoral approaches; coordination in managing marine and land parts, from national to local levels</p> <p>Formulate national ICZM strategies and coastal implementation plans and programmes</p> <p>Environmental assessments, considering environmental sensitivity of the CZ and inter-relationships between marine and terrestrial parts</p> <p>Development of policies for the prevention of natural hazards; vulnerability and hazard assessments, prevention, mitigation and adaptation measures to address the effects of natural disasters, in particular of climate change</p> <p>Coordination of national strategies, plans and programmes; notification, exchange of information and consultation in assessing the environmental impacts of such plans, programmes and projects</p>	<p><i>Objectives and principles of ICZM (Art 5 and 6) addressed in step 1, <u>additional considerations as follows:</u></i></p> <p>Coordination requirements of Article 7 of the ICZM Protocol fully addressed in SAP BIO.</p> <p>Provisions of Article 17 of the ICZM Protocol on national plans/ programmes integrated in SAP BIO (e.g. preparation of NAPs).</p> <p>Environmental assessments not addressed in SAP BIO (even though Article 17 of the SPA/ BD Protocol calls for EIA in case of potential impacts on protected areas and species/ habitats).</p> <p>SAP BIO does not address natural hazards; significance of climate change recognised (but addressed in SAP BIO updates on climate change).</p> <p>Transboundary cooperation to coordinate national strategies, plans and programmes addressed, but there is a gap as regards the ICZM Protocol provision on cooperation in assessing the environmental impacts of plans, programmes and projects.</p>	<p>STRONG</p> <p>STRONG</p> <p>LACK OF COHERENCE</p> <p>WEAK</p> <p>MODERATE</p>
4 Ecosystem-based management for Good Environmental Status (GES) and SD	8 – 15 and 22 - 24	Preserve the coastal natural habitats, landscapes, natural resources and ecosystems (set-back zone, open areas with restricted/ prohibited urban development, limited linear extension and new transport infrastructure, free access to the sea and along the shore, etc.)	High consistence as regards the purpose of respective ICZM provisions (Article 8 of the Protocol), less so in terms of promoting the use of planning criteria to achieve preservation/ integrity of the CZ; urbanisation and infrastructure development recognised as important threats to biodiversity.	MODERATE

Relevant CRF themes/ sections	ICZM Protocol (relevant articles)	ICZM requirements/ implementation guidance	SAP BIO: key observations/ comments on coherence with respective ICZM provisions	Assessment of coherence
		Regulate economic activities to <i>inter alia</i> minimise use of natural resources, adapt coastal economy to fragile nature of CZs, protect from pollution, define indicators of development to ensure SD and reduce pressures that exceed carrying capacity.	Economic activities described in reference to threats they pose to coastal and marine biodiversity; consistency as regards the key economic activities (tourism, fisheries, agriculture, etc.). SAP BIO calls for economic, social, institutional and environmental indicators, primarily to monitor implementation of proposed measures, which is consistent with but different compared to the ICZM requirement (Article 9) on indicators of development to ensure SD of the CZ and reduce pressures that exceed carrying capacity. The need to minimise the use of natural resources in conducting economic activities, promote good practices etc. are integrated in the SAP BIO.	MODERATE
		Protect characteristics of specific coastal ecosystems: Wetlands and estuaries; Marine habitats; Coastal forest and woods; and Dunes (Article 10)	High level of consistency with the Protocol as regards priority coastal and wetland ecosystems (except for coastal forests and woods); rocky coasts prioritised too in the SAP BIO. Priority marine habitats specified (including seagrass meadows, mid-littoral bioconstructions, bioconstructions of <i>Cladocora caespitose</i> , coralligenous communities, etc.).	STRONG
		Protection of coastal landscapes through legislation, planning and management (Article 11)	Impacts of land use changes on landscapes considered, but protection of landscapes not in focus of SAP BIO.	WEAK
		Special protection of islands – environmentally friendly activities, participation (Article 12)	Protection of small islands especially emphasised.	STRONG
		Adopt all appropriate measures to preserve and protect the cultural heritage of CZs, including the underwater cultural heritage (Article 13)	Cultural heritage mentioned with a view to the need to promote practices compatible with biodiversity protection.	WEAK
		Involvement of the various stakeholders in the formulation and implementation of coastal and marine strategies, plans and programmes or projects, as well as the issuing of the various authorisations (Article 14)	Duly considered/ emphasised throughout SAP BIO.	STRONG
		Awareness-raising activities on ICZM; educational programmes, training and public education (Article 15)	Strong focus of SAP BIO on awareness raising (for biodiversity protection), capacity building etc.	STRONG

Relevant CRF themes/ sections	ICZM Protocol (relevant articles)	ICZM requirements/ implementation guidance	SAP BIO: key observations/ comments on coherence with respective ICZM provisions	Assessment of coherence
		<p>Development of policies for the prevention of natural hazards (Article 22)</p> <p>Prevent/ mitigate negative impact of coastal erosion; maintain or restore the natural capacity of the coast to adapt to changes (including sea level rise); improve knowledge on coastal erosion, anticipate impacts (Article 23)</p> <p>Coordination and cooperation in responding to natural disasters (Article 24)</p>	<p>SAP BIO touches upon climate change (global warming); a more comprehensive consideration of the topic in 2009 SAP BIO update.</p> <p>Coastal erosion discussed as a problem affecting biodiversity (in the context of desertification and habitat loss/ fragmentation) but not addressed on the level of prevention/ mitigation measures and other aspects included in the Protocol's Article 23.</p> <p>Not addressed</p>	<p>WEAK</p> <p>WEAK</p> <p>LACK OF COHERENCE</p>
4.1 Reaching Good Environmental Status through ICZM	5 and 6	Achievement of the ecosystem approach (EcAp) Ecological Objectives (EOs) and GES requires integrated management to address combined pressures and cumulative impacts in coastal and marine areas; EcAp is embedded in the principles and objectives of the ICZM Protocol	Ecosystem approach/ integrated management are constituent elements of SAP BIO. The document however predates operationalisation of the ecosystem approach within the Barcelona Convention (BC) framework (GES, Ecological Objectives), consequently assessment of coherence is not applicable. Integration of GES for relevant Ecological Objectives needs to be a key element of the new SAP BIO.	NOT APPLICABLE
4.2 Addressing Land-Sea interactions	3, 5, 6, 9 and 22	Understanding and addressing land-sea interactions (LSI) – in terms of natural processes, land and sea uses and activities, and planning processes - is crucial to ensure sustainable management and development of CZs, and coherent planning of land- and sea-based activities	Land-sea interactions addressed in the context of the need to improve governance for sustainable use and conservation of biodiversity; it is emphasised that the complexity of the ecological and economic processes occurring in the coastal zone requires the implementation of Integrated Coastal Area Management (ICAM) schemes.	MODERATE
5 Tools and instruments to implement the CRF	16 – 22	<p>Strengthen existing/ create new mechanisms for monitoring and observation; keep up to date national inventories of CZs; ensure public access to monitoring information (Article 16)</p> <p>Cooperation for SD and integrated management taking into account MSSD</p>	<p>SAP BIO pays much attention to monitoring: knowledge gaps and the need for regional and national monitoring programmes emphasised in the gap analysis; several priority actions refer to inventories, monitoring, research, and similar. The request to ensure public access to monitoring information is partly addressed (through the priority action 26 - Facilitate access to information for managers and decision-makers, as well as stakeholders and the general public).</p> <p>Emphasis on the need for sustainable development and integrated management found throughout the document (in particular emphasised in relation to improving the governance structures).</p>	<p>STRONG</p> <p>STRONG</p>

Relevant CRF themes/ sections	ICZM Protocol (relevant articles)	ICZM requirements/ implementation guidance	SAP BIO: key observations/ comments on coherence with respective ICZM provisions	Assessment of coherence
		<p>Formulate national ICZM strategies and coastal implementation plans and programmes</p> <p>Environmental assessments, considering environmental sensitivity of the CZ and inter-relationships between marine and terrestrial parts</p> <p>Land policy to promote ICZM, reduce economic pressures, maintain open areas and allow public access to the sea (including mechanisms such as acquisition, cession, donation or transfer of land to the public domain) (Article 20)</p> <p>Adopt relevant economic, financial and/or fiscal instruments intended to support local, regional and national initiatives for ICZM (Article 21)</p> <p>Development of policies for the prevention of natural hazards (Article 22)</p>	<p>Preparation of NAPs for the conservation and/or management of specific species or groups of species envisaged.</p> <p>Environmental assessments not considered.</p> <p>Changes in land use identified as a major threat to biodiversity, consequently SAP BIO calls for the adoption of measures to control related impacts on biodiversity. Two priority actions (16 and 17) refer to control and mitigation of impacts from coastal urbanisation and land use changes, yet the use of land policy instruments is not addressed.</p> <p>Economic instruments mentioned in reference to polluter pays principle. The attempts to identify and apply economic instruments to support biodiversity conservation at the time of SAP BIO preparation assessed as sporadic.</p> <p>SAP BIO recommends promotion and use of various market-based instruments. For example, eco-taxes for the protected areas visits and other economic and financial tools to protect biodiversity are recommended (priority action 18). Use of market-based instruments is also discussed under the governance section of SAP BIO, alongside with the need to include all the benefits and services of biodiversity in economic analyses and modelling. Finally, the use of economic instruments is recommended (where applicable) in the context of elaboration of national funding and implementation strategies.</p> <p>Partly addressed; 2009 SAP BIO update contains further elaborations on climate change and related hazards.</p>	<p>STRONG</p> <p>LACK OF COHERENCE</p> <p>WEAK</p> <p>STRONG</p> <p>WEAK</p>
5.1 Monitoring of environment and activities	8 – 21 and 25 - 29	Use, strengthen and create appropriate mechanisms for regular monitoring and observation of the state and evolution of the CZs; ensure public access to these information	Inventorying, mapping and monitoring is one of seven SAP BIO priorities (focusing on: sensitive coastal, wetland and marine habitats; main biodiversity threats; and indicators). The ICZM Protocol call to ensure public access to monitoring information is not directly/ fully addressed in SAP BIO.	STRONG

Relevant CRF themes/ sections	ICZM Protocol (relevant articles)	ICZM requirements/ implementation guidance	SAP BIO: key observations/ comments on coherence with respective ICZM provisions	Assessment of coherence
		<p>Cooperate on definition and use of coastal management, resource use and economic activities indicators</p> <p>Implement appropriate assessments on the use and management of coastal zones and ensure the results are utilized for formulation of adequate policy responses</p> <p>Exchange scientific and technical information; enhance provision of scientific and technical assistance through, inter alia, training and coordination of research programmes</p> <p>[Exchange available results and experiences in implementation of the integrated monitoring and assessment programme (IMAP) with other Regional Seas Conventions and the EEA; ensure exchanges with the European Commission/ EU Member States on implementation of the MSFD, MSP and other relevant EU Directives]</p>	<p>In SAP BIO, indicators primarily addressed under priority actions 1, 3 and 4, focusing on biodiversity and effectiveness of management measures.</p> <p>Assessing and mitigating impacts of threats is elaborated under priority 3. Use of EIA and SEA (including the nature appropriate assessments) is not addressed in the SAP BIO (the only exception is a specific action calling for standard EIA in relation to managing impacts of aquaculture).</p> <p>Addressed fully through the following SAP BIO priorities: Developing research to complete knowledge and filling in gaps on biodiversity; Capacity-building to ensure coordination and technical support; Information and participation; and Awareness raising.</p> <p>[Specific CRF recommendations on exchanges of data and experiences in IMAP implementation with other Regional Seas Conventions and the EEA, as well as on exchanges with the EC/ EU Member States on the implementation of MSFD and MSP Directive should be taken into account in the new SAP BIO to reflect policy changes that have happened since 2003]</p>	
5.2 Environmental assessments (EAs)	19 and 29	<p>Implement EAs (considering cumulative impacts and carrying capacity of the CZs); take on board LSI in environmental assessments</p> <p>Notification, exchange of information and consultation in assessing transboundary impacts of plans, programmes and projects</p>	Environmental assessments as such not addressed in SAP BIO. The document does call for assessment and mitigation of impacts of threats to biodiversity overall (but does not specifically mention EAs).	LACK OF COHERENCE
5.3 Coordination of planning process and governance mechanisms	6, 7, 14, 20, 28 and 29	<p>Establish administrative schemes and processes facilitating horizontal (sectoral) and vertical (among different geographic scales and administrative levels) coordination for ICZM</p> <p>Use of appropriate land policy tools for coastal zone planning</p> <p>Coordinate national coastal strategies, plans and programmes</p>	ICZM requirements on coordination and establishment of adequate governance structures are fully integrated in SAP BIO (in a manner pertinent to biodiversity protection), most notably through the document's section on coordination and synergy between relevant organisations (including cooperation with other MAP components), as well as through several priority actions and considerations of governance issues. Requirement on early stakeholder engagement is also thoroughly addressed in SAP BIO.	MODERATE

Relevant CRF themes/ sections	ICZM Protocol (relevant articles)	ICZM requirements/ implementation guidance	SAP BIO: key observations/ comments on coherence with respective ICZM provisions	Assessment of coherence
		<p>Ensure notification, exchange of information and consultation in cases of EAs with transboundary implications</p> <p>Stakeholder engagement early in the planning process</p>	<p>The elements where SAP BIO is not fully consistent with the ICZM Protocol/ CRF are use of land policy tools and of environmental assessments (including transboundary ones).</p>	
5.4 Marine spatial planning	3, 5, 6, 10 and 11	<p>Better address planning and management issues in the marine part of coastal zone</p> <p>Support implementation of ICZM in the marine part of the coastal zone by applying MSP with a strong focus on LSI, in particular with regard to:</p> <ul style="list-style-type: none"> ▪ reducing marine-based sources of pressure through spatial efficiency and control of temporal distribution of human activities; ▪ reducing conflicts between maritime uses and protection of areas with high natural and ecological relevance; ▪ identifying areas to be protected in order to preserve processes and functions that are essential in achieving the GES; ▪ identifying environmental hotspot areas at sea where specific measures are necessary; ▪ identifying elements for ensuring connectivity among relevant habitats. 	<p>SAP BIO recognizes and emphasises the need for better planning (and endorses integrated approaches to it) for biodiversity conservation; it also advocates a focus on LSI, and contains objectives (linked to priority action 17) related to land use planning and its potential to contribute to biodiversity protection.</p> <p>The document does not refer to MSP – understandably so as recommendations on the application of MSP entered the BC policy arena after the document was adopted. The use of MSP should nevertheless be strongly advocated in the new SAP BIO for post 2020 period, mainly for the potential of this tool to reduce pressures, to reduce conflicts between various maritime uses, to identify areas deserving protection and elements for ensuring connectivity among relevant habitats.</p>	WEAK
5.5 Land policy	20	<p>Diagnose sensitive coastal zones threatened by urbanization and climate change in order to identify priority areas to acquire or protect</p> <p>Elaborate a land register, or an equivalent land tool, that provides accurate and mapped land property information</p> <p>Apply land policy instruments and mechanisms in coordination with spatial/ marine spatial planning</p> <p>Support continuous scientific observation of CZs to support decision-making</p> <p>Exchange experience and good practices on land policy instruments and mechanisms</p>	<p>Diagnosing sensitive coastal zones (threatened by urbanisation and climate change) partly addressed though priority actions related to assessment and mitigation of impacts of threats to biodiversity (e.g. priority actions 12, 16 and 17).</p> <p>Use of specific land policy measures and tools has not been addressed in SAP BIO (land use or spatial planning did not receive much attention in SAP BIO, while MSP as a newer concept is not addressed at all).</p> <p>Continuous scientific observation and exchange of experiences in general are duly covered in the document.</p>	WEAK

Relevant CRF themes/ sections	ICZM Protocol (relevant articles)	ICZM requirements/ implementation guidance	SAP BIO: key observations/ comments on coherence with respective ICZM provisions	Assessment of coherence
5.6 Economic, financial and fiscal instruments	21	<p>Develop sustainable funding strategies for ICZM at national and regional scale; strengthen capacities</p> <p>Share information on good practices and results achieved with implementation of economic, financial and fiscal instruments</p> <p>Work towards better redistribution of public revenues to ensure sustainable ICZM funding and reduce dependence on external funds</p> <p>Promote the application of relevant economic/ market-based instruments for ICZM</p> <p>Gradually reduce environmentally harmful subsidies while putting in place compensatory measures to address socio-economic losses that might occur</p> <p>Strengthen the use of economic analysis for the assessment of various ICZM policy options</p> <p>Strengthen the use of valuation of ecosystem services</p>	<p>SAP BIO recognizes fund raising potential of economic instruments and recommends their use (where appropriate) in relation to elaboration of national funding and implementation strategies.</p> <p>Implementation of economic, financial and fiscal instruments is called for, but there are no specific actions dedicated to sharing information on good practices with the use of these instruments.</p> <p>SAP BIO does not identify better redistribution of public revenues as a potential funding source for biodiversity protection directly, but highlights the need to use appropriate approaches to access national/ local budgets and funds.</p> <p>There are no considerations on environmentally harmful subsidies and how their removal could aid biodiversity conservation goals.</p> <p>The need for better use of economic analysis and assessments for biodiversity protection, on the other hand, is emphasized in the SAP BIO (e.g. the need to include all the benefits and services of biodiversity in economic analyses and modelling is recognised).</p>	STRONG
5.7 Training, communication and information	14, 15, 25 and 26	<p>Develop tools and trainings on ICZM for various stakeholders; carry out awareness raising activities</p> <p>Develop mechanisms to support multidisciplinary scientific research on ICZM, interactions between human activities, their impacts on coastal areas and innovative solutions to make economic practices more sustainable</p> <p>Disseminate scientific research results</p> <p>Ensure public participation in ICZM plans and programmes and ICZM related decision-making</p>	<p>Research (including dissemination of results), training and awareness raising activities are at the core of SAP BIO, elaborated through various priority actions, most notably thorough priority actions 22, 23, 26, 29 and 30.</p> <p>Priority actions 18, 20 and 21 refer to promotion of practices that contribute to sustainability of economic sectors (tourism, aquaculture and fisheries), while promotion of practices compatible with biodiversity conservation is also addressed in the SAP BIO sections on necessary governance improvements.</p> <p>Public participation (and information) are one of the seven SAP BIO priorities.</p>	STRONG
5.8 International cooperation for the	16 and 25 – 28	<p>Promote exchange of data and good practices; take part in appropriate administrative and scientific networks</p>	<p>Networking/ use of networks recommended under a large number of priority actions.</p>	

Relevant CRF themes/ sections	ICZM Protocol (relevant articles)	ICZM requirements/ implementation guidance	SAP BIO: key observations/ comments on coherence with respective ICZM provisions	Assessment of coherence
implementation of CRF		<p>Agree on data collection format and processes; standardised and harmonised national coastal inventories</p> <p>Exchange of information, use of common platforms for storing data</p> <p>Cooperation to strengthen capacities for ICZM, scientific and technical research</p> <p>Coordination of national coastal strategies, plans and programmes related to contiguous CZs</p>	<p>Standardisation of sampling and monitoring protocols is integrated (as specific action/s) under priority actions 1, 2, 3, 4 on inventorying and monitoring, as well as under priority action 25 referring to development of common tools to implement NAPs.</p> <p>Exchange of information is in particular emphasised under priority action 15 (referring to control of alien and invasive species; under priority action 21 (on taxonomic expertise), the need for information exchange platforms is highlighted. Exchange of good practices is practically overlooked.</p> <p>Establishment of networking systems and exchange protocols is called for under priority action 24 on clearing house mechanism (envisaged as a central information point on all aspects of Mediterranean biodiversity).</p> <p>Cooperation and coordination on international level is considered in detail in SAP BIO in full coherence with the ICZM requirements.</p>	MODERATE

Step 3: Assessment of the SAP BIO coherence with the CF for MSP

Elements/ contents of the CF for MSP	SAP BIO: key observations/ comments on coherence with respective provisions of the CF for MSP	Assessment of coherence
<p>Introduction</p> <p>MSP is embedded in the ICZM Protocol (although not explicitly mentioned), primarily through provisions on the need for “rational planning of activities” to ensure SD and the need to apply planning to both land and sea parts of the CZs</p>	<p>MSP is not mentioned in the SAP BIO; emphasis on sustainable use of natural resources and sustainable development is however found throughout the document. The need to minimise the use of natural resources in conducting economic activities is also addressed.</p> <p>SAP BIO recognizes and emphasises the need for better planning for biodiversity conservation; it also advocates a focus on LSI, and contains objectives related to land use planning and its potential to contribute to biodiversity protection.</p>	MODERATE
<p>Objectives of the CF</p> <ul style="list-style-type: none"> ▪ To introduce MSP in the framework of the BC, and in particular link it to ICZM, considering MSP as the main tool/ process for the implementation of ICZM in the marine part of the coastal zone and specifically for planning and managing maritime human activities according to EcAp goals ▪ To provide a common context to Contracting Parties for the implementation of MSP in the Mediterranean Region 	<p>The SAP BIO objectives on improving the knowledge of marine and coastal biodiversity, and on improving the management of existing/ creation of new protected areas are consistent with the CF objective of planning and managing maritime human activities according to EcAp goals.</p>	MODERATE
<p>EcAp as the guiding principle for MSP</p> <p>EcAp is the guiding principle for development and implementation of the BC system policies</p> <p>EcAp, MSP and IZCM principles highly interlinked</p>	<p>Ecosystem approach is embedded in the SAP BIO.</p>	STRONG
<p>Common principles and contents - MSP key principles (EC COM(2008)791)</p> <ul style="list-style-type: none"> ▪ Using MSP according to area and type of activity ▪ Defining objectives to guide MSP ▪ Developing MSP in transparent manner ▪ Stakeholder participation ▪ Coordination with Member States – simplifying decision process ▪ Ensuring the legal effect of national MSP ▪ Cross-border cooperation and consultation ▪ Incorporating monitoring and evaluation in the planning process ▪ Achieving coherence between terrestrial planning and MSP – relation with ICZM ▪ A strong data and knowledge base 	<p>The following MSP key principles (set out in the EC COM(2008)791) are coherent with the SAP BIO principles: planning in a transparent manner; stakeholder participation; cross-border cooperation and consultation; incorporating monitoring and evaluation in the planning process; and use of strong data and knowledge base.</p>	STRONG

Elements/ contents of the CF for MSP	SAP BIO: key observations/ comments on coherence with respective provisions of the CF for MSP	Assessment of coherence
<p>Common principles and contents – Expected benefits of MSP</p> <ul style="list-style-type: none"> ▪ Increased horizontal and vertical coordination between administrations and among different sectors using a single process (MSP) to balance the development of a range of maritime activities ▪ Reduction of conflicts and exploitation of synergies among different uses of the marine space ▪ Contribution to the equitable access to marine resources ▪ Increased stakeholder involvement, public participation and information sharing ▪ Encouragement of investment, by instilling predictability, transparency and clearer rules ▪ Improved protection of the environment, through early identification and reduction of impacts as well as promotion of opportunities for multiple use of the same marine space ▪ Identification of (spatial) measures that can support the achievement of the Good Environmental Status ▪ Improve protection of cultural heritage and preservation of intangible values of the sea 	<p>Many of the expected benefits of MSP (as identified in the CF for MSP) correspond with the SAP BIO needs and priorities. Horizontal and vertical coordination, resolving conflicts from competing uses, stakeholder involvement, public participation and information sharing, and improved protection of the environment are all examples of topics that are highly relevant from the SAP BIO perspective and where MSP can make a significant contribution.</p>	<p>MODERATE</p>
<p>Common principles and contents – Adaptive approach</p> <p>Design the MSP process including monitoring, evaluation and revision steps since its beginning; promote adaptive management, develop MSP indicators</p> <p>Adopt a medium/long-term perspective to properly deal with the strategic and anticipatory nature of MSP</p>	<p>The SAP BIO was developed in a manner consistent to the CF recommendations on the design of the MSP process and it includes monitoring, evaluation, and development of indicators; a medium to long-term perspective is also a SAP BIO characteristic (as suggested for the MSP).</p>	<p>STRONG</p>
<p>Common principles and contents – Multi-scale approach</p> <ul style="list-style-type: none"> ▪ Mediterranean scale addressing the whole sea basin ▪ Sub-regional scale – where relevant and possible – approaching transboundary MSP issues ▪ National scale, fully implementing the MSP process ▪ Sub-national and local scales (with pilot activities focusing on priority areas – highly vulnerable, with major conflicts among uses and similar) 	<p>SAP BIO regional priority actions and national action plans are designed to address biodiversity threats at different levels (regional, sub-regional, national and sub-national), which is consistent with the multi-scale approach to MSP.</p>	<p>STRONG</p>
<p>Common principles and contents – Integration</p> <ul style="list-style-type: none"> ▪ Environmental, social, economic and governance aspects taken into consideration to pursue sustainability goals ▪ Integration among sectors ▪ Vertical and horizontal cooperation among administrations and technical agencies ▪ Integration between land-based and marine planning 	<p>All the integration aspects addressed in the CF for MSP are also recognised in the SAP BIO, including the need for integrated management/ planning, better understanding of socio-economic aspects of bio-conservation, cooperation on administrative and technical levels and consideration of land sea interactions.</p>	<p>STRONG</p>

Elements/ contents of the CF for MSP	SAP BIO: key observations/ comments on coherence with respective provisions of the CF for MSP	Assessment of coherence
<p>Common principles and contents – Land-Sea interactions</p> <p>Three main levels of LSI relevant for MSP:</p> <ul style="list-style-type: none"> ▪ Interactions related to land-sea natural processes ▪ Interactions among land and sea uses and activities ▪ Interactions of planning processes and plans for land and sea areas 	<p>SAP BIO recognizes importance of taking into account land-sea interactions for the attainment of biodiversity conservation goals but does not give it as much space and significance as the MSP.</p>	<p>MODERATE</p>
<p>Common principles and contents – Four dimensions of MSP</p> <p>Three spatial dimensions – surface, water column and seabed – and time as the fourth dimension</p>		<p>NOT APPLICABLE</p>
<p>Common principles and contents – Knowledge based project</p> <ul style="list-style-type: none"> ▪ Use best available knowledge to promote the definition of the most appropriate geographic scale and scope for MSP strategies and/or plans, also taking EcAp/ IMAP into consideration (i.e. ecosystem limits) and considering LSI an essential element of MSP ▪ Focus on the collection of data and information essential for MSP ▪ Identify the specific gaps that might hamper the MSP and that require specific actions, etc. 	<p>Even though the SAP BIO is strongly supporting improvements in data and knowledge on biodiversity (through data collection, research, keeping up to date inventories etc.), the CF provisions on conducting the MSP as a knowledge based project are more comprehensive. They are meant to ensure that MSP is based on the best available knowledge and that all the information needed to enable the planning of maritime uses in line with ‘ecosystem limits’ is obtained.</p>	<p>WEAK</p>
<p>Common principles and contents – Suitability and spatial efficiency</p> <ul style="list-style-type: none"> ▪ Use the sea space for those uses which really depend on marine resources or that can be more efficiently operated at sea ▪ Identify immovable and not-renounceable uses and functions that normally have priority in space allocation ▪ Encourage co-use or multi-use of the same marine area ▪ Fair distribution of MSP-related socio-economic benefits in the whole planned marine area 		<p>NOT APPLICABLE</p>
<p>Common principles and contents – Connectivity</p> <p>Consider connections between linear elements (e.g. of shipping lanes to develop integrated maritime transport system), connection of patches (areas with similar or interrelated uses or functions), etc.</p>	<p>A number of issues identified in the SAP BIO in relation to MPAs establishment and management (e.g. conflicts between various maritime uses, difficulties with establishing new MPAs due to lack of coordination/ overlapping competencies, lack of participation in decision-making processes, and similar) could be addressed through the MSP and by giving more weight to the MSP connectivity principle in designing strategies for conservation of biodiversity.</p>	<p>LACK OF COHERENCE</p>

Elements/ contents of the CF for MSP	SAP BIO: key observations/ comments on coherence with respective provisions of the CF for MSP	Assessment of coherence
<p>Common principles and contents – Cross-border cooperation</p> <p>Cooperation at methodological (common methods, data and information sharing, tools sharing, MSP practice exchange, capacity building), strategic (common vision, shared principles and possible common objectives) and implementation (e.g. planning of marine bordering areas, etc.) levels.</p>	<p>All the forms and levels of cooperation recommended in the CF are applicable to the SAP BIO.</p>	<p>STRONG</p>
<p>MSP steps</p> <ol style="list-style-type: none"> 1. Starting the process and getting organised 2. Assessing the context and defining vision 3. Analysing existing conditions 4. Analysis of future conditions 5. Identification of key issues 6. Design phase: elaborating the MSP plan and conducting Strategic Environmental Assessment 7. Implementing, monitoring and evaluating the plan <p>Plus the cross-step activity: stakeholder consultations</p>		<p>NOT APPLICABLE</p>