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Environmental impact assessments in areas beyond national jurisdiction

Elisabeth Druel (IDDRI)

GAPS IN THE CURRENT GLOBAL FRAMEWORK

Although a number of obligations to carry out environmental impact assessments in areas beyond national jurisdiction exist, the current global framework is far from being complete. It is mostly sector-based (deep-sea fisheries, seabed mining, ocean fertilisation) or region-specific (within the Antarctic Treaty System or to a lesser extent in a few number of regional seas conventions), and does not take into account cumulative impacts of human activities on the marine environment. General guidance on the subject has been adopted in 2012 by the Parties to the Convention on Biological Diversity, but is limited to technical aspects and is not legally binding.

AN ISSUE DEBATED AT THE GLOBAL LEVEL

The United Nations General Assembly has been debating on the need for an implementing agreement to the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. Environmental impact assessments are considered as being one of the potential topics for inclusion in a future multilateral agreement.

POSSIBLE WAYS FORWARD

The adoption of an international legally-binding instrument dealing *inter alia* or solely with environmental impact assessments in areas beyond national jurisdiction would already be a good step forward. However, its content will prove crucial to ensure the efficiency of any environmental impact assessment process in areas beyond national jurisdiction and to fill regulatory and governance gaps. Minimum requirements should therefore be defined, for example: including objectives or principles against which the outcome of any EIA will be tested, such as “zero-biodiversity loss”; defining a screening process, with appropriate thresholds; and providing for the creation of an advisory scientific and technical body and of a global compliance committee.

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Context of the report

In 2011, IDDRI formed a partnership agreement with the French Marine Protected Areas Agency concerning the governance of marine biodiversity in areas beyond national jurisdiction. In this regard, IDDRI is focusing on the clarification of key questions for international events relating to the governance of marine biodiversity in areas beyond national jurisdiction and is also conducting various research projects. This study has been realised as part of the work programme established through this partnership agreement.

Disclaimer

The views expressed in this document are those of the authors and do not necessarily reflect those of individuals or organisations consulted in the course of this study.

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LIST OF ACRONYMS

ABNJ	Areas Beyond National Jurisdiction
AT	Antarctic Treaty
ATCM	Antarctic Treaty Consultative Meeting
BBNJ	Working Group 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
CBD	Convention on Biological Diversity
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CEP	Committee for Environmental Protection
COP	Conference of the Parties
DSCC	Deep-Sea Conservation Coalition
EBSA	Ecologically or Biologically Significant Marine Area
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EU	European Union
FAO	United Nations Food and Agriculture Organisation
IAIA I	International Association for Impact Assessment
ICJ	International Court of Justice
ISA	International Seabed Authority
ITLOS	International Tribunal on the Law of the Sea
IUCN	International Union for Conservation of Nature
LC	London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
LP	London Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
LTC	Legal and Technical Commission of the International Seabed Authority
MPA	Marine Protected Area
NAFO	Northwest Atlantic Fisheries Organisation
NEAFC	North-East Atlantic Fisheries Commission
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
RFMA	Regional Fisheries Management Arrangement
RFMO	Regional Fisheries Management Organisation
SAI	Significant Adverse Impact
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SEA	Strategic Environmental Assessment
SEAFO	South East Atlantic Fisheries Organisation
SPREP	Convention for the Protection of the Natural Resources and Environment of the South Pacific Region
SPRFMO	South Pacific Regional Fisheries Management Organisation
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNCSD	United Nations Conference on Sustainable Development
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNFSA	United Nations Fish Stocks Agreement
UNGA	United Nations General Assembly
VME	Vulnerable Marine Ecosystem

EXECUTIVE SUMMARY

Conservation and the sustainable use of marine biodiversity in areas beyond national jurisdiction (ABNJ)¹ have been discussed for more than a decade now under the auspices of the United Nations General Assembly (UNGA) and of its 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 (BBNJ Working Group). Within this framework, States must decide by the end of the 69th session of the UNGA (2014) if they can agree to launch the negotiations on the development of an Implementing Agreement to the United Nations Convention on the Law of the Sea (UNCLOS).² One of the management tools under consideration is environmental impact assessment (EIA), commonly defined as “a process of evaluating the likely environmental impacts of a proposed project or development taking into account inter-related socio-economic, cultural and human health impacts, both beneficial and adverse”.³ EIAs are considered as being particularly useful for:

- determining and analysing likely environmental impacts of proposed human activities;
- developing mitigation measures or, wherever

appropriate, recommending that an activity should not be authorised because the impacts would be too severe or because there is too much uncertainty about them; and

- helping the competent authority to make a final decision about the conduct of an activity.

At the national level, and in transboundary contexts (for example, when activities conducted by a State may have an impact on the environment of a neighbouring State) relevant only to States and not ABNJ, it is well-established practice to conduct EIAs for activities that are likely to cause significant adverse impacts to the environment. This is not the case in ABNJ, where the requirement to carry out EIAs is implemented in a fragmented way. A general obligation exists under UNCLOS to carry out such assessments “when States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment”.⁴ However, this requirement is poorly implemented. Under the Convention on Biological Diversity (CBD), Voluntary Guidelines for the consideration of biodiversity in environmental impact assessments and strategic environmental assessments in marine and coastal areas were adopted recently.⁵ They provide mainly for scientific guidance, leaving governance and policy issues unresolved. The development of the obligation to conduct EIAs has also arisen in some sectors (deep-sea bottom fisheries, seabed mining in the Area, dumping of waste and ocean fertilisation) and in a very small number of regional frameworks (the Antarctic Treaty System, the OSPAR, SPREP and Barcelona regional seas conventions), with notable differences in the extent of requirements and in their implementation.

1. The expression “areas beyond national jurisdiction” encompasses the high seas, defined in Article 86 of the United Nations Convention on the Law of the Sea (UNCLOS) as “all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the archipelagic waters of an archipelagic State” and the Area, defined in Article 1 (1) (1) of the same convention as “the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction”.

2. UNGA Resolution 66/288 of 27 July 2012, “The future we want”, § 162.

3. Voluntary Guidelines on biodiversity-inclusive impact assessment, §5, Annex to Decision VIII/28 on Impact Assessment of the Convention on Biological Diversity (CBD) 8th Conference of the Parties (COP)

4. Article 206 of UNCLOS.

5. CBD COP 11, Decision XI/18 on Marine and Coastal Biodiversity.

Against this background, three questions can be raised. First, where exactly to define gaps in the current institutional and legal framework which would justify the development of an international agreement on EIAs in ABNJ? What could be the possible content of such an agreement? And what form could it take?

Although a general obligation to carry out EIAs exists under UNCLOS, it appears that it has not been fully implemented, because of its lack of precision and details. UNCLOS does not provide for minimum standards and requirements to be applied uniformly in the conduct of EIAs in ABNJ. As a result, when some sectors and regions decided to develop specific requirements on this issue, it was done through separate processes, which has led to inconsistencies.

Even worse, not all sectors have developed their own legally-binding requirements. Indeed, for a large number of human activities taking place in ABNJ, proponents are not required to carry out EIAs when a proposed project is likely to cause significant impacts to marine biodiversity. In particular, such requirements do not exist for: “*seabed activities other than mining, (e.g. cable and pipelines, seabed installations, marine scientific research, bio-prospecting, sea-based tourism); high seas activities other than dumping and some fishing (e.g. shipping, marine scientific research, floating installations (e.g. wave, nuclear, CO₂ mixers)); impacts of high seas fishing activities on outer continental shelves of coastal nations (e.g. deep-sea fishing impacts on sedentary species and resources, vulnerable benthic ecosystems); impacts of outer continental shelf activities on high seas (e.g. seismic testing noise); military activities; new or emerging uses of the seas*”.⁶ The need to establish a global default mechanism to cover new and emerging activities, along with activities that are not covered by a sectoral mechanism, is the logical conclusion of this gap analysis.

A lack of the requirement to assess the cumulative impacts of human activities in ABNJ is another important gap in the current international framework. This is due to the sectoral development of EIA requirements, as sectoral frameworks mostly take into consideration the separate impacts of the activities they regulate.

Developed after EIAs had been introduced into national legislation, Strategic Environmental Assessments (SEAs) are “*the evaluation of the likely environmental, including health, effects, which comprises the determination of the scope of an*

environmental report and its preparation, the carrying-out of public participation and consultations, and the taking into account of the environmental report and the results of the public participation and consultations in a plan or programme”. SEAs are not an obligation under UNCLOS, and requirements to conduct them are lacking in many sectoral and regional frameworks.

Beyond the legal gaps highlighted in the previous paragraphs, institutional gaps also exist. For example, there is no global competent authority which would have the potential to monitor the implementation, by States and international organisations, of their duty to carry out EIAs in ABNJ.

Even if a global instrument on EIAs in ABNJ is developed, it will not be sufficient to provide for a general obligation to carry out EIAs for human activities that are likely to have significant adverse impacts on marine biodiversity in ABNJ. Details on the content of this requirement will be needed.

First, an international instrument will need to include general objectives or principles against which the outcome of the EIA will be reviewed and the final decision on whether to authorise the proposed activity will be taken. This approach was retained for example in the 1991 Protocol on Environmental Protection to the Antarctic Treaty. Its Article 3 on Environmental Principles states that “*activities in the Antarctic Treaty area shall be planned and conducted so as to avoid: (i) adverse effects on climate or weather patterns; (ii) significant adverse effects on air or water quality; (iii) significant changes in the atmospheric, terrestrial (including aquatic) glacial or marine environments; (iv) detrimental changes in the distribution, abundance or productivity of species of fauna and flora; (v) further jeopardy to endangered or threatened species or populations of such species; or (vi) degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance*”. With respect to the general principles or objectives that need to be taken into account in the conduct of an EIA and in the final decision on whether or not to proceed with the activity, a 2007 study suggested that “*the effectiveness of EIA would be bolstered if a specific aim was to deliver ‘no net environmental deterioration’ and if this could not be demonstrated, to require the application of the precautionary principle in decision-making*”.⁸

6. Gjerde K.M. et al. (2008), “Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction”, IUCN, Gland, Switzerland, p.8.

7. Article 2 (6) of the Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (the Kiev Protocol).

8. Jay S., Jones C., Slinn P., Wood C. (2007), “Environmental impact assessment: Retrospect and prospect”, Environmental Impact Assessment Review 27, p. 298.

Guidance on the steps to follow to conduct an EIA has already been issued in various non-legally binding instruments. In the most recent one, the 2012 CBD Voluntary Guidelines for the consideration of biodiversity in EIAs and SEAs in marine and coastal areas, the following procedural steps are defined:

- Screening, to determine which activities will be subject to an EIA;
- Scoping, to identify which potential impacts are relevant to assess and to find alternative options;
- Assessing and evaluating of impacts and development of alternatives;
- Reporting of the Environmental Impact Statement (EIS);
- Reviewing of the EIS;
- Decision-making;
- Monitoring, compliance, enforcement and environmental auditing.

The screening process itself would need to be clarified in any international instrument on the subject. First, there would be a need to provide a threshold above which EIAs will be conducted. In existing instruments, this threshold is often found under the notion of “significant adverse impact”. Within the Antarctic Treaty System (ATS), the threshold used is the notion of “minor or transitory impact”. In addition, the procedure implemented within this regional framework could be a useful model for any future international agreement, as it provides for a level of international scrutiny. In this system, the flag State is the final decision-making authority when a proposed activity is likely to have, at most, only a minor or transitory impact. But if the proposed activity is likely to have more than a minor or transitory impact, the EIS is circulated between Contracting Parties to the Protocol on Environmental Protection for comments, reviewed by an advisory scientific committee (the Committee for Environmental Protection) and then sent for approval to the Antarctic Treaty Consultative Meeting - the governing body of the Antarctic Treaty.

In addition to guidance to help States and competent authorities determine what qualifies as a significant adverse impact, an international agreement could also include lists of areas where EIAs will always be needed (for example, in Ecologically or Biologically Significant Marine Areas or in Vulnerable Marine Ecosystems) and lists of activities which would always be subject to such assessments.⁹

An international agreement would also need to define what would be the minimum components of an EIS. Several examples already exist in this respect, for example within the ATS where such requirements vary depending on the level of likely impacts concerned, and also in the Espoo Convention. In the latter, they comprise *inter alia*:

- A description of the activity and of its alternatives;
- A description of the likely to be significantly affected environment and of potential impacts;
- A description of mitigation measures;
- An indication of predictive methods used;
- An identification of gaps in knowledge;
- An outline for monitoring and management;
- A non technical summary.¹⁰

All these requirements would be minimum standards which would establish the default mechanism needed to manage human activities that are not yet subject to EIAs, and would be integrated into sectoral instruments as well.

In addition, an international instrument could provide for the creation of an advisory scientific and technical body. It would be tasked with (i) the provision of advice on EIAs subject to international scrutiny, (ii) the management of a public EIA database, (iii) the evaluation of cumulative impacts when needed and (iv) the definition of more specific guidelines for activities managed through the default mechanism. The governing body of the international agreement (either the Conference of the Parties to this agreement, or a newly created global authority, or an International Seabed Authority with an extended mandate) would take decisions on EIAs based on advice provided by the scientific body.

To go further, States could agree to include specific requirements on SEAs and establish a global compliance committee. This committee would review national reports of implementation provided by Contracting Parties. In addition, a provision could allow Contracting Parties with concerns about EIAs conducted by other States as well as civil society representatives to report to the Committee, which would adopt recommendations on the subject.

Suggestions to enhance the international framework for EIAs in ABNJ were made in the course of previous meetings of the BBNJ Working Group. They ranged from the adoption of voluntary

9. With respect to activities, this is already the case in the Espoo Convention on Environmental Impact Assessment in a Transboundary Context and in its Kiev Pro-

ocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context.

10. Espoo Convention on Environmental Impact Assessment in a Transboundary Context, Appendix II.

guidelines by the industry to the development of non-legally binding codes of conducts or of legally-binding EIA requirements within sectors and to the development of an Implementing Agreement to UNCLOS. Voluntary instruments and legally-binding sectoral approaches would be valid options and would probably be needed at some point as an interim solution, or in complement to a global initiative. But they would not allow the creation of the global default mechanism needed, to provide for a set of minimum standards and requirements to ensure consistency in the conduct of EIAs in ABNJ or to establish a global obligation to assess cumulative impacts of human activities in the marine environment.

Given the state of play of international negotiations and discussions, an Implementing Agreement to UNCLOS on the conservation and sustainable use of marine biodiversity in ABNJ would be the most logical instrument through which the EIA issue could be addressed. But even if negotiations on the subject are not finally launched, there are other means through which the conclusion of an international instrument on EIAs in ABNJ could succeed. These include, for example:

- The adoption of an additional protocol to the CBD, based on its Article 29;
- The adoption of a protocol to the Espoo Convention on Environmental Impact Assessment in a Transboundary Context, akin to the Kiev Protocol on SEAs;
- The adoption of a stand-alone legally-binding instrument.¹¹

11. Options presented below are based on the conclusions of a presentation delivered by Prof. R. Warner, available at: <http://ancors.uow.edu.au/content/groups/public/@web/@law/@ancors/documents/docs/uow103164.pdf>.

Looking at the negotiations that have taken place within the BBNJ Working Group so far, the EIA issue appears to have been one of the least controversial subjects for debate. Many States agree that there is a need for such assessments in ABNJ (although they do not entirely agree on the practical implementation modalities). If negotiations on an Implementing Agreement to UNCLOS dealing *inter alia* with EIAs are launched, the greatest challenge will be to add substance to this requirement so as to avoid the development of an article that merely states that EIAs are required for all human activities in ABNJ. Only if this substance is adequately defined and applied will States fulfil their duties to implement the precautionary and no-harm principles, amongst others, which are embodied in international environmental law.

Moving away from the procedural requirements which would be defined in the international agreement, it would also be useful to start thinking about the content and quality of these EIAs, so that ultimately, EIAs are truly used as a decision-making tool and not a decision aiding-tool.¹²

12. On this subject, see Jay S., Jones C., Slinn P., Wood C. (2007), "Environmental impact assessment: Retrospect and prospect", *Environmental Impact Assessment Review* 27, pp. 287-300.

1. INTRODUCTION

For more than a decade, the international community has been debating the status of marine biodiversity in areas beyond national jurisdiction (ABNJ)¹³ and whether or not this biodiversity would require enhanced protection through a better application of existing instruments or the adoption of a new legal instrument. This discussion takes place in the framework of the United Nations General Assembly (UNGA), which established in 2004 an 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 BBNJ Working Group).¹⁴ To date, the BBNJ Working Group has already met five times (in 2006, 2008, 2010, 2011 and 2012) and has discussed a large number of issues, ranging from the status of marine genetic resources to the use of area-based management tools such as marine protected areas (MPAs) to efficiently conserve marine biodiversity in ABNJ.¹⁵ In 2011, it recommended to the UNGA

that it initiates a process “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”.¹⁶ This process should address “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”. In 2012, the BBNJ Working Group concentrated on the organisation of two inter-sessional workshops to be held in 2013 (one on marine genetic resources, the other on conservation and management tools) whose aim would be to improve the understanding of the issues and to clarify key questions as an input to its work.¹⁷ The same year, States gathered at the United Nations Conference on Sustainable Development (UNCSD or “Rio + 20”) committed “to address, on an urgent basis, the issue of the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction, including by taking a decision on the development of an international instrument under the Convention on the

13. The expression “areas beyond national jurisdiction” encompasses the high seas, defined in Article 86 of the United Nations Convention on the Law of the Sea (UNCLOS) as “all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the archipelagic waters of an archipelagic State”, and the Area, defined in Article 1 (1) (1) of the same convention as “the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction”.

14. UNGA Resolution 59/24 of 17 November 2004, Oceans and the Law of the Sea, § 73.

15. For a summary of discussions held within the BBNJ Working Group, see the outcomes of the meetings, available under: <http://www.un.org/Depts/los/biodiversityworkinggroup/biodiversityworkinggroup.htm>.

16. See document A/66/119, 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, § 1 (1) (a) and (b).

17. See document A/67/95, Letter dated 8 June 2012 from the Co-Chairs of the Ad Hoc Open-ended Informal Working Group to the President of the General Assembly.

Law of the Sea” before the end of the sixty-ninth session of the General Assembly.¹⁸

Of all the topics discussed within the BBNJ Working Group, environmental impact assessments (EIAs) seem to be one of the less controversial. During the 2006 meeting, for example, delegations noted that “*environmental management tools should be more widely used in the management of marine resources beyond areas of national jurisdiction, including the use of environmental impact assessments*”.¹⁹ This was further emphasised in 2008²⁰, in 2010²¹ and in 2011.²² In 2012, it was included as a topic in the terms of reference of the intersessional workshop on conservation and management tools, which will be held in the first half of 2013.²³ One of the reasons for this consensus on the need for EIAs in ABNJ is that the use of this tool is currently a well-established practice within many national jurisdictions. Their utilisation in national decision-making processes can be traced

back to the late 1960s, where the first legislations in this respect were enacted.²⁴ As of today, more than 100 countries require (with certain differences) the utilisation of EIAs.²⁵ At the international level, EIAs have emerged as one of the appropriate tools to implement several environmental principles, including the no-harm principle, first defined in Principle 21 of the 1972 Stockholm Declaration²⁶ and the precautionary principle embodied in Principle 15 of the 1992 Rio Declaration.²⁷ This has led in the past thirty years to the development of various international agreements or soft law instruments which include the obligation to carry out EIAs and, as a consequence, to a profusion of definitions which might be applied to describe this tool. Among them, it is worth quoting the one given by the Convention on Biological Diversity (CBD) in its Voluntary Guidelines on biodiversity-inclusive impact assessment: “*environmental impact assessment (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development taking into account inter-related socio-economic, cultural and human health impacts, both beneficial and adverse*”.²⁸

Nevertheless, if within the BBNJ Working Group, States seem to agree that, in accordance with the general principles they have adopted at the international level, EIAs should be conducted for human activities in ABNJ, they do not seem to have reached the same consensus with respect to the content of this obligation and to the way it should

18. See UNGA Resolution 66/288 of 27 July 2012, “The future we want”, §162.

19. See document A/61/65, Report dated 9 March 2006 of 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, §34.

20. See document A/63/79, Letter dated 15 May 2008 from the Co-Chairpersons of 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 addressed to the President of the General Assembly, § 54: “the Assembly may wish to consider referring the following issues to the Working Group: (...) (c) the development and implementation of effective environmental impact assessments as a tool for improving ocean management”.

21. See document A/65/68, Letter dated 16 March 2010 from the Co-Chairpersons of the Ad Hoc Open-ended Informal Working Group to the President of the General Assembly, §14 to 16: “the General Assembly should recognise the importance of environmental impact assessments, in particular for the implementation of ecosystem and precautionary approaches. (...) It should recognise the importance of further developing scientific and technical guidance on the implementation of environmental impact assessments with respect to planned activities in areas beyond national jurisdiction, including consideration of the assessment of cumulative impacts”.

22. See document A/66/119, 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, § 34: “the view was expressed that the United Nations should take a stronger role in environmental impact assessments, which could include elaborating principles to assist in the implementation of environmental impact assessments on the high seas”.

23. See document A/67/95, Letter dated 8 June 2012 from the Co-Chairs of the Ad Hoc Open-ended Informal Working Group to the President of the General Assembly, Appendix “Terms of reference for the intersessional workshops”.

24. See for example the US National Environmental Policy Act of 1969; the Australian Environment Protection (Impact of Proposals) Act of 1974; the European Union (EU) Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment.

25. See http://www.unep.ch/etu/publications/EIA_2ed/EIA_E_top1_body.PDF, p.8.

26. Principle 21 of the 1972 Declaration of the United Nations Conference on the Human Environment: “States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”.

27. Principle 15 of the 1992 Rio Declaration on Environment and Development: “In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”.

28. Voluntary Guidelines on biodiversity-inclusive impact assessment, §5, Annex to CBD COP 8 Decision VIII/28, Impact assessment: voluntary guidelines on biodiversity inclusive impact assessment.

be implemented. As recently as 2012, the Co-Chairs of the Working Group noted in their report that “a proposal was made to consider the extent to which enhanced efforts on environmental impact assessments could be addressed within existing legal frameworks” whereas “several delegations observed that prevention of the deterioration of the marine environment and biodiversity could only be achieved through the implementation of environmental impact assessments and strategic environmental assessments incorporating cumulative impacts and addressing impacts from new and emerging activities, including experimental activities”.²⁹ The issue here is the same as the one discussed for MPAs and marine genetic resources: is there a need to adopt an implementing agreement to the United Nations Convention on the Law of the Sea (UNCLOS) on the conservation and sustainable use of marine biodiversity in ABNJ? Or would an enhanced implementation of existing instruments be sufficient to make sure that this fragile biodiversity is adequately protected and sustainably used? With respect to EIAs, while trying to answer this question, this study follows the approach developed in the 2011 recommendations of the BBNJ Working Group: first, it examines the current framework (2) to identify possible gaps (3) and then suggests possible ways forward (4).

2. THE EXISTING FRAMEWORK FOR EIAs IN ABNJ

Since the development of national frameworks for the conduct of EIAs which started in the late 1960s, a number of international instruments, whether legally binding or not, have included and further defined this requirement. Some of them are of a general nature, whereas others apply specifically, although in a sectoral or regional manner, to marine biodiversity in ABNJ.

2.1. A widespread practice at the international level

The 1987 United Nations Environment Programme (UNEP) Goals and Principles of Environmental Impact Assessment was one of the first international instruments, although not legally binding, to provide a general guidance on the conduct of EIAs.³⁰ It defines EIAs as “an examination, analysis

and assessment of planned activities with a view to ensuring environmentally sound and sustainable development” and further notes that “the EIA goals and principles set out below are necessarily general in nature and may be further refined when fulfilling EIA tasks at the national, regional and international levels”. According to Principle 1 of this instrument, an EIA should be conducted “where the extent, nature or location of a proposed activity is such that it is likely to significantly affect the environment”. The Goals and Principles do not define the thresholds above which activities are likely to significantly affect the environment and leave to the competent authorities the task to define “criteria and procedures for determining whether an activity is likely to significantly affect the environment and is therefore subject to an EIA”. Principle 4 provides a detailed list of the minimum components of an EIA:

- “(a) a description of the proposed activity;
- (b) a description of the potentially affected environment, including specific information necessary for identifying and assessing the environmental effects of the proposed activity;
- (c) a description of practical alternatives, as appropriate;
- (d) an assessment of the likely or potential environmental impacts of the proposed activity and alternatives, including the direct, indirect, cumulative, short-term and long-term effects;
- (e) an identification and description of measures available to mitigate adverse environmental impacts of the proposed activity and alternatives, and an assessment of those measures;
- (f) an identification of gaps in knowledge and uncertainties which may be encountered in compiling the required information;
- (g) an indication of whether the environment of any other State or areas beyond national jurisdiction is likely to be affected by the proposed activity or alternatives;
- (h) a brief, non-technical summary of the information provided under the above headings”.

Interestingly, Principle 11 states that “States should endeavour to conclude bilateral, regional or multilateral agreements, as appropriate, so as to provide, on the basis of reciprocity, notification, exchange of information and agreed-upon consultation on the potential environmental effects of activities under their control or jurisdiction which are likely to significantly affect other States or areas beyond national jurisdiction”. **This is a recognition of the need to undertake EIAs not only at the national level, but also in transboundary contexts, when planned activities might affect other States or ABNJ.**

At the 1992 United Nations Conference on Environment and Development, States recognised,

29. See document A/67/95, Letter dated 8 June 2012 from the Co-Chairs of the Ad-Hoc Open-ended Informal Working Group to the President of the General Assembly, § 25 and 26.

30. UNEP 1987 Goals and Principles of Environmental Impact Assessment, adopted by Decision 14/25 of the Governing Council of UNEP on 17 June 1987.

in Principle 17 of the final declaration that “*environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority*” but did not further develop the need to undertake EIAs in a transboundary context. This was done mainly in a particular regional context.

The Convention on Environmental Impact Assessment in a Transboundary Context, also called the Espoo Convention, was adopted on 25 February 1991 and entered into force on 10 September 1997. It is a United Nations Economic Commission for Europe (UNECE) Convention, and therefore is only binding for States that are members or have consultative status within this Commission.³¹ It currently has 45 Parties, mostly European States, in addition to Canada. This Convention applies to a defined list of activities³² which are likely to cause significant adverse transboundary impacts. In the text, “transboundary impact” is defined as “*any impact, not exclusively of a global nature, within an area under the jurisdiction of a Party caused by a proposed activity the physical origin of which is situated wholly or in part within the area under the jurisdiction of another Party*”. It therefore excludes from its scope ABNJ, but nevertheless offers an interesting example of an international legally binding instrument on EIAs. Its Annex II outlines the minimum requirements for the content of an EIA, which are more or less identical to the requirements set out in the 1987 UNEP Goals and Principles, with the exception that Parties to the Espoo Convention should include, “*where appropriate, an outline for monitoring and management*

programmes and any plans for post-project analysis”. Article 5 of the Convention states that the Party of origin where the activity likely to have an impact will take place shall, after completing the EIA, consult with the potentially affected Party to discuss the potential transboundary impact of the proposed activity and measures to reduce or eliminate its impact. The final decision on the conduct of the activity is adopted by the Party of origin with due account taken of the results of the EIA and of the consultation with the affected State.³³

The Espoo Convention was complemented in 2003 with the adoption of a Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context, or the Kiev Protocol, which subsequently entered into force on 11 July 2010 and now has 25 Contracting Parties.³⁴ This Protocol deals with Strategic Environmental Assessment (SEA), which is a less used tool than the EIA but equally important. It is defined in Article 2 (6) as “*the evaluation of the likely environmental, including health, effects, which comprises the determination of the scope of an environmental report and its preparation, the carrying-out of public participation and consultations, and the taking into account of the environmental report and the results of the public participation and consultations in a plan or programme*”. SEAs are therefore different to EIAs, as they do not apply at a project level, but rather before, at a policy, plan or programme level.

In this respect, Article 4 of the Protocol states that “*each Party shall ensure that a strategic environmental assessment is carried out for plans and programmes referred to in paragraphs 2, 3 and 4 which are likely to have significant environmental, including health, effects*”. The plans and programmes mentioned here are further defined as concerning “*agriculture, forestry, fisheries, energy, industry including mining, transport, regional development, waste management, water management, telecommunications, tourism, town and country planning or land use*” to the extent that they set the framework under which consent for projects listed in annexes to the Protocol might be granted. As for

31. An amendment to the Convention, adopted in 2001 but not yet entered into force, opens the Convention to accession upon approval by UN Member States that are not members of the UNECE.

32. Appendix I of the Convention provides a list of these activities. It includes inter alia various installations, such as crude oil refineries, thermal power stations, trading ports, waste disposal installations for the incineration, chemical treatment or landfill of toxic and dangerous wastes, or offshore hydrocarbon production. The list is however not exhaustive, as Article 2 (5) of the Convention states that “Concerned Parties shall, at the initiative of any such Party, enter into discussions on whether one or more proposed activities not listed in Appendix I is or are likely to cause a significant adverse impact and thus should be treated as if it or they were so listed”. Interestingly, Appendix III of the Convention establishes a list of criteria whose aim is to help Parties to determine the environmental significance of activities not listed in Appendix I. These criteria are the size of the proposed activity, its location (i.e. proposed activities are located in or close to an area of special environmental sensitivity or importance), and its effects, such as particularly complex and potentially adverse impacts.

33. Adoption of the Espoo Convention has prompted, at the regional level, the negotiation of a draft Protocol on Environmental Impact Assessment in a Transboundary Context to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention). This draft Protocol was presented to the Contracting Parties to the Tehran Convention during their third COP (see document TC/COP3/4/Edited of 22 July 2011).

34. It should be noted that according to its Article 23, the Kiev Protocol is open to accession to all States Members of the United Nations, upon approval by the Meeting of the Parties to the Protocol.

the Espoo Convention, it is also anticipated to include more plans and programmes in its scope if they are likely to have significant environmental, including health, effects. The criteria for determining the likely significant environmental effects are listed in Annex III of the Protocol and are more precise and numerous than those listed in the Espoo Convention. But, similarly to the Convention, the Kiev Protocol only applies between States Parties in as much as transboundary effects are concerned and does not encompass the conduct of SEAs in ABNJ.

The list of instruments presented here does not intend to be exhaustive. There are other texts, declarations or guidelines, whether global or regional, which contain EIA dispositions. Among them, it is worth quoting the **2002 Johannesburg Plan of Implementation** which specifically indicates that States should “*build capacity in marine science, information and management, through, inter alia, promoting the use of environmental impact assessments and environmental evaluation and reporting techniques for projects or activities that are potentially harmful to the coastal and marine environments and their living and non-living resources*”.³⁵

The need to carry out EIAs in a transboundary context when an activity is likely to cause significant adverse impact has gained customary international law status. First, in a 1996 advisory opinion, the International Court of Justice (ICJ) noted that “*the existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment*”.³⁶ In addition, this was further developed by the ICJ in its 2010 judgment on the Pulp Mills case, where it expressly observed that “*the obligation to protect and preserve, under Article 41(a) of the Statute has to be interpreted in accordance with a practice, which in recent years has gained so much acceptance that it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular on a shared resource. Moreover, due diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the regime of the river or the*

Box 1. Procedural steps in the conduct of EIAs.

The International Association for Impact Assessment (IAIA), a network on best practices in the use of impact assessment for informed decision-making regarding policies, programmes, plans and projects, has developed some guidance on the general conduct of EIAs. In assessing what could be the operating principles of an EIA, it defined several procedural steps to follow:

“Screening: to determine whether or not a proposal should be subject to an EIA and, if so, at what level of detail;

Scoping: to identify the issues and impacts that are likely to be important and to establish terms of reference for an EIA;

Examination of alternatives: to establish the preferred or most environmentally sound and benign option for achieving proposal objectives;

Impact analysis: to identify and predict the likely environmental, social and other related effects of the proposal;

Mitigation and impact management: to establish the measures that are necessary to avoid, minimise or offset predicted adverse impacts and, where appropriate, to incorporate these into an environmental management plan or system;

Evaluation of significance: to determine the relative importance and acceptability of residual impacts (i.e., impacts that cannot be mitigated);

Preparation of environmental impact statement (EIS) or report: to document clearly and impartially impacts of the proposal, the proposed measures for mitigation, the significance of effects, and the concerns of the interested public and the communities affected by the proposal;

Review of the EIS: to determine whether the report meets its terms of reference, provides a satisfactory assessment of the proposal(s) and contains the information required for decision-making;

Decision-making: to approve or reject the proposal and to establish the terms and conditions for its implementation;

Follow-up: to ensure that the terms and conditions of approval are met; to monitor the impacts of development and the effectiveness of mitigation measures; to strengthen future EIA application and mitigation measures; and, when required, to undertake environmental audit and process evaluation to optimise environmental management”.¹

Although in some cases these procedural steps go by other names or several of them might be put together in one step, they are more or less the same as the ones defined in much of the legislation and international agreements in existence today.

A general corpus of obligations does appear to exist with respect to EIAs, and, to a certain extent, to SEAs, conducted in a transboundary context. Whether this applies specifically to marine biodiversity in ABNJ is another issue.

35. 2002 Johannesburg Plan of Implementation, § 36 (c).

36. See Legality of the Threats or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996 (I), p.242, §29.

1. IAIA (1999), “Principles of Environmental Impact Assessment Best Practice”, p.4.

quality of its waters did not undertake an environmental impact assessment on the potential effects of such works”.³⁷

2.2. Instruments addressing specifically EIAs in ABNJ

With respect to marine biodiversity in ABNJ, several instruments, whether legally binding or not, already deal with the conduct of EIAs. Some of them are of a global nature, whilst others are sector or region specific, and the extent of the obligation they contain can vary considerably.

2.2.1. Global instruments

Two specific instruments have developed general requirements regarding EIAs in ABNJ: UNCLOS and the CBD.

2.2.1.1. The United Nations Convention on the Law of the Sea

Three articles within UNCLOS establish a general framework for the conduct of EIAs in the marine environment, irrespective of the fact that activities subject to this requirement are located in ABNJ or in areas within national jurisdiction. First, Article 204 imposes on States the obligation, directly or through competent international organisations, to monitor the risks or effects of pollution of the marine environment.³⁸ The article further specifies that “in particular, States shall keep under surveillance the effects of any activities which they permit or in which they engage in order to determine whether these activities are likely to pollute the marine environment”. The criteria retained here is the fact that activities are under the control or the jurisdiction of a State, irrespective of where they are taking place (the high seas, the Area, the territorial sea...). It is also emphasised in Article 206 according to which “when States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate

reports of the results of such assessments in the manner provided in article 205”. With respect to the reports of the assessments, Article 205 states that “States shall publish reports of the results obtained pursuant to article 204 or provide such reports at appropriate intervals to the competent international organisations, which should make them available to all States”.

Although at first glance, it appears that **there is a general requirement for States under UNCLOS to carry out EIAs for activities under their jurisdiction or control, the application of this requirement does not go without raising a number of crucial issues.** Article 206 itself introduces some conditions which must be fulfilled for States to have the obligation to carry out an EIA. In fact, States shall assess the effects of planned activities “as far as practicable” and only if they have “reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment”. It is not further specified in the Convention what is meant by “reasonable grounds” and above which threshold a pollution or a change are deemed to be substantial or significant and harmful. In addition, “Article 206 (...) is silent on the question of what is required in an EIA, and in contrast to Articles 207-211 it makes no reference to internationally agreed rules and standards”.³⁹

Furthermore, with respect to the reports of the results of EIAs mentioned in Article 205, information is lacking for most of the activities undertaken in ABNJ. In 2011, in an effort to compile information related to EIAs in ABNJ, the Secretary General produced a report dealing *inter alia* with this issue.⁴⁰ In this document, “the European Union stated that information concerning assessments undertaken with respect to planned activities in areas beyond national jurisdiction, including capacity-building aspects, was still disperse and scarce. Some European Union States had reported that they did not carry out activities in areas beyond national jurisdiction, while in the case of those who may have carried out activities in those areas there was no information on any environmental impact assessment undertaken, except where such assessments were compulsory under international agreements, rules of international organisations or European Union regulations”.

37. See *Pulp Mills On the River Uruguay (Argentina v. Uruguay)* Judgment, I.C.J. Reports 2010, § 204.

38. According to Article 1 (4) of UNCLOS, “pollution of the marine environment means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to marine living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities”.

39. See Boyle A. (2007), “The Environmental Jurisprudence of the International Tribunal for the Law of the Sea”, *The International Journal of Marine and Coastal Law* 22, p. 377.

40. See document A/66/70, *Oceans and the Law of the Sea – Report of the Secretary General*.

Box 2. Conclusions of the Manila Workshop with respect to EIAs in ABNJ

The review conducted by the participants to the Manila Workshop on EIAs concluded that the 2006 Guidelines of the CBD were almost exclusively based on EIAs conducted for terrestrial, freshwater and coastal ecosystems and were not fully adapted to ABNJ because a number of differences, at the ecological, governance and practical levels between these frameworks were underlined by the workshop participants.

At the ecological level, it was noted that:

- The great depth of most ocean ABNJ create extreme conditions for biodiversity, which must be taken into account in the EIA process;
- Habitat patchiness of the water column in ABNJ occurs on much larger spatial scales if compared with coastal areas. In addition, the lower level of primary and secondary productivity occurring in most of the ABNJ means that *“populations and communities can, in general, sustain only lower levels of perturbation without serious adverse impacts”*¹.

- The lower productivity of ecosystems in ABNJ along with the life history characteristics of component species mean that recovery times from perturbations would be longer than in coastal and terrestrial areas;

- The issue of the connectivity of processes and ecosystem components is also important for biodiversity in ABNJ and in the relationship between coastal and deep-sea areas; but knowledge on this matter is still very limited.

Several governance differences were also highlighted:

- The different legal framework for ABNJ compared to areas within national jurisdiction. This encompasses the differences between the regimes governing respectively the Area and the high seas, and the large number of organisations which, at the global and regional levels, have competence in ABNJ, together with the flag States. One important point to note is the fact that, at the global level,

governance issues are discussed in the framework of the UNGA;

- Stakeholder involvement for EIAs conducted in coastal and terrestrial areas is an important component of the process, but it would be much more difficult to define who would be the stakeholders in ABNJ because of the remoteness of these areas;

- Participants also highlighted that in ABNJ, a certain number of obligations with respect to EIAs might be contained in international conventions. But these conventions very often leave the implementation of general obligations to flag States, something which might lead to different standards of compliance among them.

With respect to practical differences:

- As knowledge is more limited for ecosystems in ABNJ, it might be more difficult to assess the risks in these areas;

- As the industry and the flag State concerned are based far from the site of the concerned activity, the cost of conducting an EIA might be higher, as would the costs linked to follow-up management, control, surveillance and monitoring. The issue of the costs of conducting EIAs in ABNJ was discussed in a report of the UN Secretary General in 2011, which explained that *“available studies have estimated that the cost of preparing an environmental impact assessment rarely exceeds 1 per cent of the project costs. Costs in excess of 1 per cent seem to occur in relation to particularly controversial projects in sensitive environments, or where good practice has not been followed. Additional costs such as translation and travel costs, are expected for assessments in a transboundary context, and may also need to be taken into account for assessments undertaken beyond areas of national jurisdiction”*².

- Capacity-building needs for EIAs in ABNJ might be even larger than these same needs in coastal and terrestrial areas;

- In ABNJ, the application of precaution will be even more important in decision-making and there will be a greater dependence on incremental “test-bed” approaches to permitting activities, given the outcome of an EIA.

1. UNEP/CBD/EW-EIAMA/2 of 20 November 2009, “Report of the Expert Workshop on Scientific and Technical Aspects Relevant to Environmental Impact Assessment in Marine Areas Beyond National Jurisdiction”, p.11.

2. Report of the UN Secretary-General A/66/70 of 22 March 2011, “Oceans and the Law of the Sea”, §130.

2.2.1.2. The Convention on Biological Diversity

The question of whether the CBD includes in its scope ABNJ has been debated at the international level over these past years.⁴¹ Although

some agree that the UNGA is the only legitimate international arena where global issues related to marine biodiversity in ABNJ can be discussed, under the overarching framework of UNCLOS, several articles of the CBD itself are unquestionably relevant with respect to these questions. In particular, its Article 4 states that the Convention applies to processes or activities under the jurisdiction and control of States that are carried out in ABNJ or in areas within national jurisdiction; while its Article 5 provides for cooperation between Contracting Parties for the conservation and sustainable use of biological diversity in respect of ABNJ.

41. For example, with respect to marine protected areas (MPAs) in ABNJ, see Gjerde K.M. and Rulska-Domino A. (2012), “Marine Protected Areas beyond National Jurisdiction: Some Practical Perspectives for Moving Ahead”, The International Journal of Marine and Coastal Law 27, p. 10: “moreover, the UNGA has yet to formally recognise the role of the CBD as a provider of scientific and technical advice with respect to MPAs in ABNJ. While State Parties to the CBD have agreed to such a role for the CBD, some of the same States at the UNGA have been reluctant to accept it.”

Since 2004, the Conference of the Parties to the CBD has been discussing issues related to the conservation of marine biodiversity in ABNJ, and more especially its scientific and technical aspects, leaving the governance issues to the UNGA.⁴² Over the past years, it has considerably developed its expertise on the subject, also building on its experience in coastal and terrestrial areas.

According to Article 14 (1) of the CBD, “each Contracting Party, as far as possible and as appropriate, shall: (a) introduce appropriate procedures requiring environmental impact assessments of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimising such effects and, where appropriate, allow for public participation in such procedures; (b) introduce appropriate arrangements to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account; (c) promote, on the basis of reciprocity, notification, exchange of information and consultation on activities under their jurisdiction or control which are likely to significantly affect adversely the biological diversity of other States or areas beyond the limits of national jurisdiction, by encouraging the conclusion of bilateral, regional or multilateral arrangements, as appropriate(...)”. **This requirement applies in areas under the jurisdiction of the Contracting Parties and in ABNJ**, where the CBD applies “in the case of processes and activities, regardless of where their effects occur, carried out under [the jurisdiction or control of each Contracting Party] within the area of its national jurisdiction or beyond the limits of national jurisdiction”.⁴³ To help Contracting Parties implement this requirement, Voluntary Guidelines on biodiversity-inclusive impact assessment and guidance on biodiversity-inclusive SEAs were endorsed in 2006.⁴⁴

In 2008, Contracting Parties to the CBD took the decision to convene an expert workshop “to discuss scientific and technical aspects relevant to environmental impact assessment in areas beyond national jurisdiction with a view to contributing

to the development of such scientific and technical guidance, building on ongoing relevant sectoral, regional and national environmental impact assessment efforts”.⁴⁵ The expert workshop on scientific and technical aspects relevant to EIAs in marine areas beyond national jurisdiction (the Manila workshop) took place in November 2009.⁴⁶ Two main issues were discussed by the participants: (i) the key scientific elements that should be considered in developing scientific and technical guidance for EIAs and SEAs in ABNJ, and (ii) the gaps in the CBD 2006 Voluntary Guidelines and additional guidance on SEAs. During the workshop, EIA and SEA issues were considered separately (see boxes 2 and 3).

Taking these differences into consideration, the participants also emphasised that the Voluntary Guidelines contained a number of gaps when it came to applying them to EIAs in ABNJ. Most notably, they underlined the need to adapt this instrument so that it can be appropriate for ecosystems in ABNJ and to develop global and regional standards for the notion of “acceptable perturbation”. As the report of the workshop notes, “although there is a policy aspect to acceptable, there is an important role for scientific and technical information on consequences of perturbations and recovery potential of these ecosystems, in informing the policy decisions”.⁴⁷ The report finally includes some recommendations on elements that should be incorporated into the 2006 Guidelines in order to adapt them to the specific case of ABNJ.

In 2010, in Nagoya, **Contracting Parties to the CBD welcomed the report of the Manila workshop and requested the Executive Secretary of the CBD to facilitate the development of voluntary guidelines for the consideration of biodiversity in EIAs and SEAs in marine and coastal areas**, recognising at the same time “that these guidelines would be most useful for activities that are currently unregulated with no process of assessing impacts”.⁴⁸ A draft of the revised guidelines and guidance was circulated for technical peer-review in 2011 and 2012, and a final version of the text was presented for consideration at the 11th meeting of the Contracting Parties to the CBD, held in

42. This is particularly striking for the process leading to the description and identification of Ecologically or Biologically Significant Marine Areas (EBSAs). See Druel E. (2012), “Ecologically or Biologically Significant Marine Areas (EBSAs): the identification process under the Convention on Biological Diversity (CBD) and possible ways forward”, Working Paper N°17/12, IDDRI, Paris, France, 24p.

43. Article 4 (b) of the CBD.

44. CBD COP 8, Decision VIII/28: Voluntary Guidelines on biodiversity-inclusive impact assessment.

45. CBD COP 9, Decision IX/20 on Marine and Coastal biodiversity, §10.

46. For a full report of the workshop, see document UNEP/CBD/EW-EIAMA/2 of 20 November 2009.

47. UNEP/CBD/EW-EIAMA/2 of 20 November 2009, “Report of the expert workshop on scientific and technical aspects relevant to environmental impact assessment in marine areas beyond national jurisdiction”, p.13.

48. CBD COP 10, Decision X/29 on Marine and Coastal Biodiversity, § 50 and 51.

Box 3. Conclusions of the Manila workshop with respect to SEAs in ABNJ

The other part of the Manila workshop was devoted to SEAs in ABNJ. Participants recognised that “SEAs allow the management of activities of multiple users of ocean space to be coordinated into an integrated management plan for a region or subregion. Such plans can be formulated to maintain species, habitats and ecosystem structure in space and time over the full water column down to and including the seabed and the subsoil thereof with regard to individual and cumulative impacts by users and in relation to natural environmental change”.¹ The need to provide additional specific guidance for SEAs conducted in ABNJ was also emphasised, such as the identification of direct and indirect drivers of biophysical changes and non-biophysical changes for the application of SEAs in ABNJ. In addition, several potential elements which could be contained in an SEA report concerning ABNJ were identified and included:

– The contents and the main objectives of the plan, programme or policy;

– The relevant aspects of the current state of the environment and the likely evolution thereof should the plan or programme not be implemented;

– The characteristics of the environment in areas likely to be significantly affected;

– The environmental issues being addressed by the plan, programme or policy;

– The environmental objectives established at international, regional, national and other levels which are relevant to the plan or programme, including the conservation of marine biodiversity beyond national jurisdiction, and the ways in which these objectives and other environmental considerations have been taken into account during its preparation;

– The likely significant environmental effects on marine biodiversity in areas beyond national jurisdiction of implementing the plan, programme or policy and its reasonable alternatives;

– The likely significant environmental effects of plans, programmes and policies within national jurisdiction in the same general region as marine biodiversity in ABNJ and vice-versa;

– Measures to prevent, reduce or mitigate any significant adverse effects on marine biodiversity beyond national jurisdiction which may result from the implementation of the plan, programme or policy;

– Factors which will trigger a new SEA or EIA of an activity;

– An outline of how the assessment was undertaken, including difficulties encountered in providing the information to be included, such as technical, deficiencies or lack of knowledge;

– Potential strategies for filling gaps in knowledge;

– Measures envisaged for monitoring environmental effects of the plan, programme or policy on marine biodiversity beyond national jurisdiction”.²

1. Ibid, p. 44.

2. Ibid, p.48.

October 2012 in Hyderabad, India. The Conference of the Parties took note “of the voluntary guidelines for the consideration of biodiversity in environmental impact assessments and strategic environmental assessment annotated specifically for biodiversity in marine and coastal areas including in areas beyond national jurisdiction, in accordance with Article 4 of the Convention, recognising that these annotated voluntary guidelines would be most useful for activities that are currently unregulated, with no procedures for assessing impacts” and requested “the Executive Secretary to make the voluntary guidelines referred to in paragraph 1 above available as a reference for Parties, other Governments and United Nations specialised agencies, as well as relevant United Nations General Assembly processes (i.e. the United Nations Ad-hoc Open-Ended Informal Working Group to Study Issues Relating to the Conservation and Sustainable Use of Marine Biodiversity Beyond Areas of National Jurisdiction)”.⁴⁹ The events that will en-

sue once the Guidelines have been received by the UNGA will no doubt raise some interesting questions related to the links between this assembly and the CBD on the question of the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. As of today, it is extremely difficult to predict in which ways this transmission will influence (if it does) the current debate within the BBNJ Working Group.

In the Guidelines, the CBD has defined more or less the same procedural steps for the conduct of EIAs in the marine and coastal environment as the ones defined by the IAIA⁵⁰: screening, scoping, assessment and evaluation of impacts and development of alternatives (a step which encompasses the examination of alternative to the project, impact analysis, mitigation and impact management and the evaluation of significance steps defined by the IAIA), reporting of the EIS or EIA report, review of the EIS, decision-making and monitoring,

49. CBD COP 11, Decision XI/18 on Marine and Coastal Biodiversity, § B1. and 2

50. See §2.1 of the study.

compliance, enforcement and environmental auditing. Although the Guidelines as a voluntary instrument developed under the CBD provide mostly scientific and technical guidance, they have also indirectly highlighted certain governance issues. The repartition of the responsibilities in ABNJ between the flag State and competent international organisations at the various stages of the EIA process is rather unclear. The definition of stakeholders and the process to provide information to the civil society might be extremely different to that of coastal and terrestrial areas.

Interestingly, at the screening stage of the EIA process, the Guidelines are providing for some linkages with other international processes in respect of the protection of marine biodiversity in ABNJ. The text identifies four types of screening mechanisms: (i) positive lists identifying projects requiring EIA (akin to what is done under the Espoo Convention and its Kiev Protocol), (ii) lists identifying geographical areas where important biodiversity is found and hence where projects would require an EIA (and the text suggests using the Ecologically or Biologically Significant Marine Area (EBSA) criteria developed by the CBD⁵¹ as well as the Vulnerable Marine Ecosystem (VME) criteria developed by the FAO), (iii) expert judgment and (iv) a combination of positive and areas lists plus expert judgment to determine the need for an EIA.

2.2.2. Regional instruments

Within regional frameworks, specific obligations with respect to EIAs in ABNJ have been developed. This happened in the particular context of the UNEP regional seas framework, but also in the polar regions: in the Southern Ocean, a fairly well-advanced system applies through the Antarctic Treaty and subsequent instruments, whereas a rather *ad-hoc* instrument has been developed for the Arctic.

2.2.2.1. Regional seas conventions

Only a few regional seas programmes have included ABNJ in their geographic scope.⁵² As of today, the instruments concerned include:

the Convention for the Protection of the Marine Environment of the North-East Atlantic, or OSPAR Convention; the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, or Barcelona Convention, and the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, or SPREP Convention.⁵³

As noted by the CBD in 2009⁵⁴, detailed prescriptions with respect to the content of EIAs are generally not incorporated into the text of the regional seas conventions, as this is left to the responsibility of their Contracting parties. This is particularly true for the OSPAR Convention, as this agreement does not make specific reference to EIAs. Its Article 2 (1) makes the general statement that its Contracting Parties “*shall take the necessary measures to protect the maritime area against the adverse effects of human activities so as to safeguard human health and to conserve marine ecosystems*”. In addition, according to its Annex V on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area, the OSPAR Commission has the duty “*to develop means, consistent with international law, for instituting protective, conservation, restorative or precautionary measures related to specific areas or sites or related to particular species or habitats*”.⁵⁵ With respect to EIAs and SEAs in ABNJ, several decisions and recommendations adopted in the framework of the OSPAR Commission are relevant.⁵⁶

51. On the CBD EBSA process, see Druel E. (2012), “Ecologically or Biologically Significant Marine Areas (EBSAs): the identification process under the Convention on Biological Diversity (CBD) and possible ways forward”, Working Paper N° 17/12, IDDRI, 24p.

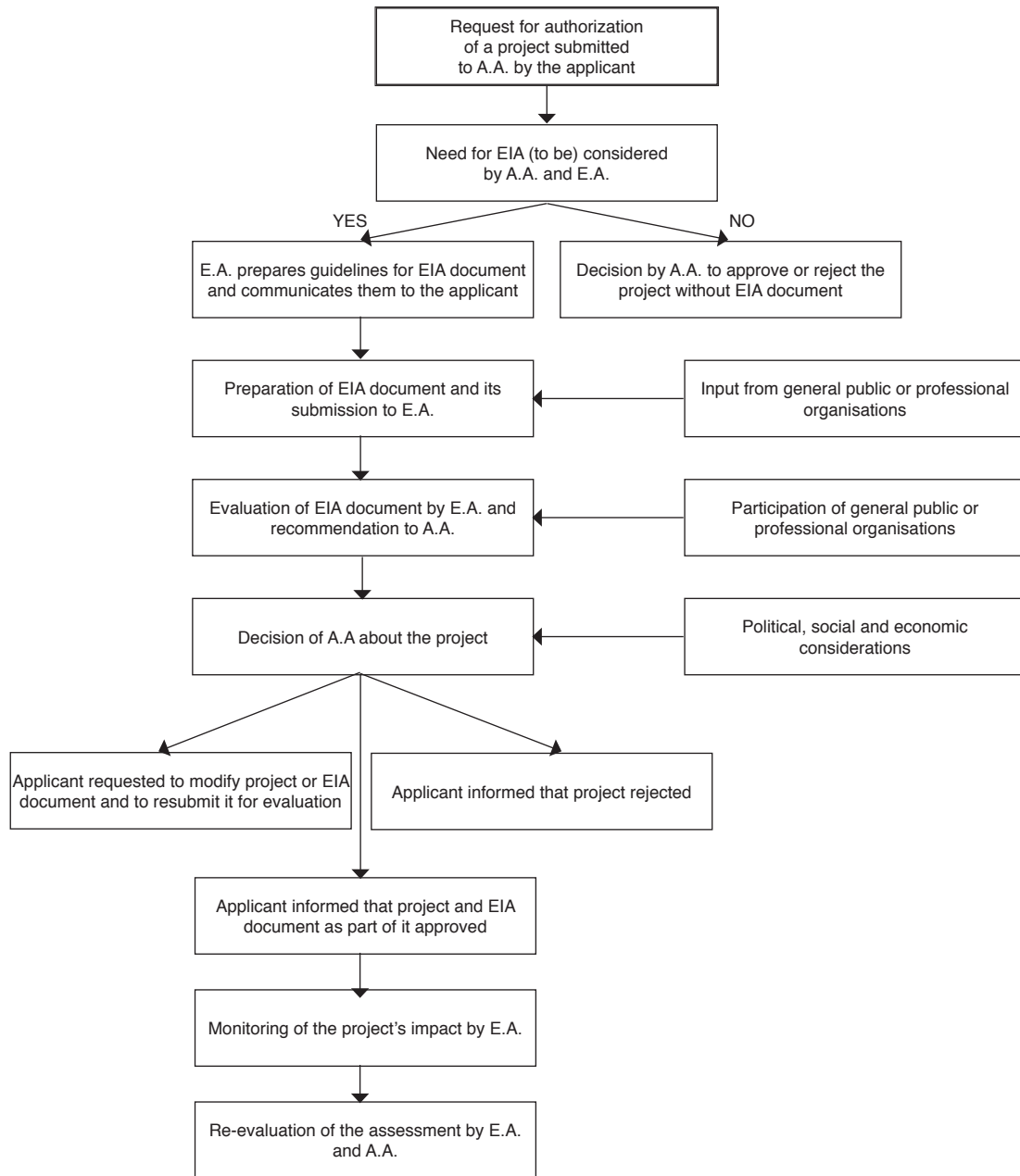
52. See Druel E., Ricard P., Rochette J., Martinez C. (2012), “Governance of marine biodiversity in areas beyond national jurisdiction at the regional level: filling the gaps and strengthening the framework for action. Case studies from the North-East Atlantic, Southern Ocean, Western Indian Ocean, South West Pacific and the Sargasso Sea”, Studies N° 04/12, IDDRI and AAMP, Paris, France, 102p.

53. The Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), which is the competent convention dealing with the conservation and rational use of the marine living resources of the Southern Ocean, is discussed in § 2.2.2.2. On the legal and institutional framework in the ABNJ of the North-East Atlantic and of the South West Pacific Region, see Druel E., Ricard P., Rochette J., Martinez C. (2012), “Governance of marine biodiversity in areas beyond national jurisdiction at the regional level: filling the gaps and strengthening the framework for action. Case studies from the North-East Atlantic, Southern Ocean, Western Indian Ocean, South West Pacific and the Sargasso Sea”, Studies N° 04/12, IDDRI and AAMP, Paris, France, 102p.

54. See document UNEP/CBD/EW-EIAMA/1/INF/1 of 6 November 2009, “Background document to an expert workshop on scientific and technical aspects relevant to environmental impact assessment in marine areas beyond national jurisdiction – Part I: Review of scientific and technical aspects of global, regional and national environmental impact assessment frameworks and their relevance to marine areas beyond national jurisdiction”, §39.

55. Article 3 (1) (b) (ii) of Annex V of the OSPAR Convention on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area.

56. Development of EIAs and SEAs requirements in the OSPAR Commission context was certainly facilitated by the fact that the vast majority of Contracting Par-

Figure 1. Simplified UNEP flow chart for the EIA procedure

A.A. = Authorizing Authority
E.A. = Environmental Authority

Source: UNEP (1990), "An approach to environmental impact assessment for project affecting the coastal and marine environment", *Regional Seas Reports and Studies*, No 122, p. 13.

For example, in 2008, OSPAR Contracting Parties adopted a Code of Conduct for Responsible Marine Research in the Deep-Seas and High Seas of the OSPAR Maritime Area⁵⁷, according to which “when assessing research plans, Contracting Parties are encouraged to ensure that the granting of research funds and ship time should be contingent on the application of the code of conduct”. In addition, “if research is planned in an area that contains features on the OSPAR list of threatened and/or declining species and habitats, a risk assessment should be completed before equipment that may have adverse effects is deployed and, where appropriate, a pre-assessment of the site should be conducted to determine possible impacts and suitable mitigation measures. If necessary, the operator should consider modifying equipment and/or approaches to be employed in order to reduce risks to an acceptable level”.⁵⁸ The particular attention which must be paid to threatened and/or declining species and habitats found in the OSPAR list with respect to activities planned in areas where they might occur is found again in a 2010 Recommendation which provides that “when assessments of environmental impacts of human activities that may affect the marine environment of the OSPAR maritime area are prepared, Contracting Parties should ensure they take account of the relevant species and habitats on the OSPAR List of threatened and/or declining species and habitats”.⁵⁹ On a different subject, **recommendations adopted for the management of the 7 OSPAR MPAs established in the high seas and in ABNJ** call upon Contracting Parties to “ensure, where appropriate,

that a human activity in the (...) MPA, or any measure outside the area that may be potentially conflicting with the conservation objectives of the (...) MPA is subjected to an Environmental Impact Assessment (EIA) or Strategic Environmental Assessment (SEA) and that appropriate measures are taken, taking into account relevant OSPAR or other international standards and guidelines for the specific activity under consideration”.⁶⁰

The SPREP Convention applies to areas under national jurisdiction and to four high seas pockets enclosed in the EEZ of South West Pacific countries. In the Convention area, Contracting Parties shall, within their capabilities, “assess the potential effects of [major projects] on the marine environment, so that appropriate measures can be taken to prevent any substantial pollution of, or significant and harmful changes within the Convention Area”.⁶¹ The Convention further stipulates that Contracting Parties should invite public comment and consult those Parties that might be affected when conducting their EIAs and to communicate their results to the SPREP Convention Secretariat.⁶² Similar explicit requirements also apply in the Mediterranean where, according to the Barcelona Convention, Contracting Parties shall “undertake environmental impact assessment for proposed activities that are likely to cause a significant adverse impact on the marine environment and are subject to an authorisation by competent national authorities” and “promote cooperation between and among States in environmental impact assessment procedures related to activities under their jurisdiction or control which are likely to have a significant adverse effect on the marine environment of other States or areas beyond the limits of national jurisdiction”.⁶³ Interestingly, **the Barcelona Convention makes an explicit reference to ABNJ and uses the well-established notion of Significant Adverse**

ties to the OSPAR Convention are EU Member States and that specific requirements on EIAs and SEAs were developed at the EU level through two Directives (Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, amended in 1997, 2003 and 2009 and codified in Directive 2011/92/EU of the European Parliament and the Council; and Directive 2001/42/EC of the European Parliament and the Council on the assessment of the effects of certain plans and programmes on the environment). Although these directives contain provisions on EIAs and SEAs in a transboundary context, they are limited in their scope to potential impacts on territories in other Member States and do not include ABNJ.

57. OSPAR 2008-1, OSPAR Code of Conduct for Responsible Marine Research in the Deep-Seas and High Seas of the OSPAR Maritime Area. Adopted in the OSPAR category of “other agreements”, this Code of Conduct is not legally binding.
58. OSPAR Code of Conduct for Responsible Marine Research in the Deep-Seas and High Seas of the OSPAR Maritime Area, § 10 and 18.
59. OSPAR Recommendation 2010/5 on assessments of environmental impacts in relation to threatened and/or declining species and habitats.

60. For example, see OSPAR Recommendation 2010/12 on the Management of the Milne Seamount Complex Marine Protected Area, § 3.3.4 (b). The list provided here of the decisions, recommendations and other agreements adopted by OSPAR that contain EIA requirements is far from complete, as there are so many that incorporate these requirements or make reference to the EU Directives on the subject. The OSPAR Guidelines on Best Environmental Practice (BEP) in Cable Laying and Operation (OSPAR Agreement 2012-2) provide for example for a list of minimum requirements that an EIA conducted in this context must contain and discuss the monitoring and assessment phase and the access to data.

61. Article 16 (2) of the SPREP Convention.

62. Article 16 (3) of the SPREP Convention.

63. Article 4 (3) (c) and (d) of the Barcelona Convention.

Impacts (SAIs) as a threshold to determine the need for an EIA.

In a 1990 study, UNEP provided a simplified flow chart for the EIA procedure in the context of the regional seas programmes (see Figure 1).

2.2.2.2. *The Antarctic regional framework*

The Antarctic Treaty (AT), adopted in 1959 and entered into force in 1961, “freezes” all territorial claims in the Antarctic continent and therefore, all its surrounding waters are considered as being high seas.⁶⁴ In this framework, Contracting Parties to the AT adopted, in 1991, a **Protocol on Environmental Protection to the Antarctic Treaty (the Madrid Protocol)** which subsequently entered into force in 1998. According to the Protocol, “activities in the Antarctic Treaty area shall be planned and conducted so as to avoid: (i) adverse effects on climate or weather patterns; (ii) significant adverse effects on air or water quality; (iii) significant changes in the atmospheric, terrestrial (including aquatic) glacial or marine environments; (iv) detrimental changes in the distribution of species of fauna and flora; (v) further jeopardy to endangered or threatened species or populations of such species; or (vi) degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance”.⁶⁵ Article 8 of this instrument imposes the **obligation on its Contracting Parties to carry out EIAs for their activities in the AT area**. It states that for all activities conducted in the AT area except whaling, hunting of seals, fishing and emergency operations, a prior assessment of the impact of those activities on the Antarctic Environment or on dependent or associated ecosystems should be conducted “according to whether those activities are identified as having: (a) less than a minor or transitory impact; (b) a minor or transitory impact; or (c) more than a minor or transitory impact”.⁶⁶ It further adds that “the assessment procedures set out in Annex I shall apply to any change in an activity whether the change arises from an increase or decrease in the intensity of an existing activity, from the addition of an activity, the decommissioning of a facility, or otherwise”.⁶⁷

The AT EIA process is therefore rather complex, as there is a gradient identified for the impact of activities covered by the obligation described in Article 8 of the Madrid Protocol (the minor or transitory impact). Annex I to this Protocol on EIA further specifies the process and highlights three different steps. The first is the preliminary stage where national competent authorities consider if a proposed activity is likely to have less than a minor or transitory impact, and if so, authorise it to proceed forthwith.⁶⁸ Then, if an activity is determined as having at least a minor or transitory impact, it is subjected to an Initial Environmental Evaluation, which might help to assess whether the activity concerned may have more than a minor or transitory impact. The Initial Environmental Evaluation shall include “(a) a description of the proposed activity, including its purpose, location, duration and intensity; and (b) consideration of alternatives to the proposed activity and any impacts that the activity may have, including consideration of cumulative impacts in the light of existing and known planned activities. If an Initial Environmental Evaluation indicates that a proposed activity is likely to have no more than a minor or transitory impact, the activity may proceed, provided that appropriate procedures, which may include monitoring, are put in place to assess and verify the impact of the activity”.⁶⁹ All these steps are dealt with by the competent national authorities of the nationals undertaking the proposed activities in the AT area.

International scrutiny is only provided when it is determined that a proposed activity is likely to have more than a minor or transitory impact. In this case, a Comprehensive Environmental Evaluation must be conducted, which should contain the following more detailed information:

“(a) a description of the proposed activity including its purpose, location, duration, and intensity, and possible alternatives to the activity, including the alternative of not proceeding, and the consequences of those alternatives;

(b) a description of the initial environmental reference state with which predicted changes are to be compared and a prediction of the future environmental reference state in the absence of the proposed activity;

(c) a description of the methods and data used to forecast the impacts of the proposed activity;

(d) estimation of the nature, extent, duration and intensity of the likely direct impacts of the proposed activity;

64. On the Antarctic Treaty System regime with respect to the high seas, see Druel E., Ricard P., Rochette J., Martinez C. (2012), “Governance of marine biodiversity in areas beyond national jurisdiction at the regional level: filling the gaps and strengthening the framework for action. Case studies from the North-East Atlantic, Southern Ocean, Western Indian Ocean, South West Pacific and the Sargasso Sea”, Studies N° 04/12, IDDRI, and AAMP, Paris, France, pp. 30-49.

65. Article 3 (2) (b) of the Madrid Protocol.

66. Article 8 (1) of the Madrid Protocol.

67. Article 8 (3) of the Madrid Protocol.

68. Article 1 of Annex I to the Madrid Protocol on the Preliminary Stage.

69. Article 2 of Annex I to the Madrid Protocol on Initial Environmental Evaluation.

(e) consideration of possible indirect or second order impacts of the proposed activity;

(f) consideration of cumulative impacts of the proposed activity in the light of existing activities and other known planned activities;

(g) identification of measures, including monitoring programmes, that could be taken to minimise or mitigate impacts of the proposed activity and to detect unforeseen impacts and that could provide early warning of any adverse effects of the activity as well as to deal promptly and effectively with accidents;

(h) identification of unavoidable impacts of the proposed activity;

(i) consideration of the effects of the proposed activity on the conduct of scientific research and on other existing uses and values;

(j) an identification of gaps in knowledge and uncertainties encountered in compiling the information required under this paragraph;

(k) a non technical summary of the information provided under this paragraph; and

(l) the name and address of the person or organisation which prepared the Comprehensive Environmental Evaluation and the address to which comments thereon should be directed".⁷⁰

After the draft Comprehensive Environmental Evaluation has been completed, made publicly available and circulated for comments to all Contracting Parties, it is reviewed by the Committee for Environmental Protection to the Antarctic Treaty (CEP) which provides advice to the Antarctic Treaty Consultative Meeting (ATCM) on whether to proceed or not with the proposed activity. The ATCM is responsible for the adoption of the final decision in this respect. Its Secretariat maintains a public database with information on EIAs conducted in the AT area.⁷¹

The EIA system developed within the AT has very often received praised for being one of the most developed regional systems applicable to the marine environment (although it is rather limited in its extent because whaling, sealing and fishing are not concerned by the procedures established under the Madrid Protocol). However, it is increasingly the subject of criticism due to a number of weaknesses. A 2011 article on the need for SEAs in Antarctica noted that "typically, the decision to conduct an activity and the activity's characteristics, timing and location precede the initiation of EIA. Project-specific EIA processes generally commence after many decisions have (albeit often informally) in fact already been taken, alternatives discounted and a sense of inevitability inculcated in

participants to the process (...) The consideration of alternatives to the proposed activity is generally a pro-forma component of the EIA document rather than a serious consideration of the process".⁷² The paper also highlights the difficulty in assessing the cumulative impacts of activities in the AT EIA context, especially as a certain number of marine activities are excluded from the scope of Annex I to the Madrid Protocol.

2.2.2.3. The Arctic guidelines

The regional institutional framework in the Arctic is rather different to that of the Antarctic and is far from being as developed. However, it was felt that due to the sensitivity of this area, specific guidance should be adopted on the conduct of EIAs. **Guidelines for Arctic EIAs were therefore adopted by the ministers of the Arctic countries in 1997.**⁷³ According to these Guidelines, "EIA should be applied to activities associated with the exploitation of both renewable and non-renewable natural resources, public use, military activities and the development of infrastructure for different purposes that may cause significant environmental impacts".⁷⁴

Although the Guidelines take into consideration the transboundary impacts of activities subject to EIA requirements, noting that this would be particularly useful in the case of the development of oil and gas resources, large-scale hydroelectric projects and extensive mining and smelter work, they do not apply to ABNJ. As for the Espoo Convention and the Kiev Protocol, they only take into consideration transboundary impacts in as much as these might occur in the area under the jurisdiction of another country, therefore leaving sensitive and rather unknown parts of the Arctic Ocean unregulated.

2.2.3. Sector-specific instruments

The development of human activities far from the coasts and the attention given by the international community to their related impacts has led to the adoption of a number of regulations on EIAs within sectors. Two of the sectors concerned are

70. Article 3 of Annex I to the Madrid Protocol on Comprehensive Environmental Evaluation.

71. See http://www.ats.aq/devAS/ep_eia_list.aspx?lang=e.

72. See Roura R. and Hemmings A. (2011), "Realising Strategic Environmental Assessment in Antarctica", *Journal of Environmental Assessment Policy and Management* Vol. 13, No. 3, p. 495.

73. Countries that are members of the Arctic Council are: Canada, Denmark (also representing the Faroe Islands and Greenland), Finland, Iceland, Norway, the Russian Federation, Sweden and the USA. The 1997 Alta Declaration is available here: http://library.arcticportal.org/1271/1/The_Alta_Declaration.pdf.

74. Guidelines for Environmental Impact Assessment (EIA) in the Arctic – Arctic Environmental Protection Strategy, p. 11.

emblematic, as they have raised for a long time many concerns within the international community on the issue of the conservation of marine biodiversity in ABNJ: deep-sea fisheries and seabed mining in the Area. Dumping of waste is a rather ancient concern, now regulated through a specific instrument, whereas ocean fertilisation and more broadly geo-engineering can be seen as an emerging issue.

2.2.3.1. Fisheries

EIAs for fisheries were mentioned in the 1995 **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, also known as the United Nations Fish Stocks Agreement (UNFSA)**. According to its Article 5 (d), coastal States and States fishing on the high seas shall “*assess the impacts of fishing, other human activities and environmental factors on target stocks and species belonging to the same ecosystem or associated with or dependent upon the target stocks*”. When it comes to the implementation of the precautionary approach, the UNFSA further emphasises that States shall “*develop data collection and research programmes to assess the impact of fishing on non-target and associated or dependent species and their environment, and adopt plans which are necessary to ensure the conservation of such species and to protect habitats of special concern*”.⁷⁵

Although these provisions concerned highly migratory and straddling fish stocks, **the most recent developments in respect of EIAs for fisheries were related to deep-sea fisheries**. Following several years of international debate on the issue, in 2006 the UNGA adopted a resolution on sustainable fisheries which included several provisions related to bottom fishing and to EIAs for these fisheries. Notably, it called upon Regional Fisheries Management Organisations or Arrangements (RFMOs and RFMAs) “*to assess, on the basis of the best available scientific information, whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems and to ensure that if it is assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts or not authorised to proceed*”.⁷⁶ The Resolution fur-

ther specifies that flag States should either adopt and implement the measures listed in it, including the specific measure on EIAs, “*or cease to authorise fishing vessels flying their flag to conduct bottom fisheries in areas beyond national jurisdiction where there is no regional fisheries management organisation or arrangement*” or interim measures in place, and this until such measures are adopted.⁷⁷

After the adoption of this Resolution, the Food and Agriculture Organisation of the United Nations (FAO) issued the **International Guidelines for the Management of Deep-Sea Fisheries in the High Seas**, a voluntary instrument which was adopted on 29 August 2008, following a series of technical consultations.⁷⁸ They detail the obligations of flag States and RFMOs/As to conduct EIAs for their deep-sea fishing activities likely to produce significant adverse impacts in a given area. In particular, such EIAs should address:

“(i) *type(s) of fishing conducted or contemplated, including vessels and gear types, fishing areas, target and potential bycatch species, fishing effort levels and duration of fishing (harvesting plan);*

“(ii) *best available scientific and technical information on the current state of fishery resources and baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;*

“(iii) *identification, description and mapping of VMEs [Vulnerable Marine Ecosystems]⁷⁹ known or likely to occur in the fishing area;*

“(iv) *data and methods used to identify, describe and assess the impacts of the activity, the identification of gaps in knowledge and an evaluation of uncertainties in the information presented in the assessment;*

“(v) *identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative impacts of activities covered by the assessment on VMEs and low productivity fishery resources in the fishing area;*

of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments, §83 (a).

77. UNGA Resolution 61/105 of 8 December 2006, Sustainable fisheries including through the 1995 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, and related instruments, §86.

78. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, Rome, FAO, 2009, 73p.

79. The FAO International Guidelines determine a number of characteristics which should be used as criteria to identify VMEs: uniqueness or rarity; functional significance of the habitat; fragility; life-history traits of component species that make recovery difficult; and structural complexity.

75. Article 6 (3) (d) of the UNFSA.

76. UNGA Resolution 61/105 of 8 December 2006, Sustainable fisheries including through the 1995 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

(vi) risk assessment of likely impacts by the fishing operations to determine which impacts are likely to be significant adverse impacts, particularly impacts on VMEs and low-productivity fishery resources; and

(vii) the proposed mitigation and management measures to be used to prevent significant adverse impacts on VMEs and ensure long-term conservation and sustainable utilisation of low-productivity fishery resources, and the measures to be used to monitor effects of the fishing operations”.⁸⁰

One of the most interesting aspects of the Guidelines is the definition they provide for the notion of “significant adverse impacts” (SAIs). Although very often used as a threshold to determine the need to carry out an EIA, this notion is not frequently defined in a precise manner. In this respect, the Guidelines defines SAIs as “those that compromise ecosystem integrity (i.e. ecosystem structure or function) in a manner that: (i) impairs the ability of affected populations to replace themselves; (ii) degrades the long-term natural productivity of habitats; or (iii) causes, on more than a temporary basis, significant loss of species richness, habitat or community types. Impacts should be evaluated individually, in combination and cumulatively”.⁸¹ According to the Guidelines, six factors must be considered when determining the scale and significance of an impact: “(i) the intensity or severity of the impact at the specific site being affected; (ii) the spatial extent of the impact relative to the availability of the habitat type affected; (iii) the sensitivity/vulnerability of the ecosystem to the impact; (iv) the ability of an ecosystem to recover from harm, and the rate of such recovery; (v) the extent to which ecosystem functions may be altered by the impact; and (vi) the timing and duration of the impact relative to the period in which a species needs the habitat during one or more of its life-history stages”.⁸² Guidance is also provided on how to determine the temporary nature of an impact.⁸³

Results of the assessments carried out by States should be transmitted to the competent RFMO/A and then to the FAO, or directly to the FAO if a RFMO/A does not exist in the fishing area concerned, and then made publicly available.⁸⁴ If an

RFMO/A is in place, it should develop a mechanism to review the assessments and provide evaluation and advice on whether the fishing activities concerned would have SAIs on VMEs and whether mitigation measures would prevent such SAIs.⁸⁵ Eventually, the aim of the assessments would be to provide a basis for the adoption of conservation and management measures to achieve long-term conservation and sustainable use of deep-sea fish stocks, ensuring adequate protection and preventing SAIs on VMEs.⁸⁶ It is further indicated that States and RFMOs/As should ensure that fishing activities are managed in such a way that they prevent SAIs on VMEs or elsewhere, and that they do not grant authorisation to such activities.⁸⁷ When it is impossible to determine the presence of VMEs in a given area or the likelihood that fishing activities would cause SAIs on VMEs, fishing activities can nevertheless be authorised by States in accordance with precautionary conservation and management measures, a protocol for encounters with VMEs and measures to reduce uncertainty.⁸⁸ This last paragraph is controversial because some argue that in the absence of certainty with respect to the presence of VMEs or the likelihood of an SAI, then no fishing activities should be authorised at all.⁸⁹

In 2009, following the adoption of the Guidelines, the UNGA called upon RFMOs/As and States to “conduct the assessments called for in paragraph 83 (a) of Resolution 61/105 consistent with the Guidelines, and ensure that vessels do not engage in bottom fishing until such assessments have been carried out”.⁹⁰

Although detailed requirements exist with

80. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, § 47.

81. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, § 17.

82. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, § 18.

83. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, § 19 and 20.

84. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, § 51 and 52.

85. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, § 50.

86. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, § 70.

87. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, § 73.

88. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, § 74.

89. See Weaver P.P.E et al., (2011), “The impact of deep-sea fisheries and implementation of the UNGA Resolutions 61/105 and 64/72. Report of an international scientific workshop”, National Oceanography Centre, Southampton, p. 13: “where there are substantial uncertainties regarding the existence of VMEs in an area, or whether fishing in the area would cause significant adverse impacts to VMEs, or the long-term sustainability of deep-sea fish stocks (in particular rare and/or endangered species), fishing should not be permitted until such uncertainties are resolved”.

90. UNGA Resolution 64/72 of 4 December 2009, Sustainable fisheries, including through the 1995 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, and related instruments, § 119 (a).

respect to the conduct of EIAs for deep-sea fisheries, several concerns were raised with respect to their effective implementation.⁹¹ Although the coverage of ABNJ by RFMOs with a mandate to regulate deep-sea fisheries is extending, it is still not complete, with areas in the Atlantic, Pacific and Arctic oceans still not covered by such instruments. In the Southern Ocean, all States engaged in bottom longline fishing must submit EIAs that are subject to a review by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the competent RFMO in charge of the management of fishing in the area. On the opposite side, RFMOs located in the North-Atlantic (the North-East Atlantic Fisheries Commission (NEAFC) and the Northwest Atlantic Fisheries Organisation (NAFO)) and in the Southeast Atlantic (the South East Atlantic Fisheries Organisation (SEAFO)) only require impact assessments in new fishing areas or when new scientific information becomes available, and no such information has been publicised so far. As noted by the Deep Sea Conservation Coalition (DSCC), *“the argument that existing or historically fished areas do not need to be subject to impact assessments is often based on the false assumption that in areas where extensive bottom trawl fishing has occurred in the past, any VME that may have existed in such areas have already been destroyed. Again, there is ample scientific information indicating that while in some areas where VMEs occur and bottom trawling has occurred, the VMEs have been obliterated by intensive trawling, in other areas where VMEs such as cold-water coral reefs have been damaged by bottom-trawling, substantial portions of the VME’s reefs still remain intact”*.⁹²

In the North Pacific, major deep-sea fishing States have conducted impact assessments which

all highlighted a number of gaps. For example, *“the impact assessment report from Japan also concluded it is difficult to assess the impacts of bottom fishing on the fragility of ecosystems formed by corals, due to lack of knowledge on structure and function of coral ecosystems. (...) The US impact assessment report reaches similar conclusions”*.⁹³ In the South Pacific, the non legally-binding interim measures adopted before the entry into force of the South Pacific RFMO (SPRFMO) ask States to conduct impact assessments on VMEs for their bottom fishing activities.⁹⁴ However, only New Zealand and Spain have so far submitted information in this respect. Finally, in the Indian Ocean, with the sole exception of Australia, no countries have published an impact assessment.

In general, **the conduct of EIAs with respect to VMEs and deep-sea fisheries is subjected to a number of practical and governance issues.** They have been discussed at length in various reports and seminars, including a workshop organised in 2011 under the auspices of the UNGA to review the implementation of its resolutions on deep-sea fisheries.⁹⁵ In order to prepare the workshop, a report was published by the UN Secretary General, indicating that *“while significant actions have been taken, implementation of the resolutions continues to be uneven and further efforts are needed”*.⁹⁶ It is noted that *“requirements for impact assessments have been implemented by CCAMLR, NAFO, NEAFC and SEAFO, but the requirements vary”*.⁹⁷ A lack of

91. The following two paragraphs are based on a report prepared by the Deep-Sea Conservation Coalition (DSCC): Gianni M., Currie D.E.J., Fuller S., Speer L., Ardron J., Weeber B., Gibson M., Roberts G., Sack K., Owen S., Kavanagh A. (2011), “Unfinished business: a review of the implementation of the provisions of UNGA resolutions 61/105 and 64/72 related to the management of bottom fisheries in areas beyond national jurisdiction”, Deep Sea Conservation Coalition, 53p., and on a presentation on environmental impact assessments in deep-sea fisheries in the high seas made by Mr. Gianni on 2 October 2012 on the occasion of the second meeting of the French informal working group on high seas organised jointly by IDDRI and the French Marine Protected Areas Agency.

92. Gianni M., Currie D.E.J., Fuller S., Speer L., Ardron J., Weeber B., Gibson M., Roberts G., Sack K., Owen S., Kavanagh A. (2011), “Unfinished business: a review of the implementation of the provisions of UNGA resolutions 61/105 and 64/72 related to the management of bottom fisheries in areas beyond national jurisdiction”, Deep Sea Conservation Coalition, p.40.

93. Gianni M., Currie D.E.J., Fuller S., Speer L., Ardron J., Weeber B., Gibson M., Roberts G., Sack K., Owen S., Kavanagh A. (2011), “Unfinished business: a review of the implementation of the provisions of UNGA resolutions 61/105 and 64/72 related to the management of bottom fisheries in areas beyond national jurisdiction”, Deep Sea Conservation Coalition, p.24.

94. Articles 11, 12 and 13 of the Interim Measures adopted by participants in negotiations to establish the South Pacific Regional Fisheries Management Organisation.

95. See document A/66/566, Letter dated 27 October 2011 from the Moderator of the Workshop to the President of the General Assembly, “Workshop to discuss implementation of paragraphs 80 and 83 to 87 of resolution 61/105 and paragraphs 117 and 119 to 127 of resolution 64/72 on sustainable fisheries, addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks”.

96. Document A/66/307 of 15 August 2011, Report of the Secretary-General, “Actions taken by States and regional fisheries management organisations and arrangements in response to paragraphs 80 and 83 to 87 of General Assembly resolution 61/105 and paragraphs 113 to 117 and 119 to 127 of General Assembly resolution 64/72 on sustainable fisheries, addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks”.

97. Document A/66/307 of 15 August 2011, Report of the Secretary-General, “Actions taken by States and regional fisheries management organisations and arrangements

consistency can also be found all over the globe in respect of the understanding of what constitutes an SAI and a VME. Across RFMOs and high seas deep-seas fishing nations, there are differences in this respect, with various standards applying depending on the region concerned. In addition, the focus of the impact assessments is mostly on the impacts of fishing activities on the populations of harvested species, or on species that are associated with or dependent on these harvested species, rather than on the marine environment itself, meaning that the impact on most deep-sea species is not assessed. In the 2011 report of the UNGA workshop, it was “suggested that the cumulative impacts of fishing activities were not sufficiently taken into account in impact assessments”.⁹⁸ Transparency within RFMOs on this rather sensitive subject has been improving over the past years, but not all actually publish the impact assessments conducted by their Contracting Parties. Finally, and the issue is of common concern not only in RFMOs but also in the vast majority of international organisations working on ABNJ issues, the question of enforcement is mainly unsolved, as it lies primarily within the hands of the flag States.

Taking the results of the previously mentioned workshop into consideration, in 2011, the UNGA noted in its annual resolution on fisheries that “despite the progress made, the urgent actions called for in the relevant paragraphs of resolutions 61/105 and 64/72 have not been fully implemented in all cases, and in this regards, further actions in accordance with the precautionary approach, ecosystem approaches and international law and consistent with the Guidelines are needed to strengthen the continued implementation”. In this regard, the Resolution called upon RFMOs/As and States “(a) to strengthen procedures for carrying out assessments to take into account individual, collective and cumulative impacts and for making the assessments publicly available, recognising that doing so can support transparency and capacity-building globally; (b) to establish and improve procedures to ensure that

assessments are updated when new conditions or information so require; (c) to establish and improve procedures for evaluating, reviewing and revising, on a regular basis, assessments based on best available science and management measures”.⁹⁹

2.2.3.2. Deep-seabed mining

Deep-seabed mining in the Area is, along with bottom fishing, the other iconic human activity with the potential to seriously harm the marine environment. Exploitation of the mineral resources of the Area has not started yet, as States are still engaged in the prospection and exploration phases. Unlike the high seas bottom fisheries, this question was debated during the UNCLOS negotiations. According to Article 145 of the Convention, “necessary measures shall be taken in accordance with this Convention with respect to activities in the Area to ensure effective protection for the marine environment from harmful effects which may arise from such activities”. Adoption of these measures must be sought through the International Seabed Authority (ISA). With respect to EIAs conducted for deep-seabed mining in the Area, the obligation has been further refined in the **Implementing Agreement to Part XI of UNCLOS**, which states that “an application for approval of a plan of work shall be accompanied by an assessment of the potential environmental impacts of the proposed activities and by a description of a programme for oceanographic and baseline studies in accordance with the rules, regulations and procedures adopted by the Authority”.¹⁰⁰ According to Article 165 of UNCLOS, assessments of the environmental implications of activities in the Area shall be made by the Legal and Technical Commission of the International Seabed Authority (LTC).¹⁰¹ The LTC has the mandate to “make recommendations to the Council [of ISA] to disapprove areas for exploitation by contractors or the Enterprise in cases where substantial evidence indicates the risk of serious harm to the marine environment”.¹⁰²

The ISA, working on its Mining Code, has already issued a number of regulations relating

in response to paragraphs 80 and 83 to 87 of General Assembly resolution 61/105 and paragraphs 113 to 117 and 119 to 127 of General Assembly resolution 64/72 on sustainable fisheries, addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks”, § 204.

98. Document A/66/566, Letter dated 27 October 2011 from the Moderator of the Workshop to the President of the General Assembly, “Workshop to discuss implementation of paragraphs 80 and 83 to 87 of resolution 61/105 and paragraphs 117 and 119 to 127 of resolution 64/72 on sustainable fisheries, addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks”, § 9.

99. UNGA Resolution 66/88 of 6 December 2011, Sustainable fisheries, including through the 1995 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, and related instruments, § 129.

100. Implementing Agreement to Part XI of UNCLOS, Annex. Section 1, Article 7.

101. Article 165 (2) (d) of UNCLOS: “The Commission shall: (d) prepare assessments of the environmental implications of activities in the Area”.

102. Article 165 (2) (l) of UNCLOS.

to the prospection and exploration for deep-seabed mineral resources. In Regulation 18 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area adopted in 2000, the procedure for EIAs in this respect is further specified. To gain approval for planned exploration work, applicants must submit “(b) A description of the programme for oceanographic and environmental baseline studies in accordance with these Regulations and any environmental rules, regulations and procedures established by the Authority that would enable an assessment of the potential environmental impact of the proposed exploration activities, taking into account any recommendations issued by the Legal and Technical Commission; (c) a preliminary assessment of the possible impact of the proposed exploration activities on the marine environment; (d) a description of proposed measures for the prevention, reduction and control of pollution and other hazards, as well as possible impacts to the marine environment”. Similar requirements are developed in Regulation 20 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, adopted in 2010 and in Regulation 20 of the Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts in the Area, adopted in 2012¹⁰³, with the difference that the need to assess the potential environmental impact of the proposed exploration activities specifically on marine biodiversity was included in the last two Regulations. Information gathered in this context is then used by the LTC to ensure that proposed exploration activities in the Area are either managed to prevent serious harmful effects to VMEs or are not given authorisation to proceed.¹⁰⁴

In 2002, recommendations were issued for the guidance of contractors for the assessment of the possible environmental impacts arising from the exploration for polymetallic nodules in the Area.

Amended draft recommendations, which also include the assessment of possible environmental impacts arising from the exploration of polymetallic sulphides in the Area were recently prepared and have already been circulated to contractors to obtain their comments. Consideration of these draft recommendations will be a priority for the next session of the Commission.¹⁰⁵ In addition, ISA has issued standard clauses for exploration contracts¹⁰⁶, the section 5 of which is dedicated to EIAs: “prior to the commencement of testing of collecting systems and processing operation, the Contractor shall submit to the Authority: (a) a site-specific environmental impact statement based on available meteorological, oceanographic and environmental data collected during the preceding phases of exploration and containing data that could be used to establish an environmental baseline against which to assess the likely effects of the mining tests; (b) an assessment of the effects on the marine environment of the proposed tests of collecting systems; (c) a proposal for a monitoring programme to determine the effects on the marine environment of the equipment that will be used during the proposed mining tests”.

In 2012, the Council of ISA approved an environmental management plan for the Clarion-Clipperton Zone, a zone rich in polymetallic nodules located in the Pacific, where eight exploration licences have already been granted.¹⁰⁷ One of the guiding principles of this plan is “the prior assessment of activities that may have significant adverse impacts on the environment”.¹⁰⁸ In this respect, the operational objectives of the plan for the entire zone are to “(a) Establish periodically updated environmental baseline data for the region; (b) undertake cumulative environmental impact assessments as necessary based on exploitation proposals; (c) consider the environmental risks to the Clarion-Clipperton Zone posed by technological developments in mining technologies”.¹⁰⁹ These operational objectives are complemented by three similar management

103. All the Regulations can be found on ISA website, under: <http://www.isa.org.jm/en/mcode>. The Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crust in the Area were not available in this page at the time of writing this study, but can be found under: <http://www.isa.org.jm/files/documents/EN/18Sess/Council/ISBA-18C-L3.pdf>.

104. See for example Regulations on prospecting and exploration for polymetallic sulphides in the Area, Regulation 33 (4): “The Commission shall develop and implement procedures for determining, on the basis of the best available scientific and technical information, including information provided pursuant to regulation 20, whether proposed exploration activities in the Area would have serious harmful effects on vulnerable marine ecosystems, in particular hydrothermal vents, and ensure that, if it is determined that certain proposed exploration activities would have serious harmful effects on vulnerable marine ecosystems, those activities are managed to prevent such effects or not authorised to proceed”.

105. See document ISBA/18/C/20 of 20 July 2012, Summary Report of the Chair of the Legal and Technical Commission on the work of the Commission during the Eighteenth Session of the International Seabed Authority, §22-23.

106. See <http://www.isa.org.jm/files/documents/EN/Regs/Code-Annex4.pdf>.

107. See document ISBA/18/C/22 of 26 July 2012, Decision of the Council relating to an environmental management plan for the Clarion-Clipperton Zone. The environmental management plan itself can be found in document ISBA/17/LTC/7 of 13 July 2011, Environmental Management Plan for the Clarion-Clipperton Zone.

108. ISBA/17/LTC/7 of 13 July 2011, *Environmental Management Plan for the Clarion-Clipperton Zone*, § 13 (d).

109. Ibid, § 37.

objectives (collection of information from EIAs; consideration of cumulative impacts of mining and other human activities; exchange of information on new and developing technologies).¹¹⁰ In addition, the plan foresees that the ISA Secretariat will complete a cumulative impact assessment for seabed mining in this zone, including: “(a) evaluation of the potential impacts of multiple mining operations in the Clarion-Clipperton Zone on benthic and water column ecosystems; (b) evaluation of the potential impacts of multiple mining operations in the Clarion-Clipperton Zone on other mining operations for nickel, copper, cobalt and other metals that could be recovered from the Zone’s polymetallic nodule deposits”.¹¹¹ These dispositions have now entered into force for an initial three-year period.

Interestingly, issues raised with respect to deep-seabed mining in the Area have led to the adoption, by the International Tribunal on the Law of the Sea (ITLOS) of an **Advisory opinion on Responsibilities and Obligations of States Sponsoring Persons and Entities with respect to Activities in the Area** which underlined that “the obligation to conduct an environmental impact assessment is a direct obligation under the [United Nations Convention on the Law of the Sea] and a general obligation under international customary law”.¹¹²

2.2.3.3. Dumping of waste

According to Article 2010 of UNCLOS on the pollution by dumping, “States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment by dumping”. Recognising the competence of other arenas on the subject, the article adds that “States, acting especially through competent international organisations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution. (...) National laws, regulations and measures shall be no less effective in preventing, reducing and controlling such pollution than the global rules and standards”. On the issue of the dumping of waste, and its placement at sea, the global rules and standards are determined through the framework of the **1972 London Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter and its 1996 Protocol**.

The geographical scope of the London

Convention (LC) encompasses all marine waters other than the internal waters of States¹¹³ and therefore applies to ABNJ. In this context, “the disposal of wastes or other matter directly arising from, or related to the exploration, exploitation and associated off-shore processing of seabed mineral resources will not be covered by the provisions of this Convention”¹¹⁴ as it is covered by another regime established by the ISA. The LC establishes a list system, according to which dumping of wastes or other matter listed in Annex I to the Convention is prohibited whereas dumping of wastes or other matter listed in Annex II requires a prior special permit and dumping of all other wastes or matter requires a prior general permit.¹¹⁵ According to Article IV (2) of the Convention, “any permit shall be issued only after careful consideration of all the factors set forth in Annex III, including prior studies of the characteristics of the dumping site”. Characteristics taken into account while assessing the opportunity to deliver a permit for the dumping of matter at sea include (i) characteristics and composition of the matter, including whether an adequate scientific basis exists concerning characteristics and composition of the material to be dumped, to assess its impact on marine life and human health; (ii) the characteristics of the dumping site and method of deposit (including the consideration of the existence and effects of other dumpings which have been made in the dumping area); (iii) general considerations and conditions such as possible effects on amenities, possible effects on marine life and on other uses of the seas and “practical availability of alternative land-based methods of treatment, disposal or elimination or of treatment to render the matter less harmful for dumping at sea”. After prior assessments are conducted, permits are delivered by a national authority designated by each Contracting Party.

Contracting Parties to the LC adopted a Protocol in 1996 “to further modernise the Convention and eventually replace it”.¹¹⁶ This London Protocol (LP) introduces the precautionary approach and the polluter pays principle. It changes the list system into a reverse list, by prohibiting the dumping of

110. Ibid, § 40.

111. Ibid, § 51.

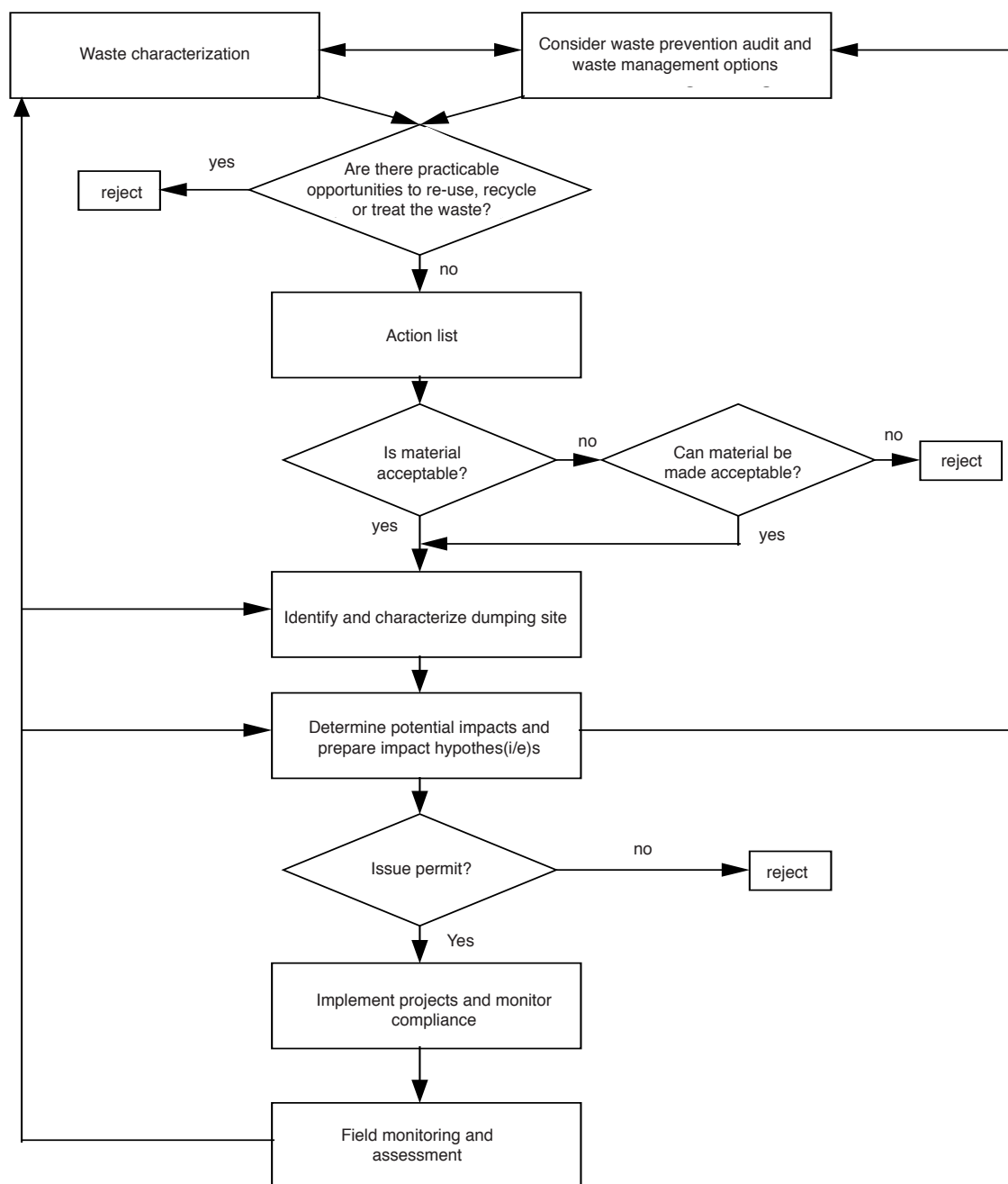
112. International Tribunal on the Law of the Sea, Advisory Opinion on Responsibilities and Obligations of States Sponsoring Persons and Entities with respect to Activities in the Area, 1 February 2011, p. 44, §145.

113. Article III (3) of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter.

114. Article III (1) (b) (c) of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter.

115. Article IV (1) of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter.

116. See <http://www.imo.org/OurWork/Environment/SpecialProgrammesAndInitiatives/Pages/London-Convention-and-Protocol.aspx>.

Figure 2. Stages in the application of the Guidelines

Source: Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping.

wastes and other matters with the exception of those listed in its Annex I for which dumping requires a permit.¹¹⁷ Annex II of the Protocol details the assessment procedure and the substantive requirements:

- Assessment of the alternatives to dumping;
- Consideration of waste management options (re-use, off-site recycling, destruction of hazardous constituents, treatment to reduce or remove the hazardous constituents and disposal on land, in air or in water);
- Detailed description and characterisation of the waste;
- Development of a national Action List to provide for a mechanism for screening candidate wastes and their constituents on the basis of their potential effects on human health and the marine environment;
- Information required to select a dump-site;
- Assessment of potential effects;
- Monitoring;
- Permit conditions, including the obligation to review them at regular intervals, taking into account the results of monitoring programmes.

Contracting Parties have further developed generic and specific Guidelines for all wastes included in the reverse LP list. These documents contain a step-by-step presentation of the requirements contained in Annex II (see Figure 2).

2.2.3.4. Ocean fertilisation

As the climate change issue is becoming more and more challenging and pressing, there has been increasing interest in the use of geo-engineering, a deliberate human intervention in the Earth's climate system that might moderate climate warning. Ocean fertilisation is one of the activities classified under this umbrella and has been defined as “any activity undertaken by humans with the principal intention of stimulating primary productivity in the oceans”.¹¹⁸ In the late 2000s, international concerns over the unregulated development of large-scale ocean fertilisation activities led to the adoption, by the CBD, of a decision in which its Contracting Parties are requested “in accordance with the precautionary approach, to

ensure that ocean fertilisation activities do not take place until there is an adequate scientific basis on which to justify such activities, including associated risks, and a global, transparent and effective control and regulatory mechanism is in place for these activities; with the exception of small-scale scientific research within coastal waters. Such studies should only be authorised if justified by the need to gather specific scientific data, and should also be subject to a thorough prior assessment of the potential impacts of the research studies on the marine environment, and be strictly controlled, and not be used for generating and selling carbon offsets or any other commercial purposes”.¹¹⁹ The same decision also recognised the mandate of the LC/LP in this respect and urged “parties and other Governments to act in accordance with the decision of the London Convention”.¹²⁰

Consideration of the ocean fertilisation issue has been ongoing since 2007 within the meetings of the Parties to the LC and LP. That year, the scientific group established under the LC issued a “statement of concern regarding iron fertilisation of the oceans to sequester CO₂”,¹²¹ in which they recommended that such activities be evaluated carefully against the aims of the LC and of the LP. In 2008, Contracting Parties to the LC and LP agreed that the scope of these instruments includes ocean fertilisation activities and that, for the time being, ocean fertilisation activities other than legitimate scientific research should not be allowed.¹²² Therefore, ocean fertilisation activities other than legitimate scientific research are considered as being a placement of matter which does not fulfil the requirements under Article III.1 (b) (ii) of the LC and 1.4.2 of the LP and therefore do not qualify for any exemption. The 2008 Resolution considers legitimate scientific research on ocean fertilisation as being “placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims” of the LC and LP¹²³

117. Matters listed in Annex I are dredged material, sewage sludge, fish waste, vessels and platforms or other man-made structures, inert, inorganic geological material, organic material of natural origin, bulky items primarily comprising iron, steel, concrete and similarly unarmful materials for which the concern is physical impact, under a number of precise conditions, and carbon dioxide streams from carbon dioxide capture processes for sequestration.

118. Resolution LC-LP.1 (2008) on the Regulation of Ocean Fertilisation, adopted on 31 October 2008, §2.

119. CBD COP 9, Decision IX/16 on Biodiversity and Climate Change, § (C) (4).

120. The CBD has further reiterated its concerns about ocean fertilisation and its recognition of the role of the LC and the LP in § 57 to 62 of Decision X/29 on Marine and Coastal Biodiversity adopted in 2010 in Nagoya and in § 10 to 12 of Decision XI/20 on Climate-related Geo-engineering adopted in 2012 in Hyderabad.

121. LC-LP.1/Circ.14 of 13 July 2007, “Statement of concern regarding iron fertilisation of the oceans to sequester CO₂”.

122. Resolution LC-LP.1 (2008) on the Regulation of Ocean Fertilisation adopted on 31 October 2008.

123. Articles III (b) (ii) of the LC and 1 (4) (2) (2) of the LP: “Dumping does not include (...): placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the

and can therefore be authorised provided that it fulfils the conditions enacted in the assessment framework.

This assessment framework was adopted in 2010¹²⁴, with the first aim to provide a tool for assessing proposed activities on a case-by-case basis to determine if they constitute legitimate scientific research that is not contrary to the aims of the LC or LP. The assessment procedure itself is divided in two parts: an initial assessment, to determine whether a proposed activity is legitimate scientific research on ocean fertilisation and an environmental assessment, to determine whether the proposed activity is not contrary to the aims of the LC and the LP. The environmental assessment must follow several steps: problem formulation, site selection and description, exposure assessment, effects assessment, risk characterisation and risk management. With respect to site selection, it is worth noting that the framework indicates that the proximity to other uses of the sea such as fishing, navigation, engineering uses, areas of special concern and value and traditional uses of the sea must be taken into consideration. During the risk characterisation step, cumulative impacts resulting from other activities such as aquaculture, offshore oil and gas exploration and other fertilisation activities might also be anticipated. Within the risk management phase, Contracting Parties should also develop a monitoring plan to “*verify that any conditions imposed by the Contracting Parties are met – compliance monitoring – and that the assumptions made during the assessment of the proposed activity review were correct and sufficient to protect the environment and human health – impact monitoring*”.¹²⁵ Interestingly, a consultation process with all stakeholders and potentially affected countries is recommended before a final decision is made, and this decision should be publicly available.

The LC/LP Resolutions and the subsequent assessment framework are not legally-binding and debates are taking place within the LC and the LP to determine whether this is the most suitable way to deal with ocean fertilisation and if other geo-engineering activities should also be included in the current discussions, for example through the development of a general placement regime. In this context, various options are considered by

the Parties to the LC/LP, including the adoption of amendments to the Protocol and to its annexes or of an interpretative resolution.¹²⁶ Amending the LP and developing legally-binding annexes could allow for the development of more stringent assessment frameworks, especially as international concerns over the conduct of geo-engineering activities are growing.¹²⁷

3. IDENTIFICATION OF GAPS

A general obligation to conduct assessments of the impacts of human activities under UNCLOS exists, but it is not detailed enough to be adequately enforced in ABNJ. If a comparison is made with other legally-binding international instruments also dealing with the subject, such as the Espoo Convention or the Kiev Protocol, it is easy to see that **the notions contained in Article 206 of UNCLOS are not precise enough to allow for a good implementation of this obligation.** This has led to the rather chaotic development of sector or region-based EIA regulations, something which in turn compromised an adequate level of consistency between regions (regions such as the Southern Ocean and to a more limited extent the North-East Atlantic and the Mediterranean Sea which have a strong institutional framework, compared to most of the regions of the world such as the Indian Ocean, the North Pacific, the South Atlantic..., which have a far from developed institutional framework with almost inexistent EIA requirements) and between sectors.

In addition, not all sectors have developed legally-binding requirements on EIAs in ABNJ. A 2008 study conducted by IUCN identified that there were no specific EIA requirements for: “*seabed activities other than mining, (e.g. cable and pipelines, seabed installations, marine scientific research, bioprospecting, sea-based tourism); high seas activities other than dumping and some fishing (e.g., shipping, marine scientific research, floating installations (e.g., wave, nuclear, CO₂ mixers)); impacts of high seas fishing activities on outer continental shelves of coastal nations (e.g. deep-sea fishing impacts on sedentary species and resources, vulnerable benthic ecosystems); impacts of outer continental*

aims of” the LC and of the LP.

124. Resolution LC-LP.2 (2010) on the assessment framework for scientific research involving ocean fertilisation, adopted on 14 October 2010.

125. Resolution LC-LP.2 (2010) on the assessment framework for scientific research involving ocean fertilisation, adopted on 14 October 2010, p.19.

126. See for example document LC/33/4 of 20 June 2011, “Report of the Third Meeting of the Intersessional Working Group on Ocean Fertilisation”.

127. See <http://www.guardian.co.uk/environment/2012/oct/15/pacific-iron-fertilisation-geoengineering>. This is one example of the numerous recently published articles about an ocean fertilisation experiment that took place illegally off the coast of Canada, which have subsequently attracted worldwide attention and concern.

shelf activities on high seas (e.g. seismic testing noise); military activities; or new or emerging uses of the seas".¹²⁸ Although UNCLOS does seem to impose a general obligation to assess the impacts of human activities in ABNJ, it does not foresee the creation of a default mechanism for sectoral activities which are not currently assessed in the context of existing organisations¹²⁹ and it leaves this obligation entirely and implicitly to the flag State.

In any case, there are currently no detailed global and legally-binding requirements on EIAs, including requirements on reporting and on the publicity of reports and nor are there any global compliance and enforcement mechanisms. In the absence of such requirements, it would be extremely surprising if flag States were to decide on their own accord to take action and to impose the strict obligations regarding EIAs in ABNJ on their nationals and vessels. This is the case, for example, for submarine cable operations, for which no specific global requirements exist. In this respect, a 2009 report noted that *"EIAs for cable operations are rare and are generally limited to a coastal State's territorial sea"*¹³⁰ even if modern cables are buried into the seabed at depths down to 1500 meters, or deployed on the seabed at depths greater than 1500 meters. In addition, experience has shown that even in the context of the most developed and stringent frameworks, such as within the AT system, flag States tend to minimise their obligations with respect to EIAs. Instead of considering it as a strategic step in the planning of an activity, they see it as merely an administrative stage of the process.

One of the largest gaps in the system is the lack of consideration of the cumulative impacts of human activities in the conduct of most EIAs. The notion of cumulative impacts has been defined as *"the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency or person*

undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time".¹³¹ Although assessments of cumulative impacts have for a long time been common practice within national jurisdiction¹³², they are not for the time being considered in most sector-based and region-based requirements in ABNJ (one of the most notable exceptions being the Environmental Management Plan of the Clarion-Clipperton Zone).

Finally, from the strategic point of view, it is also noteworthy that no requirement for SEA actually exists in ABNJ, although SEAs are now a well-established practice within national jurisdiction.

4. POSSIBLE WAYS FORWARD

The adoption of a legally-binding instrument on issues including EIAs in ABNJ is certainly the preferred option for many but there are also some complementary actions which can be undertaken to enhance the current framework. In addition, the attention of States negotiating within the UNGA must not be entirely focused on the instrument to be adopted itself, but also on the content of the obligation to carry out EIAs in ABNJ. The future implementation of this requirement will rely heavily on the quality of the standards and procedures adopted in this context.

4.1. Options to establish a global legal framework for EIAs in ABNJ

As there are a number of gaps with respect to EIAs in ABNJ, one of the most logical answers provided to this problem would be to link the issue with the ones already discussed within the appropriate global arena, which is the BBNJ Working Group established under the auspices of the UNGA. As described in the introduction of this study, this is already the case, **as many States supporting the negotiation of an implementing agreement to UNCLOS see EIAs as one of the topics to be considered under this negotiation, together with marine genetic resources, MPAs, capacity-building and transfer of technology.** In this respect, a number of concrete steps could already be undertaken to improve the current global framework.

128. Gjerde K.M. et al. (2008), "Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction", IUCN, Gland, Switzerland, p.8.

129. As noted by Prof. R. Warner, "as existing activities intensify and new activities emerge in ABNJ, there is no default international law framework or network of institutions to assess the potential impacts of these activities on the marine environment in ABNJ". See Warner R. (2012), "Oceans beyond Boundaries: Environmental Assessment Frameworks", The International Journal of Marine and Coastal Law, Vol. 27, p. 482.

130. See Carter L., Burnett D., Drew S., Marle G., Hagaden L., Bartlett-McNeil D. and Irvine N. (2009), "Submarine Cables and the oceans – Connecting the World", UNEP-WCMC Biodiversity Series No 31, p.32.

131. Council on Environmental Quality (CEQ) (1978), "Regulations for Implementing NEPA", (43 FR 56003), Washington DC, Sec. 1508.7.

132. See for example the European Guidelines on the subject: <http://ec.europa.eu/environment/eia/eia-studies-and-reports/guidel.pdf>.

In October 2012, Contracting Parties to the CBD adopted Voluntary Guidelines for the Consideration of Biodiversity in EIA and SEA in Marine and Coastal Areas, and decided to transmit them to the UNGA. As previously noted, these Guidelines mainly address scientific and technical issues, raising some governance questions that can only be addressed within the UNGA framework and through competent sectoral organisations. IUCN highlighted in a position paper that the effective implementation of the Guidelines would require “ongoing regional and global cooperation to, among other things: 1) promote access to data, analysis and expertise; 2) enable harmonisation of standards, thresholds and criteria; 3) ensure full stakeholder participation; 4) promote consistent application of precaution; 5) build capacity; 6) assess cumulative impacts; 7) support relevant research; 8) ensure independent review; 9) prevent duplication; and 10) enable transfer of lessons learnt. Given the paucity of data for marine areas beyond national jurisdiction, globally and regionally supported scientific input is also needed, particularly on the presence of ecologically or biologically significant areas and vulnerable marine ecosystems based on the CBD and other accepted criteria. Thus a more ambitious legal, scientific and institutional framework is called for”.¹³³ But even in this context, **States could adopt a UNGA Resolution calling on all States to implement these Voluntary Guidelines and to report on their implementation.** Building on the obvious link which exists between the Guidelines and the EBSA process, and as the first reports on the description on EBSAs will be sent this year to the UNGA, **such a Resolution could also call for EIAs to be conducted in identified EBSAs for all human activities likely to cause significant adverse impact to marine biodiversity in ABNJ.**

Such linkage between the EBSA process and the Guidelines would once again raise a complex institutional issue. In the EBSA process, it is still not perfectly clear which organisations will be in charge of the final identification of EBSAs. According to CBD decisions on the subject, it seems that it would ultimately be States and competent international organisations that would be given the responsibility. For example, the OSPAR Commission and NEAFC will be in charge of EBSA identification in the North-East Atlantic, through decisions adopted by their Contracting Parties. In this case, and if UNGA Resolutions on EBSAs and EIAs are adopted, they will also be responsible for the implementation of this obligation for their EBSAs and for its monitoring, in as much as it concerns

activities which fall under their mandate. While this process is extremely complicated, it also highlights the lack of consistency across regions, with most having an insufficient institutional framework to conduct such actions.¹³⁴

Several States negotiating within the BBNJ Working Group have emphasised that the adoption of voluntary guidelines by the industry, the development of codes of conducts or the development of EIA requirements within the sectors could be a sufficient option for the future. None of these solutions are totally satisfactory. **Voluntary guidelines and codes of conducts are non-legally binding instruments, and this study has repeatedly shown that even legally-binding sectoral instruments have not been adequately implemented by States.** The development of legally-binding EIA requirements within the various sectors corresponds to the current state of play, with little improvement on the situation (such as covering more human activities in ABNJ with the EIA requirement). However, this approach certainly does not take into consideration the lack of consistency between sectors and regions, the need to establish a global requirement for the assessment of cumulative impacts or the need for a default mechanism, which would be operational as soon as new activities emerge. In addition, geographical coverage of these instruments may vary considerably, as well as the degree of State participation.

Therefore the best option to address significant gaps related to EIAs in ABNJ would be the establishment of a global legally-binding instrument. This instrument could obviously be the implementing agreement currently proposed by many States participating in the debates under the umbrella of the BBNJ Working Group. This option is supported by the EU. However, without being too pessimistic, if States do not reach an agreement by 2014 on the launch of the negotiations for this instrument, it might then be advisable to consider other options.¹³⁵ In this respect, one can suggest:

- The adoption of an additional protocol to the CBD on EIA-related issues. This would mean

¹³⁴. On the lack of consistency across regional frameworks, see Druel E., Ricard P., Rochette J., Martinez C. (2012), “Governance of marine biodiversity in areas beyond national jurisdiction at the regional level: filling the gaps and strengthening the framework for action. Case studies from the North-East Atlantic, Southern Ocean, Western Indian Ocean, South West Pacific and the Sargasso Sea”, Studies N° 04/12, IDDRI and AAMP, Paris, France, 102p.

¹³⁵. Options presented below are based on the conclusions of a presentation delivered by Prof. R. Warner, available at: <http://ancors.uow.edu.au/content/groups/public/@web/@law/@ancors/documents/doc/uow103164.pdf>.

¹³³. IUCN Position Paper for SBSTTA 16, 2012, p.6.

that States would have to agree that the CBD would also provide an appropriate arena to address governance issues in respect to the conservation and sustainable use of marine biodiversity in ABNJ (at present they consider it to be competent only for scientific and technical issues);

- The adoption of a Protocol to the Espoo Convention and to the Kiev Protocol, keeping in mind that as of today, these two instruments are far from having achieved universal participation and that the amendment to the Espoo Convention on the participation of all UN Member States (and not only UNECE Member States) still needs to come into force;
- A stand-alone legally-binding instrument.
- In all these cases, the global instrument concerned would need to address a large number of issues, such as:
 - The definition of minimum standards, requirements and thresholds for the assessment of all human activities in ABNJ, in order to ensure consistency between various sectors and regions, as well as the introduction of requirements for the assessment of cumulative impacts. The content of the EIA requirement is the most crucial point here. These minimum standards, requirements and thresholds would serve as a default mechanism for activities not covered by competent sectoral organisations;
 - The designation of a global entity to which States and competent authorities will have to report on their EIA activities, and which would be in charge of monitoring and compliance;
 - Deciding on a mechanism to link existing regional and sectoral processes with newly established global requirements.

4.2. Content of the obligation

It is not sufficient to declare that EIAs are needed to cover human activities in ABNJ and to insist on the requirement for the adoption of a new legal instrument that deals *inter alia* with the subject. As seen in previous sections of this study, in 1982 States included an EIA requirement in UNCLOS, but in such general terms that ultimately it was not adequately implemented. Therefore, the content of an obligation to carry out EIAs in ABNJ must be carefully and adequately considered. At least, any international instrument adopted on the subject would need to address the following issues: (i) define the principles against which the outcome of the EIA will be tested and the final decision to authorise an activity be taken; (ii) define a screening process, with appropriate thresholds, and include the need to evaluate cumulative impacts;

(iii) define the minimum components of an EIS; (iv) provide for the creation of an advisory scientific and technical body and (v) provide for the creation of a compliance committee. All these components are minimum requirements that would apply to all human activities in ABNJ, while for certain activities whether or not they benefit from a sector or region-specific detailed legally-binding framework would be taken into account. Sector and region-specific instruments (such as the ones developed for deep-sea fisheries, dumping of wastes or ocean fertilisation) would need to at least comply with the generic requirements developed in the international instrument, but could also adapt their regulations to the specificities of a region or an activity and go further in the extent of the obligations on EIAs in ABNJ (but never beyond).

Any international instrument on the subject will need to include some general objectives or principles against which the outcome of any EIA will be tested and to inform the final decision on whether or not the proposed activity will be authorised. This is the case, for example, in the 1991 Protocol on Environmental Protection to the Antarctic Treaty. Its Article 3 on Environmental Protection states that “activities in the Antarctic Treaty area shall be planned and conducted so as to avoid: (i) adverse effects on climate or weather patterns; (ii) significant adverse effects on air or water quality; (iii) significant changes in the atmospheric, terrestrial (including aquatic), glacial or marine environment; (iv) detrimental changes in the distribution, abundance or productivity of species fauna and flora; (v) further jeopardy to endangered or threatened species or populations of such species; or (vi) degradation of, or substantial risk to, areas of biological, scientific, historic or wilderness significance”. A useful approach could be to include a “zero-biodiversity loss” at the heart of the EIAs processes in ABNJ. In a 2011 report, building on the precautionary principle, it was proposed that human activities in ABNJ should only be authorised if the case is made that they do not imply any more erosion of biodiversity.¹³⁶

An international instrument will not necessarily need to include guidance on the procedural steps to follow to carry out an EIA, as this is already common practice. Such guidance is for example included in the CBD Voluntary Guidelines, and it could be considered as a minimum requirement that any EIA undertaken in ABNJ goes through:

- Screening, to determine which activities will be

¹³⁶ Druel E., Billé R., Treyer S. (2011), “A legal scenario analysis for marine protected areas in areas beyond national jurisdiction. Report from the Boulogne-sur-Mer seminar, 19-21 September 2011”, Studies N° 06/11, IDDRI-IUCN-Agence des Aires Marines Protégées, Paris, France, p. 18.

subject to an EIA. In this step, it is the threshold for deciding whether or not to conduct EIAs which will be the major point for discussion and which will need to be defined by the international instrument;

- Scoping, to identify which potential impacts are relevant to assess and to find alternative options;
- Assessment and evaluation of impacts and development of alternatives;
- Reporting of the EIS;
- Review of the EIS;
- Decision-making;
- Monitoring, compliance, enforcement and environmental auditing. This audit, which would take place after the concerned activity has started, would need to look at the scientific aspects of the assessment to check the accuracy of the predictions and at the management measures, to assess the success of mitigation measures in reducing impacts in the concerned area.¹³⁷ In addition, this post-project analysis phase could usefully monitor the compliance with the obligations set out in the authorisation or approval of the activity and the effectiveness of mitigation measures.¹³⁸

The international instrument would certainly need to include requirements that stipulate the minimum components of an EIS, in a similar way to the many international instruments that include articles on the minimum components for inclusion in EIA documentation or in EIS. In the Espoo Convention, for example, the minimum components are:

“(a) a description of the proposed activity and its purpose;

(b) a description, where appropriate, of reasonable alternatives (for example, locational or technological) to the proposed activity and also the no-action alternative;

(c) a description of the environment likely to be significantly affected by the proposed activity and its alternatives;

(d) a description of the potential environmental impact of the proposed activity and its alternatives and an estimation of its significance;

(e) a description of mitigation measures to keep adverse environmental impact to a minimum;

(f) an explicit indication of predictive methods and underlying assumptions as well as the relevant environmental data used;

(g) an identification of gaps in knowledge and uncertainties encountered in compiling the required information;

(h) where appropriate, an outline for monitoring and management programmes and any plans for post-project analysis; and

(i) a non-technical summary, including a visual presentation as appropriate (maps, graphs, etc.).”¹³⁹

As noted previously, these requirements are similar to the ones developed in the UNEP Goals and Principles, and could be usefully included in any global instrument on the subject.

At the screening stage, the definition of the threshold used to determine whether or not a specific activity will be subject to an EIA will be of utmost importance. Almost all sector or region-specific instruments have, in one way or another, introduced this threshold notion. In the AT system, it is found under the name “minor or transitory impact”, whereas in many other instruments, it is the notion of “significant adverse impact” which is used. Importantly, this threshold determines (i) the need for a complete EIA and (ii) the need for appropriate mitigation measures or the need to consider that the activity is likely to cause such important negative impacts that cannot be mitigated and therefore it should not be authorised. The AT approach is particularly interesting in that it would help to introduce, at one point, a level of international scrutiny. In this system, the flag State is the final decision-making authority when a proposed activity is likely to have, at most, only a minor or transitory impact. Above that threshold, the EIA must be circulated to all Contracting Parties to the AT for comments, then reviewed by the CEP and eventually sent for approval to the ATCM. This three steps approach could be envisaged for all human activities in ABNJ likely to have more than a minor or transitory impact on this fragile marine biodiversity. In such case, there will be a need to define more precisely the content of the EIS depending on the likely intensity of the impact (the more severe the impact could be, the more extensive the requirements would be).

However, it would not be sufficient to state that an EIA will be required when an activity is likely to cause a “significant adverse impact” or at least a “minor or transitory impact” to marine biodiversity in ABNJ: an international instrument on the subject would also need to provide some guidance on how to define what is meant by “significant adverse impact”, “minor or transitory impact” or whatever threshold is finally chosen. This would be general guidance, which should be considered

¹³⁷. All these procedural steps are based on the steps described in the CBD Voluntary Guidelines.

¹³⁸. This suggestion is based on Appendix V to the Espoo Convention on post-project analysis.

¹³⁹. Espoo Convention on Environmental Impact Assessment in a Transboundary Context, Appendix II.

as a minimum requirement, and could be subject to sector-specific or region-specific definitions (therefore taking into account already existing instruments, but also providing a legal framework for activities which are not yet covered by any international instrument). As discussed, justifiably so, in the CBD Voluntary Guidelines, the consideration of the impacts must also take into account the specificities of the areas concerned: are these areas EBSAs or VMEs (therefore requiring even more precaution than other areas)? In addition, independently of the fact that an area might be an EBSA or a VME, it should be noted that thresholds for human activities in ABNJ might be lower than in terrestrial areas, given the high level of scientific uncertainties in these parts of the oceans. EIAs for human activities in ABNJ must also take into consideration the fact that impacts may arise on very large spatial and temporal scales and therefore not limit themselves to the consideration of overly short periods of time and areas that are too small. Finally, it should be included in any international instrument on the subject that when there are too many uncertainties about the impacts of a proposed activity, the precautionary principle should apply and the activity should not be authorised.

One of the largest gaps that an international agreement could address is certainly the assessment of cumulative impacts of human activities in ABNJ. As has been shown in this study, the current system is highly fragmented, and mostly sector-based. Information is not always publicly available, and no detailed and legally-binding requirement currently exists with respect to the assessment of cumulative impacts. An international instrument on the subject could provide for a requirement to assess the cumulative impacts of human activities in ABNJ, and the need to take these cumulative impacts into consideration when the competent authority (the flag State alone or in coordination with a competent sectoral or regional competent authority, or the global entity designated by the international instrument) is deciding whether or not to authorise a specific activity in an ABNJ. A mechanism which could help to assess the other human activities taking place in a specific area could be the establishment of a public database for EIAs conducted in ABNJ, similar to the mechanism in place within the AT system. The creation of this public database could be set out in the international agreement itself. In this way, flag States that make information on EIAs available in this database could comply with their requirements on reporting and on information provision to the general public. Such a database would also help to increase knowledge on human activities in ABNJ and their impacts on marine biodiversity,

as scientific gaps remain huge in this part of the ocean. Including post-project analysis in this database would also be an efficient means to help Contracting Parties and competent international organisations to learn from past errors and from best practice examples to improve their own current assessments.

If such an approach is retained, one could envisage that the international instrument on EIAs in ABNJ would provide for the creation of competent authorities similar to the CEP and to the ATCM in the Southern Ocean, but at the global level. In the discussions on the content of an implementing agreement to UNCLOS on marine biodiversity in ABNJ, the issue of the competent global authority is often raised, in particular in the context of MPAs.¹⁴⁰ During the Boulogne-sur-Mer seminar¹⁴¹, the considered options were a new global entity, the extension of the mandate of the ISA and a Conference of the Parties to this implementing agreement. A new global entity could include a permanent advisory body on science and technical issues, which could be tasked to review the EIAs submitted by flag States, directly or through competent international organisations, to provide guidance on issues such as the assessment of cumulative impacts, and to provide advice to its governing body (an Assembly of States Parties or a Conference of the Parties). In the ISA option, the mandate of existing bodies such as the Legal and Technical Commission is extended, as well as their financial and human means. If the option to simply establish a Conference of the Parties to the Implementing Agreement is retained, then the agreement itself could foresee the creation of a subsidiary body akin to the Subsidiary Body on Science, Technical and Technological Advice (SBSTTA) within the CBD. It could review scientific and technical aspects related *inter alia* to EIAs and then provide advice on the final decision to adopt for the Conference of the Parties. In the case of the adoption of an additional protocol to the CBD on EIAs in ABNJ, the extension of the mandate of SBSTTA to the consideration of certain EIAs might be envisaged. The same idea applies to the stand-alone legally-binding agreement and to the Protocol to the Espoo Convention and Kiev Protocol options. The advisory body established under all options could be tasked to provide scientific and technical guidance for the conduct of EIAs in ABNJ, building on

140. See for example Druel E., Billé R., Treyer S. (2011), "A legal scenario analysis for marine protected areas in areas beyond national jurisdiction. Report from the Boulogne-sur-Mer seminar, 19-21 September 2011", Studies N° 06/11, IDDRI-IUCN-Agence des Aires Marines Protégées, Paris, France, 28p.

141. Ibid., pp. 14-15.

the work already undertaken by the CBD, and to establish mechanisms for cooperation and capacity building.

Based on the procedures already established within the Espoo Convention and the Kiev Protocol, an international instrument on EIAs in ABNJ could foresee the creation of an implementation and compliance body or committee, whose objective would be to review compliance of Contracting Parties with their obligations set out under this instrument, based on reports prepared by the flag States at appropriate intervals. Contracting Parties concerned about the impact of activities authorised by other Contracting Parties in ABNJ would be able to raise these concerns in front of the implementation and compliance committee or body. A procedure to allow civil society and NGOs to report on their concerns on specific activities could also be foreseen, as it is already the case within the Espoo Convention framework. Then, the implementation and compliance committee could prepare a report with some recommendations for the Contracting Party concerned or decide to raise this issue, with some advice, within the Conference of the Parties or governing body of the international instrument. The compliance requirements would concern all human activities in ABNJ, but would apply differently for activities already covered by region- or sector-specific legally binding requirements (deep-sea bottom fisheries, seabed mining in the Area, dumping of wastes and ocean fertilisation). Within these existing frameworks, the compliance procedures already in place would be first to act. The “global compliance committee” would be able to enter into the process if the Contracting Parties to the international agreements and the representatives of civil society and NGOs raise concerns with respect to compliance procedures and results within existing organisations.

All these elements appear to be minimum requirements for a global instrument on EIAs in ABNJ, in order for the instrument to function efficiently and not to be a mere replication of existing and poorly implemented requirements. One issue that still needs to be resolved is whether such an instrument would also need to encompass SEAs. Although they are less known than EIAs, SEAs are being increasingly used and implemented all across the globe. Adding this requirement into a legally-binding global instrument would be extremely useful, in helping flag States and competent international organisations to assess the likely impacts of their plans, policies and programmes.

4. CONCLUSION

The need for EIAs for human activities in ABNJ appears at first to be one of the less controversial issues discussed within the BBNJ Working Group. Although States do not entirely agree on the practical implementation modalities of this requirement (voluntary guidelines, sectoral binding instruments, development of a global agreement...), it will be one of the most important requirements included in any future international instrument on the conservation and sustainable use of marine biodiversity in ABNJ. If adequately and efficiently implemented, it would help States to fulfil their obligation to implement the precautionary and no-harm principles embodied in international environmental law. In this respect, the processes underway within the UNGA could benefit from the wide range of expertise on EIAs already developed within terrestrial areas. Studies conducted on this subject concluded that in many cases, EIAs do not fulfil their objectives, because they are considered as a decision-aiding tool, or a mere procedural step, rather than as a decision-making tool.¹⁴² It means that very often, the decision-making authority considers that the role of the EIA is to identify and mitigate significant adverse impacts and not to prevent the activity from being carried out if such impacts are identified and cannot be adequately prevented. The findings of an EIA are not “a central determinant of the decision on the action”.¹⁴³ Jay et al., in a 2007 study, noted that “the effectiveness of EIA would be bolstered if a specific aim was to deliver ‘no net environmental deterioration’ and, if this could not be demonstrated, to require the application of the precautionary principle in decision-making”.¹⁴⁴ This very important consideration must be one of the key elements for discussion within the BBNJ Working Group and beyond.

The EIAs topic is therefore more complex than it first seems and caution must be exerted before rushing into the redaction of a global instrument on the subject, to make sure that any requirement on this issue will be efficient enough to provide the best possible framework for their conduct. One interesting point with this particular issue is

142. On this subject, see: Jay S., Jones C., Slinn P., Wood C. (2007), “Environmental impact assessment: Retrospect and prospect”, *Environmental Impact Assessment Review* 27, pp. 287-300.

143. Jay S., Jones C., Slinn P., Wood C. (2007), “Environmental impact assessment: Retrospect and prospect”, *Environmental Impact Assessment Review* 27, p. 291.

144. Jay S., Jones C., Slinn P., Wood C. (2007), “Environmental impact assessment: Retrospect and prospect”, *Environmental Impact Assessment Review* 27, p. 298.

the variety of existing frameworks within which such a global instrument could easily nest. Given the current state of play of international discussions, the first arena within which this issue is being discussed is the BBNJ Working Group, and many States and NGO representatives are pushing for the inclusion of EIA requirements in an implementing agreement to UNCLOS on the conservation and sustainable use of marine biodiversity in ABNJ. This option seems logical as UNCLOS is the overarching legal framework regulating all human activities in the oceans. But if this option does not succeed, there are a number of “plan Bs” in existence, such as a Protocol to the Espoo Convention and its Kiev Protocol, an additional Protocol to the CBD or a stand-alone legally-binding agreement.

One area of common ground (and therefore of common concern) for all the options discussed in this study is that they will all, in the end, rely on flag State implementation. The competent

authority of the State of nationality of the company wishing to undertake a certain activity in an ABNJ will be the one deciding whether or not an activity will be subject to an EIA and, if so, whether or not the proposed activity should be authorised. An essential component of any global instrument on EIAs in ABNJ will therefore be the designation of appropriate rules to ensure that flag States abide with their international obligations. This could be done through the establishment of a level of international scrutiny or of compliance and safeguard mechanisms to ensure consistency between flag State requirements in order to avoid a phenomena of “forum shopping”. The problem is that flag State implementation is not always reliable, especially in the high seas. But, in the meantime, one might also start to question flag State responsibility in ABNJ and the current lack of implementation of international environmental requirements as well as poor records of compliance, enforcement and sanction. ■

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