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# A role for UNEP's Regional Seas Programme under the post-2020 global biodiversity framework

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ARTICLEINFO	A B S T R A C T
Keywords: Biodiversity indicators Biodiversity monitoring and reporting Convention on Biological Diversity Ecosystem-based management Ocean governance Regional Seas Conventions and Action Plans	A case is put forward to make best use of UNEP's Regional Seas Programme (RSP) for the Convention on Biological Diversity's (CBD) post-2020 global biodiversity framework (GBF). A review of the work of the RSP's component Regional Seas Conventions and Action Plans (RSCAPs) highlights their potential for strengthening the marine and regional outlook of the GBF, as well as their current limitations. Recommendations are made to the CBD, the UNEP-RSP, its RSCAPs and to their member Parties/States to foster and further develop their mutually reinforcing roles in supporting a regional marine biodiversity dimension.

# 1. Introduction

Despite a decade of global efforts to protect and restore biodiversity, with some success, not one of the 20 Aichi Biodiversity Targets was fully achieved by the 2020 deadline [1]. Threats to biodiversity continue to accumulate at an unprecedented rate, and in the marine environment, the world's largest ecosystem, the combined effects of anthropogenic activities are increasingly impairing biodiversity and ecosystem services from the coast to the deep ocean [2–4]. Consequently, the Convention on Biological Diversity (CBD) has identified eight key transitions to sustainable pathways, including the sustainable fisheries and oceans transition, recognising our dependency on healthy marine ecosystems [1]. All of this has been developed against the backdrop of the ongoing international negotiations for a legally binding instrument on the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction (BBNJ), which also has biodiversity conservation at its core.

The CBD's post-2020 global biodiversity framework (GBF) is the ambitious successor to its 2011-2020 Strategic Plan for Biodiversity. It is built around a theory of change, urging transformative action to stabilise biodiversity loss by 2030, supporting the Sustainable Development Goals (SDGs) and fostering a common purpose of sustainable development through the promotion of ecosystem health, and adoption of an ecosystem approach [5,6].<sup>2</sup> Development of the GBF and its associated monitoring and reporting framework is ongoing, involving a comprehensive preparatory process. During the third and latest meeting of the open-ended working group on the GBF (OEWG3; 23 August-3 September 2021), in-depth discussions of the wording of the goals and targets continued, with some proposals for the introduction of additional targets as well as alternative proposals for reducing the number of targets and for simplifying/clarifying their language.

The First Draft of the GBF considers land-water-marine linkages, recognising the importance of marine biodiversity elements. However, within the GBF's proposed monitoring and reporting framework, important marine aspects need to be further addressed. There is also a need for a strengthened regional dimension to help States and competent regional organisations operationalise the proposed targets and better align them with the SDGs [9,10]. Failure to incorporate important marine-specific indicators and a regional (ecosystem-based) approach

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<sup>&</sup>lt;sup>2</sup> The ecosystem approach, also referred to as ecosystem-based management (EBM), is defined by the CBD as "a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way", which amongst others "recognises that humans, with their cultural diversity, are an integral component of ecosystems" [7,8].

Nomenc	lature	NFP	National focal point
		NOWPAP	P Northwest Pacific Action Plan
BBNJ	Biodiversity Beyond National Jurisdiction	OECM	Other effective area-based conservation measure
BLG	Biodiversity Liaison Group	OSPAR	Convention for the Protection of the Marine Environment
CBD	Convention on Biological Diversity		of the North-East Atlantic
CCAMLR	Commission for the Conservation of Antarctic Marine	PAME	Protection of the Arctic Marine Environment Working
	Living Resources		Group
COBSEA	Coordinating Body on the Seas of East Asia	PERSGA	Regional Organization for the Conservation of the
COP	Conference of the Parties		Environment of the Red Sea & Gulf of Aden Region
CPPS	Permanent Commission for the South Pacific	RFB	Regional Fisheries Body
CSI	Core Set of Indicators	RFMO	Regional Fisheries Management Organisation
EBM	Ecosystem-based management	ROPME	Regional Organization for the Protection of the Marine
GBF	Post-2020 global biodiversity framework		Environment
HELCOM	Baltic Marine Environment Protection Commission	RSCAP	Regional Seas Convention and Action Plan
	(Helsinki Commission)	RSP	Regional Seas Programme
IAS	Invasive alien species	SACEP	South Asia Co-operative Environment Programme
ICZM	Integrated coastal zone management	SDG	Sustainable Development Goal
IPLC	Indigenous peoples and local communities	SOI	Sustainable Ocean Initiative
LME	Large Marine Ecosystem	SPREP	South Pacific Regional Environment Programme
MEA	Multilateral environmental agreement	UNCLOS	United Nations Convention on the Law of the Sea
MoU	Memorandum of Understanding	UNEP	United Nations Environment Programme
MPA	Marine protected area	UNEP-CE	EP UNEP Caribbean Environment Programme
NBSAP	National Biodiversity Strategy and Action Plan	UNEP-MA	AP UNEP Mediterranean Action Plan

can impair the GBF's capacity to deliver on its proposed targets, goals and milestones.

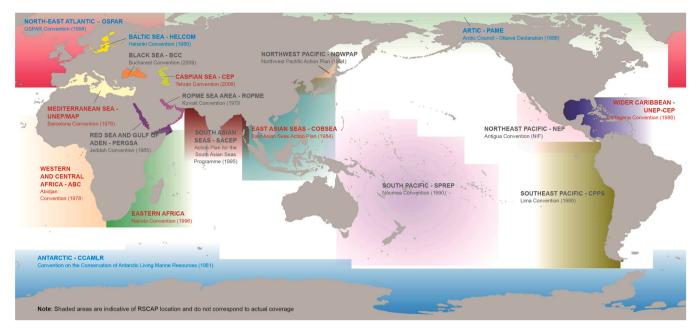
Regional-scale actions and assessments can help implement the GBF's ecosystem approach, as they are the most adapted to the scale of ocean, sea basin processes and their management. An opportunity exists to strengthen the regional level of implementation of the GBF in the marine realm through coordination by UNEP's Regional Seas Programme (RSP) and its component Regional Seas Conventions and Action Plans (RSCAPs) (Fig. 1). Most RSCAPs deliver their obligations through Action Plans and/or Strategies, based on a region's particular environmental challenges, socio-economic and political situation, which are adopted by member governments/Contracting Parties (littoral and upstream States) to establish a comprehensive framework for protecting the marine environment and promote sustainable development of their region. Action Plans are usually underpinned by a legally binding Regional Convention often with associated Protocols (or Annexes) that form legal agreements addressing specific issues.

Since its inception in 1974, the RSP has provided a legal framework to tackle common marine environmental issues at the regional scale while supporting individual States to exercise their duties and obligations under UNCLOS, as well as providing an interface with global multilateral environmental agreements (MEAs e.g., [11-13]). There is also added value in aggregating data at the regional scale, with many aspects of biodiversity (e.g., networks of marine protected areas (MPAs)) benefiting from an ecoregional assessment. Building on its recognised body of work and achievements established over a 45-year period, the RSP can draw on regional governance mechanisms and convening power, extensive expert networks, and a tangible track record of environmental protection. RSCAPs have agreed methods to monitor trends in the state of the environment, as well as measures to reduce threats, including transboundary commitments of ecosystem-based management (EBM). The RSP can therefore help address ocean-related elements of the GBF, namely through the establishment of regional goals, targets and indicators, as well as perform associated monitoring and reporting. However, RSCAPs vary in capacity, and a number of gaps must be addressed to allow them, and the RSP as a whole, to fully deliver regionally relevant targets of the GBF.

This paper summarises the findings of an in-depth analysis of how the work of the RSCAPs is relevant to the GBF and makes recommendations to improve and strengthen compatibility between the two [9, 10]. To this end, we propose a three-tier construct within which individual RSCAPs can place themselves in terms of capacity needs, and offer suggestions and recommendations on how to address these capacity needs, highlighting a potential role for all those involved: CBD, RSP, RSCAPs, other regional organisations and individual States. While many aspects of the GBF are still open for debate, at this stage it is already possible and beneficial to use the key aspects contained in the GBF First Draft to understand how RSCAPs can promote its regional implementation, and in so doing, taking the first steps towards achieving its proposed goals and targets in marine and coastal zones.

## 2. Material and methods

Information was compiled on each of the 18 RSCAPs from available resources (including Strategies, Action Plans, State of the Environment reports) and supplemented with answers to a questionnaire sent to the RSCAP Secretariats in July 2020. Expert advice was sought on the direction, strengths, capacity gaps and needs of the RSP to address the GBF. Views from 20 selected experts within UNEP and other global and regional organisations were collected through semi-structured interviews that took place between August and October 2020. Information from a webinar (1 October 2020) and a virtual workshop (27-28 October 2020) involving representatives of the RSP and invited global organisations served to validate findings. The most recent information from the evolving GBF [5,6] has been updated and integrated in the analysis, as well as the outcomes from discussions on opportunities for regional collaboration in the GBF that took place during the Virtual Intersessional Workshop for the Sustainable Ocean Initiative (SOI) Global Dialogue with Regional Seas Organizations and Regional Fishery Bodies (29 September-1 October 2021).



**Fig. 1.** Global coverage of the RSP and of individual RSCAPs (shaded areas are merely indicative of geographical scope). For each RSCAP: Region and acronym (for full names please see list of acronyms); Corresponding Convention or Action Plan (date entered into force); NIF: Not in force. In orange: UNEP administered RSCAPs. In grey: non-UNEP administered RSCAPs. In blue: independent programmes/partners. On-going efforts are being made to address gaps. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

# 3. Results and discussion

Thirteen RSCAP Secretariats responded to the July 2020 questionnaire. Over the preceding decade, several RSCAPs made significant efforts to harmonise their own targets and indicators with the Aichi Biodiversity Targets; their work also shows significant overlap with many of the current (as of July 2021) GBF 2030 targets (Table 1), including MPAs and other effective area-based conservation measures (OECMs) (GBF Target 3), recovery and conservation of species (GBF Target 4), reduction of marine pollution, including marine litter (GBF Target 7), sustainable harvest, trade and use of wild species (GBF Target 5), measures related to the prevention, control and eradication of invasive alien species (GBF Target 6), and integrated biodiversityinclusive spatial planning, including Integrated Coastal Zone Management and Marine Spatial Planning (GBF Target 1). Some RSCAPs are exploring possibilities related to monitoring and reporting on nature's contributions to people (i.e., ecosystem services; GBF target 11).

Many RSCAPs already have functioning monitoring and reporting mechanisms supported by existing data and information systems, with corresponding indicators (e.g., [14–22]) that can be harmonised with the GBF to support global-scale indicators. UNEP has also established a core set of 22 indicators (CSIs) for the RSP and matched them with relevant SDG 14 targets (Table 2) [23]. Additionally, UNEP is a co-custodian agency for the development and monitoring of SDG indicators 14.1.1, 14.2.1, and 14.5.1 [24], and intends to use its network of RSCAPs to collect necessary information related to those indicators. A subset of UNEP's 22 CSIs could be up-scaled and linked with the GBF goals and targets to strengthen the importance of marine aspects in the current GBF monitoring framework on themes such as integrated coastal zone management and marine spatial planning, marine protected areas, invasive alien species, marine litter, sustainably managed production systems, and coastal and marine ecosystem services.

While the RSP has a clear role to play in implementing and developing regional marine aspects of the GBF, it is also widely recognised that the 18 RSCAPs are not a homogenous group, varying in capacity, knowledge, technology, financial and human resources [13,25–27]. Thus, it is key to address capacity needs and gaps in relation to the GBF to maximise available opportunities and benefits. To assist RSCAPs in maximising their potential, a three-tier construct is proposed (Table 3), within which individual RSCAPs can place themselves in terms of a range of their existing capability and their capacity needs. For each key capacity element, potential capacity-building tools are proposed together with recommendations to key players for mainstreaming regional marine aspects of the GBF. Top tier RSCAPs (high current capacity) have the means to fully implement regionally relevant targets of the GBF. Given sufficient support, middle and lower tier RSCAPs could use as many of the proposed tools (Table 3) to address gaps in their capacity and create the necessary conditions to implement regionally relevant targets of the GBF. Where there are gaps in regional coverage, UNEP and RSCAPs should facilitate efforts to address them and engage proactively in BBNJ discussions in support of their Parties.

Materialisation of this toolbox to implement the GBF implies the participation and commitment of key players at all levels – global, regional and national (i.e., the CBD-GBF, UNEP-RSP, RSCAPs and States).

At the global level, the CBD-GBF should provide: (i) clear guidance on GBF implementation, including a clear mandate and legal basis for the RSP to carry out GBF-related work (e.g., protocols, agreements), (ii) opportunities and training for RSCAP Secretariats to increase capacity, and (iii) proposing/endorsing a human/financial resource mobilisation strategy. UNEP's role, via the RSP, should include: (i) focusing/targeting the work of the RSCAPs in implementing the GBF, taking advantage of the upcoming revision of UNEP Strategic Directions,<sup>3</sup> (ii) promoting global and regional partnerships, including a network of RSCAP Secretariats, such as a biodiversity liaison group, (iii) promoting dedicated sessions at RSP annual meetings to evaluate progress against established objectives, (iv) publicising the work of the RSCAPs through a periodic online publication, (v) promoting communication within UNEP and with the CBD and regional bodies, (vi) promoting a central RSP

<sup>&</sup>lt;sup>3</sup> Since 2004, there have been successive efforts to set common Strategic Directions for the RSP, each lasting for four years, "*to strengthen the RSP at the global level by setting a common vision*" ([28], p.1), which have recognised the value of an action-orientated approach to common integrated priorities based on an ecosystem approach.

## Table 1

GBF 2030 Targets (as of July 2021) and linkages to the mandate of functioning RSCAPs. Shaded cells show areas of RSCAP work that are relevant to the various targets of the GBF. For the full text of the targets see Ref. [5].

RSCAPs																	E)
GBF 2030 targets (topics)	Mediterranean - UNEP-MAP	West Africa - Abidjan Convention	Wider Caribbean - UNEP-CEP	East Africa/Nairobi Convention	East Asia Seas - COBSEA	NW Pacific - NOWPAP	Caspian Sea - Tehran Convention	ROPME - Kuwait Convention	SE Pacific - CPPS	Red Sea & Gulf of Aden - PERSGA	South Pacific - SPREP	Black Sea - Bucharest Convention	South Asian Seas - SACEP	Baltic Sea - HELCOM	NE Atlantic - OSPAR	Antarctic Ocean -CCAMLR	Arctic Ocean - Arctic Council (PAME)
1. Integrated biodiversity- inclusive spatial planning																	
2. Degraded ecosystem restoration 3. Ecosystem conservation																	
(Protected Areas and OECMs) 4. Recovery and conservation of																	
species 5. Sustainable harvest, trade and use of wild species																	
6. Control and eradication of invasive alien species																	
7. Reduce pollution from all sources																	
8. Minimise the impact of climate change on biodiversity																	
9. Benefits of sustainably managed wild species																	
10. Sustainably managed production systems																	
11. Maintain/enhance nature's contributions to people																	
12. Increase benefits from green and blue spaces																	
13. Facilitate access to genetic resources and benefit sharing																	
14. Integrate biodiversity in PPPs <sup>§</sup>																	
15. Dependencies and impacts of businesses on biodiversity																	
16. Promotion of responsible choices																	
17. Potential adverse impacts of biotechnology																	
18. Incentives harmful for biodiversity																	
19. Increase financial resources, capacity-building																	
20. Relevant knowledge in decision making, inc. IPLCs																	
21. Equitable participation in decision-making by IPLCs																	

 $^{\$}$  Policies, plans, projects; IPLCs: Indigenous peoples and local communities.

#### Table 2

Potential synergies between draft GBF 2030 targets and headline indicators (as of July 2021), and UNEP's core set (CSIs) or RSCAP-specific indicators. \*: not yet developed.

Draft GBF 2030 targets (abridged)	Proposed GBF headline indicator	UNEP's Regional Seas CSI no. and category or RSCAP-specific indicator(s)				
1. Integrated biodiversity-inclusive spatial planning	1.0.1 Proportion of land and seas covered by spatial plans that integrate biodiversity*	22	National ICZM in place: National ICZM guidelines and enabling legislation adopted			
3. Ecosystem conservation (Protected Areas and OECMs)	3.0.1 Coverage of Protected Areas and OECMs (by effectiveness)	21	Critical marine habitat under protection: % marine Protected Areas designated			
		15	Loss of critical habitat			
5. Sustainable harvest, trade and use of	5.0.2 Proportion of fish stocks within biologically sustainable levels	5	Fish landings			
wild species		12	Level of exploitation of commercial fisheries			
		20	Fish harvested within safe ecological limits			
		13	Species replacement due to fisheries			
6. Control and eradication of invasive Alien Species (IAS)	6.0.1 Rate of IAS spread	-	Example of specific indicator (NOWPAP): ratio between IAS and native species and their interaction at the level of ecosystem, habitats and species			
7. Reduce pollution from all sources	7.0.2 Plastic debris density	3	Marine litter: quantification & classification of beach litter items			
		18	Incentive to reduce marine litter at source			
	7.0.1 Index of coastal eutrophication potential (excess nitrogen and	1	Total inputs of N and P: Chlorophyll a concentration			
	phosphate loading, exported from national boundaries)	9	Eutrophication status			
	7.0.3 Pesticide use per area of cropland	2	Inputs of marine chemical pollution			
		10	Pollution hot spots			
		17	Wastewater treatment facilities			
		16	National Action Plans to reduce input from land-based sources			
8. Minimise the impact of climate	8.0.1 National greenhouse gas inventories from land use and land	4	Ocean warming			
change on biodiversity	use change	19	Climate change adaptation			
		11	Ocean acidification			
10. Sustainably managed production systems	10.0.1 Proportion of agricultural area under productive and sustainable agriculture	6	Aquaculture			
-	-	7	Aquaculture			
11. Maintain/enhance nature's contributions to people	11.0.1 National environmental-economic accounts of regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people, from ecosystems	-	Ecosystem service indicators are being developed by various RSCAPs, including the Abidjan Convention, the Nairobi Convention, UNEP-CEP and SACEP			
12. Increase benefits from green and blue spaces	12.0.1 Average share of the built-up area of cities that is green/blue space for public use for all	8	Population pressure / Urbanisation			

repository (RSP Clearing House Mechanism), (vii) revitalising the Regional Seas Indicators Working Group,<sup>4</sup> (viii) supporting/promoting independent effectiveness evaluations of the RSCAPs, and (ix) allocating additional dedicated staff at UNEP headquarters.

At the regional level, RSCAPs and other regional organisations such as Regional Fisheries Bodies (RFBs) have a role in pooling/concentrating resources to address shared capacity needs, such as (i) providing legal frameworks and technical support to Parties to implement GBF obligations, (ii) promoting regional reporting, highlighting achievements, gaps and needs in the form of State of the Environment reports, and (iii) proposing resource mobilisation strategies to ensure financial support to the activities at the regional and national levels. Opportunities exist to enhance collaboration with RFBs – the vast majority of RSCAPs communicate and/or collaborate with RFBs, many through signed Memoranda of Understanding (MoUs),<sup>5</sup> in various cases building on an initial platform provided by the CBD's Sustainable Ocean Initiative (SOI) Global Dialogue with Regional Seas Organisations and Regional Fisheries Bodies [30]. Other opportunities exist to strengthen regional alliances and coordinate their implementation of EBM, including incorporation of relevant Large Marine Ecosystem (LME) projects, which are almost entirely located within RSCAP regulatory areas. Additionally, the RSP can help highlight regional efforts to conserve biodiversity by non-Parties to the CBD (such as the United States of America), which, by being Parties to RSCAPs and bound by their corresponding regional commitments, are effectively aligned with the CBD's mandate.

At the national level, States/Parties should ensure national coordination and communication between CBD and RSCAPs focal points, including by developing/implementing a communication strategy between national focal points and ensuring coherent national representation across MEAs. National coordination between ministries is also advantageous and helps to support consensus building and transparency.

#### 4. Conclusions

The post-2020 Global Biodiversity Framework is still evolving. The First Draft of the GBF implicitly recognises the importance of marine biodiversity elements and their contribution to its 2030 targets, but the proposed monitoring and reporting framework risks missing out on important marine-specific indicators, and lacks a significant regional dimension. UNEP's Regional Seas Programme and its Regional Seas Conventions and Action Plans are in a unique position to support their Parties/States to achieve ocean-related elements of the GBF. Since its inception, the Regional Seas Programme has championed ecosystembased management, providing a regional perspective and a platform to review submissions to the CBD. This has enabled significant collective

<sup>&</sup>lt;sup>4</sup> In 2014, a study commissioned by UNEP collated information on ecosystembased indicators and indices being used by regional entities, seeking to identify common elements, which proposed an "*illustrative first draft of a RSP 'Coordinated Indicator' set*" [29]. In 2015 the RSP established a Working Group on Regional Seas Indicators, which agreed on a coordinated set of 22 indicators aligned with SDG14 indicators [23]. The Working Group on Regional Seas Indicators may now be reconvened to consider the GBF.

<sup>&</sup>lt;sup>5</sup> E.g., MoUs between OSPAR and North East Atlantic Fisheries Commission (NEAFC), UNEP/MAP and the Bucharest Convention (Black Sea) with the General Fisheries Commission for the Mediterranean (GFCM), Nairobi Convention and the South West Indian Ocean Fisheries Commission (SWIOFC), ROPME and FAO on behalf of the Regional Commission for Fisheries (RECOFI), Nairobi Convention and the South West Indian Ocean Fisheries Commission (SWIOFC), CPPS and the Inter-American Tropical Tuna Commission (IATTC) and the South Pacific Regional Fisheries Management Organization (SPRFMO), SPREP and the Western and Central Pacific Fisheries Commission (WCPCF) [9].

### Table 3

Thresholds to assess the capability of individual RSCAPs in relation to the implementation of the GBF, envisaged corresponding tools for capacity building, and recommendations to key players for mainstreaming regional marine aspects of the GBF.

Key capacity elements	Current capacity tiers			Envisaged capacity-building tools	Recommendations			
	High (Tier 1)	Medium (Tier 2)	Low (Tier 3)					
Legally binding mandate	In place	Relevant elements exist	Not in place	Legal support: e.g., via regional reporting requirement proposed by UNEP and adopted by CBD	UNEP propose a regional mechanism g., regional reporting guidelines ensuring harmonisation and links to national biodiversity strategies and action plans (NBSAPs)) under the G for consideration by CBD COP, or ha existing regional frameworks validat by CBD COP			
Human∕ financial resources	Available and sufficient	Some but insufficient	Unavailable	Dedicated staff and financial resources in RSCAP Secretariat via a programmatic package with specific GBF elements, designed jointly by CBD and UNEP, that donors can be invited and encouraged to support	CBD and UNEP seek donor funding to support a package of capacity buildin support/projects including, where needed, dedicated staff in RSCAP Secretariats to assist with implementation of the GBF (data collection, reporting, coordination, liaison with Parties) and develop a resource mobilisation strategy for confirmation by CBD COP and respective RSCAP COPs			
Strategic documents aligned with GBF	In place and explicitly related to the GBF or to regionally relevant Aichi Targets	Partly overlap with GBF and/or can be aligned	Not in place or outdated	Revision of strategic documents assisted by UNEP through the RSP Strategic Directions (inc. a deadline for revision of strategic documents compatible with the timeline of the GBF). Mutual support by knowledge sharing within the RSP, through the RSP annual meeting	Individual RSCAPs review their strategic plans (and capacity building needs) to position themselves to implement the GBF, and UNEP ensure better alignment with GBF (through streamlining GBF with the RSCAPs Strategic Directions (2021–2024) and, or facilitating mutual support with the RSP) UNEP encourage the RSCAPs to translate the GBF into existing regiona biodiversity strategies and, where needed, into Regional Biodiversity Strategies and Action Plans, reinforcin the role of RSCAPs. This should be supported by efforts to achieve greater socio-economic relevance, better data management and access to additional funding streams, as well as attending t the 'human needs' dimension of the GB (e.g., sustainable production and			
ndicators	Defined and regularly monitored	Defined; some are reported sporadically	Not defined or not agreed by parties	Technical guidance for headline indicators, RSCAPs determine an agreed subset of the UNEP CSIs to provide the most effective and efficient starting point for regional contributions to the GBF; UNEP provides support to all RSCAPs by re-engaging the UNEP Indicators Working Group to discuss indicators related to the GBF	responsible consumption) RSCAPs determine an agreed subset (either individually or collectively) of UNEP's CSI, that could provide the mo effective and efficient starting point fi regional contributions to the GBF, and UNEP provides support to all RSCAPs I re-engaging the UNEP Indicators Working Group to discuss indicators related to the GBF			
Fechnical capacity and data management resources	In place and sufficient to fully address range of GBF topics selected by Parties	Some capacity but insufficient to address GBF topics selected by Parties	Not in place	Training on harmonised data collection: where needed, RSCAPs supplement their databases to allow access to and use of global datasets and open data portals and may consider regional data capacity development programmes	RSCAPs supplement their databases, where appropriate, to allow access to, and use of global datasets and open dat portals, and if needed consider region. data capacity development programme			
Monitoring and reporting	Contributes to Quality Status Reporting	Contributes to State of the Environment Reporting	Not in place	Training on harmonised monitoring and reporting: UNEP continue to foster/encourage knowledge transfer between RSCAPs (e.g., sharing guidelines, methodologies and data protocols, development of MoUs with relevant RFBs and RFMOs), including in the annual meeting of the RSP and/ or CBD SOI Global Dialogues	UNEP continue to foster and encourag knowledge transfer between RSCAPs E sharing guidelines, methodologies, dat protocols, and development of MoUs with relevant RFBs and RFMOs. This could be furthered in RSP annual meetings and/or CBD SOI Global Dialogues, to bring together different sectoral groups, formalise practical arrangements, secure multiple reporting benefits and inform structured capacity building efforts as appropriate			

(continued on next page)

appropriate

#### Table 3 (continued)

Key capacity elements	Current capacity tiers			Envisaged capacity-building tools	Recommendations		
	High (Tier 1)	Medium (Tier 2)	Low (Tier 3)				
National Focal Point (NFP) collaboration: NFPs for the CBD and RSCAPs	Work in close contact	Are designated and are sporadically in contact	Have not been designated or not in contact	<b>Communication strategy for</b> <b>national focal point</b> : support from UNEP to map the CBD NFP and the RSCAPs NFP could be an important first exercise	Support from UNEP in establishing a directory of NFPs of the CBD and RSCAPs to verify the level of coordination between both processes, to establish a contact directory and a mechanism for regular information exchange		
Regional collaboration	Strong collaboration inc. through MoUs	Some/ad hoc collaboration	Not in place	<b>Collaboration with other regional</b> <b>governing bodies:</b> creation of a Biodiversity Liaison Group (BLG) among RSCAPs to streamline work done under various MEAs. CBD could support the BLG via its SOI.	The CBD, UNEP and RSCAPs should promote the model of BLG of biodiversity-related conventions (https ://www.cbd.int/blg/) with a view to being replicated both between the RSCAPs and at the regional scale to strengthen sectoral cooperation (e.g., between RSCAPs, RFBs and regional economic organisations) acting as a biodiversity contact group for specific ecosystems (e.g., mangroves) and selected GBF targets (e.g., ICZM)		
Where there are gaps in regional coverage					UNEP and RSCAPs facilitate efforts to address gaps in regional coverage and engage proactively in BBNJ discussions in support of their Parties		

efforts and achievements at the regional level concerning transboundary pressures on biodiversity, in particular from land-based pollution sources. These strengths can be built upon by the *ad hoc* technical expert group established by CBD to advise on operationalization of the GBF monitoring framework.

Regional marine indicators can be harmonised with the GBF to support global-scale indicators on key themes, such as integrated coastal zone management and marine spatial planning, marine protected areas, invasive alien species, marine litter, and ecosystem services. As highlighted in this article, there are many opportunities through which CBD, UNEP and RSCAPs can strengthen collaboration to support and improve national and regional networking, as well as the implementation and reporting on marine aspects of the GBF, thus more effectively supporting a sustainable oceans transition towards healthy marine ecosystems.

#### Author statement

All authors have contributed equally to the research, writing and revision of the paper.

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