

United Nations Environment Programme contributions to Secretary-General's background note for the preparatory meeting of the 2020 United Nations Conference to Support the Implementation of Sustainable Development Goal 14

31 October 2019

I. Introduction

Healthy and well-functioning oceans and coasts are integral to our life-support system at many levels. They provide wide-ranging social and economic benefits and are crucial in targeting poverty-reduction for millions of people. Thriving oceans can ensure food and energy security, and are closely interlinked with maritime security, peace and prosperity. Healthy and resilient oceans regulate climate and provide adaptation pathways to climate change.

At the same time, oceans face unprecedented decline due to increasing human uses and impacts. Marine litter and micro-plastic from consumer products combined with untreated wastewater and nutrients continue to pollute our oceans. Ocean acidification, warming and changing currents disrupt ecological processes and functions. Furthermore, enhanced technologies and capabilities, combined with lack of global governance, oversight and accountability, have brought human exploitation of living and non-living ocean resources to an unprecedented level.

There is an urgent need to change the course of action by addressing the challenges ocean health face. Pursuing sustainable ocean economies is one essential avenue to support coastal communities and societies, as well as land-locked countries, profiting from marine resources in generations to come. Well-managed oceans can support large and growing economies.

The international community recognizes the *ecosystem approach* as the basis for sustainable management and use of marine and coastal environments and resources. The approach signifies that the assessment, management and governance would be based on defined ecosystems. Goods and services emanating from functions of these ecosystems shall be sustainably used for economic and social benefits, thus contributing to sustainable blue economy or growth. Healthy marine and coastal ecosystems are rich in biodiversity, underpinning high value ecosystem services.

The UN is the only mechanism with a global mandate that can catalyze coordinated actions to bolster ocean sustainability and security for future generations. UNEP plays a central role in fostering innovative partnerships, convening key actors, supporting governance and implement environmental policies through regional coordination. Global partnerships for healthy oceans contribute to the restoration of international peace and security, promoting human rights by addressing illegal fisheries, secure economic growth and decent jobs.

UNEP and partners launched two partnership at the 1st UN Oceans conference (June 2017): “Partnership for Regional Ocean Governance” and “Partnership for Land Based Pollution”.

Partnership for Regional Ocean Governance aims to support regional ocean partnership frameworks to effectively implement and review the Sustainable Development Goals (SDGs). The Regional Seas Programme is a results-oriented ocean governance mechanism. It supports regional level implementation and follow-up for harmonized and ecosystem-based implementation of national action for SDG14, for example enhanced cooperation between existing regional inter-governmental mechanisms, such as Regional Seas programmes and regional fisheries bodies. Regional Seas Programmes are recommended as platforms for further engagements with relevant initiatives to strengthen and apply an effective science-policy interface on oceans, building enhanced ownership from contracting Parties, and private sector engagement. Regional bodies should be further strengthened and used as an implementing vehicle for ecosystem-based management of oceans and coasts. This includes both nature-based solutions for ocean and coastal resilience and sustainable blue economies, including measuring and reporting progress towards ocean related sustainable development goals.

Partnership for Land Based Pollution aims to support The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA). The Programme provides an inter-governmental framework to assist countries in implementing obligations under international law. The purpose is to preserve and protect the marine environment from land-based pollutions, such as sewage, physical alterations and the destruction of habitat, nutrients, sediment mobilization, persistent organic pollutants, oils, litter, heavy metals and radioactive substances. The Programme offers technical and policy guidance, through multi-sectoral partnerships: Global Partnership on Nutrient Management (GPNM); Global Partnership on Marine Litter (GPML); and Global Wastewater Initiative (GW2I).

The 1st UN Conference to Support the Implementation of Sustainable Development Goal 14 (June 2017, New York) adopted the Call for Action, “**Our Ocean, Our future**”, including to:

(g) prevent and significantly reduce marine pollution from land-based activities, including marine debris, plastics, and microplastics, nutrient pollution, untreated wastewater, solid waste discharges, hazardous substances, pollution from ships, and abandoned, lost or otherwise discarded fishing gear..

(j) Support the use of effective and appropriate area-based management tools, including marine protected areas and other integrated, cross-sectoral approaches, including marine spatial planning and integrated coastal zone management, based on best available science, as well as stakeholder engagement and applying the precautionary and ecosystem approaches, consistent with international law and in accordance with national legislation, to enhance ocean resilience and better conserve and sustainably use marine biodiversity.

(q) Support the promotion and strengthening of sustainable ocean-based economies, which inter alia build on sustainable activities such as fisheries, tourism, aquaculture, maritime transportation, renewable energies, marine biotechnology, and sea water desalination, as means to achieve the economic, social and environmental dimensions of sustainable development, in particular for SIDS and LDCs.

The Partnerships for Regional Ocean Governance and Land-based Pollution are important mechanisms to address this call. Main achievements, challenges, opportunities and partnership are presented in the

following sections. A detailed overview Regional Seas input to implementation of SDG14 is presented in **ANNEX 1**.

UNEP proposes three **interactive dialogues** within the overall focus of the 2nd UN Oceans conference (June 2020) on *science & innovation*. Firstly, UNEP proposes to address the critical nexus of marine and coastal biodiversity and climate change through a dialogue on “**Nature-based solutions for Ocean and Coastal Sustainability and Resilience**”. Secondly, UNEP proposed a cross-cutting theme on “**Strategies and Decision-support for Sustainable and Inclusive Blue Economies**”, particularly addressing the essential role of healthy oceans as pre-requisite for long-term environmental, social and economic benefits. Thirdly, it is proposed to address the complex issue of marine protected area effectiveness and equitable sharing of MPA costs and benefits through an interactive dialogue on “**Marine Protected Area Performance**”. Fourthly, an interactive dialogue is proposed on “**Prioritisation of actions, based on best available scientific knowledge and the most environmentally sound, risk-based and cost-effective measures, to prevent and reduce marine pollution**”.

II. Activities, challenges and opportunities for the implementation of SDG 14

Target 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

1. Status and trends

It is estimated that 80% of the pollution loads in oceans and coastal waters originate from land-based activities, including municipal, industrial and agricultural waste, wastewater and nutrient run-off, and from power generation, heavy industry, automobiles, and others. GPA activities serve to help achieve several SDGs, particularly SDG 6.3 (*halve the proportion of untreated wastewater discharged into our water bodies*) and SDG 14.1, applying an integrated *source-to-sea* approaches to address marine pollution.

Several resolutions of UN Environment Assembly (UNEA) have been adopted to support efforts to address land-based pollution in the marine environment. UNEA3 (Dec 2017) adopted Resolutions on water pollution, soil pollution and air pollution. Furthermore, UNEA3 Ministerial Declaration “Towards a pollution free planet” urges collective responsibility towards achieving a pollution-free planet.

Progress of the thematic partnerships:

Global Partnership on Marine Litter (GPML):

- **Support to developing and strengthening governance frameworks to address marine litter and microplastics.** This is provided through the implementation of the four **UN Environment Assembly** resolutions on marine litter and microplastics (1/6, 2/11, 3/7 and 4/6) and the requests and mandates

related to reporting and advancing global and regional governance arrangements to address the issue, including:

- a) Establishment of Ad hoc open-ended expert group on marine litter and microplastics with two meetings convened in 2018 and an additional three planned. Work includes a global stock-taking; inventory of finance and technical resources and mechanisms (Note: this work is under UNEA).
 - b) Support to Regional Seas Programmes to develop and implement marine litter action plans: A total of 11 regions of 18 have adopted regional action plans and another 4 are at various stages of development. A review of the existing was conducted and based on this review “Guidelines for the development of action plans on marine litter” was developed. All action plans can be found on www.gpmarinelitter.org
 - c) Global baseline for single-use plastic policy in 2018, guidelines and an online policy toolkit under preparation.
- **Support for enhanced marine litter and microplastics management to reduce marine pollution in key regions aims to inform priority interventions related to sources, flows, pathways, impacts and related priority responses, contribute to additional cost-benefit assessment methodologies in geographic regions and contribute to a better-defined policy arena for global coordinated response to the issue**
 - (a) Marine litter flow analysis, hotspot identification in relation to source and accumulation hotspots in Africa, Asia regions and development of an Assessment for Western, Central and Southern Africa (Abidjan Convention);
 - (b) Promotion of the application and use of common definitions and harmonized standards and methodologies for measurement and monitoring through the GESAMP Guidelines on the monitoring and assessment of ocean plastic as well as development of guidelines for riverine and freshwater and wastewater monitoring to strengthen countries capacity to monitor and assess marine litter and riverine input in respect to SDG14.1 target reporting (also linked to SDG 6);
 - (c) Closing data gaps and improve the availability of accessible data on the sources and extent of marine litter and microplastics in the environment – a white paper on a Global Monitoring Platform is under development.
 - **Enhance national and regional capacities through national source inventories and national actions**

At the higher programme level the aim is to harmonize assessment efforts within the SDG target framework (under the thematic areas) in close coordination with and through the Regional Seas Programmes to enhance capacities of countries to prioritize interventions at national level and set targets at national and regional levels for source reduction.

 - (a) Pilot countries Kenya and Seychelles are conducting source inventories to inform national action plans on marine litter which includes monitoring surveys for baseline setting which can guide the prioritization of measures based on best available scientific knowledge and the most environmentally sound and cost-effective measures.

- **Knowledge and communications products to enhance the reach of knowledge outputs to stakeholders to inform decision making and action through the range of available media, tools and learning methods**
 - (a) The Clean Seas Campaign – turning the tide on plastics: More than sixty countries have joined the campaign, pledging to cut back on single-use plastics, improve waste management or develop policies to address the issues. Commitments from these countries cover more than 60 per cent of the world’s coastlines. It’s not just governments that have come on board. From shoppers refusing plastic-smothered goods to Internet influencers inspiring others to share their zero-waste lifestyles, a worldwide awakening has taken hold, and it’s spreading. More than 100,000 people have taken the Clean Seas pledge to reduce their plastic footprint. Many use the hashtags #CleanSeas and #BeatPlasticPollution on Twitter and Instagram to urge others to follow their lead and cut single-use plastics from their lives.
 - (b) Capacity building: Massive Open Online Course on marine litter and in-person 5-day Training of Trainers on monitoring and assessment of marine litter and microplastics
 - (c) Support to the work of e.g. GESAMP to expand the knowledge based on risk-assessment in relation to marine litter, microplastics and nano plastics.
 - (d) Advocacy and education products were developed including the Tide Turners Challenge Badge for youth engagement.

Global Partnership on Nutrient Management (GPNM):

- ***UNEA4 Resolution on Sustainable Nitrogen Management adopted***

The Government of India led the adoption of the UNEA4 Resolution 4/14 on *Sustainable Nitrogen Management where member states* acknowledged that in many countries existing policies related to reactive nitrogen are fragmented and incoherent. The resolution calls on UNEP to facilitate improved coordination of policies across the global nitrogen cycle at the national, regional and global levels with relevant UN agencies and stakeholders.

- In follow-up to UNEA Resolution 4/14, the Government of Sri Lanka championed a ‘UN campaign on Nitrogen Management’ in October 2019, Member states recognized the urgency of addressing nitrogen management in meeting biodiversity goals, while offering huge economic opportunities in reducing reactive nitrogen that is wasted every year, as well as reducing eutrophic zones affecting fishing and tourism industries. **The Colombo Declaration** was developed with the technical support of the International Nitrogen Management System (INMS), a joint activity of the UNEP and the International Nitrogen Initiative supported by the Global Environment Facility. For the first time governments agreed to work together on a major quantitative global goal for improved nitrogen management. The aspiration to halve nitrogen waste by 2030 offers a \$100 billion opportunity to mobilize innovation for the nitrogen circular economy, while contributing to environment, health and livelihoods. The Colombo Declaration calls upon UN agencies, other international organizations, development partners, philanthropic agencies, academic and civil society organizations to support its implementation. It further urges countries to conduct a comprehensive assessment on nitrogen cycling covering policy, implementation, regulation, and scientific aspects at a national level plus

sensitize the citizens to understand the natural nitrogen cycle and how human impacts alter its balance.

- **Addressing nutrient pollution on coral reef ecosystems**

GPNM has implemented a pilot project with the South Asia Co-operative Environment Programme on 'Reducing the risk of degradation of the Kayankerni and Paskudah coral reef ecosystems in Sri Lanka by addressing nutrient, wastewater and other land-based sources of marine pollution within the Maduru Oya watershed'. Field-based guidelines has been developed on nutrient pollution mitigation and good management practice guideline on successful approaches for plastic waste disposal; conducted training activities on implementing good practices for pollution mitigation which involved including farmer groups/associations, wastewater managers, private sector (various commercial interests and the hospitality sector) and relevant non-governmental and community-based organizations; and strengthened communities of practice with other neighboring countries in the South-Asia region.

- **Addressing nutrient over-enrichment**

(a) A recently completed Global Nutrient Cycle (GNC) project of UNEP-GEF was designed "to provide the foundations (including partnerships, information, tools and policy mechanisms) for governments and other stakeholders to initiate comprehensive, effective and sustained programmes addressing nutrient over-enrichment and oxygen depletion from land based pollution of coastal waters in Large Marine Ecosystems". The project developed and applied quantitative modeling approaches: estimated and mapped present day contributions of different watershed based nutrient sources to coastal nutrient loading and their effects; indicated when nutrient over-enrichment problem areas were likely to occur; and estimated the magnitude of expected effects of further nutrient loading on coastal systems under a range of scenarios.

(b) The ongoing UNEP-GEF project 'Towards International Nitrogen Management System (INMS)' brings together the scientific community, the private sector and civil society to gather and synthesize evidence that can support international policy development to improve global nitrogen management. Executed through UK's Natural Environment Research Council (NERC) and its' Centre for Ecology & Hydrology (CEH), on behalf of the International Nitrogen Initiative (INI), it brings together over 70 global partners. Based on five demonstration projects, it will enhance the evidence-base on the need for effective practices for global nitrogen management and highlight options to maximize the multiple benefits of better nitrogen use. The project will pull together a global and critical mass of science evidence on the nitrogen cycle, and develop a sustained process that gets science, governments, businesses and civil society working together to build common understanding and deliver real change. A vital part of the task over the next four years will be to show how management of the global nitrogen cycle can deliver measurable benefits for oceans, climate, the atmosphere, land ecosystems and global society.

2. Challenges and opportunities

Global Partnership on Marine Litter (GPML)

Four types of challenges are identified to address marine litter issues:

(a) Legal (any impediment or barrier established by, founded upon or generated by law, the absence of it or the lack of its implementation and/or enforcement). Examples of legal barriers include: i)

the lack of any internationally binding agreement with a primary objective to reduce marine plastics and microplastics; ii) measurable targets or global standards; iii) geographical gaps in coverage of existing agreements such as on the high seas, and gaps in signatories to agreements and their instruments; iv) poor implementation of policies and enforcement, often the result of no single authority being responsible for overseeing the management of marine litter; and v) a general absence of legal and market-based instruments to reduce consumption of difficult-to-recycle products and to stimulate industry's involvement in solutions. Additional ones include the lack of definitions, clear targets and hard numerical limits in regulations; gaps in legislation, including sustainable public procurement; lagging or incomplete implementation or enforcement of legislation; inconsistent national implementation of international legislation; and legislation conflicting values, for example hygiene regulations conflicting with regulations on food waste.

- (b) Financial (when high costs make a certain activity difficult to afford or implement; some also constitute economic barriers). Examples of financial barriers include: i) fossil fuel subsidies; ii) a chronic lack of funds in developing countries for waste infrastructure; iii) the absence the polluter pays principle, especially in areas such as the high seas, leaving governments with the burden of clean-up costs; iv) limited cross-border investments; v) absence of global and national markets for end-of-life plastics; and vi) a failure to internalize or make explicit the costs to human health and the environment.
- (c) Technological (including aspects related to the production, manufacturing and design of products, consumption systems and all aspects of waste collection, management and recovery). Examples of technological barriers exist for all aspects of the production, manufacturing and design of products, waste collection and recovery. In the absence of global standards, there has been a proliferation of widely different approaches to recovery, sorting and reprocessing technologies, across the informal and formal sectors and between developing and developed countries, undermining the viability of financially viable and effective markets. Waste management is often highly fragmented, with rural areas very often poorly serviced. Regarding upstream processes, there is a clear disconnect between innovation in the design and production phases and after-use systems, and little prioritization of the reduce-reuse-recycle waste hierarchy, for example how to increase the recycled content of products. There are also gaps in understanding of the best available technologies especially in how to deal with new alternative materials appearing in the marketplace.
- (d) Information (access to data, research, transparency, and education and awareness). Whilst there are multiple barriers relating to information, access to data, research, education and awareness raising, and transparency in reporting, which hamper decision-making and priority-setting, they are not sufficient to stop concrete actions in the short-term in parallel to longer-term responses. In other words, there is enough knowledge to act immediately in many areas. Significant efforts are still needed to close the knowledge gaps on the levels and sources of marine litter and microplastics, their accumulation in organisms and associated impacts on human health and ecosystem functioning.

IV. Development of partnerships

Global Partnership on Marine Litter (GPML)

- With plastic production set to rise over the next decade, even the positive developments that are happening on the ground may simply be overshadowed unless there is a change in thinking about waste prevention amongst industry as well as individual consumers coupled to actions at the global level. Thus, the identification of success factors likely to support national and international efforts will be crucial in establishing a strong basis for tackling marine litter and plastics. Examples of success factors include:
 - (a) adopting an integrated, holistic approach to waste management;
 - (b) embedding reduce-reuse-recycle thinking into all aspects of the economy, including producer responsibility;
 - (c) using a source-to-sea approach given the importance of rivers as conduits for the delivery of plastic litter to the marine environment;
 - (d) building on successful regional and global mechanisms such as the Regional Seas and Basel, Rotterdam and Stockholm Conventions¹, the Strategic Approach to International Chemicals Management and the Global Programme of Action.

- UNEP is actively engaged at the global level with engagement of partners on combating marine litter. The primary delivery mechanism is through the Global Partnership on Marine Litter for which the GPA provides secretariat services and leads on land-based sources. Close collaboration continues with the FAO in addressing abandoned, lost or otherwise discarded fishing gear (ALDFG) in coastal areas and on the high seas and with the International Maritime Organization on ship-based litter in line with their respective mandates. Five regional GPML nodes have been established in the Wider Caribbean Region, Mediterranean, Northwest Pacific, Pacific and South Asian Seas and a sixth one is under development in South East Asia for consideration of the COBSEA countries.

- There are opportunities for use of public-private partnership approaches and catalyzing investment in implementation addressing land-based sources of pollution, which relates to SDG 14.1. This may include e.g. pollution reduction through infrastructure development, waste management or land-use management. Collaboration with private sector can also be strengthened in relation to sharing of information and best practices and transfer of technology.

¹ UNEP/AHEG/2018/1/INF/5

Target 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive ocean

1. Status and trends

Recent global reports have highlighted several negative trends in ocean state. Key findings linked to the unsustainable use of ocean resources include:

- Direct exploitation of organisms (mainly fishing) has had the largest relative impact in marine ecosystems, followed by land/sea-use change;
- 66 per cent of the ocean is experiencing increasing cumulative impacts;
- A 26 per cent increase in ocean acidity from pre-industrial times presents a growing threat to organisms and ecosystem services, and may hamper the ocean's capacity to moderate climate change in the future;
- Approximately 50% of live coral cover on coral reefs has been lost since the 1870s and climate change and other drivers have led to accelerated losses in recent decades. Almost all warm-water coral reefs are projected to suffer significant losses and are at risk of local extinction in the years ahead. Seagrass meadows have decreased in extent by over 10% per decade from 1970-2000.
- An estimate made by the FAO as of 2015, 33.1 percent of fish stocks were estimated to be overfished, 59.9 percent to be maximally sustainably fished and 7.0 percent to be underfished (FAO, 2018). The share of fish stocks within biologically sustainable levels (maximally sustainably fished or underfished) declined from 90 percent in 1974 to 66.9 percent in 2015 (FAO 2018);
- Marine and coastal habitats have sustained considerable loss in recent history. Global estimates predict the loss of 35% of seagrass (Waycott et al. 2009); 50% of saltmarsh and mangroves (Burke et al. 2001; Valiela and Bowen 2001; Zedler and Kercher 2005) and >85% of oyster habitat (Beck et al. 2011) as well as 90% of coral reefs threatened (Burke et al. 2011).

UNEP, through its networks of experts, its convening power, and in partnership with international initiatives, is supporting countries in assessing the current status and trends of critical coastal ecosystems, with a focus on coral reefs, mangroves and seagrass meadows. Assessing the status of ecosystems and understanding values provided by ecosystems is a critical component of ecosystem-based management.

• **Sustainable coral reef management**

UNEA4 Resolution 4/13 on 'Sustainable coral reefs management' and Resolution 4/12 on 'Sustainable management for global health of mangroves' are important documents that provide a framework for the direction and activities of UNEP and member states to implement SDG 14. Resolution 4/13 builds on the previous Resolution 2/12 in requesting the Executive Director to support global activities for coral reef management including streamlining of international policy instruments relevant to coral reefs, support to the Global Coral Reef Monitoring Network, global and regional reports on the status of coral reef ecosystems, guidelines for coral restoration, and awareness-raising for coral reefs. ICRI and the Regional Seas Programmes are identified as key partners in these processes.

UNEP has supported the Global Coral Reef Monitoring Network (GCRMN) to develop a governance and implementation plan for the network, as well as to produce regional reports on the status and trends of coral reefs in various regions of the world including the Caribbean (2014), the Western Indian Ocean (2017), the Pacific (2018). Currently UNEP is supporting the production of reports on the status of coral reefs in the Eastern Tropical Pacific and the ROPME Sea Area, as well as a key *global* report on the status on coral reefs which will be ready in mid-2020.

In addition, status reports / policy briefs have been produced on wastewater pollution on coral reefs (UNEP, 2018), and plastics and shallow water coral reefs (UNEP, 2019). Both reports provide policy and management recommendations for addressing and reducing the impacts of pollution on coral reefs, based on current scientific knowledge. They promote integrated planning and management, awareness-raising, capacity-building and other efforts to improve monitoring of pollution and its impacts among key stakeholder groups.

Current status of international coral reef policy has been assessed with the UNEP/ICRI 'Analysis of global and regional policy instruments and governance mechanisms related to the protection and sustainable management of coral reefs' prepared for UNEA4. This showed that the current body of international instruments related to coral reefs is vast and broad, with commitments corresponding to almost every anthropogenic driver of change in coral reef ecosystems. The 'depth' of coral reef policy is however not extensive and the nature of the commitments by states are quite general, and largely voluntary. Although states have the primary responsibility to deliver the vast majority of the international commitments, relatively few governance mechanisms have been established by the instruments to support them to do so. Most of the instruments are not linked to financial mechanisms to help fund the associated costs, presenting a challenge for the many low-income and lower-middle-income states with responsibility for delivering reef-related commitments.

- **Sustainable mangrove management**

UNEA Resolution 4/12, 'Sustainable management for global health of mangroves', highlights the role UNEP can play in facilitating collaboration between member states and other stakeholders for mapping and valuation of ecosystem services as well as related management best practices for mangroves. In response to this resolution, UNEP and UNEP-WCMC are assessing the current status and trends in mangrove ecosystems and their values globally. The report on mangrove trends will be ready in 2020, and will use the latest available data from the Global Mangrove Watch and the International Society for Mangrove Ecosystems to estimate resultant changes in (a) ecosystem services, (b) biodiversity, (c) mangrove-related livelihoods, and (d) the percentage of mangroves currently found in protected areas. This will build on the existing report on 'The importance of mangroves to people: A call to action' (2014).

- **Seagrass monitoring**

UNEP, in collaboration with GRID-Arendal, WCMC and the International Seagrass Experts Network, is also currently producing a report on the global importance and status of seagrass ecosystem services, to be published in 2020. The report will synthesize the latest knowledge on seagrass science, ecosystem services knowledge, mapping technology, and global trends. It will also show the importance of sustainably managing seagrass ecosystems for achieving countries' international

environmental commitments (including SDGs, the Paris Agreement and the CBD), as well as examine the current status of payment for ecosystem services schemes.

- **Area-based management tools for achieving Ocean related SDGs**

Under the UNEP/European Commission project, ‘Integrated Management and Governance Strategies for Delivery of Ocean-related Sustainable Development Goals’, several guidance documents are produced to advance the use of area-based management tools for achieving Ocean related SDGs and to present necessary elements for cross-sectoral cooperation and policy coherence for achieving Ocean related SDGs. Further conceptual guidelines were developed to provide approaches and steps for the Regional Seas programmes to function as the regional mechanisms to follow-up and review the Ocean related SDGs. These documents are provided below:

- (a) [Ocean Policies and Institutional Arrangements for Cross-sectoral Cooperation: Case studies for achieving Sustainable Development Goals](#)
- (b) [Realizing Integrated Oceans Governance – Summary of case studies on regional cross-sectoral institutional cooperation and policy coherence](#)
- (c) [The Contributions of Marine and Coastal Area-based Management Approaches to Sustainable Development Goals and Targets – Technical Report](#)
- (d) [Applying Marine and Coastal Area-based Management Approaches to Achieve Multiple Sustainable Development Goal targets – Summary for Policy Makers](#)
- (e) [Marine Spatial Planning and Integrated Coastal Zone Management Approaches to Support the Achievement of Sustainable Development Goal Targets 14.1 and 14.2 – Conceptual Guidelines](#)
- (f) [Regional Seas Follow-up and Review of the Ocean Sustainable Development Goals \(SDGs\) – Conceptual Guidelines](#)
- (g) [Regional Seas Follow-up and Review of the Ocean related Sustainable Development Goals \(SDGs\) - Case Studies Supplementary Annex](#)

- **Establishment of global digital system for environment**

Calls for action toward overcoming the fragmented marine data landscape is addressed by establishing a global digital ecosystem for the environment, led by the UN Environment Programme and the UN Science Policy Business Forum. This initiative underscores the importance of improving links between policy needs, data streams, technological solutions and technical expertise. Increased collaboration between the private sector, governments, academia and other stakeholders is also essential.

- **Regional Seas Outlook reports**

UNEP is collaborating with UNEP-WCMC to produce a “Regional Seas SDG 14 Outlook Report” using the best available scientific information to illustrate the progress made towards achieving SDG 14, focusing primarily on SDG Target 14.2.1 and 14.5.1.

- **UN Decade on Ecosystem Restoration**

The recent declaration of the UN Decade on Ecosystem Restoration (March 2019) is one of a number of international conventions and multilateral environmental agreements, including the Convention of Biological Diversity, the Ramsar Convention and UNFCCC, that highlight the potential for marine and coastal ecosystem restoration.

Restoration is also increasingly at the forefront of national and regional agendas including growing reference within National Biodiversity Strategies and Action Plans (NBSAPs), Nationally Determined Contributions (NDCs), action plans for Regional Seas and UN Ocean Conference Voluntary Commitments.

There are an increasing number of ecosystem-specific efforts for marine and coastal ecosystem restoration which are formed of a variety of organisations, governments and institutions. Such efforts include, but are not limited to: the Commonwealth Blue Charter Action Group on Mangrove Ecosystems and Livelihoods, the Commonwealth Blue Charter Action Group on Coral Reef Protection and Restoration, Mangroves for the Future, the Global Mangrove Alliance, the Coral Restoration Consortium, the ICRI Ad Hoc Committee on coral restoration, the Native Oyster Restoration Alliance, the Shellfish Reef Restoration Network and the Society for Ecological Restoration.

- **Africa Ocean Governance Strategy**

Several decisions of the African Ministerial Conference on the Environment (AMCEN) call on the need for African Ocean Governance strategy. The latest AMCEN decision (16/2), requests UNEP, working with African Union Commission, to support development of an effective ocean governance strategy. The strategy shall provide the framework for supporting implementation of the 2050 African Integrated Maritime (AIM) Strategy adopted by African Union Summit 2012.

The 2050 AIM Strategy vision is to foster increased wealth creation from Africa's oceans and seas through the blue economy in a secure and environmentally sustainable manner. It is recognized that integrated, cross-sectoral governance with stakeholder engagement is key for ocean governance in Africa. The African Ocean Governance Strategy will provide a framework for sustainable management and protection of marine and coastal ecosystems in the region and bring together sectors to achieve healthy and productive oceans.

UNEP is working with African countries and other stakeholders towards the African Ocean Governance strategy. Ocean governance strategies are also being developed at sub-regional levels, including through the Nairobi Convention.

- **Sustainable Blue Economy Financing Principles**

UNEP is working with the EC (DG-MARE), WWF, European Investment Bank and World Resource Institute to host the '*Sustainable Blue Economy Financing Principles*' to help close the financing gap for actions towards ocean sustainability. Fourteen voluntary Principles have been developed to promote the implementation and achievement of Sustainable Development Goal 14, including to help ensure that ocean-related investment delivers long-term value without damaging marine ecosystems, increasing carbon emissions, or eroding the livelihoods and nutrition of the billions of people who depend on the oceans and their resources. By providing a global framework to drive sustainable ocean

economy-related financing, the Sustainable Blue Economy Financing Principles and Initiative addresses the risk of natural capital loss resulting from unsustainable economic activity. It also supports efforts to reduce carbon emissions and maintain the sustainability of ocean-based businesses, as well as the livelihoods of people who depend on them for their prosperity and their way of life, thus securing the long-term health, resilience and integrity of our ocean.

2. Challenges and Opportunities

Challenges to the conservation and sustainable use of the oceans, seas and marine resources for sustainable development (e.g., areas where gaps exist, where more action is needed)

- Climate change is a critical challenge to coral reefs globally, as highlighted by recent IPCC reports, and understanding coral bleaching trends, vulnerabilities and potential climate refugia will be critical in ensuring the survival of coral reefs. **The Coral Bleaching Futures report (UNEP, 2017)** describes includes downscaled climate model projections to identify coral reefs around the world that are more resilient or more vulnerable to climate change. The report also provides suggestions for the use of the data, including for marine spatial planning, marine protected area network design, and in socioeconomic vulnerability assessments. There is a great opportunity for ensuring the resilience of coral reef ecosystems by identifying potential climate refugia.
- Implementing ecosystem-based management and resilience-based management strategies in coral reef ecosystems provides both challenges and opportunities for SDG 14.2. UNEP is providing essential guidance for this through the “**Guide to Assessing Coral Reef Resilience For decision support (UNEP, 2017)**” and supporting countries in implementing it. For example, UNEP has supported Malaysia in preparing climate-resilient management plans for Marine Protected Areas.
- Nationally Determined Contributions by countries to the Paris Agreement provide a great opportunity for the protection of coastal ecosystems to be included in countries’ climate change mitigation and adaptation plans. An analysis by UNEP and GRID-Arendal shows that few countries include coastal ecosystems in their NDCs in a meaningful manner. There are technical challenges, but also great opportunities, for the inclusion of sustainable coastal ecosystems management in NDCs, and UNEP is currently working with partners to support countries.
- Restoration of coastal ecosystems provides both a number of challenges and opportunities for implementing SDG 14.2. Challenges to restoration include cost-efficiency and scalability, including:
 - (a) Marine ecosystem restoration has developed relatively recently compared to terrestrial restoration and, as such, there is a divergence in planning, implementation, managing, monitoring and reporting efforts and success. There is a lack of information regarding the effects of restoration action on the health and productivity of oceans and best practices for restoration to strengthen resilience;
 - (b) The connection between the health and function marine and terrestrial ecosystems is often lacking within restoration efforts and with pressures on land and sea often not considered within management and policy;

- (c) There is a lack of clarity on the priorities, policies and practices for translating marine ecosystem restoration targets in success on the ground and how to mainstream ecosystem restoration into consumption and production sectors and society.
- Funding gaps and financing in protection of coastal ecosystems also present challenges and opportunities. UNEP has supported analyses and reports on understanding and leveraging the coral reef economy and funding, including a report on **“The Coral Reef Economy: The business case for investment in the protection, preservation and enhancement of coral reef health”** (UNEP, 2018), and a report on an **“Analysis of international funding for the sustainable management of coral reefs and associated ecosystems”** (UNEP, 2018). These reports highlight the clear funding gap for the sustainable management of coral reefs and provide the evidence base for increased investment. A collaboration is currently underway between UNEP, UNDP, Vulcan Inc and the Prince Albert II of Monaco Foundation to develop a Global Coral Reef Fund in order to address the funding gap. Exploration of innovative financing mechanisms, such as insurance for coral reefs in the Mesoamerican Reef, or carbon market payments in Kenya and Madagascar, also provide promising avenues.
 - Payments for ecosystem services schemes similarly pose both challenges and opportunities for improving the condition and resilience of coastal ecosystems. UNEP, through the GEF Blue Forests Project, has supported the development of successful payment for ecosystem services projects (including blue carbon projects) in mangroves and seagrass areas in Kenya, Madagascar and Ecuador, which have led to additional coastal areas under ecosystem-based management. Technical challenges include scientific challenges around understanding carbon stocks and flows, financial challenges include the high start-up costs for projects, and policy challenges exist around tenure of resources. However, the opportunities for developing sustainable schemes for ecosystem management are also great and have been proved with best practice case studies. UNEP is supporting studies outlining the strengths, weaknesses, opportunities and threats for coastal carbon market projects, and has developed best practice guidelines for their development (Guiding principles for delivering coastal wetland carbon projects, UNEP, 2014).
 - Sustainable tourism offers more challenges and opportunities for delivering on SDG 14.2, as one of the largest economic activities globally which can both impact ecosystems negatively but also provide resources for their protection. The UNEP/Reef World Green Fins initiative is an environmental code of conduct for diving and snorkeling activities, with a robust assessment system to measure compliance. It supports sustainable tourism management, including strengthening of relevant regulatory frameworks, and contributes to marine conservation efforts such as Marine Protected Area management. It is currently active in 11 countries: Antigua and Barbuda, Dominican Republic, Egypt, Indonesia, Malaysia, Philippines, Thailand, Vietnam, Maldives, Palau and Singapore.
 - There is still an inequitable geographic distribution of monitoring and consistent, accessible data required to inform decision-making and indicators at national, regional and global scales. Among other barriers, a shortage of data and data sharing in some regions was acknowledged in a recent IPBES report as having impeded the widespread and productive use of scenarios and models of biodiversity and ecosystem services in policy- and decision-making.

- Inadequate collaboration and resources have been identified as key issues that need to be addressed to fill these gaps and support better management of marine resources and ecosystems, particularly in locations with limited human, technological or financial capacity. Limited global coordination presents a major challenge to establishing consolidated global in situ data related to coral reefs, seagrasses and mangroves, for example, as data are currently collected by different organisations within countries with varying protocols and/or levels of capacity. Insufficient resources, particularly in developing countries, has been identified as a key impediment to accurate and reliable data collection for fisheries, and is likely to contribute to the continuation of illegal and unreported fishing activity.
- There is a need to focus more attention on monitoring the state and condition of ecosystems at the land-sea interface, including the impacts of land-based activities on marine and coastal ecosystems, and their relevance for achieving sustainable blue economies.

Opportunities (e.g. interlinkages of SDG14 with other relevant SDGs)

- Strengthening and mainstreaming action plans for ecosystem-based marine and coastal planning and management, including MSP, in line with national SDG actions, is a measure to overcome challenges faced in regard to 14.2. Formulation of national and regional policy on ecosystem-based marine and coastal planning and management is another opportunity as well as conducting a review of existing national and regional legal and policy frameworks.
- Enhancing cooperation and synergies in implementing biodiversity-related conventions (CBD/COP/DEC/13/24). Examples of indicators related to marine habitats with relevance to multiple frameworks, which can feed into the development of the post-2020 framework, include the Marine Trophic Index (related to Aichi Target 6; SDGs 2, 12 and 14 as well as CITES), the Living Planet Index, providing trends in targets and bycatch species (related to Aichi Target 6; SDG 14), and the Ocean Health Index (Aichi Target 10; SDGs 2, 8, 12, 14, 15 and Ramsar). Many of these align with the indicator set of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).
- The UN Decade on Ecosystem Restoration and the UN Decade of Ocean Science for Sustainable Development (2021-2030) provide unparalleled opportunities to improve approaches to sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience. Opportunities related to ecosystem restoration includes increasing the resilience of ecosystems if correct techniques are used. UNEP is currently working with the ICRI ad hoc working group on coral reef restoration and is currently working with experts to develop global guidelines and best practices for coral reef restoration techniques. The guidelines document will be ready in 2020. Furthermore, manuals for mangrove and seagrass restoration have been developed by UNEP for the Western Indian Ocean.
- Marine habitat datasets such as those related to the conservation or restoration of seagrasses and mangroves may also help with reporting on Nationally Determined Contributions in accordance with the Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC), while also aligning with SDG Target 13.2 and Indicator 13.2.1. There are further opportunities for synergies linked to reporting at regional scales (e.g. the EU Habitats Directive, or the Regional Seas

Conventions). Proactive consideration of these synergies can support more efficient data collation and use in reporting, following a “collect once, use many times” philosophy.

IV. Development of partnerships

- **International Seagrass Experts Network**

UNEP, with GRID-Arendal and the World Conservation Monitoring Centre, has convened a global network of over 50 seagrass experts to explore challenges related to seagrass science, policy and management.

- **International Coral Reef Initiative and Global Coral Reef Monitoring Network**

UNEP is a member of the International Coral Reef Initiative (ICRI) and on the steering committee of the Global Coral Reef Monitoring Network (GCRMN). UNEP has supported the development of a governance and implementation plan for the GCRMN, and is currently working closely with ICRI on the delivery of UNEA Resolution 4/13 on Sustainable Coral Reefs Management.

- **The coral reef community of ocean action**

Nearly 1,400 voluntary commitments for concrete action to advance implementation of SDG 14 were made at the 1st UN Oceans conference (June 2017) by governments, the United Nations system, civil society organizations, academia, the scientific community, and the private sector. As a follow-up to the conference, UN Secretary General Special Envoy for the Ocean Peter Thomson created the Communities of Ocean Action. UNEP and ICRI currently co-chair the Coral Reefs Community of Ocean Action. There are currently 142 voluntary commitments from 106 members in the Coral Reefs Community of Ocean Action, representing over USD 400 million in investments for coral reef protection.

- **Partnerships on ocean data**

There is growing recognition of the need to form partnerships and streamline ocean data observation systems, as evidenced within the roadmap for implementing the UN Decade of Ocean Science for Sustainable Development (A/RES/72/73). Examples of ongoing initiatives to streamline data include IOC-UNESCO’s Global Ocean Observing System (GOOS) and efforts to define Essential Ocean Variables (EOVs). Global communities of practice such as the Global Coral Reef Monitoring Network (GCRMN) provide a framework for contributing high quality data to this global system. IOC-UNESCO’s Ocean Biogeographic Information System (OBIS) and the World Meteorological Organization’s Global Climate Observing System (GCOS) have also been involved in collating and standardizing marine-related datasets.

- **Linking coral reef monitoring and the Global Ocean Observing System**

There is a need to promote global coordination and streamline protocols to establish consolidated global datasets for coral reefs and associated ecosystems such as seagrasses and mangroves, drawing on initiatives such as the Global Coral Reef Monitoring Network (GCRMN) and related habitat networks associated with IOC-UNESCO’s Global Ocean Observing System (GOOS).

- **Ecosystem restoration**

Sustainable ecosystem restoration offers the opportunity to strengthen cross-sectoral engagement to deliver social, economic, biodiversity and climate benefits to people and nature.

Alignment between global, regional and national policies, conventions and initiatives provides the opportunity to maximise upon political will and societal needs and to understand and clearly articulate the priorities for ecosystem restoration to a range of stakeholders. This informed decision-making can support the effective planning, implementation, monitoring and management of restoration actions globally to support efforts towards healthy and productive oceans.

Target 14.4: By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

1. Status and trends

Collaboration between UNEP Regional Seas Programme and Regional Fisheries Organizations

A number of Regional Seas Conventions and Actions Plans has entered into MoUs with Regional Fisheries Organizations in their geographic areas. This includes:

- **MoU between UNEP/MAP and FAO General Fisheries Commission for the Mediterranean**

A Memorandum of Understanding was signed between United Nations Environment Programme / Mediterranean Action Plan-Barcelona Convention Secretariat and FAO General Fisheries Commission for the Mediterranean. The MoU between UNEP/MAP-Barcelona Convention and GFCM addresses the following five areas of cooperation: (i) Promotion of ecosystem-based approaches for the conservation of marine and coastal environment and ecosystems, and the sustainable use of marine living and other natural resources; (ii) Mitigation of the impact of fisheries and aquaculture on the marine habitats and species by the use of best available techniques in fisheries and the development of sustainable aquaculture; (iii) Identification, protection and management of marine areas of particular importance in the Mediterranean (hot spots of biodiversity, areas with sensitive habitats, essential fish habitats, areas of importance for fisheries and/or for the conservation of endangered species, coastal wetlands); (iv) Integrated maritime policy with a special emphasis on marine and coastal spatial planning, and integrated coastal zone management, and other integrated zoning approaches, with a view to mitigate cumulative risks due to reduced access and availability of space affected by multiple and increasing conflictive uses; (v) Legal, institutional and policy related cooperation.

This partnership has proven as a fruitful instrument to support the delivery of SDG 14 in a coordinated manner at the regional level in the Mediterranean. The partnership has been widely recognized as a best practice of regional cooperation through the following achievements: Bilateral meetings and mutual participation in meetings of relevance; Collaboration between the respective Compliance Committees; respective contribution to assessment studies and monitoring process; sub-regional pilot for the monitoring of the non-indigenous species related to fisheries in the Eastern

Mediterranean; preparation of a “Joint Cooperation Strategy on Spatial-based Protection and Management Measures for Marine Biodiversity Among the Secretariats of ACCOBAMS, GFCM, IUCN-Med and UNEP/MAP”; FAO-GFCM recommendations to ensure compatibility with the Barcelona Convention SPA/BD Protocol, etc.

- **Joint Cooperation Strategy on Spatial-based Protection and Management Measures for Marine Biodiversity in the Mediterranean**

UNEP/MAP has formalized a joint Cooperation Strategy on Spatial-based Protection and Management Measures for Marine Biodiversity among the Secretariats of ACCOBAMS, GFCM, and IUCN-Med submitted for discussion at the MAP Focal Points Meeting (September 2019) for possible signing during the 21st Ordinary Meeting of the Contracting Parties to the Barcelona Convention (COP21, December 2019).

- **MoU between Cartagena Convention and Caribbean Regional Fisheries Mechanism (CRFM)**

Cartagena Convention has signed a MoU with the Caribbean Regional Fisheries Mechanism (CRFM) for mutual development and implementation of several strategies including, precautionary and ecosystem-based approaches, fisheries management and recovery plans for commercially important marine species.

- **MoU between UNEP Nairobi Convention and Southwest Indian Ocean Fisheries Commission (SWIOFC)**

The Nairobi Convention has concluded an MoU with the Southwest Indian Ocean Fisheries Commission (SWIOFC) in March 2019 to provide a framework of cooperation and facilitate collaboration with the Nairobi Convention in areas of common concern and interest.

The Convention also expects to conclude MoUs with Indian Ocean Tuna Commission (IOTC), Southern Indian Ocean Fisheries Agreement (SIOFA), Intergovernmental Authority on Development (IGAD), Southern African Development Community (SADC) among others.

Target 14.5: By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

1. Status and trends

Current activities towards the conservation and sustainable use of the oceans, seas and marine resources, including capacity building activities

- **Governance of marine protected area**

UNEP is particularly addressing marine protected areas (MPA) governance issues in order to strengthen MPA effectiveness and the equitable sharing of MPA costs and benefits among relevant stakeholders. A new framework, [‘Enabling Effective and Equitable Marine Protected Areas – Guidance on Combining Governance Approaches’](#) (UNEP, 2019) has been developed in collaboration with University College London, UK to support effective and equitable governance of MPAs. It draws on practical experiences from around the World. Strong governance that influences human behaviour and reduces impacts on marine and coastal ecosystems is essential for MPA to be truly effective. The guide shows how integrated governance can combine the roles of national governments, local communities, and market schemes to enhance the effectiveness of marine protected areas and the

equitable sharing of their costs and benefits. There is no "one size fits all" solution and the Guide provides a flexible approach to governance that can be relevant to any MPA.

- **Marine protected area coverage**

In 2018, UNEP-WCMC launched the protected planet report demonstrating that marine protected area coverage increased from 10.2% to 18.1% in national waters. With concerted efforts from governments to implement national commitments, both terrestrial and marine coverage targets are likely to be achieved by 2020, although further areas will be needed for a full representation of areas of particular importance for biodiversity and ecosystem services (UNEP-WCMC, 2018).

- **Area-based management to achieve SDGs**

UNEP and UNEP-WCMC has developed guidance on 'Applying marine and coastal area-based management approaches to achieve multiple sustainable development goals'. The report provides an overview of different area-based management approaches that support the delivery of many sustainable development goals and subsequently provided guidance for the implementation of area-based management approaches.

- **Cross-sector collaboration on area-based management**

Joint efforts of CBD's Sustainable Ocean Initiative Global Dialogue with Regional Seas Organizations and Regional Fisheries Bodies to Accelerate Progress toward the Aichi Targets and SDG's is focusing on how cross-sectoral cooperation can enhance the application of the ecosystem management approach and the effectiveness of area-based management tools; among other areas.

- **Regional Seas SDG 14 Outlook Report**

UNEP is collaborating with UNEP-WCMC to produce a "Regional Seas SDG 14 Outlook Report" using the best available scientific information to illustrate the progress made towards achieving SDG 14, focusing primarily on SDG Target 14.2.1 and 14.5.1.

2. Challenges to the conservation and sustainable use of the oceans, seas and marine resources for sustainable development (e.g., areas where gaps exist, where more action is needed)

- While MPA coverage has grown significantly over the last decade, the geographical distribution of MPAs is very biased with a small number of countries making up the majority of the area of MPAs. There is a trend towards larger MPAs in light of scientific studies demonstrating the conservation benefits of scale in MPA establishment. There are questions over the effectiveness of these sites where they are not appropriately established or managed. Many regions of the world have minimal MPA coverage in national waters. Coastal MPAs are thereby underrepresented with implications for ecological representativity.
- There are gaps in terms of integration of MPAs within broader spatial planning efforts. National legal and policy frameworks often do not sufficiently enable or encourage integration of coastal and marine spatial planning and management across sectors.
- There is considerable discussion on what should be 'counted' as a MPA (e.g. Sala et al., 2018; Horta e Costa et al., 2016; Dudley et al., 2017). Much of the confusion of what constitutes an

MPA comes from a misunderstanding or under-appreciation of the core principles of MPAs, coupled with the conflation of the legal establishment of an area equating to the site having effective management and governance (IUCN WCPA, 2018a). Moreover, there have been questions raised about the strength and efficacy of some protected areas, which allow industrial fishing including destructive bottom trawling (Sala et al. 2018).

- UNEP-WCMC has worked with IUCN and others to publish '*Global Conservation Standards for MPAs*' (Day et al., 2018), including a clear definition and guiding principles, and currently an international and multidisciplinary group is working to develop a simple framework to describe different types of MPAs according to their level of protection and their stage of establishment, which would allow greater clarity and transparency in discussing and tracking MPAs, and reporting progress towards global goals.
- While the general outlook for increasing marine protected area coverage is positive, to truly meet the target will require, amongst other things, the increased protection of ABNJ, of which only 1.2% is currently protected. Designating MPAs in ABNJ is significantly more difficult than in territorial waters, although the designation of the approximately 2 million km² Ross Sea Marine Protected Area shows how this can be done.
- Another challenge is tracking progress towards specific aspects of SDG 14.5. Currently, there is no global indicator for marine connectivity. This leaves a significant gap in one of the key areas of marine health and requirements for many ocean and coastal species. There is a need to develop a process that includes discreet sequential activities, that could inform the development of connectivity measures in the context of the SDGs.

Opportunities (e.g. interlinkages of SDG14 with other relevant SDGs)

- Overall, SDG14.5 has links to SDGs 1; 2; 5; 7; 8; 9; 11; 12; 13; 16 and 17, because the achievement of some of those SDG's may either positively or negatively impact the achievement of SDG14.5.
- Integrate MPAs within larger EEZ-scale ocean management, zonation and multiple-use plans to ensure 100% of EEZ is under "good" management and where at least 10% of the EEZ receives stronger protection from extractive uses.
- Integrate MPAs into national strategies related to sustainable development is currently weak. Need to integrate policies, build institutional bridges and clarify governance frameworks between sector-specific policies and policies relevant to MPAs at national level. Promote synergies and agreements between conservation, the fishing industry, but also in the field of tourism, surveillance, tax and finance, and legal framework and policies for territorial development reinforcement.
- MPAs represent an effective tool to mitigate and adapt to climate change impacts and to increase the resilience of social and ecological ecosystems. For example, MPAs that protect coastal habitats such as barrier islands, coral reefs, mangroves and wetlands reduce human vulnerability in the face of climate change and provide the natural infrastructure (e.g. storm protection) on which people rely.

- Consider the challenges of climate change both in MPA management plans and their monitoring activities, for example (a) explore possibility to have mobile boundaries of MPAs adopted at national level, and (b) utilise MPAs and other area based management measures in the face of a changing environment in particular climate change, e.g. use MPAs as sentinels to monitor climate change impacts.

IV. Development of partnerships

- Support cross-sectoral partnerships that include communities and civil society will be important for effective MPAs. Support institutional agreements between fisheries and MPA institutions at national and regional levels promoting synergies and/or clarifying shared responsibilities.
- Regional MPA networks (e.g. MedPAN, CAMPAM, RAMPAO) can promote MPAs as tools for addressing climate change mitigation and adaptation, as well as support monitoring of the state and effectiveness of MPAs through more harmonized monitoring systems including comparable sets of natural, socioeconomic and management effectiveness indicators at national and regional levels.
- Develop new regional cooperation at scientific knowledge and management levels to reinforce the role of MPAs towards climate change adaptation and mitigation.
- Develop international sustainable financing mechanisms for long-term MPA networking (to support permanent platforms of MPA managers at regional level (such as MedPAN, CaMPAM, RAMPAO, others) as well as sub-regional networks of MPA managers (such as Adriapan in the Mediterranean).
- Build a win-win relationship with decision-makers and funding bodies on marine spatial planning, integrated coastal management, blue economy strategies, and sustainable fisheries policies, to deal with pressures beyond the MPA borders, while considering MPAs as management instruments to reach sustainability targets.
- Improved enforcement by reaching national and local agreements with related institutions and stakeholders, complementing roles and sharing expertise and capacities. Establish institutional arrangements that enhance and ensure surveillance, effective control and enforcement of legal measures.
- Develop institutional agreements for the protection of biodiversity and/or the management of MPAs in ABNJs in transnational pilot sites:- by integrating advances in governance and international agreements- by developing innovative and well-grounded governance- by offering innovative institutional frameworks reinforcing the integration of fisheries and conservation governance in these types of territories.
- Develop coordination of the different Regional MPA networks in the world to enhance capacity-building mechanisms and tools, to capitalize, develop and replicate such tools.

- Use the ‘*PANORAMA – Solutions for a Healthy Planet*’² knowledge-sharing partnership and Blue Solutions (implemented jointly by GIZ, GRID-Arendal, IUCN, UNEP, funded by the German Government (BMUB)). Blue Solutions case studies are promoted on a dedicated portal of the Panorama platform, as well as through forums, workshops, including lessons-learnt in the context of MPA management.
- Evolve a global partnership to develop practical tools, solutions and guidance on area-based management for international ocean governance to support implementation of ocean-related SDGs.

Target 14.6: By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation

1. Status and trends

- **Trade-related aspects on oceans**

UNEP is working with FAO and UNCTAD on trade-related aspects on oceans, including ocean-based trade, trade in fisheries and ocean-based products, and fisheries subsidies (SDG 14.4,14.6, 14.7 and 14.b). Relevant messages for input to the 2nd UN Oceans Conference (June 2020) from the trade community have been summarized in the outcome document of the [Third Oceans Forum on Trade-related Aspects of SDG 14, United Nations Trade Forum](#) (Sept 2019), as the global intergovernmental platform on trade, oceans and fisheries, organized annually, bringing together oceans, fisheries and trade communities. The objective of this conference was to provide a platform for presenting state of the art analysis, sharing country experiences, and identifying public and private best practices on SDG14 on healthy oceans as relating to trade.

In response to a request issued at the Second Oceans Forum in 2018, UNCTAD/FAO/UNEP have developed a draft [SDG14 Trade-related Inter-agency Plan of Action \(IAPOA\)](#). This draft Inter-agency Plan of Action was welcomed by Forum participants, noting that it will serve as an important means of implementation, building on the UNCTAD/FAO/UNEP roadmap presented at the 1st Un Oceans (June 2017), and in support of UN Member States’ commitment to deliver on key trade-related targets of SDG14, including SDG 14.4, 14.6, 14.7, and 14.b.

The Third Oceans Forum represented a key element on the road to the 2nd UN Oceans Conference (June 2020), the 12th WTO Ministerial Conference in Kazakhstan, June 2020, and the UNCTAD 15 Ministerial Conference, Barbados, October 2020.

² www.panorama.solutions

2. Challenges and opportunities

- Natural capital provided by the oceans, including services, are not recognized by today's markets, such as their contribution to climate change mitigation, adaptation and resilience, and biodiversity conservation. These services must be integrated in decision-making and account systems.
- Transition to sustainable ocean/blue economies will be indispensable in order to expand and maintain the value of the oceans and their sustainable use, while also maintaining their natural ability to support climate action and promote countries' resilience to climate change.
- There is a need to mainstream capacity building activities, training and education, standards, tools and strategies of Oceans Forum partners and other technical cooperation agencies.
- The urgency of meeting SDG targets 14.4 and 14.6 by 2020 highlights the need to act swiftly by addressing overfishing, overcapacity, illegal, unreported and unregulated (IUU) fishing, and harmful fisheries subsidies. The existing political momentum needs to be translated into WTO disciplines that are transparent, practical and enforceable.
- Substantially increasing the pace of the negotiations from September onwards will be critical for the conclusion of an agreement by December 2019, in line with SDG 14.6 and the WTO MC11 Decision on Fisheries Subsidies. A successful outcome on fish subsidies negotiations will be of fundamental relevance for the future of the WTO as a whole.
- Special and differential treatment (SDT) is explicitly mentioned in SDG target 14.6 and the WTO Buenos Aires Decision on Fisheries Subsidies as an integral part of any negotiated outcome. For many developing countries, due to the environmental sustainability implications, SDT should incorporate capacity building support, such as assistance to undertake stock assessments, on deploying effective monitoring, control and surveillance (MCS) systems, and on subsidies reform.
- The draft SDG14 Trade-related Inter-agency Plan of Action (IAPOA), developed by the Secretariats of UNCTAD-FAO-UNEP, can be a valuable instrument to support implementation of new fisheries subsidies rules in developing countries.

Target 14.a: Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

1. Status and trends

- UNEP is providing practical area-based management tools, policy guidance and capacity building to support implementation of ecosystem-based management and governance to reduce human impacts and enable sustainable resource use of the marine environment. It hosts the UNEP-Live, a data depository portal and also coordinates the implementation of SDG14.
- UN Environment administers seven Regional Seas Conventions and Action Plans, namely Abidjan Convention, Barcelona Convention, Cartagena Convention, East Asian Seas Action Plan, Nairobi Convention, Northeast Pacific Action Plan and Teheran Convention, all generating knowledge and governance mechanism, such as Marine Protected Areas (MPAs) for the sustainable management of the marine environment. While each Regional Seas Convention and Action Plan tackles regionally specific issues, they have formulated common Regional Seas Strategic Directions (2017-2020) to connect the regional activities to global processes.
- The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) has long been working to prevent, reduce and mitigate impacts by pollution from land-based activities through knowledge generation, pollution reduction policies and measures, assisting countries to develop their National Plan of Actions (NPAs), global partnerships.

- **SDG 14 indicator methodology**

UNEP and partners have prepared a re-classification of SDG indicator 14.1.1 "Index of coastal eutrophication and floating plastic debris density" and indicator 14.2.1 "Proportion of national exclusive economic zones managed using ecosystem-based approaches". The re-classification has just been approved at the 10th meeting of the IAEG-SDG.

UNEP is finalizing the publication: "Global Manual on Ocean Statistics for Measuring SDG 14.1.1, 14.2.1 and 14.5.1" This provides a step-by-step implementation of the SDG indicators mentioned above. UNEP proposes a core focus of the Decade to further operationalise and apply these SDG indicators, including support to countries in data collection, analysis and reporting.

- **World Environment Situation Room (WESR)**

A dedicated space on oceans is being set up under the [World Environment Situation Room](#) to disseminate ocean data and indicators. UNEP is interested in exploring how the platform might support collaboration on data for ocean science and innovation.

2. Challenges and opportunities

• Nature-based solutions to ocean and coastal sustainability and climate resilience

UNEP is proposing a cross-cutting thematic focus of the *UN Decade on Ocean Science for Sustainable Development* on nature-based solutions to climate change and ocean and coastal sustainability overall, linking environmental, social and economic disciplines. This will require a combination of basic and applied research. Basic research is needed to enhance our fundamental understanding of oceanic and coastal ecosystem functions and processes, drivers of change and how these impact ecosystem services underpinning human well-being. Applied research is needed to support effective policy-making and implementation, including predictive capability and tools for enhanced sector/cross-sector decision-making and practical nature-based solutions that deliver sustainable, inclusive and resilient oceans and coasts. UNEP proposes to link basic and applied research as a strong operating principle under SDG 14a in order to deliver real *impact*, i.e. improving the state of the ocean environment and ocean economy.

This may include:

- Enhancing capacities of countries to protect vulnerable habitats such as seagrass, mangroves, tidal marshes and coral reefs, which are important blue carbon sinks or provide adaptation services, but also highly vulnerable to climate change impacts;
- Generate knowledge and information on climate change-related ecosystem services (blue carbon and resilience to natural disasters);
- Develop good practices including supporting an enabling policy environment for the management and restoration of these ecosystems, so that these can be appropriately addressed in marine spatial planning and integrated coastal zone management mechanisms;
- Develop ecosystem-based adaptation measures and demonstrate when they are more cost-effective and effective in addressing climate change impacts;
- Support implementation of nature-based adaptation measures under the national Action Plans on Adaptation.
- Enhance marine protected area effectiveness and equitable sharing of their costs and benefits among local stakeholders and blue economy sectors.
- Support national and regional knowledge, policy-making and strategies that ensure sustainable, inclusive and resilient blue economies.
- Assist incorporating ocean and coastal carbon and related financing into national actions on climate change mitigation.
- Focus on better integration of behavioral science with ecology, economics and social science to find the most viable and efficient incentives that can be put in place by managers and decision makers to lead to desired societal goals.
- Engage with the Convention on Biological Diversity post-2020 Biodiversity Framework and the “New Deal for Nature” to ensure that targets for critical coastal ecosystems are addressed.
- Strengthen and further utilize the Global Coral Reef Monitoring Network (GCRMN) to monitor and report on the condition of the world’s coral, to produce regional and global reports on the status of coral reefs for 2020 and beyond, and explore technological advances for coral reef monitoring in order to allow large-scale and cost-efficient monitoring.
- Work with the International Seagrass Experts Network to develop materials on the importance of seagrass ecosystem services. Important research focuses for the network in the future will include seagrass mapping, blue carbon in seagrass and seagrass restoration.

- **Sustainable Blue Economy decision-support and enabling environment**

UNEP has initiated the development of a decision-support & enabling framework to support countries and regions identify and navigate policy pathways towards sustainable and inclusive blue economies. The Framework will consider economic, social and environmental dimensions and benefits of oceans. It seeks to enhance decision-making and enabling conditions to develop and implement sector/cross-sector policies and strategies that promotes sustainable, efficient and equitable use of coastal and marine resources and ecosystem services within planetary boundaries of oceans. The framework will connect ecosystem-based management principles and nature-based solutions with macro-economic analysis. It will consider barriers and enabling conditions for sustainable blue economy transition, informing key steps of decision-making and implementation processes.

The *Sustainable Blue Economy decision-support framework* is organised in four main components:

- (a) Mapping, evaluation and assessment of ecosystem distribution, status, human drivers, ecosystem services and vulnerabilities;
- (b) Integrated marine and coastal management, including strategic environmental assessment, trade-off analyses and scenario tools for cross-sector decision-making, spatial planning and integrated coastal management of overlapping sector interests and pressures in systematic and transparent ways;
- (c) Macro-economic models to support integrated blue economy policy-making and strategies that optimize economic circularity and resource efficiency in coastal development;
- (d) Equitable use and sharing of ocean benefits, including methods for effective engagement of local communities and relevant stakeholders in planning of ocean use and equitable sharing of ocean benefits, enhancing social and economic resilience to future change.

UNEP will be working with Regional Seas, countries, interested partners and experts to develop and pilot-test the decision framework in the coming two years.

- **Evidence-based learning on marine and coastal management solutions**

UNEP supports development of evidence-based learning that promotes ecosystem-based marine and coastal management to support sustainable oceans and coasts for people and nature through the *Blue Solutions* approach. *Blue Solutions* provides a range of different management tools and practical lessons from a range of marine and coastal issues, tools and approaches applied in real-life knowledge products, is part of the multi-thematic, multi-partner global learning online initiative '[PANORAMA – Solutions for a Healthy Planet](#)'.

The Blue Solutions Initiative is a partnership of GIZ, UNEP, GRID-Arendal and IUCN through financial support from the International Climate Initiative (IKI) of the German Ministry of Environment (BMU). Since 2013, Blue Solutions has worked on global knowledge exchange, capacity development for decision makers and practitioners and on policy dialogue to deliver on the goals of the CBD, UNFCCC and the Agenda 2030, especially SDG 14. In 2020-21, Blue Solutions will focus its work on selected countries/regions (Caribbean, Southeast Asia, West Africa) to support decision makers and practitioners implementing practical spatial planning processes to support sustainable ocean-based economies.

V. possible themes for the interactive dialogues

On the basis of previous sections, UNEP would like to propose three themes for interactive dialogues within the overall focus on *science & innovation* of the 2020 UN Conference to Support the Implementation of Sustainable Development Goal 14:

1. It is proposed to address the critical nexus of marine and coastal biodiversity and climate change through an interactive dialogue on **“Nature-based Solutions for Ocean and Coastal Sustainability and Resilience”**.
2. It is proposed to address the essential role of healthy oceans as pre-requisite for long-term environmental, social and economic benefits within planetary boundaries through an interactive dialogue on **“Strategies and Decision-support for Sustainable and Inclusive Blue economies”**.
3. It is proposed to address the complex issue of marine protected area effectiveness and equitable sharing of MPA costs and benefits through an interactive dialogue on **“Marine Protected Area Performance”**.
4. It is proposed to address the issue of marine pollution through an interactive dialogue on **“Prioritisation of actions, based on best available scientific knowledge and the most environmentally sound, risk-based and cost-effective measures, to prevent and reduce marine pollution”**.