

# Planning Action on Nature

Using spatial planning approaches to implement  
the Kunming-Montreal Global Biodiversity

  
Conceptual Guidelines





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to implement the Kunming-Montreal  
Global Biodiversity Framework

Conceptual Guidelines

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# Acronyms

AMBTs	Area-Based Management Tools
CBD	Convention of Biological Diversity
CBD SBSTTA	Convention on Biological Diversity Subsidiary Body on Scientific, Technical and Technological Advice
DSPiR	Driver-State-Pressure-Impact-Response
EBSA	Ecologically or Biologically Significant Marine Areas
EU	European Union
GESAMP	Group of Experts on the Scientific Aspects of Marine Environmental Protection
HELCOM	Helsinki Commission
ICZM	Integrated Coastal Zone Management
IOC-UNESCO	Intergovernmental Oceanographic Commission of United Nations Education, Scientific and Cultural Organisation
IPBES	Intergovernmental Platform on Biodiversity and Ecosystem Services
LME	Large Marine Ecosystem
MoU	Memorandum/Memoranda of Understanding
MPA	Marine protected area
MSP	Marine Spatial Planning
NBSAPs	National Biodiversity Strategy and Action Plans
OECMs	Other effective area-based conservation measures
OHCHR	Office of the United Nations High Commissioner for Human Rights
TRSDC	The Red Sea Development Company
UNEP	United Nations Environment Programme
UNEP/GPA	United Nations Environment Programme Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
UNGA	United Nations General Assembly
VME	Vulnerable Marine Ecosystem

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# Executive Summary

**The aim of this report is to demonstrate how spatial planning approaches can be used to support the implementation of the Kunming-Montreal Global Biodiversity Framework specifically focusing on the marine realm.** Practical evidence, derived from case studies, of how spatial planning, such as marine spatial planning or integrated coastal zone management, can contribute to solving issues relevant to the targets is provided. Spatial planning approaches provide a practical framework through which to identify and address the interconnections between different targets, potentially helping to streamline efforts to deliver against the wider global biodiversity framework.

Target audiences for this work include:

- **Decision-makers within government agencies** who may be responsible for supporting the development of policies or plans to achieve the Kunming-Montreal Global Biodiversity Framework.
- Those involved in developing, implementing, and reporting on **National Biodiversity Strategy and Action Plans** (NBSAPs) including government staff, NGOs and consultants. There may be links to make between the NBSAP process and existing regional, national and local spatial planning processes which would support coordination and mutually beneficial cooperation between these two processes if the synergies are not yet recognised.
- **Spatial planning and management practitioners** who could help to highlight how spatial planning processes can support the achievement of the Kunming-Montreal Global Biodiversity Framework.
- **Local communities** who may be implementing spatial planning or management approaches at the local scale which could be relevant to the global achievement of targets, such as those involved in restoration projects or OECMs.
- **Sectors or businesses** whose actions may be contributing to the achievement of targets through their day- to-day work, and who may be in a position to choose options which could contribute more to the Kunming-Montreal Global Biodiversity Framework in the future. Examples may include example companies or sectors tackling pollution issues or those implementing sustainable marine resource management such as fisheries.
- Other **NGOs or organisations** who may be contributing to the implementation of activities which support the Kunming-Montreal Global Biodiversity Framework , and achievement of the targets, for example if providing support to spatial planning processes.

The report focusses on the following targets in the Kunming-Montreal Global Biodiversity Framework illustrating those that are directly relevant to spatial planning and those which may have a less obvious link. The aim of the report is to explore a variety of targets to illustrate what might be possible to do with spatial planning to support delivery of the framework:



- **target 1** on integrated and biodiversity inclusive spatial planning
- **target 2** on restoration
- **target 3** on area-based conservation
- **target 7** on reducing pollution
- **target 9** on ensuring benefits to people through sustainable management
- **target 11** on air and water quality
- **target 12** on increasing the area and connectivity of– access to–and benefits from– green/blue spaces
- **target 21** on incorporating knowledge into decision-making
- **target 22** on equitable stakeholder participation in decision-making
- **target 23** on a gender-responsive approach

**The focus on these targets is to provide an illustrative example of how spatial planning approaches can be beneficial. Practical activities are suggested to demonstrate how spatial planning could support progress towards achieving the targets.** It is recognised that a spatial planning approach is important to support the implementation of other goals and targets, such as **target 8** on mitigating and adapting to climate change or **target 5** on sustainable harvesting and trade of species. This report has selected nine targets to illustrate how practical activities within spatial planning could support progress towards achieving the targets.

# 1 Introduction

Over 70 per cent of the Earth's surface is covered by the ocean, which provides the foundation for life and is vital to the wellbeing and economic prosperity of society (United Nations Environment Programme [UNEP] 2021a). However, due to the vast resources it provides and the challenge of managing such a massive space, it has been over-exploited and degraded, threatening the existence, functioning and benefits derived from oceanic and coastal ecosystems, and significantly impacting people around the world. The impacts are more severe in those groups of people who are considered most vulnerable, including indigenous peoples and local communities and women and girls. There is an important intergenerational consideration, since future generations may inherit irreversibly degraded environments (Office of the United Nations High Commissioner for Human Rights [OHCHR] and UNEP 2021). The IPBES Global Assessment (2019) identified the direct drivers of change with the greatest impact on nature in recent years as:

- Changes in land and sea use
- Direct exploitation of organisms
- Climate change
- Pollution
- Invasion of alien species

Within the ocean, the overexploitation of organisms has had the largest impact on biodiversity, followed by land and sea use change, such as coastal development, seabed disturbance and changes in inland watershed management that cause downstream pollution (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services [IPBES] 2019). These direct drivers stem from societal values and behaviours, human population growth, and consumption and production patterns that drive use of the coastal zone and ocean (IPBES 2019). The impacts of these drivers are being exacerbated by climate change, which is altering the bio-physical properties of the ocean and atmosphere. Furthermore, effective management

and regulation is hampered by the dynamic and connected nature of coastal and oceanic systems, in which human activities and biodiversity overlap horizontally and vertically, making boundaries difficult to identify and regulation difficult to enforce.

In recognition of this, spatial planning approaches that coordinate the activities of marine and coastal stakeholders and rights-holders, including women and girls, indigenous peoples and local communities and youth, have been identified as potential mechanisms to address the drivers of biodiversity loss (IPBES 2019). Spatial planning approaches include a variety of techniques including ecosystem-based approaches, marine spatial planning, integrated coastal zone management and marine protected areas. They can also play a fundamental role in balancing socio-economic and environmental needs and priorities, supporting the health and productivity of ecosystems and helping people to live in harmony with nature. As such, spatial planning approaches are well placed to support the achievement of biodiversity and ecosystem targets under multilateral agreements, including the Sustainable Development Goals and the goals and targets under the Kunming-Montreal Global Biodiversity Framework.

## 1.1 Aim and structure of the report

This report presents evidence-based, conceptual guidelines outlining how spatial planning approaches could be used to **advance the delivery of several goals and targets under the Kunming-Montreal Global Biodiversity Framework**. The aim of the report is to illustrate how spatial planning approaches can help to achieve the proposed targets.

**The guidelines are separated according to a generalised management cycle and aims to provide a practical framework of illustrative**

**activities which can be used within spatial** planning and management approaches by governments and practitioners.

The report consists of the following sections:

- **Introduction to spatial planning approaches** – background information on the purpose and design of spatial planning and management approaches and their wider relevance in a global policy context.
- **Key attributes of spatial planning approaches<sup>1</sup> and selection process for illustrative targets to explore in more depth** – an analysis identifying key attributes of spatial planning and management approaches and the linkages to selected goals and targets under the Kunming-Montreal Global Biodiversity Framework.
- **Conceptual guidelines for the application of spatial planning approaches to support the achievement of the targets** – illustrative guidelines showing the application of spatial planning approaches, under which spatial management approaches can be applied, to support achievement of relevant goals and targets. The guidelines include supporting practical evidence of spatial planning approaches from case studies.

## 1.2 What are spatial planning approaches?

A spatial planning approach involves the dedicated organisation of multiple uses across space and time to achieve specific goals. The definition of [marine spatial planning](#) (a commonly used spatial planning tool) is:

*“a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic and social objectives that have been specified through a political process.”*

<sup>1</sup> As previously identified in UNEP. (2018). 'The Contributions of Marine and Coastal Area-Based Management Approaches to Sustainable Development Goals and Targets'. Available at: [https://wcmc.io/oceans-dgs\\_technicalreport](https://wcmc.io/oceans-dgs_technicalreport)

(Intergovernmental Oceanographic Commission of United Nations Education, Scientific and Cultural Organisation [IOC-UNESCO] 2021)

**Spatial planning approaches** seek to **coordinate and balance the needs** of multiple activities to achieve the conservation and sustainable use of biodiversity while ensuring fair and equitable access to a specific area for economic and social uses. A spatial planning process can seek to understand the different roles and uses from a variety of stakeholder groups, including gender, recognising that in some locations the roles men and women play in the system can result in different benefits of ecosystem services and resource use.

A wide variety of spatial planning approaches exist, with the most appropriate type of approach depending on several factors (Box 1). Examples of planning approaches include marine spatial planning and integrated coastal zone management, under which management measures such as area-based closures, permitting or the designation of protection measures can be applied.

The distinction between planning and management is one of **'on-the-ground' action**. The planning of a space is expected to lead to implemented management action. At the national level, different bodies, departments, commercial entities or other stakeholders may be involved in the planning or management of a particular space. Stakeholder analysis can help to identify the relevant individuals and groups that should be represented, including

**Box 1:** Key factors for consideration when selecting an appropriate spatial planning approach.

- **Location** of the area in question (e.g., terrestrial, coastal, or oceanic).
- **Scale** at which planning, or management is need (e.g., local, national, regional).
- **Type** of activity or activities taking place.
- Priority **objectives**, issues, or concerns.
- Existing **policy** and **management frameworks** in place.

those with a specific mandate for management. Consideration of women and indigenous peoples and local communities is important to ensure equity and representativity.

**Spatial management approaches** are commonly used to **manage individual activities**. They are used to regulate the occurrence, frequency and type of activity allowed to take place within an area with a view to achieving a particular goal, such as pollution reduction. Depending on the goal, single or cross-sector area-based management tools (ABMTs) can be applied, including marine protected areas, fisheries closures, pollution management zones or seabed mining exclusion areas.

This report uses the phrase, ‘**spatial planning approaches**’ to encompass an entire process from planning to implementation of management interventions, and to recognise that a variety of approaches are possible depending on local, national or regional contexts.

### 1.3 Spatial planning approaches in a global context

The use of spatial planning approaches can help to advance the implementation of multilateral agreements and other intergovernmental processes, including the Convention on Biological Diversity (Convention on Biological Diversity Subsidiary Body on Scientific, Technical and Technological Advice [CBD SBSTTA] 2014) and the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (UNEP 2018).

At a regional scale, spatial planning approaches are core components of the 2014 European Union Marine Spatial Planning Directive (Directive 2014/89/EU), Regional Seas Strategic Directions 2022-2025 (UNEP 2021b) and United Nations General Assembly (UNGA) Resolution 74/210 to strengthen cooperation for the use ICZM to achieve sustainable development (United Nations General Assembly [UNGA] 2019a).

The Kunming-Montreal Global Biodiversity Framework aims to catalyse governments and all

levels of society to “**take urgent and transformative action**” to halt the loss of biodiversity and restore our relationship with nature<sup>2</sup>. To do so, the framework sets out four long-term goals and twenty-three action-oriented targets, covering biodiversity-related issues, including conservation, illegal wildlife trade, pollution, restoration, access and benefit sharing, and equitable and effective participation in decision-making by indigenous peoples and local communities, women and girls, and youth for achievement of the 2050 goals and 2030 targets.

Spatial planning approaches have the potential to contribute to the overarching aims of the framework where they take into consideration the economic, social and environmental dimensions of ecosystems to achieve balanced and sustainable use. Under the Kunming-Montreal Global Biodiversity Framework, numerous targets can directly, or indirectly, benefit from the use of spatial planning approaches and this is recognised in the wording of several targets. For instance, **target 1** notes the use of “integrated and biodiversity inclusive” spatial planning approaches across land and sea at a global scale and **target 3** sets out a target coverage of land and sea areas to be conserved under spatial measures, such as protected areas and other effective area-based conservation measures. The monitoring framework for the Kunming-Montreal Global Biodiversity Framework contains a set of headline indicators that could be used to monitor national and global implementation of the framework and progress towards achieving its goals<sup>3</sup>. Many of the indicators are spatially focused and hence could be used to support and monitor the implementation of spatial planning approaches<sup>4</sup>.

The importance of spatial planning approaches in supporting conservation and sustainable use of marine and coastal ecosystems and associated

2 Kunming-Montreal Global Biodiversity Framework is available at: <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>

3 The monitoring framework for the Kunming Montreal Global Biodiversity Framework can be found here: <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-05-en.pdf>

4 A list of indicators for the Kunming Montreal Global Biodiversity Framework can be found at: <https://www.post-2020indicators.org/>

resources is also reflected in several global targets, including **Sustainable Development Goal Target 14.2** on sustainable management and **Target 14.5** on the conservation of marine areas (UNGA 2015).

Demonstrating the widespread acknowledgement of the value of spatial planning approaches, several governments and ocean actors have made voluntary commitments under the banner of the **United Nations Ocean Conference** (2017) to explore the use of, or actively implement, spatial planning approaches for achieving a healthy ocean. For example, there have been several commitments by national governments to undertake marine spatial planning and ecosystem-based approaches, and an IOC-UNESCO and European Commission commitment to develop a '**Joint Roadmap to accelerate Marine/Maritime Spatial Planning worldwide** ([#OceanAction15346](https://oceanaction15346.org/))<sup>5</sup>.

Spatial planning approaches in the marine and coastal realms can also be used to make significant contributions towards the achievement of the aims of the **United Nations Decade of Action**, which calls on all sectors and actors to accelerate sustainable solutions to speed up progress towards all seventeen Sustainable Development Goals before their expiration in 2030<sup>6</sup>. Further, spatial approaches can contribute to wider challenges, such as those set out under the **United Nations Decade on Ocean Science for Sustainable Development**<sup>7</sup>. For instance, spatial pollution reduction measures, emission control areas or integrated coastal zone management and marine spatial planning, marine protected areas or other effective area-based conservation measures (OECMs) can contribute towards identified challenges including '*Understand and beat marine pollution*' and '*Develop a sustainable and equitable ocean economy*' and '*Protect and restore ecosystems and biodiversity*' respectively (United Nations *n.d.*). They can also

support restoration efforts under the **UN Decade on Ecosystem Restoration** that align with wider biodiversity and ecosystem objectives, such as those under the Kunming-Montreal Global Biodiversity Frameworks (UNGA 2019b).

The tools mentioned above, such as marine spatial planning and integrated coastal zone management can also be supported by digital platforms. National processes may have existing platforms, and UN Biodiversity Lab (<https://unbiodiversitylab.org/>) platform that provides access to global spatial data for addressing nature and sustainable development issues. This spatial data can be used within spatial planning approaches, in particular supporting countries and regions to meet their objectives.

5 A full searchable list of voluntary commitments can be found at: <https://oceanconference.un.org/commitments/#>

6 Further information can be found at <https://www.un.org/sustainabledevelopment/decade-of-action/>

7 Further information and a full list of challenges under the UN Decade of Ocean Science for Sustainable Development can be found at: <https://www.oceandecade.org/>

## 2 Key attributes and phases of marine and coastal spatial planning approaches

### 2.1 Attributes of marine and coastal spatial planning approaches

Drawing from past analyses, seven core attributes were found to be common to spatial planning approaches and support their effective implementation (UNEP 2018). These include:

 <p>Spatial Focus</p>	<b>Spatial Focus</b> – spatial planning approaches focus on a specific boundary relevant to their objectives. The focus may be purely marine or a combination, including integrated approaches that encompass land, depending on the objective.
 <p>Transboundary Focus</p>	<b>Transboundary focus</b> – approaches transcend administrative and jurisdictional boundaries to reflect the distribution and connected nature of marine ecosystems.
 <p>Sector Focus</p>	<b>Sector focus</b> – approaches consider the needs of specific sectors and coordinate action across multiple sectors
 <p>Data foundation</p>	<b>Data foundation</b> – approaches use spatially-explicit data and information (including traditional knowledge) to ensure evidence-based design implementation.
 <p>Adaptive management</p>	<b>Adaptive management</b> – approaches monitor and evaluate progress in order to make interventions as required.
 <p>Stakeholder Engagement</p>	<b>Stakeholder engagement</b> – approaches are participatory, involving relevant stakeholders and rights-holders (including indigenous people and local communities, women and youth) in planning and implementation.
 <p>Ecosystem Approach</p>	<b>Ecosystem approach</b> - approaches are integrated in their consideration of ecosystems as functioning units and the pressures acting upon them (CBD 2004).

## 2.2 Phases of spatial planning and management

The aim of this report is to provide a framework that can facilitate the design and implementation of spatial planning approaches. Below are eight phases, synthesised from prior evidence, which guide the design, implementation, and monitoring and evaluation of spatial planning approaches (Group of Experts on the Scientific Aspects of Marine Environmental Protection [GESAMP] 1996; United Nations Environment Programme Global Programme of Action for the Protection of the Marine Environment from Land-based Activities [UNEP/GPA] 2006; CBD SBSTTA 2014; UNESCO-IOC/European Commission 2021; IOC-UNESCO 2021; European Union Working Group on Indicators and Data n.d.).

### Cross cutting phases

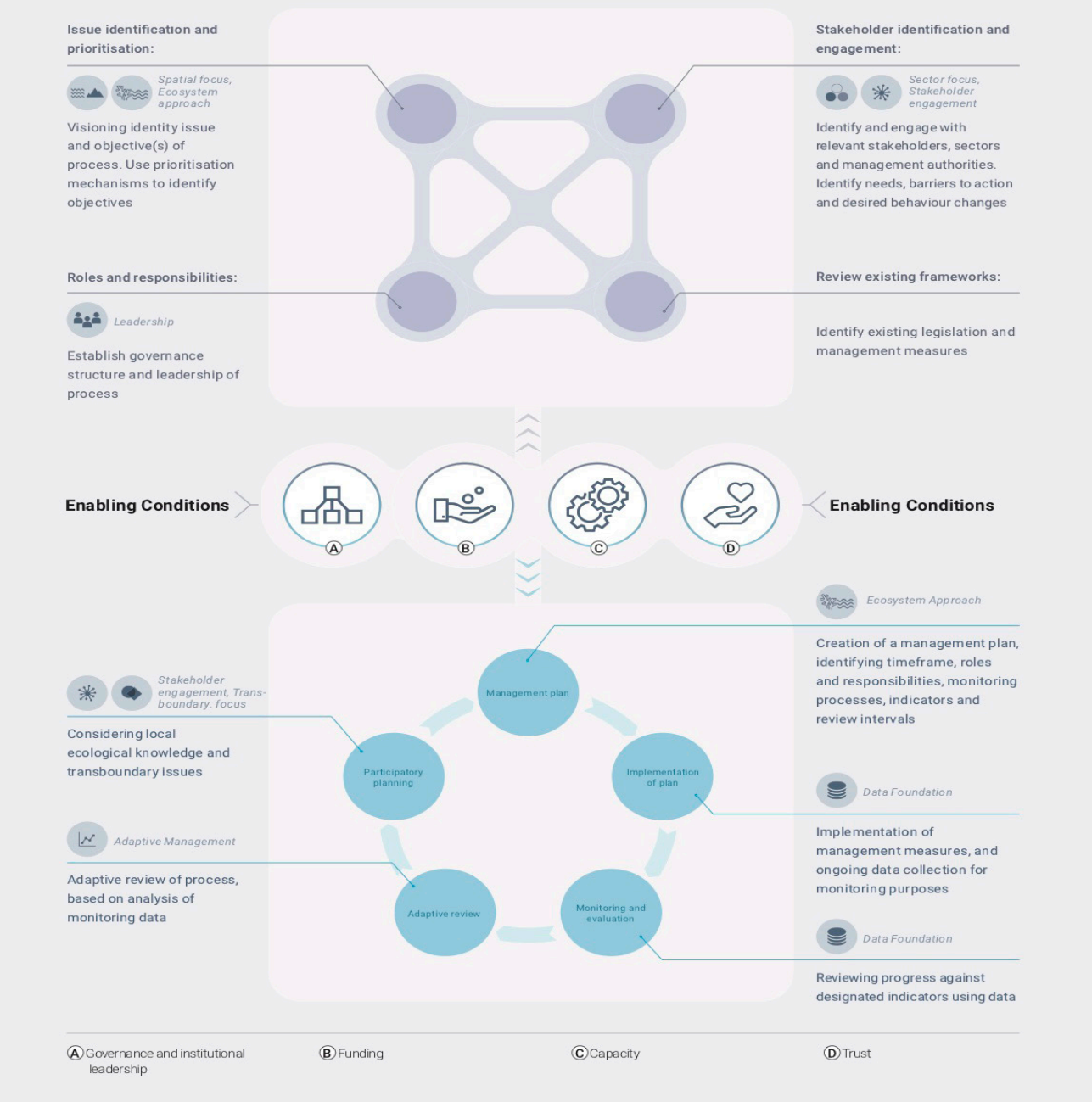
1. Identification and prioritisation of problems and desired outcomes.
2. Identification and engagement with stakeholders and rights-holders
3. Leadership including roles and responsibilities.
4. Building on existing foundation (existing management frameworks etc.)

### Generalised Management Cycle

5. Participatory planning and development of management plan
6. Setting of roles and responsibilities
7. Implementation
8. Monitoring and evaluation
9. Adaptive review

Figure 1 below shows each of these phases. For each, different considerations may be made, and activities undertaken to ensure appropriate measures can be identified and applied.

**Figure 1:** Conceptual guidelines to facilitate the application of spatial planning approaches (including MSP and ICZM) to support future implementation of the post-Kunming Montreal Global Biodiversity Framework.





## 2.3 Use of spatial planning approaches to support the implementation of selected goals and targets of the Kunming-Montreal Global Biodiversity Framework

The Kunming-Montreal Global Biodiversity Framework sets out twenty-three targets and four overarching goals. In order to illustrate the role that spatial planning approaches can play in the delivery of the targets and goals, a sub-set were identified and evaluated against the attributes of spatial planning approaches (as outlined above). This report does not comprehensively cover all targets and goals. The report using a selection of targets to illustrate how spatial planning approaches can be used. The remaining targets not covered will also likely be supported by spatial approaches and should also be considered in the future.

### Attribute relevance to Kunming-Montreal Global Biodiversity Framework goals

The attributes of spatial planning approaches, they are particularly suited to implementation of certain goals and targets.

The focus of **goal A** is to enhance the integrity of all ecosystems to support healthy and resilient populations. Spatial planning is one of the key tools that can support progress towards achieving this goal. Taking a spatial view allows consideration of the pressures that ecosystems are under and where these pressures are located. Through application of the ecosystem approach which takes into account the healthy functioning of the natural environment and therefore its ability to support populations of species.

**Goal B** focuses on ensuring nature's contributions to people are valued, maintained, or enhanced through conservation and sustainable use. Sustainability requires the achievement of a balance between consumption or exploitation and conservation of marine and coastal ecosystems and their associated resources. Spatial planning approaches support stakeholders to identify and prioritise activities, issues to be addressed and management interventions to achieve balance within the area, while also recognising nature's socio-cultural contributions to human wellbeing. Stakeholders, including indigenous peoples and local communities, women and youth, will be locally specific.

### 3 Selection of targets for in-depth analysis

The targets considered here were selected based on the relevance of spatial planning approaches to their objectives. A screening exercise was carried out to determine if individual core attributes of spatial approaches directly or indirectly contributed towards the objective of that target (Annex 1). Each target was considered through the lens of each of the attributes of spatial planning approaches to identify how the attribute could influence progress towards that target (Section 2). In some cases, the attribute will directly contribute to the delivery of the target and in others, indirect contributions will be made. Efforts have been made to highlight the role of spatial planning approaches across the different types of target, including environmental, socio-economic and cultural.

Using this approach, **targets 1, 2, 3, 7, 9, 11, 12, 21 and 22** were selected for in-depth analysis as all attributes can make direct contributions towards their delivery (Table 1). However, it should be noted that other targets would benefit from consideration within spatial planning approaches, especially targets such as **target 8** on climate change and others to which the attributes of spatial processes could directly support. As in any approach for development, **target 23** on applying a gender-responsive approach is relevant as well as it is important to recognize men and women’s equal rights and access to resources and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making. The report provides illustrative examples and is not providing guidance for every target.

**Table 1:** Selected goals and targets from the Kunming-Montreal Global Biodiversity Framework for consideration in this analysis.

<b>Goal A</b>	The <b>integrity, connectivity and resilience of all ecosystems are maintained</b> , enhanced, or restored, substantially increasing the area of natural ecosystems by 2050; Human induced extinction of known threatened species is halted, and, by 2050, the extinction rate and risk of all species are reduced tenfold and the abundance of native wild species is increased to healthy and resilient levels; The genetic diversity within populations of wild and domesticated species, is maintained, safeguarding their adaptive potential.
<b>Goal B</b>	<b>Biodiversity is sustainably used and managed and nature’s contributions to people</b> , including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development for the benefit of present and future generations by 2050.
<b>Target 1</b>	Ensure that all areas are under participatory, integrated and biodiversity inclusive spatial planning and/or effective management processes addressing land- and sea-use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities.
<b>Target 2</b>	Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.
<b>Target 3</b>	Ensure and enable that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.
<b>Target 7</b>	Reduce pollution risks and the negative impact of pollution from all sources by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: (a) by reducing excess nutrients lost to the environment by at least half, including through more efficient nutrient cycling and use; (b) by reducing the overall risk from pesticides and highly hazardous chemicals by at least half, including through integrated pest management, based on science, taking into account food security and livelihoods; and (c) by preventing, reducing, and working towards eliminating plastic pollution.

<b>Target 9</b>	Ensure that the management and use of wild species are sustainable, thereby providing social, economic and environmental benefits for people, especially those in vulnerable situations and those most dependent on biodiversity, including through sustainable biodiversity-based activities, products and services that enhance biodiversity, and protecting and encouraging customary sustainable use by indigenous peoples and local communities.
<b>Target 11</b>	Restore, maintain and enhance nature's contributions to people, including ecosystem functions and services, such as the regulation of air, water and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature.
<b>Target 12</b>	Significantly increase the area and quality, and connectivity of, access to, and benefits from green and blue spaces in urban and densely populated areas sustainably, by mainstreaming the conservation and sustainable use of biodiversity, and ensure biodiversity-inclusive urban planning, enhancing native biodiversity, ecological connectivity and integrity, and improving human health and well-being and connection to nature, and contributing to inclusive and sustainable urbanization and to the provision of ecosystem functions and services.
<b>Target 21</b>	Ensure that the best available data, information and knowledge are accessible to decision makers, practitioners and the public to guide effective and equitable governance, integrated and participatory management of biodiversity, and to strengthen communication, awareness-raising, education, monitoring, research and knowledge management and, also in this context, traditional knowledge, innovations, practices and technologies of indigenous peoples and local communities should only be accessed with their free, prior and informed consent, 14 in accordance with national legislation.
<b>Target 22</b>	Ensure the full, equitable, inclusive, effective and gender-responsive representation and participation in decision-making, and access to justice and information related to biodiversity by indigenous peoples and local communities, respecting their cultures and their rights over lands, territories, resources, and traditional knowledge, as well as by women and girls, children and youth, and persons with disabilities and ensure the full protection of environmental human rights defenders.
<b>Target 23</b>	Ensure gender equality in the implementation of the Framework through a gender-responsive approach, where all women and girls have equal opportunity and capacity to contribute to the three objectives of the Convention, including by recognizing their equal rights and access to land and natural resources and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making related to biodiversity.

## 4 Implementation of spatial planning approaches

Successful implementation of spatial planning approaches can support progress towards many targets of the Kunming-Montreal Global Biodiversity Framework. The Conceptual Guideline Tables below provides an overview of how the different attributes of spatial planning approaches and associated activities can be employed to help achieve the chosen targets. These **targets 2, 3, 7, 9, 11, 12, 21, 22 and 23** cover themes including restoration, area-based conservation, pollution reduction, provision of benefits to people, improved water quality, increasing access to blue spaces, inclusion of all relevant knowledge, and equitable participation in decision-making respectively. These targets were selected to provide illustrative examples across the range of issues that the Kunming-Montreal Global Biodiversity Framework hopes to address.

**Target 1** of the Kunming-Montreal Global Biodiversity Framework relates to the use of spatial planning processes to guide conservation and sustainable use of ecosystems and biodiversity. As noted above, spatial planning processes provide a framework under which specific area-based or sector-specific management tools or measures can be applied to generate positive impact. As such, it is possible for the implementation of **target 1** to directly support the implementation of a wide range of other targets and as such **target 1** is not included in the table.

### How to use the table:

**The Conceptual Guidelines Tables** are structured following the generalised phases of spatial planning and management approaches as previously illustrated in Figure 1. In each of the phases, specific activities are outlined and tailored to the relevant target to provide inspiration as to how spatial planning approaches can be undertaken in relation to that target. Activities have been identified based

on case study evidence from around the world. For some activities, detailed examples are provided for each target. Where these activities are more generalised, a detailed breakdown is not provided. All case study references are included in the reference section at the end of the document.

The overarching aim of these conceptual guidelines is to provide inspiration for updating existing— or undertaking new— spatial planning approaches that align with and contribute towards the evolving global biodiversity agenda.

**Conceptual Guideline Tables:** *These tables are outlining the potential activities that can be undertaken through a spatial planning process (such as MSP or ICZM), with specific detail on target-related considerations for targets 2, 3, 7, 9, 11, 12, 21, 22 and 23 of the Kunming-Montreal Global Biodiversity Framework (delivery against target 1 is implicit throughout as spatial planning underpins delivery of other targets and is demonstrated by all case studies). Case study evidence for each phase in the process is provided in the row directly below. There is a separate table for each of the activities in the generalised management cycle (see figure 1).*

## 4.1 Identify issues and priorities

Specifics target-related considerations	
<p><b>Cross-cutting activities to consider</b> Undertake ecosystem mapping to determine the location and extent of the target ecosystem(s) and a baseline from which to measure progress.</p> <p>Consider:</p> <ul style="list-style-type: none"> <li>- Use of existing boundaries, including Protected Area, Other effective area-based conservation measures (OECM), Ecologically or Biologically Significant Marine Areas (EBSA) and Large Marine Ecosystem (LME) boundaries, as well as industry-specific boundaries, such as Vulnerable Marine Ecosystem (VME).</li> </ul> <p>Review <b>dependencies and impact</b> on ecosystems. Assess ecosystem health and their role in delivering <b>ecosystem services</b> such as protection, clean water, connectivity, recreational value, livelihoods etc. Consider:</p> <ul style="list-style-type: none"> <li>- Integrated ecosystem assessment</li> <li>- Ecosystem service assessment</li> <li>- Ecosystem valuation</li> <li>- Economic loss assessment</li> </ul> <p>Identify <b>key drivers of change, threats and impacts</b> on ecosystems and ecosystem functioning from both land- and sea-based activities. Consider:</p> <ul style="list-style-type: none"> <li>- Inventories of activities and pressures</li> <li>- Driver-State-Pressure-Impact-Response (DSPIR) assessment frameworks</li> <li>- Cumulative impact assessments</li> <li>- Horizon scanning</li> </ul> <p>Consult with <b>stakeholders and rights-holders</b> to support the above identification and prioritisation processes.</p>	<p><b>Theme: Area-based management for biodiversity</b></p> <p><b>target 2</b> Ecosystem Restoration</p> <ul style="list-style-type: none"> <li>• Identify priority areas, including degraded ecosystems or species of concern, and location and extent (UN Decade of Restoration principle 4).</li> <li>• Assess condition of degraded ecosystem to be restored to create a baseline from which to track progress (principle 6)</li> <li>• Assess ecosystem service provision and evaluate potential benefits to nature and people from restoration.</li> <li>• Identify key drivers of change and threats that may undermine restoration activities, including climate change.</li> <li>• Assess restoration potential of ecosystems.</li> <li>• Stakeholder consultation, and collation of stakeholder knowledge, to identify priority restoration needs and existing or past efforts.</li> </ul>
	<p><b>target 3</b> Area-based conservation</p> <ul style="list-style-type: none"> <li>• Identify priority areas based on importance for biodiversity and ecosystem services (including ecological connectivity and representativity).</li> <li>• Identify threats, ongoing and emerging activities in the immediate and surrounding areas.</li> </ul>
	<p><b>Theme: Reducing threats to biodiversity</b></p> <p><b>target 7</b> Reducing pollution</p> <ul style="list-style-type: none"> <li>• Identify and assess extent, concentration and severity of both land- and sea-based pollutants and activities (including sewage treatment, run-off and dumping at sea).</li> <li>• Create a source inventory of contaminants.</li> <li>• Use a rapid assessment methodology for pollution hotspots.</li> <li>• Identify areas, habitats, species or ecological features that are sensitive to potential pollution impacts using sensitivity mapping and Mapping Environmentally Sensitive Assets spatial tools.</li> <li>• Model potential transboundary impacts of pollution using existing boundaries and oceanographic, biophysical and meteorological data.</li> <li>• Assess impact on ecosystem services and associated potential economic losses due to pollution.</li> </ul>
	<p><b>Theme: Sustainable use and benefit sharing</b></p> <p><b>target 9</b> Ensuring benefits via sustainable management</p> <ul style="list-style-type: none"> <li>• Identify and assess the true socio-cultural and economic value of key services for human wellbeing using stakeholder knowledge in combination with valuation tools.</li> <li>• Identify any gendered differences in impacts or dependencies on specific ecosystems or ecosystem services due to the different roles played by men and women.</li> </ul>
	<p><b>target 11</b> Improving water quality &amp; hazard protection</p> <ul style="list-style-type: none"> <li>• Map watershed and priority marine and coastal areas.</li> <li>• Determine concentrations and severity of pollutants, including nutrient and heavy metals that affect water quality.</li> <li>• Assess the health of ecosystems and biodiversity that contribute towards water quality and/or hazard protection, such as mangroves or filter-feeder species.</li> <li>• Assess potential economic losses and gains from poor and improved water quality or damage from natural hazards, respectively.</li> <li>• Stakeholder consultation to support the identification of causes of poor water quality and impacts on stakeholder wellbeing.</li> </ul>
	<p><b>target 12</b> Improving benefits from blue spaces</p> <ul style="list-style-type: none"> <li>• Stakeholder consultation and collection of insights to identify the myriad health and wellbeing services derived from natural spaces.</li> <li>• Assess economic value of services provided by blue spaces to stakeholders.</li> <li>• Support recognition across sectors such as health, planning and urban design of the value of access to natural spaces for human wellbeing.</li> </ul>
	<p><b>Theme: Implementation and mainstreaming of biodiversity conservation and management</b></p> <p><b>target 21</b> Integrating all relevant knowledge into decision-making</p> <ul style="list-style-type: none"> <li>• Transparently integrate stakeholder insights and knowledge into decision-making processes.</li> </ul>
	<p><b>target 22</b> Inclusion of all stakeholders</p> <ul style="list-style-type: none"> <li>• Undertake extensive consultation with all relevant stakeholders to identify key issues and priorities. Ensure representativity across as many relevant groups as possible, including women, girls, youth, indigenous peoples and local communities.</li> </ul>
	<p><b>target 23</b> Implementing a gender-responsive approach</p> <ul style="list-style-type: none"> <li>• Ensure equal rights and access to land and natural resources among women and girls and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making.</li> </ul>

## Zoning of Raja Ampat Marine Protected Areas, Indonesia

**Implementing partners:** Raja Ampat government, supported by the Nature Conservancy

### Illustrating how spatial planning can support the delivery of target 3.

In 2012, an MPA Zoning Project took place in Raja Ampat, Indonesia, as part of a wider initiative to support sustainable planning and ecosystem-based management across the Bird's Head Seascape.

The project aimed to address both conservation and fisheries objectives. A first step was to undertake **ecosystem mapping** to identify and map the distributions and extent of key ecosystems and species requiring protection. In addition, resource use areas were mapped to spatially display **existing human activities**. These mapping activities spatially **identified the priorities** of the **stakeholders** involved, illustrating how knowledge on the values placed on ecosystem services can be used to guide action. This data was stored in an Environmental Systems Research Institute (ESRI) geodatabase format so that different zoning scenarios could be run using Marxan. Three scenarios were run with different objectives, to assess where 'no-take' zones and sustainable fishing zones would need to be located to achieve different objectives.

A spatial database and map viewer application was produced that showed the distribution of key ecosystems and species, as well as resource use areas. In addition, it showed candidate 'no-take' and sustainable fishing zones which would enable a MPA network to meet multiple objectives. By running different scenarios to see what impact certain decisions would have in terms of the MPA network design, the **local community and stakeholders were able to make informed decisions** regarding the MPA zoning, which balanced their conservation and socioeconomic needs.

This spatial planning process demonstrates how **target 3** related to protected areas can be delivered and progress towards **targets 9, 12, 22 and 23** (ensuring benefits to people, providing access to blue spaces and involving all relevant stakeholders) can be achieved. Identifying priority areas within the MPA network for conservation and fisheries, speaks to the aspect of the target to protect 'areas of particular importance for biodiversity and its contributions to people'. The project also considered the contribution of each individual MPA to the MPA network, relating to the aspect of the target to create 'ecologically representative and well-connected systems'.

See section 7 for case study reference list.

## Cumulative Impact Assessment Toolbox in the Baltic Sea, 2019

**Implementing partners:** HELCOM

### Illustrating how baseline information can underpin action on targets 2, 3, 7 and 11.

As part of the Pan Baltic SCOPE project, the Baltic Sea Impact Index Cumulative Impacts Assessment Toolbox was developed so that **ecosystem service assessments** and **cumulative impact assessments** could be carried out on a regional scale.

The toolbox contains an Ecological Value Tool and Ecosystem Service Tool which can be used to identify areas of high ecological value and areas with high potential provision of **ecosystem services**, respectively.

The toolbox also contains tools to calculate the Baltic Sea Impact Index and the Baltic Sea Pressure Index, so that cumulative impacts can be identified. These tools were tested on different scenarios for offshore wind farm development to assess the difference in cumulative impacts.

See section 7 for case study reference list.

## **Reconciling tourism development and conservation outcomes in the Red Sea using Marxan-led Marine Spatial Planning**

**Implementing partners:** The Red Sea Development Company (TRSDC)

### **Illustrating how scenarios have been used to test options for delivering on objectives for tourism and conservation.**

The 'Red Sea Project' seeks to deliver a diverse economy and support the growth of sustainable tourism, providing employment opportunities and reducing the dependence of the Kingdom of Saudi Arabia on revenue from fossil fuels. The project seeks to simultaneously increase the conservation value of the

Al Wajh lagoon, situated within the project area, by up to 30%, which is only achievable by delivering conservation outcomes in excess of 'business as usual' scenarios for undeveloped sites. In order to determine the desired levels of tourism development for the area are compatible with the project's conservation targets, a marine spatial planning approach was undertaken to identify a suitable balance using Marxan tools.

Five conservation scenarios were developed and tested using Marxan for their suitability in delivering the required tourism development and conservation outcomes. Quantitative assessment of the potential

conservation value of the areas identified for protection enabled the development of a preliminary zoning plan for the Al Wajh Lagoon site and suggested actions, including. The design aims to be sustainable and has achieved British Standard Institution Environmental Management Standard, ISO14001:2015 accreditation (Red Sea Development Company).

Throughout the entire marine spatial planning process, relevant stakeholders from different backgrounds were consulted.

*See section 7 for case study reference list.*

## 4.2 Review existing policy and management frameworks

Specifics target-related considerations	
<p><b>Cross-cutting activities to consider</b></p> <p><b>Scoping study</b> to identify and review existing policies, management processes and projects of relevance and sustainable development priorities. Scoping should allow for the creation of a baseline understanding of the policy and management landscape.</p> <p><b>Policy landscape assessment</b> to review existing policy frameworks or mechanisms of relevance to specific targets. Identify how existing or evolving policies will influence spatial planning, including noting their review and update frequencies, as well as how they integrated gender and human rights-based considerations.</p> <p>Assessment should seek to identify gaps in policy coverage (implementation, geographic etc.). Policies of particular relevance include:</p> <ul style="list-style-type: none"> <li>- National Biodiversity Strategy and Action Plans (NBSAP)</li> <li>- National environment or resource management plans</li> <li>- Regional spatial planning frameworks, such as the EU MSP Directive, Marine Strategy Framework Directive</li> <li>- Global policies including, SDG14.2 and UNEA resolution UNEP/ EA.2/ Res.10.</li> </ul> <p><b>Governance and management review</b> to determine existing roles, authorities and mandates of relevance to spatial planning, and barriers to implementation (financial, capacity, habitual). Review should also identify different management roles across women and men. Consider:</p> <ul style="list-style-type: none"> <li>- Management effectiveness frameworks</li> <li>- Capacity assessment tools</li> </ul> <p>Consider the <b>coherence of the existing policy</b> base and if it is working together to achieve objectives or if elements of it undermine other priorities.</p>	<p><b>Theme: Area-based management for biodiversity</b></p> <p><b>target 2</b> Ecosystem Restoration</p> <ul style="list-style-type: none"> <li>• Identify relevant restoration policy frameworks, including UNGA resolution A/ RES/73/284, and regional restoration decisions, as well as voluntary commitments (UN Oceans Conference).</li> <li>• Identify and review ongoing restoration projects and initiatives and responsible entities, including those under the UN Decade on Ecosystem Restoration</li> </ul>
	<p><b>target 3</b> Area-based conservation</p> <ul style="list-style-type: none"> <li>• With the consultation and consent of indigenous peoples and local communities, identify opportunities to recognise their existing governance systems and uphold their rights.</li> <li>• Seek to identify gaps in existing area-based conservation networks (protected areas and OECMs) and assess potential for improved connectivity, in terms of ecological, as well as implementation, policy and management and.</li> <li>• Identify ways to mainstream protected areas and OECMs into the broader policy landscape, and to integrate them into wider spatial planning frameworks (nationwide or regional etc.).</li> </ul>
	<p><b>Theme: Reducing threats to biodiversity</b></p> <p><b>target 7</b> Reducing pollution</p> <ul style="list-style-type: none"> <li>• Consider wider global and regional pollution policy frameworks and legislation, including regional oil spill contingency plans, national management plans, the EU Marine Strategy Framework Directive and Water Directive, and London Convention and Protocol, as well as relevant land-use plans.</li> <li>• Identify existing management authorities, including, port authorities, IMO, Regional Seas Conventions and Action Plans and specific government ministries.</li> </ul>
	<p><b>Theme: Sustainable use and benefit sharing</b></p> <p><b>target 9</b> Ensuring benefits via sustainable management</p> <ul style="list-style-type: none"> <li>• Review the alignment of economic development plans, including blue economy strategies, with global sustainable development policies and wider ecosystem-based management ambitions</li> </ul>
	<p><b>target 11</b> Improving water quality &amp; hazard protection</p> <ul style="list-style-type: none"> <li>• Ensure policy assessment also covers relevant land-based policies and management frameworks that ultimately have downstream impacts on marine and coastal ecosystems, for instance landfill and waste disposal or deforestation policies.</li> </ul>
	<p><b>target 12</b> Improving benefits from blue spaces</p> <ul style="list-style-type: none"> <li>• Review social health and infrastructure policies to assess how the relationship between ecosystem health and human health is considered and how it is put into practice, for example prescriptions for time out in nature to support improved mental health and ultimately reduce pressures on social services.</li> </ul>
	<p><b>Theme: Implementation and mainstreaming of biodiversity conservation and management</b></p> <p><b>target 21</b> Integrating all relevant knowledge into decision-making</p> <ul style="list-style-type: none"> <li>• Review relevant social health policies and action plans to identify and highlight linkages with the natural environment, and differences in use and dependence on ecosystem across diverse groups, including indigenous peoples and local communities, and women.</li> </ul>
	<p><b>target 22</b> Inclusion of all stakeholders</p> <ul style="list-style-type: none"> <li>• Review the extent of stakeholder participation and engagement within existing legislation, policy and management frameworks and identify modalities suggested within each. For instance, consider how existing policies align with the objectives of the 1998 Aarhus Convention on public participation in decision-making, indigenous rights, municipal management practices.</li> </ul>
	<p><b>target 23</b> Implementing a gender-responsive approach</p> <ul style="list-style-type: none"> <li>• Ensure equal rights and access to land and natural resources among women and girls and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making.</li> </ul>



## **Marine Spatial Planning in Croatia, 2017**

**Implementing partners:** *Government of Croatia*

### **Illustrating how reviewing existing management frameworks can support implementing of target 1**

Croatia has a long history of spatial planning and so has well established legislation and institutional frameworks to support it. In 2017, the EU Marine Spatial Planning Directive was adopted into Croatia's national legislation. The country's planning system incorporates both terrestrial and marine areas, meaning marine spatial planning has always been integrated into the wider planning system and not treated separately. This meant when the MSP Directive was adopted, it was incorporated into existing management frameworks and existing spatial plans were updated to include elements of the

MSP Directive.

The integrated nature of including terrestrial and marine in the same planning system means that ministries of relevance to the marine environment can be more easily involved in marine spatial planning.

*See section 7 for case study reference list.*

## 4.3 Identify and engage relevant stakeholders

Specifics target-related considerations	
<p><b>Cross-cutting activities to consider</b></p> <p>Use <b>stakeholder mapping exercise</b> to identify relevant stakeholders from diverse groups of people, including indigenous peoples and local communities, women and girls, and different sectors operating in the area under consideration. Stakeholder map should identify:</p> <ul style="list-style-type: none"> <li>- Stakeholders that undertake activities relating to the objectives of specific targets</li> <li>- Stakeholders impacted by threats to ecosystems upon which they depend</li> </ul> <p>Undertake <b>stakeholder engagement activities</b> or establish a clear <b>stakeholder engagement mechanism</b> for regular and inclusive dialogue, including regular meetings, workshops or fora. Engagement mechanisms should encourage involvement of all relevant stakeholders and sectors.</p> <p>To ensure <b>transparency</b>, making any process available publicly can be valuable, for example, making meeting minutes available and listing participants.</p> <p>Identify <b>stakeholder capacity</b> for marine and coastal management, monitoring and enforcement.</p>	<p><b>Theme: Area-based management for biodiversity</b></p> <p><b>target 2</b> Ecosystem Restoration</p> <ul style="list-style-type: none"> <li>• Identify stakeholders undertaking or with an interest in restoration activities, including traditional and local communities, government, industry such as tourism and NGOs.</li> <li>• Identify stakeholder needs and priorities regarding restoration and the ecosystem(s) under consideration, including enviro-socio-economic needs. What ecosystems are they depending on and can these be prioritised?</li> <li>• Assess stakeholder dependencies on the marine and coastal environment – link to ecosystem services assessment</li> </ul> <p><b>target 3</b> Area-based conservation</p> <ul style="list-style-type: none"> <li>• Identify stakeholders and rights-holders actively engaged in the governance and/ or management of protected areas and OECMs (including those that lack formal recognition), including indigenous peoples and local communities, government and NGOs.</li> <li>• Determine stakeholder needs and priorities regarding area-based conservation, including enviro-socio-economic needs, such as promoting eco-tourism, reversing species declines and protecting important habitats, e.g., corals or seagrasses.</li> </ul> <p><b>Theme: Reducing threats to biodiversity</b></p> <p><b>target 7</b> Reducing pollution</p> <ul style="list-style-type: none"> <li>• Determine stakeholders whose wellbeing is threatened by pollution degrading marine and coastal ecosystem services.</li> <li>• Identify stakeholder priorities in relation to pollution reduction, including preventing harmful algal blooms, for to support human wellbeing.</li> </ul> <p><b>Theme: Sustainable use and benefit sharing</b></p> <p><b>target 9</b> Ensuring benefits via sustainable management</p> <ul style="list-style-type: none"> <li>• Identify relevant data and information held by stakeholders, including traditional and local knowledge (including from indigenous and local women). It is essential to use this information where available to guide decision-making and ensure stakeholder buy-in to the spatial planning approach</li> </ul> <p><b>target 11</b> Improving water quality &amp; hazard protection</p> <ul style="list-style-type: none"> <li>• Identify stakeholder priorities in relation to improving water quality, including, providing safe water for cultural activities and human wellbeing.</li> <li>• Hazard protection requires the identification of where stakeholders are located and what requires protection (e.g. housing, infrastructure etc.). The needs of stakeholders can be identified via a stakeholder engagement process.</li> </ul> <p><b>target 12</b> Improving benefits from blue spaces</p> <ul style="list-style-type: none"> <li>• Determine stakeholder needs and priorities relating to the area in question and associated ecosystem services and benefits, including cultural and health benefits from green/blue spaces.</li> </ul> <p><b>Theme: Implementation and mainstreaming of biodiversity conservation and management</b></p> <p><b>target 21</b> Integrating all relevant knowledge into decision-making</p> <ul style="list-style-type: none"> <li>• Conduct spatial planning consultation processes to engage with a variety of stakeholders including indigenous people and local communities with traditional knowledge, innovations and practices.</li> <li>• Where possible, establish an accessible information repository to house all documentation, data and information relevant to decision-making under the spatial planning approach. Explore modalities for such a repository based on good practices.</li> <li>• Document consent processes within knowledge management system.</li> </ul> <p><b>target 22</b> Inclusion of all stakeholders</p> <ul style="list-style-type: none"> <li>• Identify those with rights over lands, territories and resources within, or connected to the specific location, to be included in the process.</li> </ul> <p><b>target 23</b> Implementing a gender-responsive approach</p> <ul style="list-style-type: none"> <li>• Ensure equal rights and access to land and natural resources among women and girls and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making.</li> </ul>

## **Integrated Zone Management, India, 2010-2020**

**Implementing partners:** Government of India, supported by The World Bank.

### **Illustrating how stakeholder engagement can be used to support delivery of target 2.**

A World Bank project in India between 2010-2020 aimed to assist the Government of India in building capacity for implementation of a comprehensive coastal management approach in the country and to pilot integrated coastal zone management in three states. Mangrove restoration was one of the activities in the pilot state Gujarat.

Local communities in the area are dependent on mangroves for fodder, fuel, coastal protection and subsistence fishing. The project **engaged the local community** through an existing community managed plantation to restore mangroves. 19,503 ha of mangroves were restored by 5,000 local people employed through the project, increasing the mangrove cover in Gujarat by 3%.

This spatial planning process contributes towards **target 2** due to the restoration of mangroves as part of the integrated coastal zone management pilot scheme.

*See section 7 for case study reference list.*

## **Marine Spatial Planning in Indonesia, 2017**

**Implementing partners:** Government of Indonesia

Illustrating how stakeholder inclusion can support delivery of **targets 3, 9, 22 and 23**.

In Indonesia, a Marine Spatial Planning process launched in 2017 required the integration of terrestrial and marine activities into the plan, through an **agreement with all relevant stakeholders**. The national

government requires the provincial government to identify relevant stakeholders from coastal communities, businesses, universities and NGOs to include in a forum. Stakeholders sign to prove their involvement in

the process, and the minutes are made publicly available after the meetings. The agreed involvement of all relevant stakeholder groups has ensured that different stakeholder needs, priorities and insights have fed directly into decision-making processes, helping to guide sustainable management efforts.

*See section 7 for case study reference list.*

## **Integrated Coastal Zone Management in Montenegro, 2011-2014**

**Implementing partners:** Government of Montenegro

Illustrating how participatory processes can support **target 7**.

During preparation stages of the national strategy for Integrated Coastal Zone Management in Montenegro, CEED Consulting, a development consultancy, led the **stakeholder participatory process**, which included 48 in-depth interviews, six workshops, and sectoral analyses. Recommendations that were considered during the development of Montenegro's National Strategy for Integrated Coastal Zone Management. Workshop participants noted that marine pollution, including noise pollution, were barriers to the development of coastal areas for tourism. Measures for pollution prevention and remediation were explicitly listed within the National Strategy.

*See section 7 for case study reference list.*

## 4.4 Determine roles and responsibilities

Specifics target-related considerations	
<p><b>Cross-cutting activities to consider</b></p> <p>Establish <b>necessary spatial planning coordination and governance mechanism</b>, for instance a dedicated committee or expert group consisting of relevant ministries and relevant stakeholders and rights-holders.</p> <p>Identify <b>leadership and decision-making authority, and roles and responsibilities</b> of relevant stakeholders at all stages of the planning process. Consider</p> <p><b>identification of a champion</b> to promote, encourage and catalyse action across the wider stakeholder community at different scales.</p> <p>Utilize stakeholder insights and knowledge to identify appropriate leadership.</p>	<p><b>Theme: Area-based management for biodiversity</b></p> <p><b>target 2</b> Ecosystem Restoration</p> <ul style="list-style-type: none"> <li>Identify suitable local stakeholders or organisations in proximity to restoration area to guide on-the-ground action in-situ.</li> <li>Establish restoration leadership role for planning and implementation (these may be different).</li> <li>Prioritise actions tailored to local ecological, cultural and socio-economic context.</li> </ul>
	<p><b>target 3</b> Area-based conservation</p> <ul style="list-style-type: none"> <li>Invite existing governance and management authorities (as identified above), to actively engage in the planning process, and assume a leadership role where possible. Where the governance or management authorities are indigenous peoples or local communities, no decisions affecting the areas they govern and manage should be taken without their free, prior and informed consent.</li> <li>Where governance or management authorities are not yet established, identify suitable local stakeholders or organisations in-situ or in proximity to area under consideration to lead area-based conservation and management efforts on-the-ground.</li> <li>Establish authority for decision-making and implementation of area-based conservation and management measures, including through recognition of existing governance systems.</li> </ul>
	<p><b>Theme: Reducing threats to biodiversity</b></p> <p><b>target 7</b> Reducing pollution</p> <ul style="list-style-type: none"> <li>Determine appropriate local stakeholders or organisations in-situ or in proximity to area(s) under consideration to lead/guide pollution reduction activities on-the-ground.</li> <li>Establish authority for decision-making and implementation of spatially explicit pollution prevention, reduction and mitigation measures.</li> </ul>
	<p><b>Theme: Sustainable use and benefit sharing</b></p> <p><b>target 9</b> Ensuring benefits via sustainable management</p> <ul style="list-style-type: none"> <li>There may be existing roles and responsibilities that indigenous people and local communities have in relation to spatial management which can be identified formally through a spatial planning process.</li> <li>Those with identified roles and responsibilities in terms of implementation of a plan can ensure that benefits for people, including the most vulnerable, are retained and access is maintained.</li> </ul>
	<p><b>target 11</b> Improving water quality &amp; hazard protection</p> <ul style="list-style-type: none"> <li>Existing responsibilities for those involved in water quality can be integrated, coordinated, upscaled and/or recognised via a spatial planning process. For example, water management authorities and sewage treatment companies can have the role of coordination.</li> <li>Relevant stakeholders including those with responsibilities for upstream activities such as agriculture, forestry and aquaculture, are engaged and their agreed role in improving water quality can be determined.</li> <li>Spatial planning approaches can include those with a role and responsibility in coastal protection or flood risk mitigation to ensure that coastal ecosystems are part of mitigation or adaptation plans.</li> </ul>
	<p><b>target 12</b> Improving benefits from blue spaces</p> <ul style="list-style-type: none"> <li>Urban planners, infrastructure management and health professionals can be part of a spatial planning process and their role and responsibilities related to blue space access for health and well-being can be included.</li> </ul>
	<p><b>Theme: Implementation and mainstreaming of biodiversity conservation and management</b></p> <p><b>target 21</b> Integrating all relevant knowledge into decision-making</p> <ul style="list-style-type: none"> <li>Establish responsibilities and a clear process for feeding stakeholder knowledge and perspectives into decision-making.</li> </ul>
	<p><b>target 22</b> Inclusion of all stakeholders</p> <ul style="list-style-type: none"> <li>Identify a champion to raise awareness of the aims of the spatial planning approach, for example to ensure food security, provide alternative livelihoods or mitigate the impacts of storms on coastal communities. Champions can also encourage continued and wider engagement of all stakeholder groups throughout the process. Champions can include women, youth and those from indigenous peoples and local communities.</li> </ul>
	<p><b>target 23</b> Implementing a gender-responsive approach</p> <ul style="list-style-type: none"> <li>Ensure equal rights and access to land and natural resources among women and girls and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making.</li> </ul>

## Coastal Cities Pollution Control Project in Croatia, 2009-2015

**Implementing partners:** The government of Croatia, supported by The World Bank

### Illustrating how determining roles and responsibilities can help progress towards targets 7 & 11.

The World Bank-funded project aimed to improve the provision of efficient and sustainable wastewater services and pilot innovative wastewater treatment solutions in 23 selected municipalities, in order to reduce nutrient load entering the Adriatic Sea.

**Roles and responsibilities** of national agencies/institutions were determined during the project with the Croatian National Water Agency (Hrvatske vode) serving as a focal point for the project preparation and implementation of a Water Management Strategy, while the Croatian Ministry of Environmental Protection was responsible for the implementation of the seawater quality monitoring project component. By the end of the project, 72% of households in participating municipalities were able to connect to wastewater services, meanwhile 14 new wastewater treatment facilities and 162 kilometres of wastewater treatment systems were constructed.

Through empowering a national agency to become a **leader and decision-making authority**, Croatia was able to continue project processes after the end of the funded project - Hrvatske vode developed into a key institution for wastewater services and continues to use the monitoring and benchmarking system developed under the project as a national benchmarking platform that aims to improve quality and efficiency of water supply and sanitation services.

This spatial planning process contributes to **target 7 & 11** by enabling a national agency to become an authority for decision-making.

*See section 7 for case study reference list.*

## 4.5 Undertake participatory planning

Specifics target-related considerations		
<p><b>Cross-cutting activities to consider</b></p> <p>Undertake <b>participatory mapping and/or planning exercises</b>, drawing on knowledge of spatial range of activities and local ecological knowledge including indigenous peoples' and traditional knowledge.</p> <p>Identify existing <b>capacity and gaps</b> in relation to undertaking spatial planning and implementing management measures.</p> <p>Consider the <b>transboundary nature</b> of the issue.</p>	<b>Theme: Area-based management for biodiversity</b>	
	<b>target 2</b> Ecosystem Restoration	<ul style="list-style-type: none"> <li>• Include previously identified local stakeholders or organisations in proximity to restoration area to guide on-the-ground action in-situ.</li> <li>• Establish restoration leadership role for planning and implementation (these may be different).</li> <li>• Prioritise actions tailored to local ecological, cultural and socio-economic context.</li> </ul>
	<b>target 3</b> Area-based conservation	<ul style="list-style-type: none"> <li>• Engage stakeholders and rights-holders to help identify zones or management actions. This will enhance buy in on the final decisions around conservation and sustainable use mechanisms.</li> </ul>
	<b>Theme: Reducing threats to biodiversity</b>	
	<b>target 7</b> Reducing pollution	<ul style="list-style-type: none"> <li>• Engage with those stakeholders who are responsible for pollution. What are the drivers for action or lack of action around the problem?</li> <li>• Identify solutions to pollution issues through participatory means with local stakeholders, both those who are responsible for pollution and those who are affected by it.</li> <li>• Identify barriers to implementation of effective solutions to pollution issues.</li> </ul>
	<b>Theme: Sustainable use and benefit sharing</b>	
	<b>target 9</b> Ensuring benefits via sustainable management	<ul style="list-style-type: none"> <li>• Participatory planning will support identification of the specific benefits from the natural environments that are part of local livelihoods.</li> <li>• Participation of those who are involved in customary sustainable use, such as Indigenous peoples and local communities, will support recognition of their dependencies and be a component of sustainable management.</li> </ul>
	<b>target 11</b> Improving water quality & hazard protection	<ul style="list-style-type: none"> <li>• Involving stakeholders in participatory planning, including those who contribute to local land management and potentially contribute to impacting activities, will help their solutions be heard and barriers to implementation be recognised and overcome.</li> </ul>
	<b>target 12</b> Improving benefits from blue spaces	<ul style="list-style-type: none"> <li>• Maximising the opportunities for blue spaces to be beneficial to people can be supported via participatory planning. For example, in mapping potential and actual uses.</li> </ul>
	<b>Theme: Implementation and mainstreaming of biodiversity conservation and management</b>	
	<b>target 21</b> Integrating all relevant knowledge into decision-making	<ul style="list-style-type: none"> <li>• Relevant knowledge, including traditional knowledge, can be identified and used within a planning process through participatory action to engage with Indigenous peoples and local communities and other relevant stakeholders.</li> <li>• Free, prior and informed consent can be embedded in the participatory process.</li> </ul>
	<b>target 22</b> Inclusion of all stakeholders	<ul style="list-style-type: none"> <li>• Participatory planning can be a mechanism to engage with Indigenous peoples and local communities, women, girls and youth to ensure their voices can be heard.</li> <li>• Identification of rights, territories and resources can be facilitated by a participatory process.</li> </ul>
<b>target 23</b> Implementing a gender-responsive approach	<ul style="list-style-type: none"> <li>• Ensure equal rights and access to land and natural resources among women and girls and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making.</li> </ul>	

## Marine Spatial Planning on Australia's Great Barrier Reef, 1975-present

**Implementing partners:** The Great Barrier Reef Marine Park Authority

### Illustrating how participatory planning can contribute towards target 3, 7 & 11.

The Great Barrier Reef Marine Park is one of the oldest examples of marine spatial planning. It has a comprehensive **management plan** which is based on spatial planning and zoning. The overarching **objective** of the management plan is to “provide for the long-term protection, ecologically sustainable use, understanding and enjoyment of the reef through the care and development of the Great Barrier Reef Marine Park” and it also has a set of aims.

Due to the vast area of the Great Barrier Reef Marine Park, it cannot have a uniform level of protection and differing **management measures** are required for different areas, or zones. There are eight zones ranging from “general use” to “preservation zone”.

This spatial planning relates to **targets 7 & 11** as the Great Barrier Reef Marine Park was originally established to address issues affecting the reef, one of which was pollution and decreasing water quality. It also contributes towards **target 3** due to the area-based focus of the management plan and high level of conservation activities carried out on the reef to protect its unique biodiversity. The Great Barrier Reef Marine Park has coral **restoration** carried out within its jurisdiction, contributing also towards **target 2**.

Ecosystem restoration activities on the reef are increasing due to increasing coral bleaching events, meaning they are likely to be an integral part of its management over the coming decades.

*See section 7 for case study reference list.*



## 4.6 Implementation of plan

Specifics target-related considerations		
<p><b>Cross-cutting activities to consider</b></p> <p>Implementation of management measure(s) in accordance with plan timeframes and responsibilities</p> <p>Establish monitoring and information collection processes</p> <p>Establish stakeholder engagement and participation process</p>	<b>Theme: Area-based management for biodiversity</b>	
	<b>target 2</b> Ecosystem Restoration	<ul style="list-style-type: none"> <li>Implementation of a spatial planning process is a mechanism to support delivery of restoration action.</li> </ul>
	<b>target 3</b> Area-based conservation	<ul style="list-style-type: none"> <li>Area based conservation can be embedded in spatial planning implementation.</li> </ul>
	<b>Theme: Reducing threats to biodiversity</b>	
	<b>target 7</b> Reducing pollution	<ul style="list-style-type: none"> <li>Pollution reduction measures can be made more visible through a spatial planning process and implementation actions can be coordinated with other processes in a dedicated plan.</li> </ul>
	<b>Theme: Sustainable use and benefit sharing</b>	
	<b>target 9</b> Ensuring benefits via sustainable management	<ul style="list-style-type: none"> <li>Implementation of a plan could include visibility of the benefits from the natural environment that are depended upon for livelihoods.</li> <li>Securing the location-based implementation of conservation and sustainable use will support long term access to those resources.</li> </ul>
	<b>target 11</b> Improving water quality & hazard protection	<ul style="list-style-type: none"> <li>Implementation of measures to improve water quality through a spatial approach allows activities to be targeted to specific areas where issues are most critical.</li> </ul>
	<b>target 12</b> Improving benefits from blue spaces	<ul style="list-style-type: none"> <li>Identification of access and implementing access to blue spaces will allow long term support to human health and well-being.</li> </ul>
	<b>Theme: Implementation and mainstreaming of biodiversity conservation and management</b>	
	<b>target 21</b> Integrating all relevant knowledge into decision-making	<ul style="list-style-type: none"> <li>Spatial planning can be a mechanism to implement knowledge management processes and a formal process to ensure that, for example traditional knowledge, can be fed into decision-making</li> </ul>
	<b>target 22</b> Inclusion of all stakeholders	<ul style="list-style-type: none"> <li>Implementation of a plan can support the inclusion of stakeholders. Specific stakeholder groups, for example Indigenous peoples and local communities, women and girls and youth could be actively involved in carrying out identified measures through providing a mechanism for funding, rights and responsibilities.</li> </ul>
	<b>target 23</b> Implementing a gender-responsive approach	<ul style="list-style-type: none"> <li>Ensure equal rights and access to land and natural resources among women and girls and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making.</li> </ul>

## Integrated Coastal Zone Management in Xiamen City, China, 1994-2018

**Implementing partners:** Government of China

### Illustrating how implementation of management measures contributes towards target 7 & 11.

Integrated Coastal Zone Management began in 1994 in Xiamen City, Fujian province, as a result of high pollution caused by excessive reclamation activities, clothing production, refuse discharge, aquaculture and agriculture. The main objective was to reduce wastewater entering the sea from land. The local government **implemented management measures** such as policies on water quality standards, including a control system of pollutant discharge from land sources and agricultural pollution control based on small watershed management. Furthermore, the local government **implemented certification schemes** of green products to improve agricultural management. These changes contributed to a reduction in coastal eutrophication. The implementation of these measures allowed for coastal water quality to be improved, and progress tracked over time. According to the monitoring data of Oceans & Fisheries Bureau of Xiamen, the sea water quality in the Xiamen Bay remained stable in 2017, compared with an earlier time period.

Implementation of these policies through Integrated Coastal Zone Management illustrates how a spatial planning process can contribute towards **targets 7 and 11** by reducing water pollution and improving water quality.

*See section 7 for case study reference list.*

## 4.7 Monitoring and evaluation

<b>Specifics target-related considerations</b>		
<p><b>Cross-cutting activities to consider</b></p> <p>Monitor the effectiveness of governance and management measures, and the quality of biodiversity outcomes.</p> <p>Using data and information from monitoring process, assess and review progress against performance indicators, including identifying changes in ecosystem functioning, trends in pressures or uses and the potential impacts of external changes, including changes in administrations. Review should take place after designated interval, or when triggered by other factors (e.g. changes in government, natural disaster, large-scale changes in ecosystem).</p>	<b>Theme: Area-based management for biodiversity</b>	
	<p><b>target 2</b> Ecosystem Restoration</p>	<ul style="list-style-type: none"> <li>Ecosystem restoration is a long-term process and monitoring of success and challenges can be funded through and managed within a spatial planning process. The monitoring of a restoration process can be integrated into a spatial planning indicator and monitoring framework.</li> </ul>
	<p><b>target 3</b> Area-based conservation</p>	<ul style="list-style-type: none"> <li>Long term area-based conservation needs monitoring to support successful management. Spatial planning can help and can be used to integrate synergies and economies of scale into the planning process.</li> </ul>
	<b>Theme: Reducing threats to biodiversity</b>	
	<p><b>target 7</b> Reducing pollution</p>	<ul style="list-style-type: none"> <li>Monitoring is essential to understand if pollution minimisation, management and mitigation activities are successful. A spatial planning process can support the monitoring as, in some cases, the monitoring may need to be structured around a wide area depending on the type and impact of the pollution.</li> </ul>
	<b>Theme: Sustainable use and benefit sharing</b>	
	<p><b>target 9</b> Ensuring benefits via sustainable management</p>	<ul style="list-style-type: none"> <li>Monitoring equity, wellbeing and livelihoods will help to identify if the flow of benefits from ecosystems to people is being maintained.</li> </ul>
	<p><b>target 11</b> Improving water quality &amp; hazard protection</p>	<ul style="list-style-type: none"> <li>Nature's contribution to regulation of water quality and hazard protection can be upscaled via appropriate management actions e.g. maintaining coastal vegetation. In order to track success and identify locations where additional management is needed, monitoring is required. Spatial planning processes can be tailored to provide this information and support long term monitoring plans.</li> </ul>
	<p><b>target 12</b> Improving benefits from blue spaces</p>	<ul style="list-style-type: none"> <li>Monitor the value people place on access to blue spaces to ensure the recognition of their importance is included in decision making. Evidence for monitoring can be valuable in the decision-making process.</li> <li>Monitoring can include health benefits, wellbeing, social cohesion, access availability among other things, in combination with tracking health of biodiversity.</li> </ul>
	<b>Theme: Implementation and mainstreaming of biodiversity conservation and management</b>	
	<p><b>target 21</b> Integrating all relevant knowledge into decision-making</p>	<ul style="list-style-type: none"> <li>Monitoring of the flow of information and whether the relevant stakeholders have been appropriately consulted can form part of a monitoring framework.</li> <li>Stakeholder groups, such as indigenous people and local community knowledge holders can support monitoring processes. Their experience and expertise may provide novel or innovative mechanisms for tracking change. Their knowledge may be essential to support indicator development or implementation.</li> </ul>
	<p><b>target 22</b> Inclusion of all stakeholders</p>	<ul style="list-style-type: none"> <li>A variety of stakeholder groups may support monitoring processes through data collection or support in the design of the monitoring framework to ensure that critical aspects to local human wellbeing and biodiversity are included.</li> </ul>
	<p><b>target 23</b> Implementing a gender-responsive approach</p>	<ul style="list-style-type: none"> <li>Ensure equal rights and access to land and natural resources among women and girls and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making.</li> </ul>

## Restoration of Goro Lagoon, Italy, 2006-2010

**Implementing partners:** National, regional and local governments of Italy

**Illustrating how monitoring and evaluation as part of Integrated Coastal Zone Management can help progress towards targets 2, 7, 9, 11 & 21.**

Goro Lagoon in Italy is an important site for biodiversity as a stopover and rest area for migratory bird species. It also has socioeconomic importance for the population of nearby town Goro through tourism, fishing and mussel and clam farming. Goro Lagoon's environmental health began to deteriorate due to agricultural pollution accumulating within the lagoon and reduced water exchange.

To address this issue, a MoU was signed between the regional, provincial, and municipal councils and the local fishermen's association for a project to restore the lagoon using ICZM principles illustrating **target 22**. The project took place between 2006-2010 and involved dredging and realignment of channels within the lagoon to improve water exchange.

**Monitoring** took place throughout the restoration interventions on the lagoon's benthic communities to determine ecological quality status. Two sites within the lagoon and two control sites close by were

sampled for benthic fauna before, during and after the restoration activities and compared. Although there was a decrease in benthic fauna during the restoration activities, recolonization occurred in the lagoon after 10 days.

**Evaluation** took place after the restoration activities were completed to assess whether the realignment improved the water quality within the lagoon. Monitoring showed that the realignment did improve the water quality and clam production increased by 28%.

This example demonstrates how a spatial planning process can contribute towards **target 2** due to the restoration of the lagoon. It also contributed towards **targets 7, 9 and 11** by improving the water quality of the lagoon and reducing the accumulation of agricultural pollution and improving the production of food.

*See section 7 for case study reference list*

## 4.8 Adaptive review

Specifics target-related considerations		
<p><b>Cross-cutting activities to consider</b></p> <p>Review progress against objectives.</p> <p>Identify barriers to effective planning and implementation, and potential solutions.</p> <p>Identify lessons learned that can support the design of other planning processes, such as Marine Protected Areas.</p> <p>Consider modifications to enhance the effectiveness of the process in the interval before the next review.</p>	<b>Theme: Area-based management for biodiversity</b>	
	<b>target 2</b> Ecosystem Restoration	<ul style="list-style-type: none"> <li>Adaptive management can support the success of ecosystem restoration. E.g. by identification of successful practices, locations or species.</li> </ul>
	<b>target 3</b> Area-based conservation	<ul style="list-style-type: none"> <li>Lessons and the inclusion of adaptive review can support achievement of objectives. For example, through understanding effectiveness of area-based conservation measures.</li> </ul>
	<b>Theme: Reducing threats to biodiversity</b>	
	<b>target 7</b> Reducing pollution	<ul style="list-style-type: none"> <li>Pollution management to ensure that harmful effects on biodiversity, ecosystem and human health is supported by adaptive review. Successful measures can be upscaled while activities which prove to not be effective can be changed.</li> </ul>
	<b>Theme: Sustainable use and benefit sharing</b>	
	<b>target 9</b> Ensuring benefits via sustainable management	<ul style="list-style-type: none"> <li>Ensuring the flow of benefits will require monitoring and associated adaptive review of progress against objectives. Ensuring, for example, that wild marine species are being sustainably used will require adaptation of management actions if monitoring flags that the population is not being maintained at the necessary levels.</li> </ul>
	<b>target 11</b> Improving water quality & hazard protection	<ul style="list-style-type: none"> <li>Adaptive management of the protective effect of ecosystems requires long term consideration. This is especially true as there can be a time lag between a particular impact and its effect benefits of the natural ecosystem. For example, hydrological changes can affect mangrove ecosystems years after the changes. Therefore adaptive review is necessary to maintain in the long term.</li> </ul>
	<b>target 12</b> Improving benefits from blue spaces	<ul style="list-style-type: none"> <li>Adaptive review can ensure that blue spaces are providing the benefits expected. Managing activities may require changes over time as new uses start and the demands on a space evolve based on the population size and the environmental qualities. Activities may be undermining the benefits a blue space can provide and therefore review needed.</li> </ul>
	<b>Theme: Implementation and mainstreaming of biodiversity conservation and management</b>	
	<b>target 21</b> Integrating all relevant knowledge into decision-making	<ul style="list-style-type: none"> <li>Sources of traditional knowledge, innovations and practices may change over time. The use of knowledge in new processes may also be supportive. Therefore, reviewing decision making and flows of information and retaining records of consent is helpful.</li> </ul>
	<b>target 22</b> Inclusion of all stakeholders	<ul style="list-style-type: none"> <li>Stakeholder participation and the presence of new stakeholder groups will change over time. Some groups may become more relevant as management practices adapt and change. Therefore, reviewing who is involved, the mechanisms of engagement and participation process is important. For example, youth will not be young forever and new youth need consideration.</li> </ul>
<b>target 23</b> Implementing a gender-responsive approach	<ul style="list-style-type: none"> <li>Ensure equal rights and access to land and natural resources among women and girls and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making.</li> </ul>	

## **Baltic Sea management review, 2018-2019**

**Implementing partners:** HELCOM

### **Illustrating how adaptive reviews can help progress towards target 2, 7 & 11.**

The management of the Baltic Sea is reviewed over a six-year cycle, with the adaptive revision of management plans. Coordination occurs across the relevant ministries in order to ensure that monitoring and evaluation processes feed into the **adaptive review**. This process has emphasised the importance of **setting achievable goals** to ensure impact and success in the following cycle.

As the majority of the coastal countries have only just finalised their Marine Spatial Plans and their application is in its infancy, it is too early to evaluate effectiveness of Marine Spatial Planning (MSP) in advancing progress towards the desired environmental goals. However, several projects have helped to review MSP processes. The Pan-Baltic Scope project has assessed results and experiences from previous MSP-related projects conducted at a regional and national scale to develop guidance for the evaluation of national Marine Spatial Planning and their impacts. The Capacity4MSP project aims to enable sharing of outcomes from MSP processes to better-inform future MSP activities.

*See section 7 for case study reference list.*

## **Integrated Coastal Zone Management in Montenegro, 2011-2014**

**Implementing partners:** Government of Montenegro

### **Illustrating how an improved monitoring programme can help progress towards target 1 and 20.**

In Montenegro, efforts have been taken to link up existing processes and utilise existing frameworks and monitoring programmes to coordinate efforts and avoid duplication of effort. For example, a lack in baseline data is being actively addressed by ongoing and upcoming projects which will support collection of previously identified missing data and available financial resources, such as the European Union Strategy for the Adriatic and Ionian Region and the Adriatic-Ionian Initiative, are used strategically. The development of a cross-institutional database is expected to aid coordination greatly. Revisions to methodologies have been and will be undertaken through Global Environment Facility Adriatic project, but also the upcoming project supported by the Instrument for the Pre-Accession Assistance which will ensure the implementation of the Marine Strategy Framework Directive in Montenegro, in order to collect higher quality and more useful data, drawing knowledge from existing national efforts illustrating **target 21**.

In Montenegro, annual assessment of the marine environment enables priority areas to be identified and targeted, while with the improved monitoring programme of the marine environment. In line with the Integrated Monitoring and Assessment Programme of the Barcelona Convention this assessment will allow for the reporting on the state of marine environment according to the regionally agreed Integrated Monitoring and Assessment Programme or Ecosystem Approach indicators. In order to address limited capacity, efforts have been taken to coordinate processes and ensure high quality, useful information is collected and made available.

*See section 7 for case study reference list.*

## 5 Conclusion

- Spatial planning approaches in marine realm, including marine spatial planning and integrated coastal zone management, have the potential to considerably support the targets from the Kunming-Montreal Global Biodiversity Framework.
- This report focuses on an illustrative selection of the twenty-three targets presented in the framework (1, 2, 3, 7, 9, 11, 12, 21, 22 and 23) to explore how the different aspects of spatial planning approaches could be tailored to support progress towards each target.
- Spatial planning approaches are likely to contribute to most, if not all, of the targets directly or indirectly. It may be beneficial to expand on this report and compile a detailed review of the usefulness of spatial planning approaches to the framework as a whole.
- Ongoing and past spatial planning efforts from across the world offer useful insights into good practices, the use of different tools and the wide range of issues or objectives that spatial planning approaches can be used for. The examples detailed here are illustrative and by no means exhaustive.
- Stakeholder engagement and participation of women and men throughout the entire spatial planning process is essential if interventions are to generate maximum impact with respect to sustainable development, environmental conservation and the provision of essential services and benefits to people. In particular, to ensure equity, it would be important to ensure the effective participation from indigenous peoples and local communities, women and youth in the process.
- Spatial planning approaches provide a useful practical framework through which to identify and address the interconnections between different targets, potentially helping to streamline efforts to deliver against the wider global biodiversity framework. For example, progress towards the objectives of target 22 on inclusion of relevant knowledge and equitable and effective participation in decision-making by indigenous peoples and local communities, women and girls, and youth and target 23 on implementing a gender-responsive approach can support approaches that seek to deliver against many other targets.

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## **Integrated Coastal Zone Management in Montenegro**

Access the Report on Post-2015 National Consultations at: <http://www.un.org.me/Library/SDGs-Post-2015-and-MDGs/TheMontenegroIWant>

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### **Baltic Sea management review**

Baltic Sea Broad-scale Maritime Spatial Planning Principles: [www.helcom.fi/action-areas/maritime-spatial-planning/msp-principles](http://www.helcom.fi/action-areas/maritime-spatial-planning/msp-principles).

Fact sheets on the status of Marine Spatial Planning in Baltic Sea countries and Norway can be found at: [www.helcom.fi/action-areas/maritime-spatial-planning/country-fact-sheets](http://www.helcom.fi/action-areas/maritime-spatial-planning/country-fact-sheets).

Further information can be found in The Regional Baltic Marine Spatial Planning Roadmap, 2013 – 2020: [www.helcom.fi/action-areas/maritime-spatial-planning/msp-roadmap](http://www.helcom.fi/action-areas/maritime-spatial-planning/msp-roadmap)

Helsinki Commission Recommendation 28E/9 on development of broad-scale marine spatial planning principles in the Baltic Sea area: <http://www.helcom.fi/Recommendations/Rec%2028E-9.pdf>.

Information supplemented by an interview undertaken with the Baltic Marine Environment Protection Commission – Helsinki Commission (HELCOM) in 2018.

The Baltic Sea Action Plan 2007 – 2021 can be found at: <http://www.helcom.fi/Pages/Baltic-Sea-Action-Plan0910-8843.aspx>.

The Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) by HELCOM (1992-2012) included development of Integrated Coastal Zone Management Plans for five coastal lagoons and wetlands, four of which were transboundary; HELCOM Recommendation 24/10 "Implementation of Integrated Marine and Coastal Management of Human Activities in the Baltic Sea Area", adopted by Contracting Parties to the Helsinki Convention in 2003 (currently under revision); Eight Baltic Sea countries implement EU Recommendation on Integrated Coastal Zone Management from 2002.

The European Union Marine Spatial Planning Directive: [eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0089&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0089&from=EN).

The Guideline for the implementation of ecosystem-based approach in MSP in the Baltic Sea area can be found at: [www.helcom.fi/action-areas/maritime-spatial-planning/msp-guidelines](http://www.helcom.fi/action-areas/maritime-spatial-planning/msp-guidelines).

The Pan Baltic Scope project can be found at: [www.msp-platform.eu/projects/pan-baltic-scope](http://www.msp-platform.eu/projects/pan-baltic-scope). Accessed October 2021.

United Nations Economic Commission for Europe (UNECE) Convention on Environmental Impact Assessment in a Transboundary Context, 1997, and the Protocol on Strategic Environmental Assessment, 2003: [www.unece.org/env/eia/about/eia\\_text.html](http://www.unece.org/env/eia/about/eia_text.html).

United Nations Environment Programme (2018). Conceptual guidelines for the application of Marine Spatial Planning and Integrated Coastal Zone Management approaches to support the achievement of Sustainable Development Goal Targets 14.1 and 14.2. UN Regional Seas Reports and Studies No. 207. 58pp.

### **Reconciling tourism development and conservation outcomes in the Red Sea**

<https://marxansolutions.org/community/the-redsea-project/>

The Red Sea Development Project Online available here: <https://www.theredsea.sa/en/project> Accessed March 2022.

# Annex 1

Table 3: Attributes of spatial planning and management approaches mapped against the 23 targets of the Kunming-Montreal Global Biodiversity Framework. Grey cells show where attributes **directly** contribute to the implementation of a target.

		Spatial focus	Trans-boundary focus	Sector focus	Data foundation	Adaptive management	Stakeholder engagement	Eco-system approach
Reducing threats to biodiversity	<b>Target 1.</b> Ensure that all areas are under participatory, integrated and biodiversity inclusive spatial planning and/or effective management processes addressing land- and sea-use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities.							
	<b>Target 2.</b> Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.							
	<b>Target 3.</b> Ensure and enable that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.							
	<b>Target 4.</b> Ensure urgent management actions to halt human induced extinction of known threatened species and for the recovery and conservation of species, in particular threatened species, to significantly reduce extinction risk, as well as to maintain and restore the genetic diversity within and between populations of native, wild and domesticated species to maintain their adaptive potential, including through in situ and ex situ conservation and sustainable management practices, and effectively manage human-wildlife interactions to minimize human-wildlife conflict for coexistence.							
	<b>Target 5.</b> Ensure that the use, harvesting and trade of wild species is sustainable, safe and legal, preventing overexploitation, minimizing impacts on non-target species and ecosystems, and reducing the risk of pathogen spillover, applying the ecosystem approach, while respecting and protecting customary sustainable use by indigenous peoples and local communities.							
	<b>Target 6.</b> Eliminate, minimize, reduce and/or mitigate the impacts of invasive alien species on biodiversity and ecosystem services by identifying and managing pathways of the introduction of alien species, preventing the introduction and establishment of priority invasive alien species, reducing the rates of introduction and establishment of other known or potential invasive alien species by at least 50 per cent by 2030, and eradicating or controlling invasive alien species, especially in priority sites, such as islands.							
	<b>Target 7.</b> Reduce pollution risks and the negative impact of pollution from all sources by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: (a) by reducing excess nutrients lost to the environment by at least half, including through more efficient nutrient cycling and use; (b) by reducing the overall risk from pesticides and highly hazardous chemicals by at least half, including through integrated pest management, based on science, taking into account food security and livelihoods; and (c) by preventing, reducing, and working towards eliminating plastic pollution.							
	<b>Target 8.</b> Minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solutions and/or ecosystem-based approaches, while minimizing negative and fostering positive impacts of climate action on biodiversity.							
	<b>Target 9.</b> Ensure that the management and use of wild species are sustainable, thereby providing social, economic and environmental benefits for people, especially those in vulnerable situations and those most dependent on biodiversity, including through sustainable biodiversity-based activities, products and services that enhance biodiversity, and protecting and encouraging customary sustainable use by indigenous peoples and local communities.							
Tools and solutions for implementation and mainstreaming	<b>Target 10.</b> Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices, such as sustainable intensification, agroecological and other innovative approaches, contributing to the resilience and long-term efficiency and productivity of these production systems, and to food security, conserving and restoring biodiversity and maintaining nature's contributions to people, including ecosystem functions and services.							
	<b>Target 11.</b> Restore, maintain and enhance nature's contributions to people, including ecosystem functions and services, such as the regulation of air, water and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature.							

	Spatial focus	Trans-boundary focus	Sector focus	Data foundation	Adaptive management	Stake-holder engagement	Eco-system approach
<b>Target 12.</b> Significantly increase the area and quality, and connectivity of, access to, and benefits from green and blue spaces in urban and densely populated areas sustainably, by mainstreaming the conservation and sustainable use of biodiversity, and ensure biodiversity-inclusive urban planning, enhancing native biodiversity, ecological connectivity and integrity, and improving human health and well-being and connection to nature, and contributing to inclusive and sustainable urbanization and to the provision of ecosystem functions and services.							
<b>Target 13.</b> Take effective legal, policy, administrative and capacity-building measures at all levels, as appropriate, to ensure the fair and equitable sharing of benefits that arise from the utilization of genetic resources and from digital sequence information on genetic resources, as well as traditional knowledge associated with genetic resources, and facilitating appropriate access to genetic resources, and by 2030, facilitating a significant increase of the benefits shared, in accordance with applicable international access and benefit-sharing instruments.							
<b>Target 14.</b> Ensure the full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting, within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity, progressively aligning all relevant public and private activities, and fiscal and financial flows with the goals and targets of this framework.							
<b>Target 15.</b> Take legal, administrative or policy measures to encourage and enable business, and in particular to ensure that large and transnational companies and financial institutions: (a) Regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity, including with requirements for all large as well as transnational companies and financial institutions along their operations, supply and value chains, and portfolios; (b) Provide information needed to consumers to promote sustainable consumption patterns; (c) Report on compliance with access and benefit-sharing regulations and measures, as applicable; in order to progressively reduce negative impacts on biodiversity, increase positive impacts, reduce biodiversity-related risks to business and financial institutions, and promote actions to ensure sustainable patterns of production.							
<b>Target 16.</b> Ensure that people are encouraged and enabled to make sustainable consumption choices, including by establishing supportive policy, legislative or regulatory frameworks, improving education and access to relevant and accurate information and alternatives, and by 2030, reduce the global footprint of consumption in an equitable manner, including through halving global food waste, significantly reducing overconsumption and substantially reducing waste generation, in order for all people to live well in harmony with Mother Earth.							
<b>Target 17.</b> Ensure that people are encouraged and enabled to make sustainable consumption choices, including by establishing supportive policy, legislative or regulatory frameworks, improving education and access to relevant and accurate information and alternatives, and by 2030, reduce the global footprint of consumption in an equitable manner, including through halving global food waste, significantly reducing overconsumption and substantially reducing waste generation, in order for all people to live well in harmony with Mother Earth.							
<b>Target 18.</b> Identify by 2025, and eliminate, phase out or reform incentives, including subsidies, harmful for biodiversity, in a proportionate, just, fair, effective and equitable way, while substantially and progressively reducing them by at least \$500 billion per year by 2030, starting with the most harmful incentives, and scale up positive incentives for the conservation and sustainable use of biodiversity.							
<b>Target 19.</b> Substantially and progressively increase the level of financial resources from all sources, in an effective, timely and easily accessible manner, including domestic, international, public and private resources, in accordance with Article 20 of the Convention, to implement national biodiversity strategies and action plans, mobilizing at least \$200 billion per year by 2030.							
<b>Target 20.</b> Strengthen capacity-building and development, access to and transfer of technology, and promote development of and access to innovation and technical and scientific cooperation, including through South-South, North-South and triangular cooperation, to meet the needs for effective implementation, particularly in developing countries, fostering joint technology development and joint scientific research programmes for the conservation and sustainable use of biodiversity and strengthening scientific research and monitoring capacities, commensurate with the ambition of the goals and targets of the Framework.							
<b>Target 21.</b> Ensure that relevant knowledge, including the traditional knowledge, innovations and practices of indigenous peoples and local communities with their free, prior, and informed consent, guides decision-making for the effective management of biodiversity, enabling monitoring, and by promoting awareness, education and research.							
<b>Target 22.</b> Ensure equitable and effective participation in decision-making related to biodiversity by indigenous peoples and local communities, and respect their rights over lands, territories and resources, as well as by women and girls, and youth.							
<b>Target 23.</b> Ensure gender equality in the implementation of the Framework through a gender-responsive approach, where all women and girls have equal opportunity and capacity to contribute to the three objectives of the Convention, including by recognizing their equal rights and access to land and natural resources and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making related to biodiversity.							



