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STUDY ON THE RELATIONSHIP BETWEEN AN INTERNATIONAL REGIME ON ACCESS AND BENEFIT-SHARING AND OTHER INTERNATIONAL INSTRUMENTS AND FORUMS THAT GOVERN THE USE OF GENETIC RESOURCES

The Antarctic Treaty System (ATS) and the United Nations Convention on the Law of the Sea (UNCLOS)

Note by the Executive Secretary

1. At its ninth meeting, the Conference of the Parties, in paragraph 13 (c) of decision IX/12, on access and benefit-sharing, requested the Executive Secretary to commission a study on how an international regime on access and benefit-sharing could be in harmony and be mutually supportive of the mandates of and coexist alongside other international instruments and fora which govern the use of genetic resources, such as the FAO International Treaty on Plant Genetic Resources for Food and Agriculture.

2. In order to respond to this request, the work was divided into three components examining the relationship of the international regime with the following instruments and forums, namely:

(a) The International Treaty on Plant Genetic Resources for Food and Agriculture and the Commission on Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations (FAO) (UNEP/CBD/WG-ABS/7/INF/3/Part.1);

(b) The World Trade Organization (WTO), the World Intellectual Property Organization (WIPO) and the International Union for the Protection of New Varieties of Plants (UPOV), including their relevant agreements and treaties(UNEP/CBD/WG-ABS/7/INF/3/Part.2);

(c) The Antarctic Treaty System and the United Nations Convention on the Law of the Sea (UNCLOS) (UNEP/CBD/WG-ABS/7/INF/3/Part.3).

3. The three components of the work were carried out by three different experts/institutions, taking into account their particular area of expertise.

* UNEP/CBD/WG-ABS/7/1.

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4. This document is part 3 of the study. It was carried out by Mr. Sam Johnston of the United Nations University Institute of Advanced Studies and addresses the relationship between an international regime on access and benefit-sharing and respectively, the Antarctic Treaty and the United Nations Convention on the Law of the Sea (UNCLOS).

5. The views expressed are those of the author and do not necessarily reflect the views of the Secretariat of the Convention on Biological Diversity. The study is reproduced in the form and the language in which it was received by the Secretariat of the Convention.

The Relationship between an International Regime on ABS and the ATS and UNCLOS

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February 2009

1. Introduction

This Study has been commissioned in accordance with paragraph 13(c) of CBD COP Decision IX/12, to examine how the international regime under the CBD could be mutually supportive of the activities of, and co-exist with, the Antarctic Treaty System (ATS) and the United Nations Convention on the Law of the Sea (UNCLOS). It examines the relationship between the ATS and UNCLOS and the developing international regime on access and benefit sharing of the CBD (the International Regime on ABS) and identifies possible options for their future co-existence and co-operation.

As the ATS and UNCLOS are separate regimes with different relationships with the International Regime on ABS this Study will deal with each one separately. Sections 2-4 will consider the ATS and Sections 5-7 will consider UNCLOS.

2. Overview of ABS International Regime and the Antarctic Treaty System

This Section provides a factual overview of how the ATS has addressed ABS issues and builds upon the information provided by the Executive Secretary in 'Overview of Recent Developments at the International Level Relating to Access and Benefit Sharing' (document UNEP/CBD/WG-ABS/5/4/Add.1, 30 August 2007). It will start with a brief overview of the key provisions of the ATS and then briefly update developments since August 2007.

2.1 Key Provisions of the ATS

The ATS does not directly regulate the use of genetic resources *per se*. Nevertheless, the ATS does contain provisions relevant to International Regime on ABS in the Antarctic Treaty, its Protocol on Environmental Protection (Madrid Protocol) and the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).

Article VI of the Antarctic Treaty provides the "provisions of the present Treaty shall apply to the area south of 60° South Latitude, including all ice shelves, but nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area".

The Antarctic Treaty stipulates that Antarctica shall be used for peaceful purposes only (Article 1) and provides for freedom of scientific investigations (Article II). It advocates the promotion of international co-operation in this regard. Article III (a)-(c) outlines the specific measures that Parties agree to pursue to this end. Accordingly, Contracting Parties agree that, to the greatest extent feasible and practicable,

a. information regarding plans for scientific programs in Antarctica shall be exchanged to permit maximum economy of and efficiency of operations;
b. scientific personnel shall be exchanged in Antarctica between expeditions and stations;
c. scientific observations and results from Antarctica shall be exchanged and made freely available.

All Parties to the ATS are Parties to the CBD, except for the United States of America which is a Party to the ATS but not the CBD.

The 1991 Madrid Protocol, which entered into force in January 1998, aims to comprehensively protect the Antarctic environment and dependent and associated ecosystems. It designates Antarctica as a natural reserve, devoted to peace and science, and prohibits any activities relating to mineral resources, other than scientific research.

The Protocol sets out a series of environmental principles which, *inter alia*, stipulate that activities in the Treaty Area are to be planned and conducted so as to limit adverse environmental impacts, avoid detrimental changes in the distribution, abundance or productivity of species or populations of species of fauna and flora, 'accord priority to scientific research and to preserve the value of Antarctica as an area for the conduct of such research'.

The Protocol includes provisions on environmental impact assessment, outlined in Annex I. Thus, prior assessments of the environmental impacts of activities planned pursuant to scientific research programmes, tourism and all other governmental and non-governmental activates must be carried out. Collection of any genetic resources from Antarctic is covered by these provisions and thus must undergo a prior assessment.

The Protocol is silent about how any commercial benefits from relevant activities might be used.

No implementing legislation of Parties contains specific provisions addressing commercial benefits arising from bioprospecting. Some Parties do apply their general ABS provisions to relevant activities of their nationals in Antarctica. For example, the relevnt provisions of the Environmental Protection and Biodiversity Conservation Act of Australia (which is the main legislative instrument for implementing the CBD) applies to Australian activities in Antarctica. In practice, governments have negotiated *ad hoc* arrangements when granting the permit to access Antarctic genetic resources that address the use of commercial benefits. No significant commercial benefits have arisen from the use of genetic resources from Antarctica yet.

The ATS system also includes the 1992 CCAMLR, whose objective is the conservation of Antarctic marine living resources, applies to 'the Antarctic marine living resources of the area south of 60° South latitude and to the Antarctic marine living resources of the area between that latitude and the Antarctic Convergence which form part of the Antarctic marine ecosystem'. Pursuant to Article 2, any harvesting shall be regulated so as to prevent the decrease in size of harvested populations to levels below their maximum sustainable yield as well as of non-target species and the marine ecosystem as a whole. Article 7 establishes a Commission, whose activities include the formulation, adoption and revision of conservation measures on the basis of the best scientific evidence available. CCAMLR is silent about how any commercial benefits from relevant activities might be used.

The 1988 Convention on the Regulation of Antarctic Mineral Resources Activities (CRAMRA), although superseded by the 1991 Madrid Protocol and never likely to enter into force, is often referred to as useful precedent for ABS. CRAMRA provided for a detailed a permitting system to govern all aspects of mining in Antarctica. The permitting system was designed to protect the environment, respect other legitimate uses, promote opportunities for fair and effective participation of all Parties and to take into account the interests of the international community as a whole. CRAMRA encouraged international participation by interested Parties, particularly from developing countries. CRAMRA allowed for levies to be imposed on operators to cover the costs of administering the Convention and to "promote scientific research in Antarctica, particularly that related to Antarctic environment and Antarctic resources, and a wide spread of participation in such research by all Parties, in particular developing country Parties". CRAMRA also contained detailed provisions designed to ensure that data and information was made freely available to the greatest extent feasible.

2.2 Recent Developments

Biological prospecting has been considered by the ATCM since 1999. During this time, Parties have been interested in the free availability of scientific observations and results, options for sharing of benefits besides the free availability of scientific observations and results, the environmental impacts and the need to keep up with policy developments in other fora.

In 2007, the ATCM XXX established an informal open-ended web-based Intersessional Contact Group (ICG) to examine the issue of biological prospecting in the Antarctic Treaty Area, in particular, "to identify issues and current activities related to biological prospecting in the Antarctic Treaty Area with a view to assisting the ATCM in considering the matter, including, if appropriate, working modalities."

Since the CBD process was last updated about developments in the ATS in document UNEP/CBD/WG-ABS/5/4/Add.1 (30 August 2007) the most important developments within the ATS have been: the Report of the ICG, the XXXI ATCM, Kiev, Ukraine, 2-13 June 2008, the XXX Scientific Committee on Antarctic Research (SCAR) Meeting, July 13 - 16, 2008, Moscow, Russia, and the CCAMLR-XXVII, 27 October to 7 November 2008, Hobart, Australia.

2.2.1 The XXXI ATCM

The XXXI ATCM had before it WP4 Report of the ATCM Intersessional Contact Group to examine the issue of Biological Prospecting in the Antarctic Treaty Area (The Netherlands) and WP 11 An update on biological prospecting in Antarctica, including the development of the Antarctic Biological Prospecting Database (Belgium).

The Meeting supported the need for the ATCM to continue to monitor the issue. Parties noted that it was important to have information on any biological prospecting activities being carried out in the Antarctic Treaty areas. It was noted that there were already instruments and institutions in place which could be relevant to the issue of biological prospecting. These included Articles II and III of the Treaty, the Committee for Environmental Protection (CEP) and CCAMLR regarding marine species. Some Parties expressed the view that some biological prospecting

activities may be potentially inconsistent with these Articles. Other Parties expressed the view that biological prospecting was a legitimate activity under the Antarctic Treaty and related instruments. Many Parties highlighted the value of an analysis of any gaps in the existing instruments which needed to be supplemented, while other Parties suggested that it was premature to undertake that analysis.

In addition, many Parties highlighted the value of a review of the Antarctic biological prospecting database (see www.bioprospector.org) and the development of working definitions relating to biological prospecting in the Antarctic Treaty area. Other Parties preferred that SCAR's views be sought prior to further work. The Meeting invited SCAR to prepare a paper for ATCM XXXII, at which time the biological prospecting issue would be discussed further. SCAR agreed to provide a paper at ATCM XXXII in response to the following questions:-

1. review the most recent published research that may involve biological prospecting in the Antarctic Treaty region and provide an assessment of these efforts from discovery to development to commercialisation to product use, based on fundamental scientific principles.
2. provide a survey of ongoing biological prospecting research being undertaken within the SCAR community.

2.2.2 XXX SCAR

Delegates agreed to provide a paper for the XXXII ATCM on bioprospecting. The deadline for working papers to be submitted to the Antarctic Treaty Secretariat is 20 February 2009. A questionnaire was recently sent to SCAR National Committee Representatives requesting a reply by 22 November 2008.

2.2.3 CCAMLR-XXVII

Bioprospecting was considered under Item 15 "Cooperation with ATS". IUCN submitted a document entitled "Paper on Biological prospecting in the southern Ocean, a role for CCAMLR". A number of Parties called for the CCAMLR to take up the issue of bioprospecting more actively.

2.3 Other developments

From 3-5 February 2009 the Netherlands hosted an Informal Meeting on Biological Prospecting in the Antarctic Treaty Area in Preparation for ATCM XXXII. The purpose of the Meeting was to consider the issues raised by biological prospecting in the Antarctic Treaty Area, with a view to assisting ATCPs prepare co-sponsored Working Papers in order to support a more informed, structured and focused discussion at the ATCM XXXII. The meeting provided an opportunity to; develop a comparative analysis of existing international instruments related to biological prospecting; review the Antarctic Biological Prospecting Database and undertake a gap analysis of the ATS. The meeting developed four papers for the upcoming ATCM. These were:-

- An Information Paper – "Concepts, Terms and Definitions, including a Comparative Analysis;
- A Work Paper – "A Gap Analysis of the Antarctic Treaty System Regarding the Management of Biological Prospecting";

- A Work Paper – "The Antarctic Biological Prospecting Database"; and
- An Information Paper – "An update on recent policy developments at the international level.

ABS issues will be considered at a number of upcoming meetings, including:-

- ATCM XXXII, 6-17 April 2009, Baltimore;
- Xth SCAR International Biology Symposium, 26 - 31 July 2009, Hokkaido, Japan. The theme is Antarctic Biology in the 21st Century - Advances in and beyond IPY;
- Antarctic Treaty Summit: Science-Policy Interactions in International Governance, Washington DC, USA, November 30 - December 3, 2009; and
- XXXI SCAR (Buenos Aires, late August or September, 2010).

2.4 Summary

Most Parties to the ATS believe the existing provisions of the ATS adequately address the environment effects of using genetic resources.

Many Parties have however identified a number of important issues that they believe the ATS does not clearly address. These include:-

- Definitions of bioprospecting, pure research, applied research;
- The effects of intellectual property rights, particularly patents, on the free exchange of scientific information;
- The adequacy of the existing mechanism for benefit sharing;
- The adequacy of the existing reporting mechanism; and
- Management of access of specimens.

3. Analysis of relationship between the International Regime on ABS and the ATS

This Section highlights the relationship between the regimes, in particular any overlaps and gaps and identify any potential legal and/or policy challenges.

The territorial status of Antarctica and jurisdictional scope of the ATS is complex and with many differing viewpoints. Through Article VI of the Antarctic Treaty the ATS has competence in area south of 60° South Latitude. The complexity of the legal status of the Antarctic Treaty area raises questions about ownership and sovereignty over the genetic resources in the area. It is worth noting that the issue of "biological prospecting" has been included on the agenda of the last six meetings of the ATCM. No Party has questioned the competency of the ATS to consider these issues.

The jurisdictional scope of the CBD is outlined in Article 4 which provides that "the provisions of this Convention apply, in relation to each Contracting Party: (a) In the case of components of biological diversity, in areas within the limits of its national jurisdiction; and (b) In the case of processes and activities, regardless of where their effects occur, carried out under its jurisdictional control, within the area of its national jurisdiction or beyond the limits of national jurisdiction". Article 5 of the CBD stipulates that each "Contracting Party shall, as far as possible and as appropriate, cooperate with other Contracting Parties, directly or, where appropriate, through competent international organizations, in respect of areas beyond national

jurisdiction and on other matters of mutual interest, for the conservation and sustainable use of biological diversity".

Article 5 has been used by Parties to recognise the competence of regional efforts to apply the provisions of the CBD and UNCLOS for regulating the use of marine genetic resources from the high seas and deep seabed.

No provisions or decisions of the ATS relating the use of genetic resources are contradictory to the CBD. Nor has the COP taken any decisions that directly relate to the relationship between the International Regime on ABS and the ATS.

The COP has previously recognised the competency of the ATS to address matters of relevance to the CBD but within the Antarctic Treaty area. For example, in decision VIII/27, the COP encouraged "Parties and other Governments to raise the issue of invasive alien species at the ATCM and to support the development of measures to address threats of invasive alien species in the Antarctic Treaty area" and encouraged "Parties to the Antarctic Treaty to consider improving the controls contemplated under the 1991 Protocol on Environmental Protection to the Antarctic Treaty". The ATCM has responded to this call and is currently reviewing its measures governing alien species in the Antarctic Treaty Area.

4. Options for addressing the relationship between the ABS IR and the ATS

This Section considers how an International Regime on ABS could be developed to be in harmony and be mutually supportive of the mandates of and coexist with the ATS.

Decision VII/19 of the COP included the "Antarctic Treaty" as a "relevant elements of existing instruments and processes" to be considered by the Ad Hoc Open-ended Working Group on Access and Benefit-sharing for inclusion in the International Regime on ABS.

Regarding the potential the scope of the International Regime on ABS currently contained in Annex 1 of decision IX/12, there are three references to the Antarctic Treaty Area: two in Option 1 and one in Option 3. They are:-

1. The first reference in Option 1 states in paragraph 3, "The international regime on access and benefit-sharing does not apply to …. (f) [Genetic resources located in the Antarctic Treaty Area.]";
2. The next reference in Paragraph 5, "[In the further elaboration and negotiation of the international regime on access and benefit-sharing [special] [due] [consideration] will given to] …. (g) [Genetic resources located in the Antarctic Treaty Area.]]"; and
3. The final reference is in Option 3 which states in Paragraph 4, "Special consideration will be given to …. Genetic resources located in the Antarctic Treaty area".

Thus, decision IX/12, provides three options:-

1. Exclude Antarctic Genetic Resources from the International Regime on ABS (i.e. option number 1 above);
2. Include Antarctic Genetic Resources in the International Regime on ABS without any special rules (i.e. one of the implications of putting the square brackets round option number 2 above); and

3. Give "due" or "special" consideration to Antarctic Genetic Resources (i.e. options number 2 and 3 above).

Some brief comments about each option follow. Essentially though there are reasons for and against each option. The relative merits of each option will depend on the exact nature of the International Regime on ABS.

1. Option 1: Exclude Antarctic Genetic Resources

The ATCM has included the issue of biological prospecting on its agenda for its next meeting in April 2009 and has been considering the issues since 1999.

The ATCM has responded to a previous request from the COP regarding measures on alien species.

The ATCM and ATS Parties have previously responded to other international standards and regimes that are relevant to the Treaty Area by adopting similar measures within the ATS. For example, the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL), were incorporated into the ATS, through inclusion in Annex IV, "Prevention of Marine Pollution" to the Madrid Protocol.

The ATS is one of several regional initiatives that are addressing ABS issues (i.e. ASEAN, ANDEAN and AU).

2. Option 2: Include Antarctic Genetic Resources

It could ensure a uniform standard was developed for the use of genetic resources from Antarctic throughout the world.

For Parties not involved in the ATS it would provide a mechanism to ensure that their views are considered in any measures that the ATS may develop regarding ABS.

It could address some of the possible ABS gaps in the ATS, especially relating the benefit sharing and ownership.

As Article 15 of the CBD recognises the sovereign rights of States over their natural resources and decisions of the COP on ABS issue to date are founded on this basic premise, some Parties to the ATS have expressed concerned about the implications of the CBD including the use of Antarctic Genetic Resources within the International Regime on Article IV of the Antarctic Treaty and its provision that no acts or activities "shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica".

It should be noted that this is only possible to the extent that Article 4 of the CBD extends to Antarctic Genetic Resources.

The United States of America is not a Party to the CBD, but is a Party to the ATS.

3. Option 3: Due or special consideration for Antarctica Genetic Resources

Due or special consideration is not currently elaborated or defined in decision IX/12.

There exist a wide variety of CBD precedents for due and special consideration in other circumstances.

An example of due or special consideration being given for the treatment of genetic resources are the rules governing the use of plant genetic resources for food and agriculture. Another is the rules governing the use of genetic resources from *ex situ* collections acquired prior to the entry into force of the CBD in December 1993.

More broadly, the COP has called upon various international organisations and instruments to implement various provisions of the CBD and decisions of the COP. The best known example of this is the various COP decisions calling upon the FAO, the Commission and the ITPGRFA, to implement the provisions of the CBD in relation to plant genetic resources for food and agriculture. Another well known example is the designation by the COP of the Ramsar Convention as lead implementing partner on Wetlands for the CBD and various calls on the Ramsar Convention to implement and develop a variety of provisions of the CBD, most recently on harmonised national reporting. A broader example is the call in decision VIII/4, Section D, paragraph 1, where the COP invited "relevant forums to address and/or continue their work on disclosure requirements in intellectual-property-rights applications taking into account the need to ensure that this work is supportive of and does not run counter to the objectives of the Convention, in accordance with Article 16, paragraph 5".

As mentioned before the COP has already called upon the ATS to develop measures regarding alien invasive species.

Developments in the International Regime on ABS could provide important precedents for some of the outstanding issues identified by Parties to the ATS such as:-

- Definitions of bioprospecting, pure research, applied research;
- The effects of intellectual property rights, particularly patents, on the free exchange of scientific information;
- The adequacy of the existing mechanism for benefit sharing;
- The adequacy of the existing reporting mechanism; and
- Management of access of specimens.

5. Overview of International Regime on ABS and UNCLOS

This Section provides a factual overview of the key provisions of UNCLOS and then briefly updates developments since August 2007.

5.1 The United Nations Convention on the Law of the Sea

UNCLOS aims to establish "a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the

equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment." UNCLOS was adopted in 1982 and entered into force on 16 November 1994.

In order to achieve its objectives, UNCLOS sets out the rights and obligations of Parties on the basis of maritime zones, both within and beyond national jurisdiction. States have sovereignty over their internal waters, territorial seas and archipelagic waters, and sovereign rights over the resources in their EEZ and continental shelf. Cooperation is a key element of the management of marine resources in areas beyond national jurisdiction. These areas are divided into "the high seas" (all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State) and "the Area" (the sea-bed and ocean floor and subsoil thereof beyond the limits of national jurisdiction). UNCLOS is supplemented and elaborated by two implementing agreements: the 1994 Agreement relating to Implementation of Part XI of the UNCLOS of 10 December 1982 ("the "1994 Part XI Agreement"), and the 1995 Agreement for the Implementation of the Provisions of the UNCLOS of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (the "United Nations Fish Stocks Agreement").

A number of institutions have been created under UNCLOS. These include the International Tribunal for the Law of the Sea, the Commission on the Limits of the Continental Shelf, and the International Seabed Authority. The Meeting of States Parties to UNCLOS meets annually. Informal Consultations of States Parties to the United Nations Fish Stocks Agreement are also held on an annual basis. In addition, the United Nations General Assembly (UNGA) each year debates the issue of ocean affairs and the law of the sea. To facilitate this annual review and debate, the UNGA established in 1999 the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (the Consultative Process), and in 2004, 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.

5.2 Recent Developments

As indicated in document UNEP/CBD/WG-ABS/5/4/Add.1, issues relating to marine genetic resources beyond national jurisdiction are being discussed in the context of the United Nations General Assembly, in particular, the Ad-hoc Open-ended Informal Working Group established by the General Assembly to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction (the UNGA Working Group). Furthermore, the issues have also been discussed at the fifth and eighth meetings of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (the Consultative Process). Statements were also made at the Meeting of the States Parties to the United Nations Convention on the Law of the Sea (MSP). The following provides a summary of recent developments since August 2007.

5.2.1 The Consultative Process

At its eighth meeting in June 2007 the Consultative Process focused on marine genetic resources (MGRs). The outcome of this meeting was reported previously. The UN General Assembly took

note of the report of the Consultative Process, acknowledged the need to discuss the issue of marine genetic resources in the Ad Hoc Open-ended Informal Working Group, and called upon States to further consider the relevant legal regime on marine genetic resources in areas beyond national jurisdiction in accordance with the Convention, in the context of the mandate of the Ad Hoc Open-ended Informal Working Group, with a view to making further progress on this issue.

5.2.2 The Working Group

Both the first and the second meetings of the Working Group considered the issue of MGR beyond the limits of national jurisdiction (see General Assembly documents A/61/65 and A/63/79). A brief summary of the results of the first meeting of this Working Group, held in 2006, is contained in document UNEP/CBD/WG-ABS/5/4/Add.1. The second meeting of the Working Group took place in 2008. The joint statement of the Co-Chairpersons summarized the key issues relating to genetic resources, *inter alia*, as follows:-

- The importance of promoting scientific research on marine genetic resources was recognized in the light of its benefits in terms of expanding knowledge of the biodiversity of the oceans, as well as in discovering new substances of benefit to the livelihood and well-being of humankind. Such research should be undertaken in accordance with the provisions of UNCLOS on marine scientific research, and on the basis of the precautionary approach. Reference was also made to the possibility of using environmental impact assessments in relation to such activities, and developing international standards and guidelines to that end.

- Some delegations suggested a number of areas for further research. They included the relationship between marine genetic resources and other resources; the level of activity actually occurring in respect of marine genetic resources in areas beyond national jurisdiction and the costs and risks involved; the marine biotechnology development process and the benefits arising from the commercialization of marine genetic resources; and the mapping of species and areas of potential interest for biotechnological application with a view to identifying appropriate measures for conservation and sustainable use.

- The need for capacity-building for developing countries to participate in, and to benefit from, activities related to marine genetic resources beyond areas of national jurisdiction was underlined, as was the need to enhance the sharing of scientific information and results. In that regard, reference was made to the usefulness of the International Seabed Authority Endowment Fund.

- UNCLOS was recognized as the legal framework for all activities in the oceans and seas, including in respect of genetic resources beyond areas of national jurisdiction. In that regard, divergent views were expressed on the relevant legal regime on marine genetic resources beyond areas of national jurisdiction, in particular whether those marine genetic resources were part of the common heritage of mankind and therefore fell under the regime for the Area, or were part of the regime for the high seas.

- Notwithstanding the above, some delegations were of the view that an elaborated regime was needed within the framework of the UNCLOS in relation to marine genetic resources

beyond areas of national jurisdiction. In response, other delegations stated that a new international regime was not warranted.

- In that context, some delegations proposed focusing on practical measures to enhance the conservation and sustainable use of marine genetic resources. It was proposed that such practical measures could address, among others, options for benefit-sharing. In that regard, several delegations expressed interest in considering a proposal to use the multilateral system developed under the International Treaty on Plant Genetic Resources for Food and Agriculture as a possible reference point for the discussions. While open to considering practical measures, others underlined the importance of also continuing the discussions on the legal regime on marine genetic resources beyond areas of national jurisdiction.

- Several delegations expressed support for the continuation of discussions on marine genetic resources beyond areas of national jurisdiction under the authority of the General Assembly and within the framework of UNCLOS. Reference was also made to the need to take into account the work under other relevant forums, such as the CBD, FAO, the World Intellectual Property Organization and the World Trade Organization.

In their concluding remarks, the Co-Chairpersons suggested that the General Assembly could refer a number of issues to the Ad Hoc Open-ended Informal Working Group, including practical measures to address the conservation and sustainable use of marine genetic resources in areas beyond national jurisdiction, without prejudice to ongoing discussions on the relevant legal regime on marine genetic resources beyond areas of national jurisdiction; and continuing and enhanced marine scientific research in relation to marine biological diversity beyond areas of national jurisdiction.

In its 2008 resolution on oceans and the law of the sea, the General Assembly took note of the joint statement of the Co-Chairpersons, and decided to convene a meeting of the Working Group in 2010 to provide recommendations to the Assembly. The General Assembly also noted the discussion on the relevant legal regime on marine genetic resources in areas beyond national jurisdiction in accordance with the Convention, and called upon States to further consider this issue in the context of the mandate of the Ad Hoc Open-ended Informal Working Group, with a view to making further progress on this issue. It also recognized the importance of research on marine genetic resources for the purpose of enhancing the scientific understanding, potential use and application and enhanced management of marine ecosystems.

5.2.3 The Meeting of the States Parties to UNCLOS (MSP)

There are diverging views regarding the mandate of Meeting of States Parties, with some States supporting a broader mandate which would encompass substantive issues related to the implementation of UNCLOS and others favouring a focus on only administrative issues (see document SPLOS/184, paragraph 118). The former States have thus made statements on substantive issues during the meeting, including on marine genetic resources.

At the seventeenth meeting (New York, 14-22 June 2007), in relation to the protection of the marine environment, it was pointed out that certain intrusive marine scientific research could

negatively impact fragile ecosystems and resources of the deep sea, including marine genetic resources exploited for commercial purposes. Regarding marine genetic resources, some delegations stated that the regime for genetic resources was governed by UNCLOS and supported the idea that deep seabed genetic resources in areas beyond national jurisdiction were the common heritage of mankind. It was recalled that, regarding the regime established under UNCLOS, in Part XIII on marine scientific research, the distinction between scientific investigation, research and development, and exploitation of marine genetic resources, namely between pure and applied marine scientific research had never been accepted universally, since there was no perceivable difference in the activity or method.

At the eighteenth meeting, held in New York from 13 to 20 June 2008, the issue of marine genetic resources beyond areas of national jurisdiction was briefly commented upon. A delegation stated that the seabed, ocean floor and subsoil thereof and their resources in areas beyond national jurisdiction constituted the common heritage of mankind, and that there should be a fair and equitable distribution of the benefits arising from their use, whether for scientific or commercial purposes. A delegation stressed the need to assess the current existing framework and tools before engaging in discussions on a new regime for their management.

6. Analysis of relationship between the International Regime on ABS and UNCLOS

This Section highlights the relationship between the regimes, in particular any overlaps and gaps and identify any potential legal and/or policy challenges.

The general relationship between CBD and UNCLOS is outlined in Article 311 of UNCLOS and Article 22 of the CBD. Article 311 provides that UNCLOS shall not alter the rights and obligations of States Parties which arise from other agreements compatible with it and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under it. In a similar vein CBD Article 22 states that the provisions of the CBD shall not affect the rights and obligations of any Contracting Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity. Article 22 goes on to specify that Contracting Parties shall implement the CBD with respect to the marine environment consistently with the rights and obligations of States under the law of the sea. Collectively, these articles provide for consistency in implementation of the two conventions.

In a number of its resolutions, including resolution 60/30, the General Assembly emphasized the universal and unified character of UNCLOS and reaffirmed that UNCLOS sets out the legal framework within which all activities in the oceans and seas must be carried out, and that its integrity needs to be maintained. This language is echoed in a number of decisions of the COP. In Decision VII/5 (Marine and coastal biological diversity) the COP invited Parties to raise their concerns regarding the issue of conservation and sustainable use of genetic resources of the deep seabed beyond limits of national jurisdiction at the next meeting of the General Assembly and further invited the General Assembly to further coordinate work relating to conservation and sustainable use of genetic resources of the deep seabed beyond the limits of national jurisdiction. In Decision VIII/22 (conservation and sustainable use of deep seabed genetic resources beyond the limits of national jurisdiction) the COP expressed its awareness of a preliminary range of options which Parties and other States, individually or in cooperation, may use for the protection

of deep seabed genetic resources beyond national jurisdiction, including codes of conduct, guidelines and principles and marine protected areas. The COP also emphasized the need for "further work in developing all of these options and other options, in particular within the framework of the United Nations". The COP also recognized that UNCLOS "regulates activities in the marine areas beyond national jurisdiction".

Most recently, the COP in Decision IX/20 (marine and coastal biological diversity) reiterated the United Nations General Assembly's central role in addressing issues relating to the conservation and sustainable use of biodiversity in marine areas beyond national jurisdiction and recalled Resolution 60/30.

The scope of the CBD and UNCLOS slightly differs. While UNCLOS applies to all resources in the oceans and seas and activities carried out therein, CBD applies to components of biological diversity in areas within the limits of national jurisdiction of a Party; and to all processes and activities carried out under the jurisdiction or control of a Party within the area of its national jurisdiction or beyond the limits of national jurisdiction (Article 4 of CBD). Article 5 of the CBD requires its Contracting Parties to cooperate directly, or through competent international organizations, in respect of areas beyond national jurisdiction, for the conservation and sustainable use of biological diversity.

Unlike the CBD, which provides a definition for the term "genetic resources", UNCLOS does not specifically refer to "marine genetic resources". However, a number of provisions of UNCLOS are relevant to marine genetic resources, including those related to living resources, the protection and preservation of the marine environment, marine scientific research, and technology transfer.

Provisions relating to access to, and rights over, living resources under UNCLOS depend on where those resources are located, including whether they are within or beyond national jurisdiction. If they are located beyond national jurisdiction, both the regime of the high seas and the regime of the Area have to be considered. Considering that there is ongoing debate regarding whether the International Regime on ABS will extend into marine areas beyond the limits of national jurisdiction, all potentially relevant UNCLOS provisions are covered here.

6.1 Areas within national jurisdiction

Under both UNCLOS and CBD, coastal States have sovereign rights over the natural resources found within their jurisdiction, and may adopt laws and regulations relating to the conservation and sustainable use of such resources. According to Article 56 of UNCLOS, a coastal State has, in its EEZ, sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone. These rights apply to all living resources, and while the State can exploit these species, it also has obligations to conserve them. According to Article 61, the coastal State has the obligation to prevent over-exploitation of the living resources in its EEZ and to restore populations of over-exploited species at levels that can produce the maximum sustainable yield.

However, on the continental shelf, which comprises the seabed and subsoil of the submarine areas that extend beyond the territorial sea throughout the natural prolongation of the land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance, the sovereign rights of the coastal State for exploration and exploitation only extend to mineral resources and sedentary species. Therefore, if a coastal State establishes an extended continental shelf beyond 200 nautical miles in accordance with article 76 of UNCLOS, it will have sovereign rights over all sedentary species on its shelf, but no such rights over other species in the superjacent waters. It should be noted here that most (though not all) commercial developments have originated from genetic resources obtained from sedentary species[1].

If the coastal State does not explore its continental shelf or exploit its natural resources, no other States may undertake these activities without the express consent of the coastal State (Article 77). In contrast, the State is under obligation to give access to the surplus of the living resources in its EEZ to other States through agreements or other arrangements (Article 62).

Within their territorial sea, their EEZ and continental shelf, coastal States have the right to regulate, authorize and conduct marine scientific research (MSR). Researching States have the duty to comply with certain conditions that include: conducting MSR only with the consent of the coastal State; the provision of information on the nature and objectives of the project; the right for the coastal State to participate in the project and have access to all data and samples derived from the project as well as to assessment and interpretation of such data results; and making available internationally the research results. These provisions are complementary with the provisions of CBD Article 15.

UNCLOS provides for simplified access rules for marine scientific research under Article 246. According to this article, coastal States have the right to regulate, conduct and authorize marine scientific research in their EEZ and on their continental shelf in accordance with the relevant provisions of UNCLOS. Under normal circumstances, coastal States are expected give their consent after researchers provide them with information about the proposed project at least six months in advance of its starting date. Coastal States may however in their discretion withhold their consent to the conduct of a marine scientific research project under certain circumstances. One such circumstance is if the research is of direct significance for the exploration and exploitation of natural resources, whether living or non-living.

While UNCLOS does not provide for monetary benefit-sharing, it does link access to marine scientific research to provision of non-monetary benefits to the coastal State. The coastal State has a right, if it so desires, to participate or be represented in the marine scientific research project, especially on board research vessels and other craft or scientific research installations, when practicable, without payment of any remuneration to the scientists of the coastal State and without obligation to contribute towards the costs of the project. The researcher also needs to provide the coastal State with a report of the research, including results and conclusions after completion of the research. The coastal State also has a right to all data and samples derived

1 Leary, D. Vierros, M., Hamon, G. Arico, S. and C. Monagle (2009) Marine genetic resources: A review of scientific and commercial interest. Marine Policy: Vol. 33, issue 2, Pages 183-194

from the marine scientific research project; and assessment and interpretation thereof. The results also need to be made internationally available.

Additional provisions of relevance to benefit-sharing can be found in Part XIV on the development and transfer of marine technology. According to Article 268, States shall directly or through competent international organizations, promote the acquisition, evaluation and dissemination of marine technological knowledge and facilitate access to such information and data.

UNCLOS does not contain provisions relating to customary law or traditional knowledge, although it does provide for recognition of traditional fishing rights.

6.2 The high seas

The high seas regime can be found under Part VII of UNCLOS. On the high seas, States enjoy certain freedoms of the high seas, which include, *inter alia*, the freedom of fishing and of marine scientific research. All States and competent international organizations are entitled to conduct marine scientific research in the water column beyond the limits of the exclusive economic zone. The high seas freedoms must be exercised with regard to treaty obligations and measures for the conservation of resources, as well as with due regard for the interests of other States. Activities carried out on the high seas are subject to flag State jurisdiction (i.e. the laws and regulations of the State under whose flag the vessel is operating), as well as to the duty to protect and preserve the marine environment[2].

6.3 The Area

The Area is subject to the regime set out under Part XI of UNCLOS, as modified by the 1994 Agreement on implementation of Part XI of UNCLOS. The Area is the seabed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction. The Area and its resources are the common heritage of mankind.

The regime of the Area applies to "activities of exploration for, and exploitation of, the resources of the Area". These resources are defined as "solid, liquid or gaseous mineral resources in situ in the Area at or beneath the seabed, including polymetallic nodules." Measures have to be taken in accordance with UNCLOS with respect to activities in the Area to ensure effective protection for the marine environment from harmful effects which may arise from them[3].

In the Area, all States and competent international organizations have the right to conduct marine scientific research, in conformity with the provisions of Part XI of UNCLOS, which provides that marine scientific research in the Area shall be carried out exclusively for peaceful purposes and for the benefit of mankind as a whole. States Parties shall promote international cooperation in marine scientific research in the Area including by effectively disseminating the results of research and analysis when available, through the Authority or other international channels when appropriate. It should be noted that UNCLOS does not provide a definition of marine scientific

2 UNCLOS, Part XII.
3 UNCLOS, Article 145.

research, or a definition of "commercially-oriented activities", in particular "prospecting", and that there can be difficulties in distinguishing between the two categories of activities.

UNCLOS also requires States Parties that conduct marine scientific research in the Area to promote international cooperation by, *inter alia*, developing programmes, through the ISA or other international organizations, for the benefit of developing States and technologically less developed States with a view to strengthening their research capabilities, training their personnel and the personnel of the Authority in the techniques and applications of research; and fostering the employment of their qualified personnel in research in the Area; and effectively disseminating the results of research and analysis when available, through the Authority or other international channels when appropriate.

Discussions related to marine genetic resources in the context of the General Assembly are detailed in section 5.2 of this Document. Divergent views are held on the relevant legal regime on marine genetic resources beyond areas of national jurisdiction, in particular, whether those marine genetic resources are part of the common heritage of mankind and therefore fall under the regime for the Area, or are part of the regime for the high seas.

7. Options for addressing the relationship between the International Regime on ABS and UNCLOS

Decision VII/19 of the COP included the "United Nations Convention on the Law of the Sea" as a "relevant elements of existing instruments and processes" to be considered by the Ad Hoc Open-ended Working Group on Access and Benefit-sharing for inclusion in the International Regime on ABS.

Regarding the potential scope of the International Regime on ABS currently contained in Annex 1 of decision IX/12, there are three references of relevance to this Study: two in Option 1 and one in Option 3. They are:-

1. The first reference in Option 1 states in paragraph 3, "The international regime on access and benefit-sharing does not apply to …. (e) [Genetic resources, including marine genetic resources found in areas beyond national jurisdiction;]";
2. The next reference in Paragraph 5, "[In the further elaboration and negotiation of the international regime on access and benefit-sharing [special] [due] [consideration] will given to] …. (f) [Marine genetic resources found in areas beyond national jurisdiction;]"; and
3. The final reference is in Option 3 which states in Paragraph 4, "Special consideration will be given to …. Marine genetic resources found in areas beyond national jurisdiction".

The text contained in decision IX/12 does not specifically mention marine genetic resources found within national jurisdictions. The text in decision IX/12 raises three possible approaches to the treatment of marine genetic resources found in areas beyond national jurisdiction. They are:-

1. Exclude these type of marine genetic resources from the International Regime on ABS (i.e. option number 1 above);
2. Include these type of marine genetic resources in the International Regime on ABS (i.e. one of the implications of putting the square brackets round option number 2 above); and

3. Give “due” or “special” consideration to these type of marine genetic resources (i.e. options number 2 and 3 above).

Many of the observations made in Section 5 about the options for the ATS are directly relevant for the various options for marine genetic resources found in areas beyond national jurisdictions. Essentially there are reasons for and against each option. The relative merits of each option will depend on the exact nature of the International Regime on ABS.

The application of the International Regime on ABS in the oceans and seas has to be in conformity with the CBD jurisdictional scope under Article 4 and, in the case of the marine environment, in conformity with law of the sea, as required by Article 22 of the CBD, and, in particular, UNCLOS, as the legal regime for all activities in the oceans and seas.

In terms of the application of the International Regime on ABS in areas within national jurisdiction, in accordance with Article 4(a), the International Regime has to be in conformity with that established for relevant activities in the different jurisdictional areas under UNCLOS.

In relation to areas beyond national jurisdiction, in accordance with Articles 4(b) and 5 of the CBD, any decision on the jurisdictional application of the International Regime on ABS should take into account the fact that issues relating to marine genetic resources beyond national jurisdiction are being discussed in the context of the United Nations General Assembly.
