Introductory briefing

Matters for inclusion in a new international legally-binding instrument under UNCLOS: enhanced cooperation and effective dispute resolution

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1. The underlying idea

1. WWF considers that a new international legally-binding instrument under UNCLOS (hereafter, **NILBI**) applicable to areas beyond national jurisdiction (hereafter, **ABNJ**) is an unparalleled opportunity to deliver enhanced cooperation and effective dispute resolution within the context of ecosystem-based management and integrated ocean management.

2. The concepts of enhanced cooperation and effective dispute resolution are explained in more detail below. However, in short, enhanced cooperation is intended by WWF to address (a) the failure by certain States to fulfil their obligations and (b) the failure by international bodies to work together to facilitate delivery of each other's decisions. In turn, WWF sees effective dispute resolution, also explained in more detail below, as a means to help achieve enhanced cooperation.

3. At the outset, it is necessary to clarify one point of terminology. For the purposes of this briefing, the term 'international body' (hereafter, **IB**) will be used to mean an inter-governmental forum, whether that forum is either a formal inter-governmental organisation (e.g. the International Seabed Authority or a regional fisheries management organisation) or a conference/meeting of the parties to a treaty.

4. The purpose of this briefing is, in particular, to introduce the concepts of enhanced cooperation and effective dispute resolution and to set out WWF's thinking so far on these matters in the context of the NILBI. As will become apparent, this is very much a work in progress and one on which WWF would welcome comments from those with an interest in the subject. It is intended to produce a further document that will develop the ideas set out below in more detail, taking into account any comments that have been received on this briefing.

2. Governance of areas beyond national jurisdiction

5. UNCLOS is widely regarded as 'a Constitution for the Oceans'. The treaty contains a large number of provisions on cooperation, including ones relevant to governance of ABNJ. Provisions on cooperation relevant to ABNJ are also found in the two existing implementing agreements of UNCLOS as well as in many other instruments.

6. Examples of cooperation provisions in UNCLOS that are relevant to ABNJ are Articles 63(2) and 64 (in Part V) on straddling stocks and highly migratory species, Article 118 (in Part VII) on high seas living resources, Article 197 (in Part XII) on protection and preservation of the marine environment and Articles 242 and 243 on marine scientific research (in Part XIII), as well as provisions in Part XI (as read with the 1994 implementing agreement) relating to the Area.

7. In the effective management of activities and natural resources in ABNJ, cooperation has a central role, both between States and between IBs. Non-State actors have a role in cooperation too. (The term 'non-State actors' will be used in this briefing to include, amongst others, non-governmental organisations.) This is illustrated by Article 12(2) of the UN Fish Stocks Agreement (1995) (hereafter, **FSA**), which provides for the participation of

'non-governmental organizations' as observers in meetings of regional fisheries management organisations (hereafter, **RFMOs**).

3. Ecosystem-based management

8. WWF considers that ecosystem-based management (hereafter, **EBM**) should be a key objective for the management of human activities in ABNJ. EBM has been defined as the 'comprehensive, integrated management of human activities based on best available scientific … knowledge about the ecosystem and its dynamics, in order to identify and take action on influences that are critical to the health of ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity'.[1]

9. EBM is already in use *within* some individual sectors, including in ABNJ, although interpretations of EBM vary from sector to sector. However, it is unlikely that EBM *across* sectors, at least in ABNJ, would occur in the absence of a new legal instrument. For the purposes of this briefing, the term 'sector' is intended to include all relevant use sectors. Thus it includes not just economic sectors (e.g. fisheries, mining, shipping) but also marine scientific research and environmental protection.

10. WWF considers that the NILBI is the appropriate instrument to require the application of EBM across all sectors in ABNJ and that EBM should be couched in the instrument as a key objective for the management of human activities. As such, it would then serve to drive both integrated ocean management and, in large part, enhanced cooperation.

4. Integrated ocean management

11. WWF considers that integrated ocean management (hereafter, **IOM**) should be a key process for the management of human activities in ABNJ. IOM envisages that States and IBs will put in place arrangements to ensure that users of ocean space and ocean resources are mindful of each other not only within the same sector but also across sectors.

12. IOM is already in use within some national jurisdictions. There has also been some preliminary development of the concept in ABNJ. An example is the so-called 'collective arrangement' that exists as a framework for dialogue and information-sharing between certain IBs in the context of the North-east Atlantic Ocean.

13. However, one thing that is currently missing is a legal instrument requiring application of IOM, as a general concept, across ABNJ as a whole. In principle, IOM in ABNJ will mainly involve sectoral IBs (including regional seas organisations) working together. However, there may also be a need to bring into the process the following actors: (a) coastal States in the case of resources that occur in both ABNJ and areas within national jurisdiction;

[1] 'Ecosystem-Based Management in the Arctic', Report submitted to Senior Arctic Officials by the Expert Group on Ecosystem-Based Management May 2013, Arctic Council, 2013, 63pp.; see pp.1 and 4, and also 11–12 and 21–23.

and (b) individual flag States in the case of sectors that do not currently fall within the mandate of any given IB (e.g. cable laying and marine genetic resources).

14. WWF considers that the NILBI is the appropriate instrument to require the application of IOM in ABNJ and that IOM should be couched in the instrument as a key process for the management of human activities and one that is driven by EBM. IOM would in turn facilitate the achievement of enhanced cooperation – in particular the cooperation between sector-specific IBs (on which, see 'Type B enhanced cooperation' below).

5. Enhanced cooperation

5.1 Introduction

15. The concept of enhanced cooperation is intended to refer to action by States to achieve outcomes at a higher level, or by different means, than has hitherto generally been the case. It may be contrasted with 'ordinary' cooperation, such as that required under Articles 63(2), 64, 118, 197, 242 and 243 of UNCLOS (on which, see above).

16. In particular, the following instances are envisaged: (A) where action among States, or by a single State acting unilaterally in the interests of the international community, working in one capacity is needed to address State irresponsibility in another capacity; and (B) where action by one IB is needed to give effect to decisions made in another IB, or where action by one State acting unilaterally in the interests of the international community is needed to give effect to decisions made in any IB.

17. In this briefing, enhanced cooperation of the kind described in '(A)' above will be referred to as '**Type A enhanced cooperation**'; and enhanced cooperation of the kind described in '(B)' above will be referred to as '**Type B enhanced cooperation**'. Some examples are provided in sections 5.2 and 5.3 below.

18. The concept of enhanced cooperation is inspired by, and to some extent founded on, the numerous provisions in UNCLOS that require States to cooperate with one another (on which, see above). In addition, there is growing State practice in the field of enhanced cooperation (both Type A and Type B).

19. WWF considers that the NILBI is the appropriate instrument to establish a duty of enhanced cooperation. As noted above, fulfilment of this duty would, in large part, be driven by an obligation on States to apply EBM across all sectors in ABNJ and would be facilitated, in particular in respect of Type B enhanced cooperation, by an obligation on States to apply IOM in ABNJ.

5.2 Type A enhanced cooperation

20. As noted above, Type A enhanced cooperation concerns instances where action among States, or by a single State acting unilaterally in the interests of the international community, working in one capacity is needed to address State irresponsibility in another capacity. An example of Type A enhanced cooperation is cooperation among port States to

address flag State irresponsibility. State practice of this kind is exemplified by the FAO Port State Measures Agreement (adopted in 2009, but not yet in force) and by binding decisions on port State measures adopted by RFMOs.

21. In the case of the example above, the need for the Type A enhanced cooperation arises because of the failure by one or more flag States to adhere to their responsibilities. This may be in the context of fisheries (where the problem is failure by certain flag States to fulfil their due diligence obligation to prevent IUU fishing) or in the context of merchant shipping (where one problem, amongst others, is the failure by certain flag States to adhere to international standards on marine pollution).

22. The example above involves States responding in their capacity as port States. However, depending on the nature of the particular problem in hand, Type A enhanced cooperation could involve States responding in other capacities too, for example as coastal States, market States (whether importing, exporting or re-exporting) or States of nationality. A Type A response need not only entail two or more States working together. In principle, as noted above, Type A enhanced cooperation could also occur in the form a single State acting unilaterally in the interests of the international community (e.g. the EU acting as a market State in response to the problem of IUU fishing).

5.3 Type B enhanced cooperation

23. As noted above, Type B enhanced cooperation concerns instances where action by one IB is needed to give effect to decisions made in another IB, or where action by one State acting unilaterally in the interests of the international community is needed to give effect to decisions made in any IB. An example of Type B enhanced cooperation could be an RFMO or the International Seabed Authority taking actions within its competence to help manage a marine protected area established by a regional seas organisation.

24. Sometimes, action needed by an IB 'X' to give effect to decisions made in IB 'Y' is hindered by a member State (or States) of body 'X' persistently exercising a veto power in an obstructive way. In that case, the consequence would be that body 'X' would fail to take the necessary action to support body 'Y'. In turn, the question arises as to what can be done about the obstructive behaviour of the member State(s) in question. With reference to section 7 below, the answer may be that a dispute resolution body of the kind suggested in paragraph 45, when investigating an allegation of breach of Type B enhanced cooperation by body 'X' or by its member States, could target its recommendations specifically at the obstructive member State(s) concerned.

25. In principle, Type B enhanced cooperation could also involve treaties on the handling of, or trade in, goods and services derived from the marine environment (e.g. the Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973); hereafter, **CITES**). Thus, for example, an RFMO could potentially act to give effect to a listing decision made by the conference of the parties to CITES.

26. As with Type A enhanced cooperation, a Type B response need not only entail one or more IBs responding to another IB. In principle, as noted above, Type B enhanced

cooperation could also occur in the form of a single State acting unilaterally in the interests of the international community to give effect to decisions made in any IB.

6. Who would be bound?

27. As noted above, WWF considers that the NILBI is the appropriate instrument to (a) require the application of EBM across all sectors in ABNJ, (b) require the application of IOM in ABNJ and (c) establish a duty of enhanced cooperation. The question arises as to what entities would be eligible to become parties to the NILBI and so be bound by those duties. Would it just be States? Or could it be IBs as well?

28. The situation of States (and now the EU too) being parties to a treaty is, of course, a very familiar one. The situation of IBs (other than the EU) being parties to a treaty is far less familiar. For IBs to be able to become parties to the NILBI, two things would be needed: (a) the NILBI itself would need to provide for IBs to become parties; and (b) any given IB would need the appropriate powers, express or implied, to become a treaty party. Neither '(a)' nor '(b)' is necessarily straightforward.

29. Going further into the matter of IBs as parties to the NILBI is beyond the scope of this briefing. However, even if IBs were not able to become parties to the NILBI, that would not be the end of the matter. It is possible to envisage duties to use EBM and IOM, as well as duties of enhanced cooperation, being applied by the NILBI to States alone. Appropriate wording could be used to require States parties to the NILBI to adhere to those duties within the IBs of which they are members. (Article 10 of the FSA may provide an example in that respect. Under that provision, States parties to the FSA are required by the FSA to act in certain ways within the RFMOs of which they are members.) Where problems might arise from this exclusively State-centred approach is in dispute resolution (on which, see particularly paragraphs 47 and 48 below).

7. Effective dispute resolution

7.1 Introduction

30. The concept of effective dispute resolution may be contrasted with the more conventional means of dispute resolution currently provided for under many treaties or used by many IBs. The idea is to find a way of making (peaceful) dispute resolution more likely to be used in cases where breaches of relevant duties are considered to have occurred or be occurring. In principle, if dispute resolution is more likely to be used, it is likely to become more effective, either as a threat or by actual use, to ensure that relevant duties are implemented.

31. WWF considers that the NILBI should incorporate a system of effective dispute resolution. In principle, this system could be applied to disputes relating to any aspect of the interpretation or application of the NILBI, be it EBM, IOM or enhanced cooperation. (There may be scope for applying it in other contexts too.) However, this briefing will look just at the application of effective dispute resolution to the duty of enhanced cooperation.

7.2 Means of dispute resolution as listed in the UN Charter

32. Article 33 of the UN Charter (1945) lists the various 'peaceful means' of dispute resolution referred to in the Charter's Article 2(3). They are: 'negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of [the parties'] own choice'. (The term '**judicial means**' will be used hereafter to refer to arbitration and/or judicial settlement.) Most of these means are designed to operate primarily in a bilateral context. Thus, in the specific context of cooperation, they will generally work well where there is a bilateral treaty requiring cooperation and one of the parties is alleging that the other party is in breach of its obligation to cooperate under the treaty (e.g. the *Pulp Mills on the River Uruguay* case,[2] where judicial settlement was the means of dispute resolution used by the parties concerned).

33. However, most of the above means will work less well where there is a multilateral treaty requiring the generality of its parties to cooperate. Let us take Article 197 of UNCLOS as an example. This provision establishes a duty of cooperation to adopt international rules regarding protection and preservation of the marine environment. The duty of cooperation is fairly imprecise and general in nature. (The same may be said of, say, the duties of cooperation in Articles 63(2), 64 and 118 of UNCLOS.) Most of the means of dispute resolution listed in the UN Charter, including judicial means, would not work well unless the failure to adopt international rules on a particular subject was due to the obviously obstructive behaviour of one or two identifiable States and there were other States willing to initiate dispute resolution mechanisms against them.

34. Irrespective of the nature of the dispute, resort to judicial means is relatively infrequent as a means of resolving disputes between States. There are various potential reasons for this, including the following: (a) States may be reluctant to lose control of a dispute by entrusting it to a judicial body whose decision may be unpredictable; (b) a judicial body will usually only settle a dispute on the basis of relevant legal rules, the outcome of which is usually 'a winner takes all' decision, whereas other means of dispute resolution may offer more flexibility; (c) the costs of litigation can be very high, those costs arising from the hire of legal practitioners and, in the case of arbitration, from the payment of arbitrators for their services and the hire costs of premises and officials; and (d) the duration of litigation may be very long, particularly in the case of the International Court of Justice (ICJ).

35. Of the various means of dispute resolution listed in the UN Charter, the one that may have most application to breach of a general cooperation duty (like that in Articles 63(2), 64, 118 or 197 of UNCLOS) is 'enquiry'. Enquiry can play a valuable role where resolution of a dispute is complicated by disagreement between the parties over the facts giving rise to the dispute. In such cases, the parties may agree to ask a third party, which could be an individual or group of individuals, a State or an IB to investigate the disputed facts and report its findings to the parties. 'Enquiry' is that process of investigation and reporting.

[2] *Pulp Mills on the River Uruguay (Argentina v. Uruguay)* [2010] ICJ Rep. 14.

36. It should be emphasised that with an enquiry (or fact-finding, as it is often referred to) the third party does not suggest how the dispute should be resolved; its task is merely to find the facts. Therefore enquiry has the added advantages that at least the first two of the reasons set out above for States' reluctance to resort to judicial means, and potentially all four of those reasons, do not apply to it. In the case of Article 197 of UNCLOS, an enquiry could seek to establish why States had failed to adopt international rules on a particular subject, and possibly suggest an approach to cooperation that might be more fruitful than that hitherto employed. In practice, so far, enquiry has not yet been used in respect of Articles 63(2), 64, 118 or 197 of UNCLOS (see further below).

7.3 Treaty-based means of dispute resolution

37. In contemporary international law, a wide variety of means of dispute resolution can be found in numerous treaties and institutions. Treaties or institutions of relevance to ABNJ that include provisions on dispute resolution include, amongst others, UNCLOS, the FSA, RFMOs and multilateral environmental agreements (hereafter, **MEAs**).

38. Both UNCLOS and the FSA, and probably most RFMOs and MEAs, place primary reliance on the use of judicial means to resolve disputes (e.g. see Article 287 of UNCLOS and Article 30(1) of the FSA). Yet, for the reasons mentioned above, judicial means are not well-suited to situations where there is a multilateral treaty requiring the generality of its parties to cooperate. However, UNCLOS, the FSA, some RFMOs and some MEAs also include provisions on dispute resolution that may be more well-suited in that regard, as follows.

39. First, there is 'inquiry' under Article 5 of Annex VIII to UNCLOS. This provides that any States parties which are parties to a dispute concerning the interpretation or application of the provisions of UNCLOS relating to (a) fisheries, (b) protection and preservation of the marine environment, (c) marine scientific research or (d) navigation may at any time agree to request an Annex VIII special arbitral tribunal 'to carry out an inquiry and establish the facts giving rise to the dispute'. (The reference to 'inquiry' here may, in broad terms, be regarded as synonymous with the reference to 'enquiry' as used above.) It appears that Article 5 of Annex VIII has not yet been invoked between any of the parties to UNCLOS.

40. Secondly, there is Article 29 of the FSA. This provides that States parties may refer disputes of a 'technical nature' to an 'ad hoc expert panel' which is to 'endeavour to resolve the dispute expeditiously without recourse to binding procedures for the settlement of disputes'. No further details are provided in the FSA and it appears that Article 29 has not yet been invoked between any of the parties to the FSA.

41. Thirdly, some RFMOs have adopted procedures for dealing with technical disputes or for reviewing management measures of the RFMO concerned, somewhat along the lines of Article 29 of the FSA although usually with much greater detail. The situations in which these procedures operate differ from one RFMO to another, as does the procedure. An example of an RFMO where these procedures exist and have been used (in 2013) is the South Pacific RFMO. (It should be added that, in addition, RFMOs have created, as subsidiary bodies, compliance committees, which address the compliance by States and vessels with the fisheries conservation and management regimes adopted by the RFMOs.)

42. Fourthly, parties to some MEAs have adopted so-called 'non-compliance procedures'. One such MEA is the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (1998) (hereafter, **the Aarhus Convention**). Non-compliance procedures are concerned with addressing instances of alleged non-compliance with the obligations under the relevant MEA. They are not necessarily involved in resolving a dispute, as there may be no dispute that there is non-compliance: even a non-complying State itself may accept that it is not complying.

43. The non-compliance procedures of MEAs vary in their detail, but their essence is as follows. Typically, a special body is established to which allegations of non-compliance may be unilaterally referred. (In the case of the Aarhus Convention, non-State actors may make the referral.) Following referral, the non-compliance body will investigate the situation. In the light of its investigation, the body may make recommendations to the conference/meeting of the parties designed to bring the non-complying party back into compliance. To this end the conference/meeting may adopt either facilitative measures (e.g. provision of financial aid or technical assistance) or sanctioning measures (e.g. suspension of rights and privileges or trade measures).

7.4 Conclusion

44. In the light of the above very brief review of means of dispute resolution, the next step is to consider which of those means might be the most promising for inclusion in the NILBI in order to help achieve effective dispute resolution. As noted above, judicial means have limitations in dealing with breaches of general cooperation duties. Instead, for those purposes, the solution may lie in something that is less formal, cheaper and speedier.

45. The above discussion of enquiries, RFMO procedures for dealing with technical disputes or for reviewing management measures and MEA non-compliance procedures offers some pointers in this regard. It suggests that an appropriate means of dispute resolution for dealing with alleged breaches of broad cooperation duties, including duties of enhanced cooperation, could be the establishment of a body that would investigate allegations of breach, find facts as necessary and, where appropriate, recommend to the State(s) in question the action that it (they) should take to fulfil the obligation.

46. It may reasonably be asked how this means would be different from conciliation, for example conciliation as provided for under Annex V of UNCLOS. After all, conciliation under UNCLOS may involve some fact-finding and it entails the making of recommendations rather than binding decisions.[3] These are indeed similarities between conciliation and the means that is suggested in paragraph 45 above. However, the two means may start to diverge in nature depending on the answers to the following questions: (a) Who would be members of the body that conducts the investigation? Would it be individuals (as with a conciliation commission[4]) or would it be States parties (or a combination)? (b) Would the body be constituted as and when needed (as with a conciliation commission[5]) or would it be a standing body? (c) Who would initiate an investigation by the body? Would it be States

[3] Article 7(1) and (2) of Annex V to UNCLOS.
[4] Article 3 of Annex V to UNCLOS.
[5] Article 3 of Annex V to UNCLOS.

parties (as with a conciliation commission[6]) or could it be, in addition, an IB or a non-State actor? (d) Must initiation entail the consent of the State(s) being investigated (as with a conciliation commission,[7] except in very specific circumstances[8]) or could initiation be unilateral? (e) Would findings of the body be purely recommendatory (as with a conciliation commission[9]) or could they in certain circumstances be binding (and, if so, what kind of sanction could be imposed)?

47. Earlier in this briefing, there was discussion about whether parties to the NILBI would just be States or could be IBs as well. That becomes relevant in the context of dispute resolution. For example, if IB 'A' is failing in its Type B enhanced cooperation duty to give effect to a decision made in IB 'B', who can or should be the respondent in the dispute resolution procedures? Ideally, it would be body 'A'. However, if IBs in general cannot become parties to the NILBI, or if they can but body 'A' does not itself have the necessary powers to become a party or has not chosen to become one, body 'A' could not be the respondent. Let us suppose that there is a general lack of interest among the State members of body 'A' in fulfilling the Type B enhanced cooperation duty. In other words, the failure to act by body 'A' is not attributable to just one or two recalcitrant members. What can be done?

48. This situation reiterates the relevance of the type of dispute resolution procedure. It was suggested above that an appropriate means of dispute resolution for dealing with alleged breaches of broad cooperation duties could be the establishment of a body that would investigate allegations of breach, find facts as necessary and, where appropriate, recommend to the State(s) in question the action that it (they) should take to fulfil the obligation. In principle, there is no reason why a body of that kind could not make its recommendation to all of the State members of a particular IB (body 'A' in the example above) that were also parties to the NILBI. Going further into this matter is beyond the scope of this briefing. However, it clearly merits further investigation because of the prevalence of the role of IBs both in the management of human activities in ABNJ and in the context of the duty of enhanced cooperation (not to mention in the context of the duties to apply EBM and IOM).

49. This section of the briefing has so far considered the resolution of disputes. That has left unaddressed the question of advisory opinions. It could potentially be advantageous to endow the International Tribunal for the Law of the Sea (ITLOS) with the competence to give advisory opinions relating to the interpretation and application of the NILBI, given that its practice with the giving of advisory opinions so far, while admittedly limited, has proved useful and valuable. One question to be considered would be what entities would be able to ask for an opinion. Would it be limited to IBs, and, if so, which ones; or should it also be possible for individual States parties to the NILBI, or even non-State actors, to ask for an opinion?

[6] Articles 284, 297(2)(b) and (3)(b) and 298(1)(a) of UNCLOS.
[7] Article 284 of UNCLOS.
[8] Articles 297(2)(b) and (3)(b) and 298(1)(a) of UNCLOS.
[9] Article 7(2) of Annex V to UNCLOS.

8. Summary

50. WWF considers that the NILBI is an unparalleled opportunity to deliver so-called 'enhanced cooperation' within the context of EBM and IOM. The three concepts of EBM, IOM and enhanced cooperation would work together. EBM would be a key objective for the management of human activities in ABNJ; IOM would be a key management process; and a duty of enhanced cooperation would seek to address the failure by certain States to fulfil their obligations as well as the failure by IBs to work together to facilitate delivery of each other's decisions. EBM would serve to drive both IOM and, in large part, enhanced cooperation. IOM would facilitate the achievement of enhanced cooperation – in particular Type B.

51. However, any set of standards also needs a system for peaceful dispute resolution. Judicial means have limitations in dealing with breaches of general cooperation duties; and resort to these means is anyway relatively infrequent as a means of resolving disputes between States. The idea is to find a way of making dispute resolution more likely to be used, and to incorporate it within the NILBI. In principle, if dispute resolution is more likely to be used, it is likely to become more effective, either as a threat or by actual use, to ensure that relevant duties are implemented.

52. A brief review of non-judicial means of dispute resolution suggests that an appropriate means of dispute resolution for dealing with alleged breaches of broad cooperation duties, including duties of enhanced cooperation, could be the establishment of a body that would investigate allegations of breach, find facts as necessary and, where appropriate, recommend to the State(s) in question the action that it (they) should take to fulfil the obligation. The notion of this body stems from, in particular, the so-called 'non-compliance procedures' adopted by some MEAs and from procedures adopted by some RFMOs for dealing with technical disputes or for reviewing management measures of the RFMO concerned.

53. The purpose of this briefing is to set out WWF's thinking so far on these matters in the context of the NILBI. This is very much a work in progress and one on which WWF would welcome comments from those with an interest in the subject. It is intended to produce a further document that will develop the ideas set out above in more detail, taking into account any comments that have been received on this briefing.

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Discussion Paper

Some Crucial Issues to be Resolved on Marine Genetic Resources in the Context of the Marine Biological Diversity Preparatory Committee Discussions

WWF International, March 2016

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Introduction

This paper sets out some questions on access and benefit sharing of marine genetic resources ("MGRs") which will need to be answered by negotiators with some suggestions from WWF, where appropriate at this early stage of discussions. It does not aim at a comprehensive approach but rather aims at identifying and addressing key questions. It refers to the IUCN matrix of suggestions.[1] and the High Seas Alliance submission to the chair on 'Governance Principles Relevant to Marine Biodiversity in Areas Beyond National Jurisdiction'.[2]

The basis for negotiation is set out in UNGA resolution 69/292,[3] whereby the General Assembly decided "*to develop an international legally-binding instrument under the Convention on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction… [N]egotiations shall address the topics identified in the package agreed in 2011, namely the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, in particular, together and as a whole, marine genetic resources, including questions on the sharing of benefits, measures such as area-based management tools, including marine protected areas, environmental impact assessments and capacity-building and the transfer of marine technology*."

An essential element is that the various elements are "together and as a whole": a concept known as the "package" which was agreed in 2011.[4] A regime, likely to be a *sui generis* regime, being an international legally-binding instrument under the Law of the Sea Convention (UNCLOS), would need to address all these topics. A regime would also be consistent with UNCLOS, while identifying and implementing a framework to address MGRs 30 years after UNCLOS was agreed. For instance, the instrument will need to address the question of scope: does it apply to MGRs in the water column as well as on the sea floor? If it does not, it risks being irrelevant to many if not most MGRs; if it does, it will need to identify a new paradigm for MGRs in the water column. At the same time, experts advise that a regime should not impose undue constraints which would constrain marine scientific research, on the one hand, and embrace good practice and put into place a workable regime

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[1] An International Instrument on Conservation and Sustainable Use of Biodiversity in Marine Areas beyond National Jurisdiction: Matrix of Suggestions. 16 December 2015. At http://cmsdata.iucn.org/downloads/iucn_bbnj_matrix_december_2015.pdf.

[2] At http://www.un.org/depts/los/biodiversity/prepcom_files/greenpeace.pdf.

[3] United Nations General Assembly Resolution 69/292, 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. 19 June, 2015. At http://www.un.org/en/ga/69/resolutions.shtml. All web references as at 16 February 2016.

[4] UNGA resolution 66/231, Oceans and Law of the Sea, Annex. The recommendation arising from the Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction (the so-called "BBNJ") was, in the relevant part, that:

> (a) A process be initiated, by the General Assembly, with a view to ensuring that the legal framework for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction effectively addresses those issues by identifying gaps and ways forward, including through the implementation of existing instruments and the possible development of a multilateral agreement under the United Nations Convention on the Law of the Sea;(b) This process [would] address the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction, in particular, together and as a whole, marine genetic resources, including questions on the sharing of benefits, measures such as area-based management tools, including marine protected areas, and environmental impact assessments, capacity-building and the transfer of marine technology.
> See the Working Group outcomes at http://www.un.org/depts/los/biodiversityworkinggroup/biodiversityworkinggroup.htm. The 2011 Outcome was in the Letter dated 30 June 2011 from the Co-Chairs of the Ad Hoc Open-ended Informal Working Group to the President of the General Assembly, 30 June 2011, UN Doc. A/66/119.

on issues such as traceability, accountability, documentation, samples, and transparency. While some lessons can be learned from the Nagoya Protocol, many of these matters, since they apply to MGRs obtained in areas beyond national jurisdiction, may need to be specifically formulated.

WWF would like to suggest that development of such a *sui generis* regime offers an opportunity to create a new MGR regime that builds on, and is consistent with the underlying principles of, both the existing regime of the Area and the established regime of the high seas. Such a new regime is needed not only (i) to deal with the biological reality that much – but not all - genetic material may be found in both ABNJ domains (as well as within national jurisdictions), but also (ii) to develop benefit-sharing arrangements that respect UNCLOS research freedoms while recognising UNCLOS conservation and development obligations and opportunities.

Other issues which will need to be addressed are how much detail will be included in the instrument and how much may go into either a separate decision, for instance, negotiated as part of the package, as was the case for the Paris Agreement. Another issue is how much capacity building and technology transfer issues are integrated effectively into the instrument.

Access Issues

IUCN Matrix: 4.1.2

Clarify that ABS regime covers:

Access to in situ MGR

Sharing of benefits from in situ MGR and ex situ samples of MGR (collected/stored by public as well as private repositories) and related data

Question for resolution: Does the ABS regime only cover MGR *in situ* i.e. on site where the sample is collected in ABNJ, or does it also cover MGR *ex situ*, such as samples collected in ABNJ and now held in data bases or repositories? This is a question of scope. Negotiators may want the broadest possible scope, to avoid loopholes and avoidance, and to keep abreast of scientific developments.]

IUCN Matrix: 4.3 Access Obligations

States take measures to ensure notification, reporting and recording of sampling activities in ABNJ.

Notification, reporting and recording processes could be established at the national level and international level, through a clearing house mechanism or other mechanism established or authorized under this agreement.

References: Nagoya protocol Arts. 14, 17; UNCLOS Arts. 248; 242, 143.3(a); 244.1, 143.3(c), 244.2, 144.2, 240(d), 206, 143.1.

Question for resolution: Should notification, reporting and recording of sampling be required, and should EIAs be required for some sampling activities in ABNJ? One advantage would be to enhance traceability of MGRs, as well as usability of samples and effectiveness of the regime.

Notification and reporting could be at a national level, international level or a combination. Options include:

- Using the Nagoya Protocol clearing-house mechanism

- Setting up a new ABS clearing-house mechanism for ABNJ linked to or similar to the Nagoya Protocol clearing-house
- Expanding role of existing institutions (e.g. the international Seabed Authority or the Intergovernmental Oceanographic Commission of UNESCO)

Notification could take place at a national level but then be published through an international clearing-house.

References: *Nagoya Arts. 14, 17.1*

IUCN Matrix 4.5 Monitoring and Enforcement for ABS system

Suggestion 1: *[General monitoring and reporting obligations]*

Suggestion 2: *[Detailed monitoring and reporting obligations.]*

Or: *Contracting Parties to develop and adopt their own notification, reporting and recording requirements based on international guidelines, codes of conduct, etc.*

[See: *Reporting Requirements 6.3.1, Implementation and Enforcement, 6.3.3]*

References: Nagoya Protocol MOP1 Decision NP-1/2, Bonn Guidelines para 36, Nagoya Protocol Article 20, Regulation (EU) No 511/2014 on compliance measures for users from the Nagoya Protocol.

Question for resolution: These options address specific requirements for notification and reporting. They can be developed and agreed by the COP, or included as an Annex, or can be left to be developed by Contracting Parties themselves. Suggestion 1 may leave the most flexibility, while retaining some international standards, while suggestion 2 may bring in the most certainty.

Overview: Benefits and Benefit Sharing

Benefits are best seen as being advantages of some kind. Benefit sharing is the transfer of advantages, be they non-monetary or monetary, including revenues from commercialisation.[5]

Monetary and/or Non-Monetary Benefits

Monetary benefits are generally royalties, licences or other fees or profits from successful commercialisation whereas non-monetary benefits are generally some other kind of advantage.[6] Monetary benefits are generally financial or economic outcomes such as payments (including up-front, milestone or royalty payments), fees (access, license or special), funding research or other related activity or joint intellectual property rights ownership.

The distinction between monetary and non-monetary benefits is often made. For instance, the Nagoya Protocol in article 4.3 provides that "[B]enefits may include monetary and non-monetary benefits, including but not limited to those listed in the Annex." The Annex proceeds to list monetary and non-monetary benefits. However, that dichotomy may not always be helpful. For instance, research funding is considered a monetary benefit[7] whereas cooperation in scientific research is considered a non-monetary benefit.[8] Yet in terms of benefit sharing, whether research cooperation involves the transfer of money, on the one

[5] Schroeder, D., 2007. Benefit sharing: it's time for a definition. Journal of Medical Ethics 33, 205-209.

[6] Schroeder

[7] Nagoya Protocol Annex, 1(h).

[8] Nagoya Protocol Annex, 2(b).

hand, or equipment, facilities or access to facilities or data, on the other, may be of less concern than whether the cooperation in research takes place at all.

Currently there are few examples of commercial exploitation of deep sea genetic resources, such as fuelzyme, a biofuels enzyme,[9] and a cosmetic, Deepsane, marketed as Abyssine.[10] Commercialization is at the end of a long chain of discovery, research and development, where uncertainties include technical, commercial and other obstacles.[11] Estimates, for instance, of potential anti-cancer and other drugs from MGRs in the order of hundreds of millions to trillions of dollars[12] are based on the potential economic values do not take these factors and uncertainties into account. Commonly cited non-monetary benefits include access to samples, data and knowledge, the publication and sharing of scientific knowledge, collaboration and international cooperation in scientific research, capacity building and technology transfer, scientific training and access to resources such as research infrastructure and technology, and research directed to health and food security. Non-monetary benefits, which typically may accrue prior to commercialization, and particularly including during the research phase, stimulate knowledge, capacity, technology advances, cooperation and industrial development.[13]

Since commercial benefits usually will come late in the process of research and development, when commercial development or intermediary transfer of interests in information and materials takes place, the real delineation between non-monetary and monetary benefit sharing can be temporal rather than conceptual. A regime may be designed, therefore, to encourage benefit sharing throughout the life of discovery, research and development of MGR, and also to be able to lead to additional monetary benefit sharing if and when a product is commercialized. This could be designed by a conventional approach of requiring payment of royalties, for instance, as in the FAO IPGRA, but it could also be designed through an ongoing process overseen by a Conference of the Parties to any new instrument, coupled with an enhanced dispute resolution process designed to formulate monetary benefit sharing arrangements. Another way to address the long time-lag in potential payments is

[9] Fuelzyme was developed from *Thermococcus* sp., which was isolated from a deep-sea hydrothermal vent, and is used in biofuel production.. See G. Z. L. Dalmaso et al, "Marine Extremophiles: A Source of Hydrolases for Biotechnological Applications," Mar Drugs. 2015 Apr; 13(4): 1925–1965.

[10] Deepsane was developed from marine bacteria collected around deep-sea hydrothermal vents from which were produced in a laboratory complex and innovative exopolysaccharides. In a previous study, the mesophilic strain *Alteromonas macleodii* subsp. *fijiensis biovar deepsane* was collected on the East Pacific Rise at 2600 metres. See Le Costaouëc et al, "Structural data on a bacterial exopolysaccharide produced by a deep-sea Alteromonas macleodii strain," Carbohydr Polym. 2012 Sep 1,90(1):49-59.

[11] Juniper, S.K., 2013. Technological, Environmental, Social and Economic Aspects. Information Paper 3. , IUCN Information Papers for the Intersessional Workshop on Marine Genetic Resources 2-3 May 2013, United Nations General Assembly Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction. IUCN Environmental Law Centre, Bonn, pp. 15-22.

[12] E.g. Erwin, P.M., Lopez-Legentil, S., Schuhmann, P.W., 2010. The pharmaceutical value of marine biodiversity for anti-cancer drug discovery. Ecological Economics 70, 445-451.

[13] Lallier, L.E., McMeel, O., Greiber, T., Vanagt, T., Dobson, A.D.W., Jaspars, M., 2014. Access to and use of marine genetic resources: understanding the legal framework. Natural Product Reports 31, 612-616; Oldham, P., Hall, S., Barnes, C., Oldham, C., Cutter, M., Burns, N., Kindness, L., 2014. Valuing the Deep: Marine Genetic Resources in Areas Beyond National Jurisdiction, Defra Contract MB0128 – A review of current knowledge regarding marine genetic resources and their current and projected economic value to the UK economy. Final Report Version One. One World Analytics, London

through milestone payments, such as a payment made to secure exclusivity, or when the product is placed on the market.

Benefit Sharing Issues

IUCN Matrix 4.4.1: General Benefit Sharing Mechanisms

[Suggestion 1: Comprehensive set of benefit sharing provisions for a multilateral system]

Detailed Proposals: Develop a comprehensive multilateral benefit-sharing system introducing obligations to:

- Create a multilateral/pool system facilitating international access to and scientific research on MGR from ABNJ as well as associated data

- Fair and equitable sharing of non-monetary benefits by facilitating international collaboration, technology transfer and capacity-building

- Fair and equitable sharing of monetary benefits in case of commercial research and/or development of market products]

[Suggestion 2: Base system on public domain approach

Detailed Proposals: In developing Suggestion 1, adopt a public domain approach.

The overall principle of a public domain approach would be based on obligations for international cooperation and sharing of knowledge and data, and UNCLOS Art 241 which states that MSR shall not constitute the legal basis for any claim to marine resources. This would translate into obligations to:

put samples of MGR collected in ABNJ as well as associated data in the public domain as soon as possible (possibility of embargo period)

- Share through international network(s) of biorepositories and international network(s) of

databases creating common pools

- Store sub-samples (duplicate samples) in centralized biorepositories at national or international level (if possible)

- share monetary benefits in case of commercial utilization (i.e. sample or data are not put in the public domain, or product is put on market and generates revenues)

Further policies, standards and guidelines would need to be subsequently adopted by appropriate international process.]

References: *UNCLOS arts 248, 242, 244.1, 143.3, 144, 241, UNGA resolution 2749, CBD Article 15, Nagoya Protocol arts 14, 17, Nagoya Protocol MOP1 Decision NP-1/2, Bonn Guidelines para 36, International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) Arts 10-13, Report of the PharmaSea WP6 Stakeholder Workshop, Micro B3 Agreement on Access to Marine Microorganisms and Benefit-Sharing (public domain approach), Evanson C.K. and Winter G. "Common pools of Genetic Resources – Equity and Innovation in International Biodiversity Law" (Earthscan, 2013)*

Question for resolution: There are a lot of choices in designing a benefit sharing regime, but there are also examples to choose from. The first option suggested by the IUCN matrix is to develop a comprehensive multilateral benefit-sharing regime. A multilateral or pool system could facilitate international access to, and scientific research on, MGR from ABNJ as well as associated data. The regime would institute fair and equitable sharing of non-monetary benefits by facilitating international collaboration, technology transfer and capacity-building, as well as fair and equitable sharing of monetary benefits in case of subsequent commercial research and/or eventual development of market products. This is addressed later.

Another option is the public domain approach. Samples from ABNJ would be placed in the public domain, then benefits such as international collaboration, technology transfer and capacity building and research and development of market products would be facilitated. There would also be to an obligation to share monetary benefits when there is commercial utilisation further down the line. The public domain approach is but one approach, and would also translate into an obligation to share samples and data obtained from ABNJ wherever they are (*ex situ*). Sharing could take place through international repositories and databases, and other duplicate samples could be stored in centralized biorepositories. Any monetary benefit payments could be to a fund maintained by the Conference of the Parties to the new Instrument.

IUCN Matrix 4.4.2 Types of benefits monetary/non-monetary

Suggestion 1: Indicative list in an Annex

[A detailed annex with a list of indicative monetary and non-monetary benefits is included in the agreement.]

Suggestion 2: COP decisions

[A provision in the agreement indicates that COP decision should further define/elaborate the possible monetary and non-monetary benefits to be shared.]

References: *Nagoya Protocol Annex, CBD art 15, Bonn Guidelines, Nagoya Protocol.*

Question for resolution: The advantage of the Nagoya Protocol Annex is that it is already agreed. However, by separating monetary and non-monetary benefits into two clear categories when, in reality things may be more complex, it may be closing off other options which may include elements of both, or an item in one category may be adapted to fall within the other category. Caution should be exercised in adopting products such as lists from one instrument for another. WWF considers that it is important that the temporal element is fully included in the benefit sharing elements of any arrangements that might be agreed.

[IUCN Matrix 4.4.3 Monetary benefits from commercial research

Suggestion 1*: Mandatory up-front payments*

Access to MGR from ABNJ (i.e. sampling of in situ MGR and access to ex situ MGR as well as related data) for commercial purposes shall trigger an appropriate access fee to be paid by the user to a multilateral fund.]

*S**uggestion 2**: Mandatory milestone payments.*

Appropriate milestone payments shall be made by the researcher to a multilateral fund in case of commercialization (see use of terms):

- *Royalty payments after product based on in situ or ex situ MGR from ABNJ or related data is put on the market.*
- *Exclusivity fee in case of protection of samples and/or data (e.g. through IPR), i.e. when in situ and ex situ MGR from ABNJ as well as associated data is not put in the public domain.]*

Suggestion 3: *Mixture of suggestions 1 and 2*

Mandatory upfront payments as well as mandatory milestone payments in case of commercial research.

Suggestion 4: *Mixture of voluntary and mandatory payments into endowment fund*

Mixture of voluntary and mandatory payments from research institutions, commercial end-users, governments and others into an endowment fund for marine scientific research in ABNJ]

[See*: 6.2 Financial Mechanism]*

References: ITPGRFA Art 13.2 (d) (ii) and Art 13.3 Part IV (Multilateral System of ABS) Micro B3 Agreement on Access to Marine Microorganisms and Benefit-Sharing (proprietary use of samples/data)

Question for resolution: These suggestions represent different ways for payments to be made. In order of time scale, payments could be made for each access of MGR, payable to a multilateral fund; 'milestone' and/or payments could be made at certain, previously agreed, important milestones, such as transfer of intellectual property or placement onto the market, or decisions to secure exclusivity of access to the sample. Other payments could be made by users such as research institutions or commercial end-users into an endowment fund, for instance, for multilateral marine scientific research in ABNJ.

Another way in addition to those suggested in the IUCN matrix could be by COP decisions. The Agreement could implement a framework agreement which would be implemented by COP decisions, or by a Protocol.

Scope

The Area is governed under the principle of common heritage of mankind[14] and is administered by the International Seabed Authority. The definition of sedentary species[15] is designed for harvesting and is inappropriate for MGRs. Many MGRs are partially mobile and, at different stages in their life, forms may be permanently or temporarily attached to rocks or may be free-swimming or floating in the water column. The vertical scope of the IA, therefore, is very important. An agreement which only covered sedentary species, for instance, would miss the vast majority of deep sea MGRs. Similarly, the horizontal scope of the IA needs to be addressed. If an MGR is on a continental shelf, is also in the water column being the high seas, beyond the exclusive economic zone (EEZ), the applicability of the IA needs to be clear and the relationship with adjacent national jurisdictions established.

Another possibility needs to be considered. An agreement could cover all MGRs in the ocean both within and beyond national jurisdiction. This would require a significant conceptual shift. In promoting the adoption of a *sui generis* MGR regime, WWF is hopeful that such a novel idea could be considered – reflecting the particularly extreme lack of respect for jurisdictional boundaries shown by marine genetic material at different life stages of many species.

Consider that UNCLOS was negotiated before the concept of genetic resources was fully understood, and its provisions on fisheries assume that the activity in question is harvesting the fish for its edible flesh. "Optimum utilization of living resources" by coastal States in article 62 and "optimum utilization" of highly migratory species in article 64 is directed at fishing for human consumption either directly or indirectly as fish meal: in article 62.2, the coastal State shall determine its capacity to "harvest" the living resources of the EEZ, and article 62.4 addresses nationals "fishing" in the EEZ. Article 64.1 addresses nationals who "fish" for highly migratory species. Article 65 addresses the "exploitation" of marine mammals, as well as their conservation, management and study.

Therefore there is the possibility for the IA to introduce new concepts for MGR which do not rely on established notions of harvesting, fishing or exploitation. Exploitation of MGR is not of the organism, but of the genetic code of an organism, and need not have any effect on the individual organism, the species, habitat or ecosystem concerned.

[14] UNCLOS art 136
[15] UNCLOS art. 77.4

The close analogy is marine scientific research, but while MSR is relevant, it does not cover the situation completely. In article 143, MSR may be carried out "in the area", and in Part XIII, all States have the right to conduct MSR, subject to the rights and duties of other States as provided in UNCLOS (article 238). Article 241 provides that "Marine scientific research activities shall not constitute the legal basis for any claim to any part of the marine environment or its resources". So any interest in marine genetic resources obtained as a result of MSR cannot arise from MSR itself.

As the scope of the IA is ABNJ, it seems unlikely that agreement would be reached for it to apply to MGR obtained from areas within national jurisdiction, such as on a continental shelf or in a water column, even if the same MGR occurs within ABNJ. So putting MGR from within national jurisdictions aside, an IA could apply to MGR obtained from the high seas or the area. Whether it could apply to MGR "obtained from", "derived from" or even "existing in" ABNJ, however, may be a matter for negotiation.

Question for resolution: whether the scope of the Instrument will apply to MGRs in the water column as well as on the sea floor. If it does not, it is likely not to apply to an enormous range of MGRs. WWF is of the view that a single *sui generis* regime covering, at a minimum, all MGRs obtained from both the Area and the high seas is needed to give practical effect to the interests of all States involved.

Definitional Issues

"Marine genetic resources": A possible definition could be "any material located in or taken from an area beyond national jurisdiction and of plant, animal, microbial or other origin containing functional units of heredity which have of actual or potential value." This definition is based on the CBD definition of "genetic resources" and "genetic material".

Reference: CBD Art 2 definitions[16] *and ITPGR Art 2.*[17]

"Marine Scientific Research": This is not defined in UNCLOS. Given the intersection between marine scientific research, bioprospecting and access to MGRs, WWF considers that it is necessary to define marine scientific research, for the purposes of a *sui generis* instrument. "Marine scientific research" could be defined as "any activity undertaken in an area beyond national jurisdiction with the sole or primary purpose being to expand scientific knowledge of the marine environment, marine life or marine genetic resources".
Reference: UNCLOS Art 240

[16] CBD Article 2 Definitions:
"Biological resources" includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.
"Biotechnology" means any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.
"Genetic material" means any material of plant, animal, microbial or other origin containing functional units of heredity.
"Genetic resources" means genetic material of actual or potential value.

[17] International Treaty on Plant Genetic Resources for Food and Agriculture, adopted 3 November 2001, entered into force 29 June 2004, 2400 U.N.T.S. 303. At http://www.planttreaty.org/content/texts-treaty-official-versions Article 2.
"Plant genetic resources for food and agriculture" means any genetic material of plant origin of actual or potential value for food and agriculture.
"Genetic material" means any material of plant origin, including reproductive and vegetative propagating material, containing functional units of heredity