WP 4

Agenda Item: ATCM 17

Presented by: Netherlands

Original: English

Report of the ATCM Intersessional Contact Group to examine the issue of Biological Prospecting in the Antarctic Treaty Area

Report of the ATCM Intersessional Contact Group to examine the issue of Biological Prospecting in the Antarctic Treaty Area

1. Introduction

1. ATCM XXX established an informal open-ended web-based Intersessional Contact Group (ICG) working until ATCM XXXI to examine the issue of biological prospecting in the Antarctic Treaty Area. The ICG has the following terms of reference (Final Report ATCM XXX, para. 262):

a) The ICG will 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;

b) Observers and experts participating in ATCM XXX will be invited to send information to the ICG.

2. It was also decided that (Final Report ATCM XXX, para. 263):

a) The Netherlands would act as the convenor of the ICG and report at ATCM XXXI on the work of the ICG;

b) The Secretariat would develop an interactive discussion forum and provide assistance to the ICG.

3. The Secretariat accordingly set up such a forum within the ATCM Discussion Forum. The following Consultative Parties undertook to participate in the ATCM Biological Prospecting Forum: Argentina, Australia, Belgium, Brazil, Ecuador, Finland, India, Japan, The Netherlands, New Zealand, Sweden, United Kingdom and the United States. Although the forum has been accessed more than 500 times, only Argentina, Australia, Belgium, France, Japan, the Netherlands, New Zealand, Sweden, and the United States provided substantive input.

4. The Secretariat invited observers and experts participating in ATCM XXX to send information to the ICG. No such information was received.

5. In view of the terms of reference of the ICG, the ICG agreed that its substantive work consisted of:

a) identifying issues related to biological prospecting in the Antarctic Treaty Area;

b) identifying current activities related to biological prospecting in the Antarctic Treaty Area; and

c) suggesting, if appropriate, working modalities for consideration by the ATCM.

6. This report was drafted accordingly and addresses issues related to biological prospecting in the Antarctic Treaty Area (Section 2), current activities related to biological prospecting in the Antarctic Treaty Area (Section 3), and possible working modalities for consideration by the ATCM (Section 4). The report is based on relevant information from papers submitted by Consultative Parties to the ATCM as well as posts of participants on the forum.

2. Issues related to biological prospecting in the Antarctic Treaty Area

7. The following issues related to biological prospecting in the Antarctic Treaty Area were identified and discussed by one or more participants of the ICG. Some participants, however, had reservations as to the way those issues had been identified and described, and considered they were overly determinative and legalistic.

(a) Definitions. Many participants emphasized the need to address the definition of terms, including ‘biological prospecting’, ‘biological resources’, ‘biological material’, ‘genetic resources’ and ‘genetic material’, including what distinguishes ‘biological prospecting’ from ‘harvesting activities’. In this respect, it

was noted that the terms 'genetic resources' and 'genetic materials' are not used in the instruments of the Antarctic Treaty System. Some participants suggested that it is relevant to consider the observation of SCAR at its 27th meeting that biological prospecting occurs at two levels, namely the study of genetic resources and determination of commercially important genetic codes, and the harvesting *in situ* of organisms for extraction of biochemicals. Furthermore, some participants suggested that use could be made of the work carried out in other forums, including the Convention on Biological Diversity.

(b) Scope. Views were expressed with respect to the functional and territorial scope of biological prospecting in the Antarctic Treaty Area in view of the fact that organisms have been collected from the land as well as the marine areas in the Antarctic Treaty Area. It was noted that it is relevant to consider the mandates of other international forums, such as the United Nations in relation to marine genetic resources and the Convention on Biological Diversity in relation to land and marine genetic resources. It was, in particular, noted that, under auspices of the United Nations, States are considering the question of the use and status of marine genetic resources beyond the limits of national jurisdiction. Having regard to the work carried out in other forums, some participants observed that substantive steps in the framework of the Antarctic Treaty System on a complex issue transcending just Antarctica are unlikely to be helpful while these issues are under consideration in a broader forum. Other participants, however, noted that the Antarctic Treaty System is a unique regime with a wide mandate to conserve, manage and protect the Antarctic environment and its ecosystems, and stated that it would be essential for the Consultative Parties to find, within the Antarctic Treaty System, a solution to any gaps or problems that might be identified, rather than to look to other forums, such as the United Nations, whose work may not be relevant or appropriate to Antarctica's unique circumstances. Some of these participants noted that such solution should take into account the work of said forums. Other participants added that the Antarctic Treaty System has had a tradition of addressing matters in a proactive manner, anticipating issues and developing responses to them before they arose, such as in the case of mining and tourism. These participants suggested that this matter could also be effectively addressed in this proactive manner.

(c) Status. It was pointed out that complicated issues could arise with respect to matters dealt with by Article IV of the Antarctic Treaty and the established practice of states with respect to those matters. For example, the Convention on Biological Diversity recognizes certain rights of States Parties over their genetic resources, and is currently considering related access and benefit-sharing issues in ways, which, if adopted and applicable in the Antarctic Treaty Area, would not be consistent with the practice of the Consultative Parties. Some participants stated that, without a compelling need for regulation in this area, it would be best to avoid such issues. Other participants observed that such regulation may be required to prevent other forums from extending their regulations to the Antarctic Treaty Area. It was suggested by some of these participants that a way of avoiding these complex issues – while taking a proactive approach to manage the issue of biological prospecting in the Antarctic Treaty Area – would be for the ATCM to conduct a review of the existing Antarctic Treaty System, including CCAMLR, to see whether it already provides an adequate framework for managing biological prospecting activities in the Antarctic Treaty Area. It was suggested by other participants that another way of avoiding these complex issues would be to design a system of managing bioprospecting that did not raise these issues. For example, if a simple permitting system was established that only required the collector to notify the relevant authorities of their activities and contained a promise that the collector would agree to share benefits should they arise. It was, furthermore, observed by participants that any effort to address the use and status of genetic resources in marine areas in the Antarctic Treaty Area should acknowledge and be compatible with the United Nations Convention on the Law of the Sea and the discussions under the auspices of the United Nations on the use and status of genetic resources in marine areas beyond the limits of national jurisdiction.

(d) Access. It was noted that biological prospecting could involve the taking of organisms that would be subject to a permitting process under Article 3.1 of Annex II of the Protocol on Environmental Protection to the Antarctic Treaty. However, there is no consensus that micro-organisms are included in the scope of an amended Annex II. Some participants suggested that the ATCM may care to consider whether Annex II in its current form sufficiently addresses the range of issues implicated by the use of Antarctic genetic resources. More generally, some participants would like to clarify how access to Antarctic genetic resources should be conducted, for what purposes, and under what conditions. It was pointed out that there now exists a number of examples of controlling access at the regional and national level that are relevant for this issue and provided valuable lessons for the Antarctic Treaty System. One lesson of importance was the need for any system to be simple and that benefits should not be negotiated completely and finally before access was

granted but should be negotiated when it was clear what type of commercialisation may arise from the research. It was also suggested that it is relevant to consider whether different standards should apply to fundamental scientific research, applied scientific research and commercial use, and whether, in some cases, these distinctions can be made. It was noted by some participants that there are already several definitions in international instruments and national legislation that may provide some assistance in developing some guidance to distinguish between the various activities. It was noted by other participants that it will be very difficult to distinguish between such activities in practice and, therefore, that all biological prospecting activities should be subject to approval under Article 3 of Annex II of the Protocol on Environmental Protection to the Antarctic Treaty.

(e) Environmental impact. It was noted that there is no indication that the collection of genetic resources in Antarctica has had any environmental impact. However, it was argued that it needs to be clarified whether specific forms of biological prospecting may have more than a minor or transitory impact, and whether the Protocol on Environmental Protection to the Antarctic Treaty provides an adequate regulatory framework for the assessment and regulation of such environmental impacts. It was observed that individual Parties have the responsibility for implementing the provisions of Annex I of the Protocol. In particular, it was pointed out that micro-organisms – mainly bacteria, archeae and microfungi – are, and probably also will be, the main objectives of the major part of the bioprospecting programs in the Antarctic Treaty Area. Insofar as is known, no impact on the Antarctic environment or its ecosystems has been caused by the collection of samples of water, soil sediments or ice that contain this type of organisms. However, the introduction of procedures for the screening of micro-organisms residing on or into other Antarctic organisms or for the collection of samples of water, soil sediment or ice in a particular environment could cause significant perturbations to the screened organisms or sampled ecosystems. The application of such procedures should therefore be carefully evaluated by individual Parties before approval. According to some participants, the Protocol on Environmental Protection to the Antarctic Treaty does not provide a complete regulatory framework for the assessment and regulation of such environmental impacts.

(f) Commercialization. It was observed that all indications are that the commercial use of genetic resources obtained in the Antarctic Treaty Area could be broadly beneficial for people. Some participants expressed the view that the ATCM should not take actions discouraging the use of information obtained in the Antarctic Treaty Area to develop new products and processes relevant, for example, to general industry, pharmaceuticals, and food crops. It was noted that, pursuant to Article III.1 of the Antarctic Treaty, scientific observations and results from Antarctica should be exchanged and made freely available to the greatest extent feasible and practicable. In this respect, other participants noted that it was possible to establish controls over the access to and use of material and information that did not discourage use, but facilitated use. The establishment of such controls over the access and use may provide further guarantees that the commercial use is beneficial for the people. The view was, furthermore, expressed that the patenting of substances and/or technology derived from genetic resources, resulting from biological prospecting in the Antarctic Treaty Area, would not seem to be inconsistent with Article III.1. Some participants urged that consideration be given to whether commercialization, including the acquisition of intellectual property rights, should be subject to further regulation. Other participants, however, noted that the acquisition of intellectual property rights is governed by international instruments and national legislation, and that it is not possible to specifically regulate this matter within the framework of the Antarctic Treaty System. In this respect, it was observed by participants that commercialization per se is not necessarily included in the activity of biological prospecting and, therefore, it may not be necessary for the ATCM to develop additional regulations.

(g) Benefit-sharing. Views were expressed concerning whether and how to share the monetary and non-monetary benefits arising out of the use of Antarctic genetic resources. One view questioned whether, in light of the generally beneficial results of biological prospecting, there was any need to address the complex and possibly contentious issue of determining the distribution of benefits from Antarctic genetic resources, particularly when those broader issues were being taken up by technical experts in other forums. Another view favoured an open-minded discussion as to whether and how benefits arising out of the utilization of Antarctic genetic resources could be shared. In this respect, it was pointed out that there was a growing body of practical and relevant experience in effectively sharing benefits, commercial and non-commercial, at the regional and national level, and that this could be drawn upon to help address this issue. In this respect, it was also pointed out that the sharing of benefits, and the regulation of access, in the context of the Convention on Biological Diversity is fundamentally different from the sharing of benefits, and the

regulation of access, in the context of the Antarctic Treaty System due to the recognition of certain rights of States Parties to the Convention on Biological Diversity over their genetic resources. This did not necessarily make consideration of the issue of benefit sharing irrelevant in the context of the Antarctic Treaty System, but it needed to be addressed from a different perspective and from a different point of departure than in the context of the Convention on Biological Diversity. The question was also raised, having regard to the principle of freedom of scientific research in the Antarctic Treaty Area, how the distinction between fundamental scientific research, applied scientific research and commercial use may be relevant to a discussion of benefit-sharing. In this respect, some participants referred to their earlier comment that there were several definitions in international instruments and national legislation that may provide some assistance in developing some guidance to distinguish between the various activities. At the same time, it was noted by these participants that further work was required related to the actual impacts of intellectual property rights on the free exchange of scientific information.

3. Current activities related to biological prospecting in the Antarctic Treaty Area

8. Since the adoption of Resolution 7 (2005), only one Consultative Party (Argentina, ATCM XXIX IP 112) has provided information on biological prospecting in the Antarctic Treaty Area on the basis of that resolution. In the absence of information provided by Consultative Parties and bearing in mind the information provided by observers to the ATCM, the ICG has not been able to draw up an exhaustive list of activities that covers all activities related to biological prospecting in the Antarctic Treaty Area which have been conducted or are being conducted. Yet, there have been activities that could be considered as being biological prospecting and it seemed likely that there would be more of such activities in the future. It was suggested by some participants that the ATCM should consider the follow-up of Resolution 7 (2005), including possible input from SCAR, and identify difficulties in and possible solutions for implementing this Resolution.

9. The development by the Institute of Advanced Studies of the United Nations University, commissioned by the Belgian Federal Ministry of the Environment and the United Nations Environmental Programme, of the Antarctic Biological Prospecting Database was brought to the attention of the ICG. The purpose of this database is to make available comprehensive information about the level and outcomes of bioprospecting in Antarctica. A prototype is available on-line at http://www.bioprospector.org/bioprospector/antarctica/home.action. The prototype contains more than 100 records and provides an account of the current activities related to biological prospecting in the Antarctic Treaty Area. Some participants noted that the utility of such database for policy discussions in the ATCM was still to be examined. In this respect, the role of SCAR was particularly mentioned.

4. Working modalities for consideration by the ATCM

10. ATCM XXX acknowledged its receptivity to further discussion of biological prospecting when it confirmed its readiness to push forward with work on this topic (Final Report, para. 260). The ICG could, however, not reach a consensus on the way forward, and thus concluded that this matter was best left for discussion at the ATCM.

11. As for possible further work on the matter, some participants suggested:

- To identify the difficulties in and possible solutions for implementing Resolution 7 (2005) with the possibility of input from SCAR;
- To develop a working definition of the term ‘biological prospecting’ and related terms as it applies to the Antarctic Treaty Area;
- To conduct a review of the existing Antarctic Treaty System, including CCAMLR, to see whether it already provides an adequate framework for managing biological prospecting activities in the Antarctic Treaty Area.

12. As for possible working modalities to undertake any further work, some participants suggested to continue the ICG process, to establish a working group, to invite a government to host an informal expert meeting, or to request further information from governments and other organisations. Another participant,

however, questioned whether a great deal of time and effort should be put into reviewing the question of biological prospecting.