EU International Ocean Governance Forum

Discussion paper for Thematic Working Group 2

REDUCING PRESSURE ON THE OCEAN AND SEAS AND CREATING THE CONDITIONS FOR A SUSTAINABLE BLUE ECONOMY

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1. INTRODUCTION

The importance of a clean, healthy and productive ocean is recognised as a **vital life-support system and key climate regulator**. Despite commitments undertaken in the context of the 2030 Agenda for Sustainable Development among others, marine ecosystems remain **under significant pressures that threaten the status, health and functionalities of the ocean and marine biodiversity**, and the goods and services ocean ecosystems deliver. These pressures (e.g. over-fishing, pollution from resource extraction activities/maritime transport/coastal tourism, and underwater noise) originate from maritime/marine sectors and from many land-based sectors and human activities (e.g. industry, agriculture, urbanisation or waste management) often located far from the ocean. They can be direct pressures on marine ecosystems - such as the impacts of human activities including on the water cycle (e.g. discharge of unused pharmaceuticals into the sewage system or the washing out of nutrients and plastics into rivers and then to the sea[1]) or indirect pressures such as climate change that has harmful impacts on oceans, marine ecosystems and coastal areas including through ocean warming, acidification and eutrophication as highlighted in the recent IPCC Special Report on Ocean and the Cryosphere in a Changing Climate (2019)[2].

The degradation of marine ecosystems can have direct impacts on the overall health and productivity of the oceans. This can lead to **significant economic and social impacts** for economic activities benefiting from ecosystem services provided by the ocean and/or cryosphere including the supply of food and water, cultural values, tourism, or trade that rely heavily on the resources provided by the ocean. In addition: (a) **climate change** will continue to have an increasing impact on many functionalities of the ocean in the medium to long term (e.g. via changes in biomass production and food chains, ocean streams, or melting of polar ice) including through a reduction of the buffering role the ocean plays vis a vis climate change and increasing occurrence of extreme events at coast (e.g. storm surges or coastal floods); (b) the number and intensity of impacts in the ocean is expected to continue to increase, with resulting challenges for management to keep pace and to address **cumulative multiple impacts** co-occurring in space and time and interacting synergistically; and (c) **degraded marine ecosystems will not be able to deliver the full benefits expected for a sustainable blue economy**.

At the time of writing this paper, all relevant ocean governance meetings were postponed amid the COVID-19 pandemic, including the 2020 UN Ocean Conference, the fourth meeting of the Intergovernmental Conference on the negotiation of a new legally-binding instrument for the conservation and sustainable use of marine biological diversity beyond national jurisdiction (BBNJ), and the EU International Ocean Governance Forum. In an effort to maintain momentum, preparatory processes have been moved online and meetings are planned to take place via web services. Although it is far too early for a thorough assessment, it can be expected that the devastating human, societal and economic consequences of this crisis will also affect the way humanity sees and interacts with the ocean, and possibly also on international or regional collaborations and governance processes.

In coherence with the need to achieve Sustainable Development Goal (SDG) 14[3], and the overall Agenda 2030 for Sustainable Development, the Thematic Working Group 2 (TWG) **Reducing pressure on the ocean and seas and creating the conditions for a sustainable blue economy** will focus on key opportunities and points of action in which the EU can play a leading role to address and support conservation and sustainable use by strengthening policy coherence and international ocean governance at all relevant levels.

2. KEY CHALLENGES FOR OCEAN GOVERNANCE IN ADDRESSING PRESSURES EFFECTIVELY AND CREATING THE CONDITIONS FOR SUSTAINABLE BLUE GROWTH

Reducing pressures on the ocean through conservation, prevention and setting the conditions for a sustainable blue economy present a number of challenges. These include inter alia[4]:

- **Addressing pollution to achieve the healthy status of the ocean and restore marine ecosytems**[5]. Regardeless of the efforts invested in reducing pollution, cumulative polluton pressures from many sea-based (e.g. oil from shipping and the offshore oil and gas industry, lost fishing equipment, and bilge wastes), land-based (e.g. pollution from industry, wastewater treatment plants, nutrient pollution from agriculture leading to eutrophication, and the discharge of micro- and macro-plastics to the sea) and airborne sources are such that the status of the marine environment continues to deteriorate. This results from the many challenges faced in achieving set policy objectives in relation to tackling pollution, the insufficient recognition of ocean health requirements when setting up land-based policy objectives and the fragmented (sector-based) approach to pollution issues.

- With regard to **plastics**, between 8 million and 13 million tonnes of plastic enter the ocean each year, most of it from land-based sources. Studies suggest that the annual economic damage plastics impart on the marine ecosystem is at least $13 billion per year[6]. With plastic production expected to double over the next 20 years, it is estimated that current production and waste management trends will lead to 12 billion tonnes of plastic waste in landfills or in the natural environment by 2050. It is clear that any action focused solely on waste management is unlikely to bring the required positive change on a global scale. Here again, the many initiatives and legal instruments established to address plastic pollution on land and at sea remain insufficient and target only some aspects of the problem, or specific geographic sea-regions with Regional Sea Conventions (RSC) playing a key role in dealing with the impacts of marine litter from both land and sea-based sources.

1 The majority of plastics in our oceans is from land sources.
2 IPPC, 2019. Note that expected sea-level rise will also significantly affect the state of ocean ecosystems
3 Conserve and sustainably use the oceans, seas and marine resources for sustainable development
4 The issues listed in this document are by far not exhaustive..
5 i.e. achieving Good Environmental Status as defined in the EU Marine Strategy Framework Directive (MSFD)
6 UNEP, 2014. Valuing Plastic: The Business Case for Measuring, Managing and Disclosing Plastic Use in the Consumer Goods Industry.

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- **Mitigating the effects of climate change**. Increases in anthropogenic greenhouse gas emissions have resulted in increased ocean acidity, declining oxygen levels due to stratification, warming waters, rising sea-level, more frequent and intense extreme events and changes in ocean currents – as highlighted by the recent Special Report on the Ocean and Cryosphere in a Changing Climate7 and the Intergovernmental Panel on Climate Change[8]. The continuing degradation of the health of marine and coastal ecosystems resulting from climate change, along with their significant social, economic and human health impacts, highlights the need for accelerated efforts[9] to address climate change to protect and sustainably manage ocean ecosystems. Thus, efforts should combine initiatives for: (a) reducing emissions, including (but not only) from marine/maritime sectors via e.g. the designation of emission control areas for sulphur and nitrogen oxides pursuant to the International Convention for the Prevention of Pollution from Ships[10]; and, (b) strengthening the resilience of ocean ecosystems. Climate change causes increased occurrence of extreme events – coastal floods, storm surges- that can severely impact coastal areas, increase coastal erosion and damage infrastructure, or installations at sea for producing renewable energy, aquaculture and fishing sites. Communities need to be prepared and develop resilient approaches to both short-term and long-term risks.

- **Managing ocean food resources sustainably**[11]. Fishing activities, traditionally done in coastal areas, have expanded into the high seas to respond to increased demand and overfishing in fisheries within national jurisdiction. Today, more than 30% of assessed global fish stocks are fished at a biologically unsustainable level and are therefore considered as overfished12. While some species fished solely or partially in high seas are in critical condition, the scientific knowledge on these species, as well as the impact of climate change on migratory patterns and of overfishing, that is required to underpin their effective management remains insufficient – or is insufficiently used to underpin sustainable management. The current high level of overexploited and depleted fish stocks has impacts beyond targeted fish species on the wider ocean ecosystem (e.g. on non-targeted species through bycatch, on other species in the community as a result of changes in the composition of diets and predator-prey interactions, in reductions in biodiversity, or loss of ecosystem resilience)[13]. This leads to an altered ecosystem and food chain functioning, impacting inter alia local coastal populations who are dependant on these ecosystems. Regional Fisheries Management Organisations (RFMOs) have delivered improvements for some marine ecosystems and species[14]. However, they have not been established everywhere and do not cover all fish stock or commercial species and ocean ecosystem challenges[15]. Furthermore, as the status of fish stocks significantly influences the overall status of the marine environment, cooperation of RSCs and RFMOs with the aim of quality status assessments and improvements at the sea-basin level are increasingly important.

- **Creating the right conditions for supporting a sustainable blue economy**. Many activities and (investment/development) initiatives that are considered part of the blue economy (i.e. all economic activities related to our oceans, seas or coastal areas including established sectors such as fisheries, aquaculture, shipbuilding and tourism as well as emerging industries including ocean energy and biotechnology) still have significant direct or indirect impacts on the health of ocean ecosystems. With the expected future growth in the blue economy, it is essential that initiatives do not add further pressures on the ocean and deliver positive environmental and social outcomes including for local coastal communities. This will require the use of different Area Based Management Tools (ABMTs), as well as Marine Protected Areas, Marine Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM), while ensuring ecological connectivity between such tools and utilisating adaptive management principles to meet new challenges and situations.

- **Managing marine ecosystems and space sustainably and equitably**. Despite the many policies, instruments and governance mechanisms in place that aim to address (individual) pressures on the ocean, whether globally or regionally, ocean biodiversity and health continues to deteriorate overall. This results from the fragmented implemention of ocean governance combined with the absence of an holistic ocean management approach, poor funding, lack of capacity and limited enforcement. Information on cumulative pressures, ecosystem functions and ecosystem services integrating the many connection between land, and the different parts of oceans and seas are required. Managing pressures at sea requires spatial planning to account for pressures from individual sectors and their cumulative impacts, taking into account of the vulnerability and importance of marine ecosystems, their intrinsic value (including e.g. rarity) and the services they deliver to beneficiaries. While an increasing number of area-based management tools (ABMTs) are put in place, their establishment and implementation, especially in the high seas, retains legal complexity and remains uncoordinated. In many cases, ABMTs and MPAs lack sound and effective management plans (including monitoring, control and enforcement)[16] and do not deliver expected benefits in terms of ecosystem protection and related positive societal outcomes. In addition, multifunctional multiuse areas and platforms (associating for example wind and marine energy, aquaculture and eco-tourism) that can help combining pressures from different activities to smaller less-vulnerable areas, thereby facilitating the protection and restoration of high value marine ecosystems, are not given due attention.

7 https://www.ipcc.ch/srocc/
8 IPCC, 2019
9 In line with the zero impact ambition of the European Green Deal and with commitments under the Paris Agreement
10 See e.g. https://web.unep.org/unepmap/barcelona-convention-cop21-naples-2-5-december-2019
11 With a focus on fisheries and aquaculture
12 State of World Fisheries and Aquaculture 2018 report (FAO)
13 Crespo, G.O., Dunn, D.C., Gianni, M. et al. High-seas fish biodiversity is slipping through the governance net. Nat Ecol Evol 3, 1273–1276 (2019). https://doi.org/10.1038/s41559-019-0981-4 (full text requested on Researchgate)
14 https://www.washington.edu/news/2020/01/13/fisheries-management-is-actually-working-global-analysis-shows/
15 http://www.fao.org/fishery/topic/14908/en stresses that the lack of political commitment by members of some RFMOs and unyielding positions incompatible with sound regional fisheries management have thwarted, if not stalled, efforts undertaken within some RFMOs to meet and address conservation and management challenges. This situation hinders RFMO performance, while criticism is directed at the organizations rather than at their members.
16 See e.g. Gill, D., Mascia, M., Ahmadia, G. et al. Capacity shortfalls hinder the performance of marine protected areas globally. Nature 543, 665–669 (2017). https://doi.org/10.1038/nature21708.

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Effective ocean governance to reduce pressures and support a sustainable blue economy **depends on many factors**, including: adequate methods and technologies for monitoring and enforcing (marine and land-based) policies, legislation and regulations; individual and institutional capacity-building; extensive data sharing; ocean literacy – including at high political level to strengthen political will; adequate funding sources to develop innovative solutions and spur stakeholder engagement; and comprehensive governance strategies that can support coordinated and informed action including by the private sector and local communities. Identifying and **addressing these critical drivers of change** to enable action is an overall transversal issue relevant to the challenges stressed above and to the achievement of SDG14 and the overall Agenda 2030 for Sustainable Development.

3. OPPORTUNITIES FOR IMPROVING OCEAN GOVERNANCE

Addressing the above mentioned challenges will require a diversity of solutions at different and appropriate scales, and the setting up of the right conditions that can deliver their collective and coordinated uptake. The paragraphs below identify some potential opportunities, while raising a series of questions aimed at steering debate with members of the IOG Forum to identify opportunities and priorities.

3.1. Managing marine ecosystems and space sustainably and equitably

Support to **holistic ecosystem-based management approaches** is required at all scales to deliver solutions that cost-effectively address the complexity of the ocean space (including multiple-use and cumulative effects, spatial interconnections between ecosystems under different legal zoning, temporal variability and long-term implications). Making ecosystem-based management operational in Regional Sea Conventions and Action Plans and in RFMOs, and supporting the development of new (integrated ecosystem-based) knowledge base and management-support tools (e.g. georeferenced tools that make explicit the effects of different uses of the marine space on ecosystem services and on associated beneficiaries), are initiatives that will be considered.

In relation to ABMTs (such as Emission Control Areas, Special Areas and Particularly Sensitive Sea Areas, seasonal or year-round area fisheries closures or Areas of Particular Environmental Interest), Marine Protected Areas, Maritime Spatial Planning and Integrated Coastal Zone Management, opportunities for strengthening their role and effectiveness[17] include: (a) ensuring the adequate **coverage** of different ecosystems and their **connectivity**; (b) developing **guidelines** for supporting their management, building on the **application of ecosystem based approaches**[18]; (c) **strengthening monitoring and knowledge systems** that can support management, building on (international) cooperation efforts and synergies among all sectors and stakeholders to survey and share data while avoiding overlaps; (d) establishing **innovative financial instruments** that can deliver financial resources sustainably and enhance the financial viability of ABMTs management organisations (e.g. dedicated regional funds or the establishment of financing mechanisms built on payments for ecosystem service principles); and (e) supporting **stakeholder mobilization** in co-building management activities as pre-conditions for effective implementation. In parallel, efforts are required to improve the sustainability of activities carried out outside protected areas – avoiding in particular that transfer of activities and related pressures from protected to non-protected areas that would become further degraded - in particular in areas beyond national juridication.

? Proposed questions for the working group discussion

- How to support the **wider uptake of holistic ecosystem-based management approaches** at different scales? Which methods and tools (e.g. for capturing ecosystem services and the values of natural capital) can support such approaches? Which conditions (e.g. capacity, knowledge, stakeholder mobilisation, and financing) are required to operationalise such approaches?
- How to support the **development of MSP and MPA in high seas** so that a wide variety of representative ecosystems and their connectivity are better protected?
- On which priority topics/management functions of ABMTs, MSP, and MPAs should **guidance** be developed **to enhance their performance – for whom and by whom?** For which stage of the development and implementation process (from design to full scale implementation) of these instruments? Are there alternatives to a "guidance-approach" that can prove more adaptable and effective?
- How the **development of capacity** be supported for all parties involved (e.g. capacity in law and policy making, intra and inter institutional capacity, access to technology, stakeholder mobilisation, etc.) to ensure the opportunities offered by ABMTs in general, and by ecosystem-based approaches in particular, are effectively seized and implemented?
- Which **innovative financial** instruments could be developed, tested and implemented to support the viability of ABMTs organisations and the effective long-term management of ABMTs? Which role could the private sector and capital market instruments play – and under which conditions?

3.2. Achieving a clean, healthy and productive ocean

It is important to discuss how **multidisciplinary marine strategies**, such as those designed under the Marine Strategy Framework Directive in the EU, implemented in collaboration with Regional Seas Conventions and action plans, large marine ecosystem commissions, Regional Fisheries Management Organisations and other relevant organisations with complementary mandates, can support the achievement of clean, healthy and productive oceans with a good status of the marine environment. These strategies should address **cumulative pressures** and identify descriptors or ecological objectives for the good status of marine environment. They should identify ways of adapting to the effects of climate change, including via the use of area-based management tools, ICZM and MSP. **Monitoring, reporting and assessments** at appropriate levels are crucial in understanding the status of the marine environment as well as policy adaptations that may be needed to achieve healthy and productive oceans.

Cost-effectviely addressing ocean pollution and other pressures on the marine environment requires **integrated solutions accounting for the land-sea interface**, building in particular on a "source-to-sea" approach (e.g. Land-Based Sources of Pollution protocols under the Regional Seas Conventions) and circular economy perspectives. Such an approach will build on closer **links and integration between the land and sea communities** (considered in all their components: regulatory, social and economic, and knowledge)[19]. Stronger regulations, standards and a **change in consumption and production patterns**, combined with higher resource efficiency building

17 Mechanisms for enlarging the coverage of ABMTs and strengthening their coherence is addressed under TWG1. The focus here is on strengthening the effectiveness of the management of ABMTs.

18 Accounting for the language and principles of international law in these areas

19 As promoted in Europe by the synergies and coordination established between the Nitrates Directive (diffuse pollution from agriculture), the Urban WasteWater Treatment Directive (point-source pollution from agglomerations), the Water Framework Directive (addressing multiple pressures impacting on the ecological status of surface waters, groundwater, transitional water and coastal water) and the Marine Strategy Framework Directive (MSFD).

on circular economy principles, are also required to drive change and contribute to a healthy, clean and productive marine environment – making more explicit inter alia the contributions of SDGs related to resource use and consumption to the achievement of SDG14.

? Proposed questions for the working group discussion

- **Which role(s)** can global, regional and sectoral (marine) organisations and their instruments play (individually or collectively) to **strengthen the implementation and enforcement of sector strategies** that aim at reducing pressures on the marine ecosystems?
- **Which role(s)** can global, regional and sectoral (marine) organisations and their instruments play (individually or collectively) to support the **establishment and implementation of multisectoral multipressure strategies?** Under which conditions can they play this role?
- Which mechanisms or instruments are required for a more **effective integrated land-sea interface** and for implementing a "source-to-sea" approach – building in particular on the experience of the existing RCS protocols and national experiences? Which knowledge (e.g. monitoring and modelling) would help better tracking the relative importance (and responsibility) of pollution sources from "source-to-sea" and to evaluate progress? How to bring together the different land and sea communities and break the current silo approach?[2]
- Which lessons from good practice examples of **life-cycle approaches and "production to consumption" value chain initiatives and technologies** that reduce pressures on marine ecosystems and improve their health? Which mechanisms to put in place to support the wider uptake of these initiatives?

3.3. Global agreement on plastics – circular economy for conservation and sustainable use of oceans, seas and marine environment for sustainable development

Despite existing efforts, the regulatory gap at the global level continues to exist in relation to plastics and other land-based sources of pollution. There is a need for a **dedicated global agreement specifically designed to prevent plastic pollution** (both from land and sea based sources, including microplastics) and covering the entire life-cycle of plastics (product design, sustainable consumption and production, waste management). This will contribute to resource efficiency and will enable long-term circular use of plastics products.

? Proposed questions for the working group discussion

- **Which process** is needed to put in place the adoption of a global agreement designed to prevent plastic pollution? In particular, **which role(s) for stakeholders** (e.g. different maritime sectors, RFMOs, RSCs, academia, and civil society) in supporting/contributing to this process?
- How can the **private sector** be mobilisde in particular? How can it be ensured that the opportunities such a global agreement will bring are duly seized and exploited?
- What are the **enabling and constraining conditions** of the fragmented multi-level governance setting to develop, implemenet and enforce a global plastic agreement?

3.4. Unfolding the climate and ocean nexus

In order to protect the ocean from the increasing impacts of climate change, a drastic **reduction of global CO2 emissions** is necessary in compliance with the objectives and obligations of the Paris Agreement. Efforts are already being made to reduce greenhouse gas emissions including from maritime sectors, and to promote the development of renewable energy – including ocean-based renewables that can be cost-effective and at the same time environmentally-friendly solutions.

At the same time, efforts are made to support the **development of nature-based solutions** (e.g. coherent networks of Marine Protected Areas) that increase resilience to climate change. Climate change mitigation and adaptation strategies are often considered separately to strategic investment decisions (in particular for climate change adaptation). However, there is clearly potential for nature-based solutions (e.g. restoring and preserving blue carbon ecosystems) to reduce vulnerability to climate change while contributing to climate change mitigation.

Nevertheless, more systematic efforts and innovative solutions are required **for embedding mitigation and adaptation to climate change in the diversity of regulations, agreements and instruments of marine/maritime and land-based sectors**. The challenge here is to shift from isolated pilot solutions and good practice to mainstreaming climate change in all actions and ensure a collective uptake of solutions. The objective should be to enhance understanding that a healthy ocean is part of the solution[20].

Actions that can support climate change mainstreaming include: (a) **strengthening knowledge** on the ocean-climate relationship, including a better understanding (qualitatively and quantitatively) of the role of the ocean in climate regulation through the sequestration of anthropogenic carbon and climate-active gases; (b) more coherent and systematic efforts to **monitor and report** greenhouse gas (GHG) emissions by the main marine/maritime sectors; (c) a more **systematic consideration of all climate change challenges**, accounting for direct and indirect links between proposed projects and investments, climate change and impacts on the ocean and marine ecosystems, in operational tools supporting sustainable decisions (e.g. Environmental Impact Assessments, or integrated cost-benefit analysis accounting for the value of natural capital), with e.g. the development and dissemination of guidelines for such operational tools, combined with awareness raising and strengthened capacity for their application; (d) the **earmarking of finance** (as part of established climate-dedicated financial instruments or by the establishment of a "REDD+[21]" like initiative dedicated to the ocean) to support climate-coherent investments in marine/maritime sectors, including the wider implementation of ocean-focused nature-based solutions that aim to enhance the resilience of ocean ecosystems and support their economic and societal development; (e) the establishment of **tools (e.g. charters of good practice or labels) that make visible, efforts made by economic sectors** and territories in internalising climate change into ocean-related decisions and investments; (f) the development of **instruments** (voluntary agreements between governmental actors and maritime sectors, and legislation) and **governance models** (benefit sharing arrangements between for example maritime sectors and coastal communities) to anticipate, and respond to, the effects of climate change on the ocean and maritime sectors; and, (g) **raising capacity and literacy** on the complex connections between ocean and climate – sharing in particular knowledge and (peer-to-peer)

20 https://www.becausetheocean.org/wp-content/uploads/2019/10/Ocean_for_Climate_Because_the_Ocean.pdf
21 See http://www.fao.org/redd/initiatives/en/

experiences in good practice that reduce marine/maritime sectors' impacts on climate/ocean vulnerability to climate change.

Assessment and **new knowledge on the effectiveness and impacts (costs/benefits) of options** is required to demonstrate their added value – for specific sectors and for society as a whole. At present, coastal flood losses in Europe amount to 1.4 billion €/year. With a significant share of the world's urban areas situated on coastlines[22], coastal residents are at high risk from some of the devastating impacts of climate change, such as rising sea levels and powerful coastal storms. Urban development near coastlines needs to adapt to these challenges. To this end, green infrastructure or ecosystem-based adaptation can have both adaptation and mitigation co-benefits.

? Proposed questions for the working group discussion

- How to **best monitor emissions from maritime sectors** at the global scale to support informed decisions for the purposes of climate change (UNFCCC) processes and anthropogenic GHG emissions monitoring/regulation? What new technologies could be proposed to enable automatic reporting while enhancing understanding of fuel consumption therefore supporting more efficient fuel usage?
- What type of guidance – on which main issues, for which type of assessment and for which sectors (including land-based) – should be developed to fully **account for the ocean-climate relationships in investment decisions?**
- What **instruments and governance models** should be implemented to develop integrated and innovative solutions for climate change that fully account for the ocean and the value of ecosystems and biodiversity? In particular, which pre-conditions are required to support a wider implementation of nature-based solutions?
- How to adapt (maritime) sector's **financing** to support actions that are climate-coherent? Should specific (climate) finance be earmarked for "ocean-climate "(for which sectors, at which scale)?
- What guidance and incentives should be operationalised to support **coastal area adaptation** to the consequences of sea-level rise?
- How can **literacy and capacity** be raised on the complex climate-ocean relationship to steer change in understanding, attitude and behaviour?

3.5. Managing ocean food resources sustainably

Supporting the sustainable management of ocean food resources in general, and **of fisheries and aquaculture in particular,** require a combination of initiatives addressing different components of ocean governance, including: (a) efforts to **restore marine ecosystems** with recognised biomass potential at different scales, ensuring coordination among parties involved to account for, and fully seize opportunities offered by, ecosystem connectivity (b) strengthening the role of **regional players** (e.g. regional Fisheries Management Organisations (RFMOs)) and **bringing up the ocean food challenges** in the policy discussion of Regional Sea Conventions (RSCs) and of global treaties (e.g. the 1995 UN Straddling and Highly Migratory Fish Stocks Agreement, and the Convention on Biological Diversity), so regional Action Plans and new policies developed at the global scale can contribute to the sustainable management of ocean food resources by the competent bodies; (c) **halting harmful subsidies** contributing to overfishing, overcapacity and IUU fishing (e.g. including by prohibiting relevant fisheries subsidies within the frame of the World Trade Organisation) and refraining from granting such subsidies; (d) more generally, **supporting sustainable fishing practice** (e.g. with minimal or no impact on the seafloor and on non-targeted species); or/and (e) seizing opportunities offered by technologies (e.g. vessel tracking orsatellite monitoring) for **addressing effectively** (bilaterally, regionally or at international levels) **illegal, unreported and unregulated (IUU) fishing** - exploring key cross-cutting areas where the provision of data can assist on various fronts (for example, for detection and deterrence of IUU fishing and improved stock management).

? Proposed questions for the working group discussion

- How could the **role of Regional Fisheries Management Organisations (RFMOs)** be strengthened for managing ocean food sustainably - mobilising in particular ecosystem-based approaches and accounting for climate change to deliver adaptative fishing management?
- How could the **performance reviews of RFMOs** be strengthened (e.g. in terms of focus, knowledge mobilised, process, follow-up mechanism for implementing recommendations, or development of what-if scenarios) to enhance their effectiveness?[23]
- Which roles could the **Conference of Parties** of different international conventions (e.g. on climate change or biodiversity) play to contribute within their own areas of responsibility to a more sustainable management of ocean food?
- Which law and policy, trade, data-sharing, MCS and other mechanism(s) could help **address IUU fishing globally**? Which actors should those mechanisms be associated with (e.g. RFMOs, COPs, states, private actors, or other)? Which steps and pre-conditions are required for its (their) establishment and effectiveness?
- How to support the **creation of knowledge** that can help identifying sustainable blue economy opportunities for the fisheries and aquaculture sectors, along with their potential social, economic and environmental impacts? Which enabling factors should be put in place (at which scale) to seize sustainable blue economy opportunities?

3.6. Creating the right conditions for supporting a sustainable blue economy

Creating the right conditions for supporting a sustainable blue economy based on lower or no impact production and consumption methods will require *inter alia* coordinated efforts and frameworks (e.g. among States, stakeholders, business and local communities, donors and investors), sound (participatory) and transparent processes, rigorous (*ex-ante* and *ex-post*) assessments and evaluations, and financing conditionalities that give priority to sustainable blue economy opportunities. It requires also that justice and equity concerns related to blue economy development are addressed building on inclusive processes (associating in particular local coastal communities) and fair mechanisms for sharing the benefits of sustainable blue economy.

Supporting a sustainable blue economy requires: (a) strengthening the **knowledge base** on the added value of a sustainable blue economy in terms of social, economic and environmental impacts, giving attention to the valuation of

22 See https://www.prb.org/rippleeffectspopulationandcoastalregions/: 14 of the world's 17 largest cities are located along coasts. In addition, two-fifths of cities with populations of 1 million to 10 million people are located near coastlines.

23 https://www.un.org/Depts/los/convention_agreements/ICSP14/ReportICSP14.pdf

natural capital and integrated cost benefit assessments bringing short-, medium- and long-term perspectives; (b) supporting blue economy initiatives with **business models accounting for ecosystem protection and social inclusion**; and, (c) making **good practice shared and visible** (for example, via their sound monitoring and promotion. With regard to deep-sea mining, it is necessary to identify practices and technologies that reduce its environmental risks[24] or to follow the precautionary principle until these risks are fully understood. As highlighted above, the development of **blue economy opportunities with zero to positive impact** on natural resources and biodiversity should be further investigated and supported.

In addition, further attention could be given to **multifunctional multiuse marine platforms or areas**[25] that can help target pressures from human activities in limited less-vulnerable marine space, thereby facilitating the protection and restoration of high value marine ecosystems. This could take the form of supporting pilots, demonstrators, and exchange of good practice, or establishing positive conditionalities in financing instruments to support multiple beneficiairies project with limited ocean area impacted.

? Proposed questions for the working group discussion

- How to strengthen **the sound application of *ex-ante* and *ex-post* assessments** – and of **environmental impact assessment**[26] in particular (as key element of compliance with international environmental obligations)- of blue economy projects and strategies to avoid additional pressures (including cumulative pressures) on the ocean?
- How to strengthen literacy and capacity on sustainable blue economy opportunities and developments? For which target groups (e.g. decision and policy makers, economic sectors, private and public investors, public decision makers, local authorities, and other stakeholders) in particular?
- How to support the creation of **innovation** to support blue sustainable economy? How to support the development of knowledge on their potential social, economic and environmental impacts so as to support informed decision? Which enabling factors need to be put in place (at which scale) to seize sustainable blue economy opportunities?
- How to support the creation of **knowledge on innovative multifunctional multiuse areas and platforms** and on their potential social, economic and environmental impacts? Which enabling factors should be put in place (at which scale) to support the development of such platforms?

4. FUTURE PERSPECTIVES FOR CONSIDERATION OF POTENTIAL EU ACTION

The EU is already supporting the implementation of some of the opportunities identified at different scales. Additional EU roles supporting their wider uptake, or the emergence of new solutions, remain to be identified. Questions that can be considered include:

- Which role for the EU in **strengthening the ocean knowledge base** to support at the global level the implementation of solutions for conservation that reduce pressures on ocean ecosystems and deliver sustainable blue economy? Which knowledge in particular (e.g. on marine species modelling, ocean-climate nexus modeling, land-ocean and ocean-land interactions, and blue carbon) should receive particular attention? How can we use the knowledge and data collected through MSFD and promote comparable assessments at different levels and for different seas?
- How could the EU support the **sharing of good practice and experiences**, data and information, including on the pre-conditions that support effective implementation? To which target group – and in which political/policy arena(s) – in priority?
- How can the regional quality status assessments be better reflected and integrated in **global ocean assessments** like the World Ocean Assessment (WOA) or Global Sustainable Development Report (GSDR) and in the work of the UN Decade on Ocean Science for Sustainable Development?
- How to **raise the profile of both conservation**, as a pre-condition for sustainable use, and **sustainable use** through "sustainable blue economy" in existing/new partnerships and financing instruments (e.g. adapting financing conditionality)? Which aspects of conservation and for which sectors and regions in particular?
- How best to utilise the **instruments and leverages of the EU Green Deal** for supporting a sustainable transformative Blue economy? In particular, how could the EU support the development of sustainable financial instruments for strengthening the implementation of ABMTs?
- How could **EU financing instruments best be used in synergies** to support ocean-related actions and the cost-effectively delivery of SDG14 and the Agenda 2030 for Sustainable Development?

It is intended that this section will be further developed based on working group discussions and provide ideas for the EU to take action towards the development of an EU outlook on ocean governance.

24 See UNEP Global Environmental Outlook (https://wedocs.unep.org/bitstream/handle/20.500.11822/27658/GEO6_CH7.pdf?sequence=1&isAllowed=y)

25 I.e. platforms or areas that combine within a limited space different complementary activities benefiting from different functions – e.g. aquaculture developed around renewable energy offshore parks that welcome tourism activities. See e.g. https://cordis.europa.eu/project/id/862915

26 Note that both positive and negative impacts on marine ecosystems will need to be taken into account in these assessments. Attention should also be given to the possible displacement of pollution relative to the source accounting for currents and migration.

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