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Strengthening the Legal and Institutional Framework of the Southeast Pacific: Focus on the BBNJ Package Elements

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Abstract

The role of the regional level in addressing and strengthening the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction (BBNJ) should not be undermined. As a complementary approach to the ongoing negotiations for an implementing agreement on the conservation and sustainable use of BBNJ under the United Nations Convention on the Law of the Sea, it can provide useful lessons learnt and best practices that can inform the global negotiation process. Focusing on the highly productive Southeast Pacific region, this article highlights the institutional and legal challenges faced by this region in the adoption and implementation of the four BBNJ elements and provides options on how to strengthen the legal and institutional framework of the Southeast Pacific to better address the conservation and sustainable use of BBNJ.

* This article is based on some of the work by Carole Durussel (PhD thesis 'Challenges in the Conservation of High Seas Biodiversity in the Southeast Pacific', Australian National Centre for Ocean Resources and Security (ANCORS)/University of Wollongong, 2015, http://ro.uow.edu.au/theses/4415). The author therefore would like to acknowledge the University of Wollongong, which provided financial support throughout her PhD studies.

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Keywords

areas beyond national jurisdiction (ABNJ) – LOSC implementing agreement – BBNJ package elements – Southeast Pacific – marine biodiversity

Introduction

With the entry into force of the 1992 Convention on Biological Diversity (CBD), the conservation and sustainable use of biodiversity became a legal duty under international law.[1] Identified as the 'common concern of humankind',[2] the conservation of biodiversity—which encompasses the variety and variability of life at the genetic, species, and ecosystem levels—is a global responsibility of all States.[3] To achieve its conservation, States have to sustainably use biodiversity's tangible components, namely biological resources and ecosystems.[4] The legal obligations under the United Nations Convention on the Law of the Sea (LOSC) to conserve high seas living resources, to protect the marine environment and to safeguard it from harm resulting from human activities, and to cooperate to these ends provide—together with the CBD general framework for the conservation of biodiversity[5]—the legal basis for the conservation of marine biodiversity in areas beyond national jurisdiction (ABNJ).[6]

1 Convention on Biological Diversity (Rio de Janeiro, 5 June 1992, in force 29 December 1993) 1760 *UNTS* ('CBD').

2 *Ibid.*; Preamble.

3 *Ibid.*, Art. 2; A Kiss and D Shelton, *Guide to International Environmental Law* (Martinus Nijhoff, Leiden, 2007), at p. 14.

4 L Glowka, F Burhenne-Guilmin and H Synge, 'A Guide to the Convention on Biological Diversity': IUCN Report (IUCN, Gland, 1994) at p. 16.

5 Although the CBD has no jurisdictional mandate for ABNJ—only in the case of processes and activities under the jurisdiction of the Contracting parties—(Art. 4), it provides broad obligations with regard to cooperating to conserve and sustainably use marine biodiversity in ABNJ (Arts. 3, 5, 6, 7, 8).

6 United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982, in force 16 November 1994) 1833 *UNTS* ('LOSC'), Arts. 117, 118, 119, 192, 194, and 197. The duty to cooperate and the protection of the marine environment are both part of customary international law. See: J M Van Dyke, 'Giving Teeth to the Environmental Obligations in the LOSC' in A G Oude Elferink and D R Rothwell (eds), *Oceans Management in the 21st Century: Institutional Frameworks and Responses* (Martinus Nijhoff, Leiden, 2004) 167–186; United Nations General Assembly, *Declaration on Principles of International Law Concerning Friendly Relations and Cooperation Among States in Accordance with the Charter of the United Nations*, GA Res 25/2625, 25th session, Agenda Item 85, A/RES/25/2625 (24 October 1970).

This international law framework has, however, many loopholes, accompanied by institutional competency and regulatory gaps, and therefore does not comprehensively and adequately regulate all of the important aspects of the conservation and sustainable use of marine biodiversity in ABNJ (BBNJ). The international process under the United Nations General Assembly (UNGA) provides a forum to establish an adequate, comprehensive, and effective framework for the conservation and sustainable use of BBNJ, focusing on four main elements, namely: area-based management tools (ABMTs); environmental impact assessments (EIAs), marine genetic resources (MGRs), and capacity building and the transfer of marine technology.[7]

The regional level plays a key role in addressing and strengthening the conservation and sustainable use of marine biodiversity in ABNJ. It can catalyse and progress this issue while an international agreement is being developed, negotiated, and agreed on. Notably, working at the regional level has been shown to drive better legal commitment and policy convergence between regional States, thus leading to large-scale changes being more efficiently tackled in the longer term.[8] Cross-institutional cooperation can also be more efficiently increased at the regional level, contributing to a better coherence between biodiversity conservation and fisheries management.[9] As a complementary approach to the progress at the UN level, a focus on the regional level can therefore be useful to assess the institutional and legal challenges in the adoption and implementation of the four elements of the BBNJ package and identify opportunities that can help strengthen the regional framework, and potentially set a precedent for the global level.

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7 United Nations General Assembly, *Development of an International Legally Binding Instrument under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, Resolution adopted by the General Assembly on 19 June 2015,* GA Res 69/292, 69th session, Agenda Item 74 (a), A/Res/69/292 (6 July 2015). See also: http://www.un.org/depts/los/biodiversityworkinggroup/biodiversityworkinggroup.htm; http://www.un.org/depts/los/biodiversity/prepcom.htm (accessed: 27 November 2016).

8 B A Simmons cited in M L McConnell, 'Observations on Compliance and Enforcement and Regional Fisheries Institutions: Overcoming the Limitations of the Law of the Seas' in D A Russell and D L VanderZwaag (eds), *Recasting Transboundary Fisheries Management Arrangements in Light of Sustainability Principles: Canadian and International Perspectives* (Martinus Nijhoff, Leiden, 2010) 71–98, at p. 79; D E Johnson, C Martinez, O Vestergaard, D Duval-Diop, M Romani, M C Mcconnell, Beatty, R Jumeau and K Brown, 'Building the Regional Perspective: Platforms for Success' (2014) 24(Suppl. 2) *Aquatic Conservation: Marine and Freshwater Ecosystems* 75–93.

9 Johnson (n 8).

The Southeast Pacific, an important region of high biological, ecological, and economic importance, is not exempt from the challenges of conserving and managing BBNJ in a coherent and comprehensive manner. For instance, a recent study by Durussel examined the adequacy of the regional legal and institutional framework of the Southeast Pacific to address the conservation of high seas biodiversity.[10] Evaluating the cooperation and institutional interplay between the two regional fisheries management organisations (RFMOs) and the regional seas organisation of the Southeast Pacific, as well as the incorporation of global legal provisions and measures pertinent to high seas biodiversity conservation into RFMOs' frameworks, this study concluded that there are opportunities in the Southeast Pacific to strengthen the conservation and sustainable use of BBNJ, but that it still needs to overcome a range of institutional, cooperative, and management challenges.

Based on this study, this article considers the extent to which the current legal and institutional framework of the Southeast Pacific addresses the four BBNJ package elements. Highlighting the challenges and opportunities of this region, this article provides options on how to strengthen the legal and institutional framework of the Southeast Pacific to better address the conservation and sustainable use of BBNJ through the lens of the four package elements.[11]

Biological Hotspot: The Ecological and Socio-economic Importance of the Southeast Pacific

Covering an area of 30.02 million km^2 between northern Colombia and southern Chile, the Southeast Pacific is the second most productive fisheries region in the world (see Fig. 1).

10 C C Durussel, 'Challenges in the Conservation of High Seas Biodiversity in the Southeast Pacific' (Doctor of Philosophy Thesis, University of Wollongong, 2015), http://ro.uow.edu.au/theses/4415/.

11 In this paper, the Southeast Pacific region, as defined by the FAO Major Fishing Area 87, is considered as a region in the BBNJ context. As described in this study, the interests of the member States of the Comisión Permanente del Pacífico Sur (CPPS) in their adjacent ABNJ and their willingness through the 2000 Galápagos Agreement and 2012 Galápagos Commitment to manage and conserve natural resources within this region makes it an important region that needs to be considered as a whole in the BBNJ context.

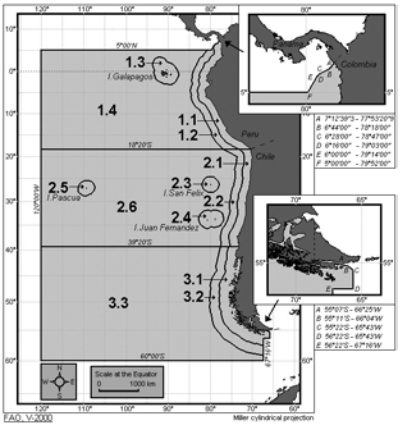

FIGURE 1
FAO major fishing area no. 87—Southeast Pacific region[12]

The Humboldt Current is one of the main oceanographic features of the Southeast Pacific, transporting surface Sub-Antarctic Water towards the Equator. This cold and nutrient-rich current, which underpins one of the most productive and largest upwelling ecosystems in the world, is responsible for the high primary productivity of the Southeast Pacific.[13] In the north of the Southeast Pacific region, around Colombia and Ecuador, the tropical climate with warmer waters influenced by surface equatorial currents have lower primary productivity. In contrast, the south of the Southeast Pacific is characterised by cold waters with high primary productivity that are influenced, off Chile, by freshwater inflow from coastal fjords. The variety of different marine ecosystems in the Southeast Pacific, such as submarine canyons, the Peru-Chile trench, active and passive vents and seeps, seamounts, ridges, abyssal plains, and oceanic islands, allow for a diversity of ecologically important habitats and deep-sea environments, making it an important biological

12 Copyright FAO 1990–2017. FAO Major Fishing Area. Pacific, Southeast (Major Fishing Area 87). CWP Data Collection. In: *FAO Fisheries and Aquaculture Department* [online]. Rome. Updated 1 October 2004. Available at http://www.fao.org/fishery/area/Area87/en, accessed 22 June 2016.

13 See, e.g.: C E Morales and C B Lange, 'Oceanographic Studies in the Humboldt Current System off Chile: An Introduction' (2004) 51 *Deep-Sea Research II* 2345–2348; F P Chavez, A Bertrand, R Guevara-Carrasco, P Soler and J Csirke, 'The Northern Humboldt Current System: Brief History, Present Status and a View Towards the Future' (2008) 79 *Progress in Oceanography* 95–105; V Montecino and C B Lange, 'The Humboldt Current System: Ecosystem Components and Processes, Fisheries, and Sediment Studies' (2009) 83 *Progress in Oceanography* 65–79.

hotspot. Miloslavich *et al.* (2011) reported around 6,714 identified marine species for the coastal waters off Costa Rica, Panama, Colombia, and Ecuador, and around 10,201 off the coasts of Peru and Chile.[14]

Fisheries provide one of the most important commercial activities and economic revenues for the region, with Peru (60%), Chile (26%), and Ecuador (7%) accounting for approximately 93% of the fishing occurring in the Southeast Pacific.[15] Other important economic activities in this region include land mining, agriculture, and aquaculture.[16] In 2013, the Southeast Pacific region ranked third in global fisheries production with 8.9 million tonnes, representing 11% of worldwide catches.[17] The El Niño-Southern Oscillation (ENSO) phenomenon is responsible for high environmental variability that greatly affects yearly fish catches, thereby having important socio-economic consequences for the region. The 2016 FAO State of the World Fisheries and Aquaculture report confirms the declining fish catches trend since 1993, highlighting that 41% of the region's fish stocks are fished at unsustainable levels (Fig. 2).[18]

Within the Southeast Pacific, anchovy, jumbo flying squid, Araucanian herring and Chilean jack mackerel represent about 76% of the total fish catch in the region, with the jumbo flying squid and the Chilean jack mackerel accounting for over 60% of the total fish catch in oceanic areas (see Fig. 3).[19]

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14 P Miloslavich, E Klein, J M Díaz, C E Hernández, G Bigatti, L Campos, F Artigas, J Castillo, P E Penchaszadeh, P E Neill, A Carranza, M V Retana, J M Días de Astarloa, M Lewis, P Yorio, M L Piriz, D Rodríguez, Y Yonestigue-Valentin, L Gamboa and A Martín, 'Marine Biodiversity in the Atlantic and Pacific Coasts of South America: Knowledge and Gaps' (2011) 6(1) *Plos One* 1–43, http://dx.doi.org/10.1371/journal.pone.0014631.

15 Updated from Durussel (n 10) at p. 44. Analyses undertaken using 2015 FAO data. Data obtained from FAO Fisheries and Aquaculture Department, Statistics and Information Service FishStatJ: Universal software for fishery statistical time series. Copyright 2017. FishstatJ Version 3.02 was used to analyse the data. This version includes the FAO Capture Production data 1950–2015 released in March 2017. Source: http://www.fao.org/fishery/statistics/software/fishstatj/en (accessed: 3 April 2017).

16 M Caldwell, T Churcher, Hoffmann, S Palumbi and J Teisch, 'Pacific Ocean Synthesis: Scientific Literature Review of Coastal and Ocean Threats, Impacts, and Solutions' (2008), *Center for Ocean Solutions, Stanford University,* at p. 100.

17 FAO Fisheries and Aquaculture Department, 'The State of the World Fisheries and Aquaculture 2016' (Report, FAO, Rome, 2016), at p. 38.

18 *Ibid.;* at p. 42.

19 Updated from Durussel (n 10) at p. 42. Analyses undertaken using 2015 FAO data. Data obtained from FAO Fisheries and Aquaculture Department, Statistics and Information Service FishStatJ: Universal software for fishery statistical time series. Copyright 2017. FishstatJ Version 3.02 was used to analyse the data. This version includes the FAO Capture Production data 1950–2015 released in March 2017. Source: http://www.fao.org/fishery/statistics/software/fishstatj/en (accessed: 3 April 2017).

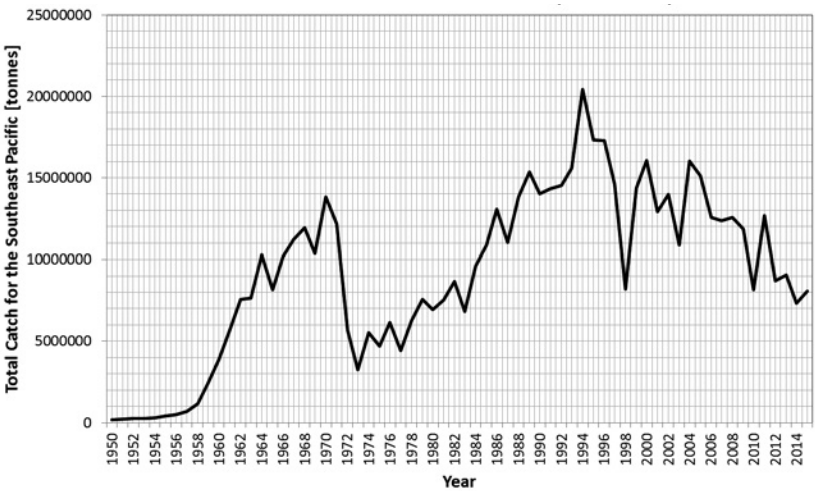

FIGURE 2 *Total catch trend for the Southeast Pacific region (1950–2015)*[20]

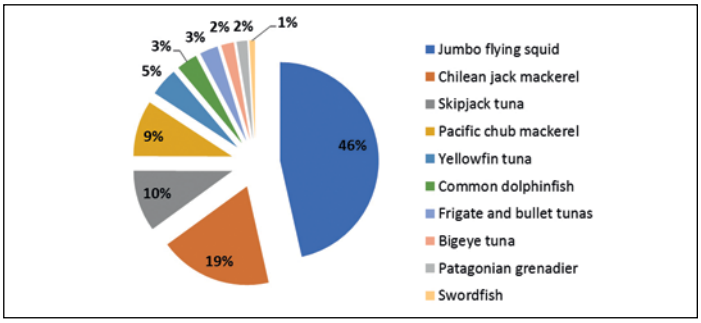

FIGURE 3 *Top ten oceanic species caught in the Southeast Pacific in 2015*[21]

20 Updated from *ibid.*, at p. 35. Data obtained from FAO Fisheries and Aquaculture Department, Statistics and Information Service FishStatJ: Universal software for fishery statistical time series. Copyright 2017. FishstatJ Version 3.02 was used to analyse the data. This version includes the FAO Capture Production data 1950–2015 released in March 2017. Source: http://www.fao.org/fishery/statistics/software/fishstatj/en (accessed: 3 April 2017).

21 Updated from *ibid.*, at p. 42. Data obtained from FAO Fisheries and Aquaculture Department, Statistics and Information Service FishStatJ: Universal software for fishery statistical time series. Copyright 2017. FishstatJ Version 3.02 was used to analyse the data. This version includes the FAO Capture Production data 1950–2015 released in March 2017. Source: http://www.fao.org/fishery/statistics/software/fishstatj/en (accessed: 3 April 2017). The percentage is based on the ten most caught species only and not on the whole catch.

A 2009 study by the Center for Ocean Solutions at Stanford University identified threats from land-based chemicals and nutrient pollution, land-based sedimentation, commercial overfishing, wastewater from aquaculture, oil spills, and antifouling chemicals, coastal development, land reclamation, and the increase of climate change-induced sea surface temperature as having the most severe impacts across the Southeast Pacific region.[22] Moderate impacts come notably from solid waste disposal, thermal pollution, artisanal/recreational/subsistence fishing, invasive species, bycatch, waste discharge, and offshore oil exploitation and mining.[23]

Institutional Framework for BBNJ in the Southeast Pacific

The regional institutional framework of the Southeast Pacific relevant to the conservation of BBNJ is composed of: the Inter-American Tropical Tuna Commission (IATTC), the South Pacific Regional Fisheries Management Organisation (SPRFMO), and the Comisión Permanente del Pacífico Sur (CPPS). Together, their geographical scope covers nearly the entire Southeast Pacific region, with only the northern and southern-most tips of the region lacking full institutional coverage.

Inter-American Tropical Tuna Commission

The IATTC is the first established tuna RFMO and is mandated with the long-term conservation and sustainable use of tuna and tuna-like species—commonly referred to as highly migratory fish species[24]—as well as other bycatch fish species within its Convention Area.[25] Consistent with Article 64

22 Caldwell (n 16), at pp. 101–102.

23 *Ibid.*, at p. 102.

24 Tuna and tuna-like species are highly migratory species. However, it is important to note that not all highly migratory species identified under LOSC Annex I are tuna or tuna-like species.

25 Convention for the Strengthening of the Inter-American Tropical Tuna Commission established by the 1949 Convention between the United States of America and the Republic of Costa Rica (Washington, DC, 27 June 2003, in force 27 August 2010) ('IATTC Antigua Convention'), Arts. I.1, II, and III. Available at http://www.iattc.org/PDFFiles2/Antigua_Convention_Jun_2003.pdf. The IATTC was established in 1949 outside of the UN Food and Agriculture Organization (FAO) framework by the Convention for the Establishment of an Inter-American Tropical Tuna Commission (Washington, DC, 31 May 1949, in force

of the LOSC and Article 7 of the UN Fish Stocks Agreement[26], the geographical scope of the IATTC covers both the national jurisdiction of its member States and the high seas areas of the Eastern Pacific Ocean, with the purpose of ensuring the compatibility of conservation and management measures between the two legally defined marine areas.[27] To date, the IATTC comprises 21 member States and four cooperating non-member States; its Commission can adopt consensus-based legally binding measures for its member States, including on management, compliance, and enforcement.[28]

South Pacific Regional Fisheries Management Organisation

The SPRFMO was established in 2009 outside of the FAO framework to ensure the long-term conservation and sustainable use of non-highly migratory fish species in ABNJ of the South Pacific.[29] It has 15 member States and two cooperating non-Contracting Parties.[30] The SPRFMO Commission can adopt legally binding conservation and management, monitoring, and compliance measures by consensus or, in cases when all efforts have been exhausted, by a majority for questions of procedure and by a three-fourths majority for questions of substance.[31]

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3 March 1950) http://www.iattc.org/PDFFiles/IATTC_convention_1949.pdf). It was updated in 2003 by the IATTC Antigua Convention.

26 United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (New York, 8 September 1995, in force 11 December 2001) 2167 *UNTS* ('*UNFSA*').

27 IATTC Antigua Convention, Art. V.

28 The members of the IATTC are: Belize, Canada, China, Colombia, Costa Rica, Ecuador, El Salvador, European Union, France, Guatemala, Japan, Kiribati, Republic of Korea, Mexico, Nicaragua, Panama, Peru, Chinese Taipei, United States, Vanuatu and Venezuela. The cooperating non-members of the IATTC are: Bolivia, Honduras, Indonesia and Liberia. Source: https://www.iattc.org/HomeENG.htm (accessed: 5 April 2017).

29 Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (Auckland, 14 November 2009, corrected in 2010, in force 24 August 2012) *ATS* 28 ('*SPRFMO Convention*') Arts. 1.1f and 2.

30 The members of the SPRFMO are: Australia, Chile, China, Cook Islands, Cuba, Ecuador, European Union, Kingdom of Denmark in respect of Faroe Islands, Republic of Korea, New Zealand, Peru, Russian Federation, Chinese Taipei, the United States of America, and Vanuatu. The two cooperating non-Contracting Parties to the SPRFMO are: Liberia and Panama. Source: http://www.sprfmo.int/ (accessed: 5 April 2017).

31 SPRFMO Convention, Arts. 8 and 16.

Comisión Permanente del Pacífico Sur

The CPPS (in English: Permanent Commission for the South Pacific) is a strategic regional alliance with the advisory mandate of consolidating the role of its member States in the Southeast Pacific and fostering their collaboration in marine policy coordination, marine resource exploitation and conservation, marine environmental protection and regional scientific research.[32] The Commission was established by Chile, Ecuador, and Peru in 1952, with Colombia joining the Commission in 1979.[33] The CPPS is also the Executive Secretariat of the Southeast Pacific regional seas programme, to which Panama is also a party.[34] In this role, the CPPS promotes mechanisms for political coordination between these five States on topics such as the prevention, reduction, and control of marine pollution, and the development and management of marine and coastal protected areas. The CPPS Assembly has the task of developing policies from decisions adopted by consensus.[35] The CPPS' jurisdictional competence predominantly lies within the national jurisdiction of its four member States. Under the 1981 Lima Convention, the CPPS' jurisdiction can extend to adjacent high seas areas that could be affected by marine and coastal pollution.[36]

32 Estatuto sobre Competencias y Estructura de la Comisión Permanente del Pacífico Sur [Statute on Competency and Structure of the Permanent Commission for the South Pacific] (Guayaquil, in force 1 January 2013) ('*CPPS Estatuto*') Arts. 1 and 4f. Available at http://cpps-int.org/cpps-docs/gen-info/estatuto-2012.pdf.

33 Convenio sobre Organización de la Comisión Permanente de la Conferencia sobre Explotación y Conservación de las Riquezas Marítimas del Pacífico Sur [Convention on the Organisation of the Permanent Commission of the Conference on Exploitation and Conservation of Marine Resources of the South Pacific] (Santiago de Chile, 18 August 1952, in force 6 May 1955). Available at http://cpps.dyndns.info/consulta/documentos/legal/convenios/conf_explot_riquezas_pacif_sur_1952.pdf.

34 Convenio para la Protección del Medio Marino y la Zona Costera del Pacífico Sudeste [Convention for the Protection of the Marine Environment and Coastal Area of the Southeast Pacific] (Lima, 12 November 1981, in force 19 May 1986) ('*CPPS 1981 Lima Convention*'). Available at http://cpps.dyndns.info/consulta/documentos/legal/convenios/CONVENIO%20PARA%20LA%20PROTECCION%20DEL%20MEDIO%20AMBIENTE%20Y%20ZONA%20COSTERA%20DEL%20PS/TEXTO%20DEL%20CONVENIO.pdf.

35 *CPPS Estatuto* Arts. 9 and 18.

36 *CPPS 1981 Lima Convention* Art. 1.

Relevance of the Three Regional Organisations to BBNJ Conservation and Sustainable Use in the Southeast Pacific

As summarised in Table 1, the three organisations are complementary in terms of their mandates and geographical scope. Both the SPRFMO and the IATTC have a jurisdictional and regulatory mandate to manage fish resources in the Southeast Pacific. In contrast, the CPPS has no formal regulatory mandate in ABNJ. Although Article 4 of the CPPS Statute gives it the competency to promote the conservation of marine living resources beyond national jurisdiction, this provision does not provide a clear and formal jurisdictional extent of this competency.[37] A formal jurisdictional competency for the conservation and management of living resources of the high seas in the Southeast Pacific was attempted through the 2000 Galápagos Agreement and its 2003 Protocol.[38] However, neither of these legal instruments obtained the number of ratifications necessary to bring them into force. Therefore, the CPPS' role in ABNJ remains in practice very limited and its regulatory impact outside of its States' national jurisdictions is low. The CPPS' interest in ABNJ was, however, re-emphasised in the 2012 Galápagos Commitment, in which its member States committed to promote coordinated action in the Southeast Pacific 'regarding their interests in living and non-living resources in ABNJ'.[39] Furthermore, in 2015 the CPPS General Assembly approved the establishment of a working group on integrated regional ocean policy to identify the common interests of the CPPS member States and formulate a regional vision on marine policy.[40]

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37 *CPPS Estatuto,* Art. 4.

38 Acuerdo Marco para la Conservación de los Recursos Vivos Marinos en la Alta Mar del Pacífico Sudeste ('Acuerdo de Galápagos') [Framework Agreement for the Conservation of Living Marine Resources on the High Seas of the South Pacific] (Santiago de Chile, 14 August 2000, not in force) ('*CPPS Galápagos Agreement*'); available at: http://cpps.dyndns.info/consulta/documentos/legal/convenios/ACUERDO%20DE%20GALAPAGOS/TEXTO%20DEL%20ACUERDO.pdf; Protocolo Modificatorio del Acuerdo Marco para la Conservación de los Recursos Vivos Marinos en la Alta Mar del Pacífico Sudeste [Modificatory Protocol to the Framework Agreement for the Conservation of Living Marine Resources on the High Seas of the South Pacific] (Lima, 27 November 2003, not in force) ('*CPPS Protocol to the Galápagos Agreement*'); available at: http://cpps.dyndns.info/consulta/documentos/legal/protocolos/prot_modif_conserv_recur_marinos_2003.pdf.

39 CPPS, Compromiso de Galápagos para el Siglo XXI, VII Reunión de Ministros de Relaciones Exteriores de la Comisión Permanente del Pacífico Sur (Galápagos, 17 de agosto de 2012) ('*CPPS Compromiso de Galápagos*'), Art. VIII.20; http://cpps.dyndns.info/cpps-docs-web/planaccion/docs2016/Mayo/compromiso-galapagos-siglo21.pdf.

40 CPPS, XII Asamblea Ordinaria de la Comisión Permanente del Pacífico Sur, 'Creación de un Grupo de Trabajo sobre Política Regional Oceánica Integrada (GT-PROI)', Resolución CPPS/AO/XII/N° 3/2015, 25 de noviembre de 2015.

TABLE 1 *Summary of institutional commonalities and differences*

	IATTC	SPRFMO	CPPS
Geographical scope	Eastern Pacific	South Pacific	Southeast Pacific
Jurisdictional Mandate within National Jurisdiction	National jurisdiction of IATTC member States	Not applicable but Article 4 on measure compatibility applies	National jurisdiction of CPPS member States (& Panama for the 1981 Lima Convention)
Jurisdictional Mandate in ABNJ[a]	High seas of the Eastern Pacific Ocean	High seas of the South Pacific Ocean	No formal regulatory mandate in ABNJ, but mandate for adjacent high seas areas affected by marine and coastal pollution under the 1981 Lima Convention
Management Mandate	Tuna and tuna-like species	Non-highly migratory fish species	Strategic collaborative regional alliance in: • marine policy coordination, • marine resource exploitation and conservation, • marine environmental protection, and • regional scientific research
Member States	21 member States (& 4 cooperating non-members)	15 member States (& 2 cooperating non-members)	4 member States (& Panama for the 1981 Lima Convention)
Establishment	1949	2009	1952
Main Relevant treaties	IATTC Antigua Convention (2003)	SPRFMO Convention (2009)	• 2013 CPPS Statute • 2012 Galápagos Commitment • 1981 Lima Convention • 1989 MPA Protocol

a The geographical scope of the two RFMOs with a mandate to manage fisheries in ABNJ only cover the high seas areas, as the deep seabed, known legally as 'The Area', is under the management of the International Seabed Authority (ISA).

Package Elements in the Southeast Pacific: Challenges and Opportunities for BBNJ Conservation and Sustainable Use

Element 1: Area-based Management, Including Marine Protected Areas

ABMTs are generally understood to comprise 'spatial and non-spatial tools that afford a specified area higher protection than its surroundings due to more stringent regulation of one or more or all human activities' and they have been highlighted as important management tools for the conservation and sustainable use of marine biodiversity.[41] According to the UNGA, these tools can be used with varying degrees of protection levels to achieve one or more management objectives, such as: a) the preservation of important ecological or geomorphological processes; b) the conservation and management of species; c) the protection of beautiful seascapes, cultural, archaeological or historic sites; d) recreation and public enjoyment; e) environmental monitoring and assessment; and f) scientific research.[42]

International Legal Framework for ABMTs

There is currently no global legal framework providing comprehensive measures for the establishment, implementation, monitoring, and enforcement of ABMTs for the conservation and sustainable use of marine biodiversity on the high seas. Rather, they are scattered throughout the legal framework of sectoral organisations with different management competences, such as Particularly Sensitive Sea Areas (PSSAs) and MARPOL's Special Areas under the auspices of the International Maritime Organization (IMO),[43] sanctuaries and other ABMTs with regard to cetaceans under the auspices of the

41 T Greiber, K Gjerde, E Druel, D Currie and D Diz, 'An International Instrument on Conservation and Sustainable Use of Biodiversity in Marine Areas beyond National Jurisdiction: Exploring Different Elements to Consider. Paper V: Understanding Area-based Management Tools and Marine Protected Areas' (2014). German Federal Agency for Nature Conservation, p. 1; United Nations General Assembly, *Resolution adopted by the General Assembly on 23 December 2015,* GA Res 70/235, 70th session, Agenda Item 79 (a), A/Res/70/235 (15 March 2016), para. 230.

42 United Nations General Assembly, *Oceans and the Law of the Sea, Report of the Secretary-General, Addendum,* GA Res 62/66/Add.2, 62nd session, Agenda Item 79 (a), A/Res/62/66/Add.2 (10 September 2007), paras. 117 and 118.

43 None have currently been established in ABNJ: http://www.imo.org/en/OurWork/Environment/SpecialAreasUnderMARPOL/Pages/Default.aspx and http://www.imo.org/en/OurWork/Environment/PSSAs/Pages/Default.aspx (accessed: 9 July 2016).

International Whaling Commission (IWC),[44] and managing fishing in spatial and/or temporary closure areas, for instance to protect vulnerable marine ecosystems (VMEs), under the auspices of the RFMOs.[45] The International Seabed Authority (ISA), which manages the deep seabed area in ABNJ, has established Areas of Particular Environmental Interest (APEIs) to protect and preserve the marine environment in the Clarion-Clipperton Zone in the North Pacific.[46] Although the CBD has no jurisdictional mandate for ABNJ,[47] it provides broad area-based management (ABM) obligations for States to establish a system of protected areas, within and outside which States have to manage biological resources important for biodiversity conservation, and to promote ecosystem and natural habitat protection.[48] This lack of jurisdictional mandate for ABNJ, however, does not prevent States from taking actions themselves on processes and activities carried out under their control or jurisdiction in ABNJ.[49] Perhaps the most important and recent regional development came from the decision taken by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) at its annual meeting in October 2016 to establish the Ross Sea Marine Protected Area.[50] This is the largest established MPA in ABNJ, covering 1.5 million km^2, most of which will be a no-take zone.[51]

The ABM obligations outlined under the CBD are further underscored by soft law, whereby States are encouraged to establish protected areas and regional ecological networks and corridors, to protect habitat and other ecologically sensitive areas, and to promote the protection of areas of ecological and

44 1946 International Convention for the Regulation of Whaling, Notification of Amendments to the Schedule (Washington, 2 December 1946, in force 10 November 1948) 161 *UNTS*, as Amended by the Commission at the 64th Annual Meeting (Panama City, July 2012), Art. V.

45 See also: UNFSA, Art. 5.

46 Legal framework related to the powers of the International Seabed Authority on the protection of the marine environment in the Clarion-Clipperton Zone, see: International Seabed Authority Legal and Technical Commission, *Environmental Management Plan for the Clarion-Clipperton Zone,* ISBA Res. 17/7, 17th session, ISBA/17/LTC/7 (13 July 2011); International Seabed Authority Council, *Decision of the Council relating to an Environmental Management Plan for the Clarion-Clipperton Zone,* ISBA/18/C/22, 18th session (26 July 2012).

47 CBD, Art. 4.

48 *Ibid.*; Arts. 8a, 8c, and 8d.

49 *Ibid.*; Art. 4.

50 CCAMLR Conservation Measure 91–05 (2016); https://www.ccamlr.org/en/measure-91-05-2016.

51 This Ross Sea MPA will come into force in December 2017. CCAMLR had already established the South Orkney Islands MPA in ABNJ in 2009.

biological significance for biodiversity.[52] How to ensure a comprehensive legal framework for ABMTs on the high seas and deep sea areas of ABNJ will need to be discussed and negotiated under the umbrella of the Preparatory Committee (PrepCom) drafting the elements of the future international legally binding instrument (ILBI) and the subsequent intergovernmental conference.

Legal Framework for ABMTs in the Southeast Pacific

To fulfil their objective of long-term conservation and sustainable use of fishery resources,[53] both the SPRFMO Convention and the IATTC Antigua Convention have legally binding provisions on the adoption of conservation and management measures with regard to the fishery resources they manage in their convention area.[54]

In the case of the SPRFMO, Article 20 outlines the conservation and management measures that the SPRFMO Commission has to adopt to 'ensure the long-term sustainability of fishery resources'.[55] Taking into account the application of the precautionary and ecosystem approaches,[56] these include measures to ensure that populations of non-target and associated or dependent species are maintained or restored and measures to protect marine ecosystems and habitats, including VMEs, where fishery resources and other non-target, associated and dependent species occur.[57]

The SPRFMO also requires precautionary measures to be adopted in cases where the presence of VMEs or the extent of fisheries impacts on VMEs cannot be adequately determined and for new or exploratory fisheries. It also

52 Agenda 21 of the United Nations Conference on Environment and Development (*'Agenda 21'*) (Rio de Janeiro, 1992; https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf), Chapter 15 para 15.5g; *Agenda 21, Chapter 17* para 17.46f; Plan of Implementation of the World Summit on Sustainable Development (*'JPOI'*) (Johannesburg, 2002; http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf) para 32c and para 44g; United Nations General Assembly, The Future We Want, GA Res 66/288, 66th session, Agenda Item 19, A/RES/66/288 (11 September 2012) ('The Future We Want'), para 177.

53 SPRFMO Convention, Art. 2; IATTC Antigua Convention, Art. II.

54 SPRFMO Convention, Art. 20; IATTC Antigua Convention, Art. VII.1c.

55 SPRFMO Convention, Art. 20.1a.

56 *Ibid.;* Art. 2. The precautionary approach was first outlined in Principle 15 of the 1992 Rio Declaration on Environment and Development (http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf). The ecosystem approach was endorsed at the 5th Conference of the Parties to the Convention on Biological Diversity (CBD COP 5 - Decision V/6) in 2000; https://www.cbd.int/decision/cop/default.shtml?id=7148.

57 SPRFMO Convention, Arts. 20.1c and 20.1d.

provides for emergency measures when fisheries, a natural phenomenon or human-caused disasters are likely to negatively affect fishery resources or marine ecosystems.[58]

Article 20.2 lists a series of specific conservation and management measures that can be adopted, 'as appropriate', by the SPRFMO Commission to fulfil the obligation under Article 20.1. Amongst other specific measures, the Commission can identify areas where fishing is allowed and where fishing closure areas are necessary, as well as determine periods during which fishing can or cannot take place.[59] As the SPRFMO's geographical scope only covers marine areas beyond national jurisdiction of the South Pacific, the Commission has to cooperate with its Contracting Parties—and *vice- versa*—to ensure the management of fishery resources across their range and the compatibility of conservation and management measures across legal boundaries.[60] The 'complementary' measures described in Article 20.4b that may be adopted in this regard could therefore also be of a spatial and/or temporal nature.[61] This means that such spatial and/or temporal management tools adopted by SPRFMO Contracting Parties within the national jurisdictions of its members and targeted at straddling fish stocks could be expanded, with the consent of all other SPRFMO Contracting Parties, to the broader fish stock range within the SPRFMO Convention area.

In contrast, the IATTC Convention does not contain an explicit legal obligation to adopt other ABMTs than applying a total allowable catch (TAC) and total allowable effort (TAE) for the conservation and management of fishery resources. The IATTC is obliged to apply the precautionary approach and to adopt scientific-based measures, such as, '*inter alia*', a TAC, allowable fishing capacity or TAE, to ensure the long-term conservation and sustainable use of the fishery resources managed by the IATTC and maintain or restore them at levels able to produce the maximum sustainable yield (MSY).[62] This would suggest that the IATTC could adopt other measures, should it be proposed and supported by its Contracting Parties, which could include other types of ABMTs.

58 *Ibid.*; Arts. 20.1d, 20.5, and 22.

59 *Ibid.*; Arts. 20.2d and 20.2e.

60 *Ibid.*; Art. 4. For example, Chile has consented since 2014 to apply inside its EEZ the conservation and management measures adopted by SPRFMO for the Chilean Jack Mackerel fisheries.

61 *Ibid.*; Art. 20.4b.

62 IATTC Antigua Convention, Arts. IV and VII.1c.

The IATTC Convention also requires the Commission to adopt, 'as necessary', 'conservation and management measures and recommendations' to maintain or restore populations of dependent, associated, or same ecosystem species that are likely to be affected by fishing activities.[63] Here also the necessary measures to be adopted for the conservation of such species are left to the IATTC Contracting Parties to decide. It also stipulates the need to ensure compatibility of conservation and management measures between marine areas within and beyond national jurisdiction.[64] As the geographical scope of the IATTC includes both areas within and beyond national jurisdiction of the Eastern Pacific Ocean, IATTC Contracting Parties who are coastal States could play an important role in this regard. Notwithstanding the sovereignty and sovereign rights of bordering coastal States,[65] they could propose that spatial and/or temporal management measures that are applied within their national jurisdiction could be extended to ABNJ for the better conservation and management of highly migratory fishery resources, as well as other species in need of protection.

Although the CPPS does not have a specific ABNJ mandate—as highlighted above, its jurisdictional scope only extends to adjacent high seas areas in cases when these could be affected by marine and coastal pollution[66]—it has legal provisions on the establishment of 'appropriate measures' for the conservation and protection of fragile, vulnerable, and unique ecosystems, focusing particularly on those comprising endangered marine species.[67] CPPS Contracting Parties who have ratified this protocol have the obligation to adopt protected areas, either individually, bilaterally, or multilaterally, within which all human activities that may have a negative impact on the marine environment should

63 *Ibid.*; Art. VII.1f.

64 *Ibid.*; Art. V.

65 *Ibid.*; Arts. III and V.1.

66 CPPS 1981 Lima Convention, Art 1.

67 Protocolo para la Conservación y Administración de las Áreas Marinas Y Costeras Protegidas del Pacífico Sudeste [Protocol for the Conservation and Management of Marine and Coastal Protected Areas of the Southeast Pacific] (Paipa, 21 September 1989, in force 24 January 1995) ('*CPPS MPA Protocol*') Art. II, available at http://cpps.dyndns.info/consulta/documentos/legal/convenios/PROTOCOLO%20PARA%20LA%20CONSERV.%20Y%20ADM.%20DE%20AREAS%20MARINAS%20Y%20COSTERAS%20PROTEGIDAS%20DEL%20PS/TEXTO%20DEL%20PROTOCOLO.pdf.

be regulated and/or prohibited, as well as to establish buffer zones around these protected areas.[68] To this end, common criteria should be adopted.[69]

Regional Progress on ABMTs

Within their national jurisdiction, the coastal States of the Southeast Pacific (Chile, Colombia, Ecuador, and Peru) have established MPAs. According to the 2016 World Database on Protected Areas, Chile has 4.4%,[70] Colombia has 2.1%,[71] Ecuador has 13.1%,[72] and Peru has 0.6% of its marine area within national jurisdiction protected.[73] No MPAs are currently established in the ABNJ of the Southeast Pacific.

Under the umbrella of the CBD, experts have identified 21 ecologically or biologically significant marine areas (EBSAs) within the Eastern Tropical and Temperate Pacific region, an area that includes the Southeast Pacific region.[74] Although the identification of such EBSAs is mainly a scientific and technical exercise, these areas of special ecological or biological value could provide a basis for the application of ABMTs for the conservation and sustainable use of marine biodiversity in ABNJ.

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68 *Ibid.*; Arts. II, V, and VI.

69 *Ibid.*; Arts. IV.

70 UNEP-WCMC (2016). Protected Area Profile for Chile from the World Database of Protected Areas, November 2016. Available at https://www.protectedplanet.net/country/CL; accessed: 27 November 2016). According to this database, Chile has five marine reserves, three marine parks, and nine marine and coastal protected areas. In addition notably to the *Motu Motiro Hiva* (Salas y Gomez Islands) MPA (designated by Presidential Decree 235 of 2010 from the Ministry of the Environment, published in the Official Gazette on 4 December 2010) and the Nazca-Desventuradas MPA around the islands of San Félix and San Ambrosio (designated by Presidential Decree 5 of 2016 from the Ministry of the Environment, published in the Official Gazette on 24 August 2016), Chile recently added the *Mar de Juan Fernández* MPA to its national MPA network (designated by Presidential Decree 10 of 2016 from the Ministry of the Environment, published in the Official Gazette on 26 January 2017).

71 *Ibid.*; available at https://www.protectedplanet.net/country/CO; accessed: 27 November 2016.

72 *Ibid.*; available at https://www.protectedplanet.net/country/EC; accessed: 27 November 2016.

73 *Ibid.*; available at https://www.protectedplanet.net/country/PE; accessed: 27 November 2016.

74 EBSAs are 'special areas in the ocean that serve important purposes, in one way or another, to support the healthy functioning of oceans and the many services that it provides' (see: https://www.cbd.int/ebsa/about, accessed: 9 July 2016).

Regionally, under the umbrella of the CPPS, its four member States reiterated their support for the 1981 Plan of Action for the Protection of the Marine Environment and Coastal Areas of the Southeast Pacific and committed themselves to advance the identification of EBSAs in their region, with a view to establishing, where relevant, marine and coastal protected areas and thereby contributing to the network of regional MPAs of the Southeast Pacific.[75] CPPS member States also committed themselves to implement the CBD Strategic Plan 2011–2020, and to achieve the Aichi Biodiversity Target 11 in the region.[76]

To date, the IATTC has established time and spatial fishery closures for its yellowfin, bigeye, and skipjack tuna fisheries.[77] It has also adopted conservation and management measures for bluefin tuna and conservation measures for silky sharks, oceanic whitetip sharks, mobulid rays, seabirds, and sea turtles in its Convention Area.[78] The SPRFMO has, since 2013, TAC and TAE limitations in place for the Chilean Jack Mackerel fisheries.[79] It has also established bottom fishing closures for the protection of VMEs and prohibits bottom fishing within its Convention Area unless the vessels have undertaken an assessment of their bottom fishing impacts.[80] In cases where bottom fishing can take place, it must be limited to less than the 2002–2006 average catch levels.[81]

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75 *CPPS Compromiso de Galápagos*, Arts. I.2, IX.22, and IX.29. See: CPPS, *Red Regional de Áreas Costeras y Marinas Protegidas del Pacífico Sudeste* (Comisión Permanente del Pacífico Sur, Guayaquil, 2010); http://cpps-int.org/cpps-docs/pda/areas/docs/Red.regional.AMCP.PSE.2010.pdf.

76 *Ibid.*; Art. IX.30.

77 IATTC, 'Conservation of Tuna in the Eastern Pacific Ocean during 2017' (C-17–01, 2017) provides temporal and spatial closure areas for yellowfin, bigeye and skipjack tuna fisheries.

78 IATTC, 'Measures for the Conservation and Management of Pacific Bluefin Tuna in the Eastern Pacific Ocean' (C-16–08, 2016); IATTC, 'Resolution on Pacific Bluefin Tuna' (C-16–03, 2016); IATTC, 'Conservation Measures for Shark Species, with Special Emphasis on the Silky Shark (*Carcharhinus falciformis*), for the years 2017, 2018, and 2019' (C-16–06, 2016); IATTC, 'Resolution on the Management of Shark Species' (C-16–05, 2016); IATTC, 'Resolution on the Conservation of Mobulid Rays Caught in Association with Fisheries in the IATTC Convention Area' (C-15–04, 2015); IATTC, 'Resolution to Mitigate the Impact on Seabirds of Fishing for Species Covered by the IATTC' (C-11–02, 2011); IATTC, 'Resolution to Mitigate the Impact of Tuna Fishing Vessels on Sea Turtles' (C-07–03, 2007); IATTC, 'Resolution on the Conservation of Oceanic Whitetip Sharks Caught in Association with Fisheries in the Antigua Convention Area' (C-11–10, 2011).

79 SPRFMO 'Conservation and Management Measure for *Trachurus murphyi*' (CMM 01–2017, 2017), Arts. 4–10.

80 SPRFMO, 'Conservation and Management Measure for the Management of Bottom Fishing in the SPRFMO Convention Area' (CMM 03–2017, 2017), Arts. 8b, 10, and 22.

81 *Ibid.*; Art. 8c.

In these cases, any bottom fishing activities must stop within five nautical miles of a VME.[82] Any VME identified in the SPRFMO Convention area will be closed to bottom fishing.[83] Furthermore, SPRFMO prohibits the use of large-scale pelagic driftnets and deep water gillnets, and has bycatch management measures in place for seabirds.[84]

Currently no IMO PSSAs or Special Areas, IWC Sanctuaries or ISA APEIS are in place in the ABNJ of the Southeast Pacific.

Element 2: Environmental Impact Assessments and Strategic Environmental Assessments

An EIA is a 'procedure for evaluating the likely impact of a proposed activity on the environment'.[85] Strategic environmental assessments (SEAs) develop a management plan or programme based on the results of an environmental assessment of a particular region or sector following public participation and consultations.[86] In this respect, SEAs allow to take into account the effects of cumulative impacts and have the potential, through the development of management plans, to better foresee and mitigate impacts that may occur within a particular region or sector.

International Legal Framework for EIAs

The obligation to undertake EIAs for activities that can potentially have a significant impact on the marine environment is part of customary international law.[87] The general obligation is provided in the LOSC, and promoted in soft law

82 *Ibid.*; Art. 8g.

83 *Ibid.*; Art. 22.

84 SPRFMO, 'Conservation and Management Measure for Gillnets in the SPRFMO Convention Area' (CMM 08–2013, 2013); SPRFMO, 'Conservation and Management Measure for minimising bycatch of seabirds in the SPRFMO Convention Area' (CMM 09–2017, 2017).

85 Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 25 February 1991, in force 10 September 1997) ('Espoo Convention') 1989 *UNTS*, Art. 1.

86 Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (Kiev, 21 May 2003, in force 11 July 2010) ('*Kiev Protocol*') 2685 *UNTS*, Art. 2.6.

87 See, e.g. *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests* (*New Zealand v France*) *Case* [1995] ICJ Rep 288; *Gabčíkovo-Nagymaros Dam Case* (*Hungary* v *Slovakia*) [1997] ICJ Rep 7; *MOX Plant Case* (*Ireland* v *United Kingdom*) (Provisional Measures) [2001] ITLOS No. 10; *Case concerning Land Reclamation by Singapore in and around the Straits of Johor* (*Malaysia* v *Singapore*) (Provisional Measures) [2003] ITLOS No. 12; *Pulp Mills on the River Uruguay* (*Argentina* v *Uruguay*) (Provisional Measures) [2006] ICJ Rep 135;

agreements, in which States have the obligation to assess the potential effects of planned activities taking place under their control in marine areas within and beyond national jurisdiction.[88] This provision does, however, not provide an obligation for States to do an assessment for each activity carried out under their control, but only when such activities are expected to trigger 'substantial pollution of or significant and harmful changes to the marine environment'.[89] Other biodiversity-specific agreements underscore this provision, such as CBD Article 14 with regard to the sustainable use and conservation of biodiversity within national jurisdiction, and the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the Agreement on the Conservation of Albatrosses and Petrels (ACAP) with regard to migratory species, albatrosses and petrels, respectively.[90] The 1991 Espoo Convention and its 2003 Kiev Protocol provide a comprehensive legal framework on transboundary EIA and SEA for their parties.[91] Neither, however, applies to ABNJ, as they only apply to transboundary EIA and SEA within States' national jurisdiction.

Despite these hard and soft law obligations, to date no legally binding global instrument on the use of EIAs and SEAs in ABNJ exists.[92] The 2012 CBD voluntary guidelines on biodiversity-inclusive EIA for marine and coastal areas, including ABNJ, are only advisory and for noting by Contracting parties of the CBD.[93] In the fisheries context, the ecosystem-based fisheries management (EBFM) takes an ecosystem approach to fisheries management. It aims to

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Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber) [2011] ITLOS No. 17.

88 LOSC, Art. 206; United Nations General Assembly, Report of the United Nations Conference on Environment and Development, A/CONF.151/26 (Vol. I) (12 August 1992) annex I ('Rio Declaration on Environment and Development') ('Rio Declaration'), Principle 17; *JPOI* para 36.c.

89 LOSC, Art. 206.

90 CBD, Art. 14a; Convention on the Conservation of Migratory Species of Wild Animals, *Resolution 7.2: Impact Assessment and Migratory Species,* Proceedings of the Seventh Meeting of the Conference of the Parties, Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals, 7th meeting (18 to 24 September 2002); Agreement on the Conservation of Albatrosses and Petrels (Canberra, 19 June 2001, in force 1 February 2004) *ATS* 5 ('*ACAP*') annex 3.

91 Espoo Convention; Kiev Protocol.

92 R Warner, 'Oceans Beyond Boundaries: Environmental Assessment Frameworks' (2012) 27 *The International Journal of Marine and Coastal Law* 481–499, at p. 482.

93 Convention on Biological Diversity, *Decisions Adopted by the Conference of the Parties to the Convention on Biological Diversity at its Eleventh Meeting,* UNEP/CBD/COP/11/35, Conference of the Parties to the Convention on Biological Diversity, 11th meeting,

> (i) avoid degradation of ecosystems [...]; (ii) [account] for the requirements of other ecosystem components (e.g., non-target species, protected species, habitat considerations, and various trophic interactions) [...]; (iii) obtain and maintain long-term socioeconomic benefits without compromising the ecosystem; and (iv) generate knowledge of ecosystem processes sufficient to understand the likely consequences of human actions.[94]

Both the EIA and the EBFM are management tools that aim to take into account the likely impacts of activities, in the case of EBFM, fisheries, on the marine environment. They are, however, distinct in the way that they are undertaken: the EIA takes more of a preventive approach and is done before an activity can be carried out, whereas the scope of the EBFM—which only focuses on fisheries—is progressive and can constantly be revised during the time an activity is being undertaken.

Legal Framework for EIAs in the Southeast Pacific

There is no regional legal framework for the application of EIAs in the fisheries context within the Southeast Pacific. Both the IATTC and SPRFMO Conventions only provide for the use of the precautionary approach.[95] The SPRFMO's Scientific Committee has the responsibility to provide advice and recommendations on the impact of fishing on marine ecosystems, which includes recommendations on avoiding 'likely impacts of fishing on [...] vulnerable marine ecosystems and measures to prevent significant adverse impacts on them'.[96] In cases of emergency, where fishing is deemed to threaten the sustainability of fishery resources or marine ecosystems, or can exacerbate the impacts resulting from a natural phenomenon (e.g., localised impacts

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(5 December 2012), 209 para 1. These Guidelines were developed at the 2009 Expert Workshop on Scientific and Technical Elements of CBD Voluntary Biodiversity-Inclusive EIA Guidelines for Marine Areas beyond National Jurisdiction that took place in Manila, Philippines: available at https://www.cbd.int/decision/cop/default.shtml?id=11042; accessed: 23 August 2016.

94 E K Pikitch, C Santora, E A Babcock, A Bakun, R Bonfil, D O Conover, P Dayton, P Doukakis, D Fluharty, B Heneman, E D Houde, J Link, P A Livingston, M Mangel, M K McAllister, J Pope and K J Sainsbury, 'Ecosystem-Based Fishery Management' (2004) 305 *Science* 346–347, at p. 346.

95 IATTC Antigua Convention, Art. IV; SPRFMO Convention, Arts. 3.1b and 3.2.

96 SPRFMO Convention, Art. 10.2c.

of the ENSO phenomenon) or a human-caused disaster, special conservation and management measures can be taken.[97]

The CPPS has a legal provision on the application of EIAs for all activities that may have an adverse impact on designated marine and coastal protected areas.[98] In its 1981 Plan of Action, the CPPS also has a broad legal provision on assessing the quality of the marine environment and coastal areas, including on assessing the environmental impacts of marine and coastal activities and identifying the main pollutants.[99] In summary, however, there is currently no holistic regional framework for the application, implementation, and enforcement of EIAs for activities carried out in ABNJ of the Southeast Pacific.

Regional Progress on EIAs

The main gap resides in the fact that the ecosystem approach needs to be better implemented for the management of fisheries. Carrying out the EBFM is important to constantly adapt fishing activities to available fishery resources, species interactions, and impacts on ecosystems and the environment. As part of the precautionary approach, EIAs should be undertaken: a) before opening a new area to fisheries; b) when new fishing activities (such as for new species or with other or new gear) take place; c) when the fish stock currently being fished has been declining and new or updated management measures need to be taken to address the situation; or d) when the level of bycatch resulting from current fishing practices and/or environmental damage is increasing. Furthermore, a SEA should be carried out to understand the cumulative environmental impacts of the various fisheries on the ecosystems, as well as the interplay between fishing and other activities taking place in the Southeast Pacific.

So far, the SPRFMO has adopted conservation and management measures for the management of new and exploratory fisheries and for the exploratory fishing for toothfish in its Convention area.[100]

97 *Ibid.*; Art. 20.5.

98 CPPS MPA Protocol, Art. 8.

99 Plan de Acción para la Protección del Medio Marino y Áreas Costeras del Pacífico Sudeste [Plan of Action for the Protection of the Marine Environment and Coastal Areas of the Southeast Pacific] (Guayaquil, 1981, updated 12 April 2013), Arts. 6.1 and 12; http://cpps.dyndns.info/cpps-docs-web/planaccion/docs2013/mar/xix_ag/011.%20CPPS(1981)Plan_de_Accion_PSE.pdf.

100 SPRFMO, 'Conservation and Management Measure for the Management of New and Exploratory Fisheries in the SPRFMO Convention Area' (CMM 13–2016, 2016); SPRFMO, 'Conservation and Management Measure for Exploratory Fishing for Toothfish in the SPRFMO Convention Area' (CMM 14–2016, 2016).

Element 3: Marine Genetic Resources, Including Access and Benefit Sharing

Outside of their important ecological function, the diversity of marine microorganisms and their adaptation to extreme living conditions, such as on and around hydrothermal vents, offers opportunities to find potentially interesting new discoveries for biotechnological applications in areas such as pharmaceuticals, nutraceuticals, cosmetics, and biofuels.[101] There is currently no internationally agreed definition of MGRs, but CBD Article 2 defines genetic resources as 'genetic material of actual or potential value', and genetic material is defined as 'any material of plant, animal, microbial or other origin containing functional units of heredity'.[102] Harden-Davies highlights that 'deep-sea genetic resources could incorporate any biological material, including genes, proteins, and natural products'.[103] A study by Oldham *et al.* shows that MGRs from deep-sea organisms are predominantly taken from areas within national jurisdiction,[104] underlining that it is very difficult to know the precise source of MGRs from ABNJ that are subject to patent applications.[105] The high costs and required technology linked with the collection and processing of MGRs from the deep sea limits the capability of many States to develop and commercialise these resources, leaving it to a handful of industrialised States.[106] The international agreement on BBNJ will need to consider the equitable and transparent use, access to, and sharing of benefits of marine genetic resources, both in the high seas and in the deep seabed of ABNJ.

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101 M Vierros, C A Suttle, H Harden-Davies and G Burton, 'Who Owns the Ocean? Policy Issues Surrounding Marine Genetic Resources' (2016) *25*(2) *Limnology and Oceanography Bulletin* 29–35.

102 CBD, Art. 2.

103 H Harden-Davies, 'Deep-sea Genetic Resources: New Frontiers for Science and Stewardship in Areas Beyond National Jurisdiction' (2017) 137 *Deep-sea Research II* 504–513, at p. 504.

104 P Oldham, S Hall, C Barnes, C Oldham, M Cutter, N Burns and L Kindness, 'Valuing the Deep: Marine Genetic Resources in Areas Beyond National Jurisdiction' (2014) Defra Contract MB0128 Final Report Version One. London: Defra, at p. 143; https://www.researchgate.net/publication/273139809_Valuing_the_Deep_Marine_Genetic_Resources_in_Areas_Beyond_National_Jurisdiction.

105 *Ibid.*; at p. 144.

106 R McLaughlin, 'Exploiting Marine Genetic Resources Beyond National Jurisdiction and the International Protection of Intellectual Property Rights: Can they Coexist?' (2010) *Law, Technology and Science for Oceans and Globalisation* 371–382; S Arnaud-Haond, J M Arrieta and C M Duarte, 'Marine Biodiversity and Gene Patents' (2011) *331 Science* 1521–1522.

International Legal Framework for MGRs

There is no international legal framework for the use, access to, and sharing of benefits of marine genetic resources in ABNJ. The 2010 CBD Nagoya Protocol and the 2001 International Treaty on Plant Genetic Resources for Food and Agriculture currently provide the only legal framework with respect to the use of genetic resources from biological resources, although they both focus exclusively on areas within national jurisdiction.[107]

Legal Framework for MGRs in the Southeast Pacific

No existing legal framework at the regional level regulates access to and distribution of the benefits of MGRs. The SPRFMO and the IATTC, having a fisheries management mandate, do not have a mandate to explore and use marine genetic resources. The CPPS, playing a supporting role to its Contracting Parties in facilitating dialogues and knowledge exchange, does not have a mandate either to explore and use MGRs or to support its Contracting Parties in this endeavour.[108] Consequently, the ocean governance framework of the Southeast Pacific, encompassing the conventions and agreements under SPRFMO, IATTC, and CPPS, does not cover the use, access to and benefit sharing of MGRs. In their 2012 Galápagos Commitment, however, CPPS Contracting Parties committed to promote coordinated action in the Southeast Pacific 'regarding their interests in living and non-living resources in ABNJ', which would therefore also include MGRs.[109] This has been highlighted as a special issue of relevance for the region.[110]

Regional Progress on MGRs

Given the anticipated high level of biodiversity across the whole Southeast Pacific and the relatively high percentage of marine species endemism,[111] this region may provide a source of MGRs that may potentially have value for medicine, as well as cosmetics, pharmaceutical and other industries. To date, most

107 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity (Nagoya, 29 October 2010, in force 12 October 2014) 3 *ATNIF* ('Nagoya Protocol'); International Treaty on Plant Genetic Resources for Food and Agriculture (Rome, 3 November 2001, in force 29 June 2004) 2400 *UNTS*.

108 Personal communication.

109 CPPS Compromiso de Galápagos, Art. VIII.20.

110 *Ibid*; Art. III.7.

111 Miloslavich *et al.* (n 14) at p. 33. Miloslavich *et al.* found that the percentage of marine species endemism in South America is of: 71.2% for the Tropical East Pacific, 43.4% for the Humboldt Current (Southeast Pacific region), 48.2% for the Tropical West Atlantic, 71.6% for Brazil, and 42.6% for the Patagonian Shelf.

of the marine scientific research in this region has been carried out within the EEZs of coastal countries.[112]

Under the auspices of the CPPS, a group of experts met in 2008 in Lima, Peru, to discuss the legal and scientific status of MGRs in the Southeast Pacific region.[113] They concluded that there is generally scarce information and data about MGRs in the region. As a way forward for the region, this group recommended:

a) strengthening cooperation between CPPS member States to reinforce their capacities in MGR research and technology transfer;
b) organising training and workshops in the region to improve scientific and legal knowledge on the topic;
c) establishing an internal legal regime for the region on MGR data gathering and exchange, the development of scientific projects, or the sharing of their benefits;
d) creating scientific networks to study the scientific, economic, environmental, and legal aspects of MGRs and to develop and share MGR information;
e) coordinating a regional position to recognise MGRs found within the national jurisdiction of CPPS member States as common heritage of mankind; and
f) promoting a global legal regime for the exploration and exploitation of MGRs in ABNJ under the LOSC and thereby promoting the establishment of regulatory norms for their access and benefit sharing.[114]

Element 4: Capacity Building and Technology Transfer

Capacity building, also known as capacity development, is a long-term and continuing 'process by which individuals, organizations, institutions and societies develop abilities to perform functions, solve problems and set and achieve objectives' at the individual, institutional, and societal levels.[115] Technology

112 Personal communication.

113 CPPS, 'Seminario-Taller sobre Aspectos Jurídicos y Científicos de los Recursos Genéticos Marinos en la Región del Pacífico Sudeste' (2009), 5–6 Noviembre de 2008, Lima, Peru, available at http://cpps-int.org/cpps-docs/rec-no-vivos/genetica/taller-rec-mar-genetic-2008.pdf; accessed 10 October 2016.

114 *Ibid*; at pp. 14–15.

115 UN Economic and Social Council, *Definition of Basic Concepts and Terminologies in Governance and Public Administration,* E/C.16/2006/4, 5th session, Agenda Item 5 (5 January 2006), para. 33.

transfer is one of the tools by which capacity can be built in countries where access to data and technology is limited.

International Legal Framework for Capacity Building and Technology Transfer

In its Principle 9, the 1992 Rio Declaration emphasises the need for States to 'cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies'.[116] This was reiterated in the 2012 'The Future We Want' document.[117] Under the LOSC, specific obligations regarding capacity building and technology transfer are found in Part XII on the protection of the marine environment, Part XI on the Area, Part XIII on marine scientific research, and Part XIV on marine technology transfer.

Specifically, States have to:

- assist in technical and scientific personnel training;[118]
- facilitate the participation of developing countries in international programmes;[119]
- promote programmes of scientific, educational, technical, and other assistance;[120]
- assist in preparing environmental assessments;[121]
- supply necessary equipment and facilities;[122]
- cooperate internationally and provide international funding for ocean research and development;[123]
- provide advice on and develop facilities for research, monitoring, educational and other programmes;[124]

116 Rio Declaration on Environment and Development (Rio de Janeiro, 14 June 1992) 31 *ILM* 874 ('*Rio Declaration*'), Principle 9.

117 United Nations General Assembly, *The Future We Want*, GA Res 66/288, 66th session, Agenda Item 19, A/RES/66/288 (11 September 2012) ('*The Future We Want*'), para. 58f.

118 LOSC, Arts. 143.3b, 144.2, 202, 244, 268, and 274.

119 *Ibid.*; Arts. 202 and 272.

120 *Ibid.;* Arts. 143.3b, 144.2, 202, 244, 268 and 274.

121 *Ibid.;* Art. 202.

122 *Ibid.;* Arts. 202, 268, 274, 275 and 276.

123 *Ibid.;* Arts. 270 and 273.

124 *Ibid;* Art. 202.

- enhance equipment manufacturing capacity;[125] and
- assist in minimising effects of major pollution incidents.[126]

Technical and scientific cooperation obligations with regard to the conservation and management of straddling and highly migratory fish stocks and to the conservation of biodiversity are also outlined in the UNFSA and the CBD, respectively.[127] With regard to fisheries, capacity building is also reiterated in the soft law FAO International Plans of Action (IPOAs), FAO Code of Conduct for Responsible Fisheries, and the legally binding FAO Compliance Agreement.[128] Article 22 of the 2010 Nagoya Protocol also has a provision on capacity building with regard to the access and benefit sharing of genetic resources.[129] The BBNJ PrepCom meetings and subsequent intergovernmental conference will need to ensure that developing and geographically disadvantaged states are able to participate in ABNJ research, commercial use, and management.

Legal Framework for Capacity Building and Technology Transfer in the Southeast Pacific

Part VI of the IATTC covers cooperation and assistance aspects. It obligates the Commission to 'seek to adopt measures relating to technical assistance, technology transfer, training and other forms of cooperation [...]'.[130] The Commission also has the duty to assist developing countries in fulfilling their IATTC Convention obligations and to ensure that they are able to take part in sustainable fisheries within and beyond national jurisdiction.[131] The SPRFMO

125 *Ibid.*

126 *Ibid.*

127 UNFSA, Art. 25; CBD, Arts. 18, 19, and 20.

128 International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (1999; http://www.fao.org/docrep/006/X3170E/x3170e02.htm), International Plan of Action for the Conservation and Management of Sharks (1999; http://www.fao.org/docrep/006/X3170E/x3170e03.htm), International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (2001; http://www.fao.org/docrep/003/y1224e/y1224e00.htm), and International Plan of Action for the Management of Fishing Capacity (1999; http://www.fao.org/fishery/ipoa-capacity/legal-text/en); Code of Conduct for Responsible Fisheries (1995; http://www.fao.org/docrep/005/v9878e/v9878e00.htm); Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Rome, 29 November 1993, in force 24 April 2003) 2221 *UNTS* ('Compliance Agreement').

129 Nagoya Protocol, Art. 22.

130 IATTC Antigua Convention, Art. XXIII.1.

131 *Ibid.*

recognises the special requirements and interests of developing States in the conservation and management of fishery resources. The Commission has the obligation to cooperate in 'enhanc[ing] the ability of developing State Contracting Parties in the region [...] to conserve and manage fishery resources and to develop their own fisheries [...]' and 'assist[ing] them to participate in fishing [...]'.[132] This includes financial, technical, and human resources development assistance, the transfer of technology, as well as advisory and consultative services.[133]

Capacity building is a prominent part of the CPPS legal framework. Promoting assistance programmes on scientific, technical, legal, and educational issues for the prevention and reduction of marine pollution and the management of marine protected areas notably include the formation of scientific and technical staff, encouraging the participation in relevant regional and international programmes, the appointment of experts, development of facilities and assessment services, and information sharing.[134] This is reiterated in the CPPS Statute, in which the need to obtain technical and financial assistance from relevant organisations, to develop the capacity of CPPS member States to undertake scientific research, to promote the general public knowledge on marine issues, and to share information is particularly highlighted,[135] and in the 2012 Galápagos Commitment, in which partnerships with universities and research institutions are highlighted as necessary to assist in the capacity building of the CPPS member States.[136]

Regional Progress on Capacity Building and Technology Transfer

The CPPS organises and hosts workshops and training in the Southeast Pacific region that are aimed at enhancing the capacities of its member States. It also conducts regional studies, and produces related technical documents that can be found on its website.[137] The IATTC organises workshops and training for captains and fishermen. All SPRFMO and IATTC publications and reports can also be found on their respective websites.[138]

132 SPRFMO Convention, Art. 19.3.

133 *Ibid.*; Art. 19.4.

134 1981 Lima Convention, Art. 10; 1989 MPA Protocol, Arts. IX and X.

135 Estatuto, Arts. 4g, 4k, 4l, 4m.

136 CPPS Compromiso de Galápagos, Art. XI.38.

137 See: http://cpps-int.org/index.php/documentos/publicaciones; http://cpps-int.org/index.php/documentos/informes; accessed 11 October 2016.

138 See: https://www.sprfmo.int/meetings/; https://www.iattc.org/PublicationsENG.htm; accessed 11 October 2016.

Options for Strengthening Regional Progress on the BBNJ Elements in the Southeast Pacific

Independently of the UN negotiations on the conservation and sustainable use of BBNJ, the Southeast Pacific region can take several steps to develop a framework for the four package elements in the region and thereby advance and strengthen their establishment and implementation. This could potentially set a precedent for the global level and other regions once the ILBI is being negotiated. Table 2, at the end of this article summarises the regional progress for each element, emphasising that an integrated and coordinated approach is currently lacking. This is highlighted in a study by Durussel, which concluded that the Southeast Pacific still has to overcome a range of institutional, cooperative, and management challenges for the conservation and sustainable use of BBNJ.[139] One of the most important steps for the region is therefore to develop cooperative institutional mechanisms to promote the conservation and sustainable use of BBNJ.

- *Institutional working group or task force*
  Setting up a Working Group or Task Force between the three institutions to look into one or several of the BBNJ elements will provide a discussion and knowledge exchange platform specifically dedicated to developing coordinated common approaches in the establishment and implementation of the BBNJ elements, such as work programmes, scientific criteria, monitoring schemes, and management plans.[140] These working groups could be established at the Commission level or at a sub-level, such as between scientific committees or compliance committees. They should have clear terms of reference, work goals and a clear and defined timeline in order to be effective. With the involvement of relevant representatives of each institution, together with relevant stakeholders and experts (for instance from other intergovernmental organisations such as IMO, ISA, FAO, CBD, etc.), these working groups could look into the drafting of a more formal framework for the region. This would be particularly effective in ensuring cooperative approaches between the three institutions in the establishment of a comprehensive and cross-sectoral network of ABMTs.[141]

139 Durussel (n 10), at p. 328.

140 *Ibid.*, at p. 336.

141 An example is the Global Environment Facility (GEF)-United Nations Food and Agriculture Organization (FAO)-United Nations Environment Programme World Conservation

Such a working group could also be established bilaterally between IATTC and SPRFMO to ensure the complementarity of conservation and management measures and the standardisation of EIA processes for fishery activities in the Southeast Pacific region. A working group could also be established under CPPS to further the work of the 2008 expert workshop on MGRs and to facilitate the development of a regional framework for MGRs access, use, and benefit-sharing in the Southeast Pacific. Although this is a less formal approach, setting up a working group or task force would ensure that the relevant BBNJ issues for the region can be openly discussed between the main regional players and, where appropriate, together with the relevant international stakeholders. Important synergies and/or challenges can thereby be identified and institutional cooperative mechanisms can be established to tackle these issues further in a more formal setting.

- ***Institutional cooperative mechanism***
  Formal cooperative arrangements could be instituted as a means to strengthen cooperation and collaboration between the three institutions' secretariats and committees on matters of mutual interest and concern, such as the development of common scientific and technical work programmes, the collection of scientific data, the establishment of common– or at least complementary and non-conflicting– conservation and management measures, and monitoring, enforcement, and compliance schemes.[142] It would also be an important mechanism to formalise the exchange of information between the three regional institutions, for instance on fisheries and environmental data, and to promote capacity building through the organisation of training and workshops. To date, only IATTC and CPPS have signed such a MoU.[143] A MoU between the SPRFMO and the IATTC and between the SPRFMO and the CPPS would contribute towards regional progress on the BBNJ elements.[144] Elements

Monitoring Centre (UNEP-WCMC) project on 'Sustainable Fisheries Management and Biodiversity Conservation of Deep-sea Living Resources and Ecosystems in ABNJ', which will look notably at a framework for ABMTs in the Southeast Pacific. Available at http://www.fao.org/docrep/019/i2943e/i2943e.pdf; accessed 14 October 2016.

142 Durussel (n 10), at p. 336.

143 An example for this is the existing 2015 MoU between the IATTC and the CPPS on shark and rays management and conservation.

144 CPPS has sent the SPRFMO an official letter dated 11 January 2017 on its interest in beginning negotiations on a cooperation agreement; see: https://www.sprfmo.int/assets/01-Commission-2017/Letter-from-CPPS-Oficio-008.pdf (accessed: 10 April 2017).

such as ABMTs and EIAs will need to be tackled using a holistic approach and to be institutionalised to ensure their comprehensive application and implementation throughout the Southeast Pacific region.

Therefore, such MoUs would also be useful to ensure formal institutional cooperation with other relevant global, regional, and sectoral organisations. As noted by Scott, there are different forms of cooperative institutional interplay, all with different levels of institutional interactions and overlaps.[145] Formal institutional cooperation through, for instance, the establishment of MoUs, aims to achieve common goals and objectives through the use of different cooperative mechanisms, all of which provide for cognitive interaction that will eventually contribute towards more effective governance. The successful negotiation and implementation of these cooperative arrangements depend first on the existence of a secretariat and its legal capacity to undertake such arrangements.[146] Secretariats therefore play an important role in inter-institutional cooperation as knowledge brokers and negotiation facilitators.[147]

- ***Common and external scientific knowledge base***
  Scientific information is crucial as a basis for informed decision-making. Therefore knowledge generation and data exchange between the three regional institutions are vital. Given that the CPPS is conducting extensive scientific research across the Southeast Pacific, particularly on environmental and climate-related issues, it could provide a scientific platform for the SPRFMO and the IATTC. Through the signing of scientific cooperation MoUs with the IATTC and the SPRFMO, the three institutions could establish a scientific information and data exchange, as well as a monitoring programme, to ensure that environmental and climatic data complementary and necessary to fisheries management and biodiversity conservation are shared between the three institutions as part of an ecosystem approach to management.[148] Furthermore, ensuring

145 K N Scott, 'International Environmental Governance: Managing Fragmentation Through Institutional Connection' (2011) 12 *Melbourne Journal of International Law* 177–216, at p. 184.

146 *Ibid.*

147 F Biermann and B Siebenhüner, *Managers of Global Change: The Influence of International Environmental Bureaucracies* (MIT Press, Cambridge, 2009) 1–367, at p. 319; S Oberthür, 'Interplay Management: Enhancing Environmental Policy Integration among International Institutions' (2009) 9 *International Environmental Agreements* 371–391, at p. 384.

148 Durussel (n 10), at p. 332.

continuous and reliable financial contributions towards furthering scientific research and scientific cooperation in the Southeast Pacific is crucial.

- ***Promoting State interests in ABNJ***
  The lack of a current jurisdictional mandate in ABNJ under the CBD does not prevent States from taking actions themselves on processes and activities carried out under their control or jurisdiction in ABNJ for the conservation and sustainable use of marine biodiversity.[149] For instance, Southeast Pacific coastal States could request ABMTs within their national jurisdiction to be extended to ABNJ or spatial and temporal management tools under the SPRFMO and the IATTC to be extended into their waters. They could also push for the adoption of management measures for the EBSAs identified under the CBD—for instance within the framework of a newly mandated CPPS (see point below)—or by bringing this as a common issue to the SPRFMO and the IATTC. The CPPS could also promote marine environmental protection, and particularly marine pollution management, beyond its borders: its member States could raise these issues in the IATTC and the SPRFMO, thus encouraging these institutions to improve efforts to protect the marine environment.[150]

  The coastal States in the Southeast Pacific could also promote global or region-specific issues to be included in a future implementing agreement under the LOSC, for instance, by ensuring that the minimum EIA requirements adopted under the CBD are required to be implemented by all RFMOs.[151] This setting would ensure that important and relevant issues for the region are brought to other fora if the regional setting does not enable to follow-up on them concretely and directly in a concerted regional way. However, this option may be less collaborative than the two others and therefore may fall short in pushing forward a united regional agenda.

149 CBD, Art. 4.

150 Durussel (n 10), at p. 334.

151 Convention on Biological Diversity, *Marine amd Coastal Biodiversity: Sustainable Fisheries and Addressing Adverse Impacts of Human Activities, Voluntary Guidelines for Environmental Assessment, and Marine Spatial Planning,* UNEP/CBD/COP/DEC/XI/18, Conference of the Parties to the Convention on Biological Diversity, 11th meeting, Item 10.2 (5 December 2012), Part B on Voluntary Guidelines for the Consideration of Biodiversity in Environmental Impact Assessments and Strategic Environmental Assessments in Marine and Coastal Areas.

- ***Mandate extension***
  At the 2016 meeting of the United Nations Environment Assembly (UNEA) of the United Nations Environment Programme (UNEP), States resolved to 'consider the possibility of increasing the regional coverage of [existing regional seas conventions] in accordance with international law'.[152] This could prompt the CPPS to look into a formal mandate extension into the ABNJ of the Southeast Pacific for marine environmental protection, similar to OSPAR in the Northeast Atlantic.[153] However, it should be noted that the institutional settings and conditions in the Southeast Pacific are very different from the ones in the OSPAR region, for instance with regard to institutional membership, distant-water fishing nations, institutional geographical scope, ocean basin shape, etc.,[154] so that the 'OSPAR model' cannot be simply 'copy pasted' into the Southeast Pacific region. Given also the CPPS' current advisory and facilitator's role, such a mandate extension would therefore at this stage not be possible.

  However, its Contracting Parties can, as mentioned above, raise important environmental issues in other fora to encourage and improve efforts to protect the marine environment. The SPRFMO and the IATTC could, however, as management organisations, extend their mandates to adopt and implement more biodiversity conservation-related measures, as well as environmental protection measures—for instance, as part of the EBFM—in order to meet an objective of adequately conserving and sustainably using high seas biodiversity.[155] Strengthening the current institutional framework and developing institutional cooperation should, however, be a priority for the Southeast Pacific region.

152 United Nations Environment Assembly of the United Nations Environment Programme, *Oceans and Seas,* UNEP/EA.2/L.11/Rev.1, 2nd session (23 May 2016), para. 13.

153 The Commission for the Protection of the Marine Environment of the North-East Atlantic, https://www.ospar.org/ (accessed: 7 April 2017). See also Durussel (n 10), at p. 73.

154 In contrast to the Southeast Pacific region (see Durussel (n 10), at p. 177), only two countries are not members of both OSPAR and the North-East Atlantic Fisheries Commission (NEAFC), who both share the exact same geographical scope in the Northeast Atlantic. The number of distant-water fishing nations in the Northeast Atlantic is also smaller than in the Southeast Pacific (see Durussel (n 10), at p. 45). The OSPAR Convention Area in the Northeast Atlantic is surrounded by continents and islands on almost all of its flanks. In contrast, the Southeast Pacific region is an 'open ocean' region: only its Eastern side touches the South American continent.

155 See Durussel (n 10), at p. 334.

Conclusion

The institutional complementarity in terms of the three institutions' geographical scope and functional mandates is a strength that can be used positively to improve the conservation and sustainable use of BBNJ in the Southeast Pacific. One of the most important steps for the region is therefore to develop cooperative institutional mechanisms to promote the conservation and sustainable use of BBNJ. Ensuring increased cooperation and collaboration between the three institutions on various issues of common interest and concern, including the BBNJ elements, will contribute to better and more comprehensive conservation and sustainable use of BBNJ in the Southeast Pacific region. Regional lessons learnt on the development of a collaborative framework for the adoption and implementation of the BBNJ elements could also set a precedent for the ongoing negotiations under the UNGA to develop an international legally binding instrument on the conservation and sustainable use of marine biodiversity in ABNJ.

TABLE 2 *Overview of regional progress on the BBNJ elements in the Southeast Pacific*[a]

International Law	Regional Legal Framework	Regional Progress in ABNJ	Challenges for ABNJ
Element 1: Area-based Management Tools			
• Sectoral framework		• No IMO Particularly Sensitive Sea Areas or Special Areas, IWC sanctuaries, and ISA Areas of Particular Environmental Interests in place	• No integrated & coordinated regional approach
• Application of the precautionary and ecosystem approaches	• Precautionary approach (*IATTC; SPRFMO*) • Ecosystem approach (*SPRFMO*)	• Bottom fishing closures for VMEs (*SPRFMO*) • Non-target species measures (*IATTC; SPRFMO*) • Measures for new and exploratory fisheries (*SPRFMO*)	• No other ABMTs in place outside of fisheries restrictions • No comprehensive & integrated application of ABMTs across the region
• Establishment of a system of MPAs, regional ecological networks and corridors • Protection of habitats	• Protection of marine ecosystems and habitats, incl. VMEs (*SPRFMO*) • Conservation measures for fragile ecosystems & endangered marine species (*CPPS*)* • Coastal and marine protected areas (*CPPS*)*	• No MPAs • Identified CBD EBSAs • Bottom fishing closures for VMEs (*SPRFMO*)	
• Fishing and spatial temporal closure areas	• Conservation measures for target & non-target species (*IATTC and SPRFMO*)	• TACs and TAEs (*IATTC and SPRFMO*) • Time and spatial closures (*IATTC*) • Bottom fishing closures for VMEs (*SPRFMO*) • Non-target species measures (*IATTC; SPRFMO*)	
Element 2: Environmental Impact Assessments			
• Customary obligation for activities with a significant impact	• Precautionary approach (*IATTC; SPRFMO*)	• Non-target species measures (*IATTC; SPRFMO*)	• No integrated & coordinated regional approach

International Law	Regional Legal Framework	Regional Progress in ABNJ	Challenges for ABNJ
	• Advice and Recommendations on avoiding likely impacts on VMEs (*SPRFMO Scientific Committee*) • EIA application for all activities likely to affect coastal or marine protected areas (*CPPS*)*	• Bottom fishing closures for VMEs (*SPRFMO*) • Measures for new and exploratory fisheries (*SPRFMO*)	• No global & regional framework in place • No institutionalisation of EIAs or SEAs application
Element 3: Marine Genetic Resources			
• No international legal framework for ABNJ	• No regional legal framework for ABNJ	• 2008 Group of Experts meeting (*CPPS*)	• No integrated & coordinated regional approach • No global & regional framework in place
Element 4: Capacity Building and Technology Transfer			
• Personnel training • Participation of developing countries • Technical & scientific cooperation	• Technical assistance, training & other cooperation (*IATTC*) • Assistance for developing countries (*IATTC; SPRFMO*) • Assistance programmes, training & expert participation (*CPPS*)	• Organisation of workshops and trainings (*IATTC; CPPS*)	• No integrated & coordinated regional approach • No regional framework in place
• Promotion of scientific programmes • Equipment & facilities	• Technology transfer (*IATTC*) • Information sharing & university/ research institutes partnerships (*CPPS*)	• Publications and reports available on website (*IATTC; SPRFMO; CPPS*)	
• Assistance in EIA development			
• Funding			

a The * denotes CPPS measures that are not applicable to ABNJ but are still noteworthy.