



# XXX Antarctic Treaty Consultative Meeting

New Delhi 30 April to 11 May 2007



WP 36

Agenda Item: ATCM 17

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Belgium,  
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Original: English

## **Biological Prospecting in the Antarctic Treaty Area – Scoping for a Regulatory Framework –**



# Biological Prospecting in the Antarctic Treaty Area – Scoping for a Regulatory Framework –

Working Paper submitted by The Netherlands, Belgium and France

## 1. Introduction

The question of biological prospecting was first discussed at ATCM XXV on the basis of a working paper submitted by the United Kingdom.<sup>1</sup> At ATCM XXVI, the Committee on Environmental Protection (CEP) adopted ‘Biological Prospecting’ as an agenda item and considered two information papers.<sup>2</sup> It noted that the question of biological prospecting raised “many complex legal and political issues” and agreed to refer the legal and political issues associated with biological prospecting to a future ATCM for further consideration. ATCM XXVI accordingly decided to also include biological prospecting on the agenda of the next ATCM. At ATCM XXVII, an information paper on industrial involvement in Antarctic biological prospecting by UNEP was introduced.<sup>3</sup> During the meeting, the increasing importance of this topic for the ATCM was stressed. The ATCM urged interested Delegations to introduce working papers at the next ATM. One working paper was submitted by New Zealand and Sweden to ATCM XXVIII<sup>4</sup> in addition to a scientific information paper by Spain and an information paper by UNEP on recent developments in biological prospecting relevant to Antarctica.<sup>5</sup> The working paper focused primarily on the question of exchange of scientific data. ATCM XXVIII approved Resolution 7 (2005) *Biological Prospecting in Antarctica* and included the topic as an item on the agenda of the next ATCM. Further to the Resolution, one information paper was submitted by Argentina on activities of biological prospecting and bioremediation in Antarctica.<sup>6</sup> Information papers by France and UNEP addressed the search of a legal regime for biological prospecting in Antarctica and recent trends in biological prospecting.<sup>7</sup> ATCM XXIX confirmed that biological prospecting would be discussed at the next ATCM, urged Parties to continue to provide updates on their activities in the field, and included the topic as an item on the agenda of ATCM XXX.

Resolution 7 (2005) only relates to the exchange of information and views on the question of biological prospecting in Antarctica. In their working paper, New Zealand and Sweden suggest that any further work of the ATCM should focus on ascertaining (a) the nature and extent of any problem specific to biological prospecting in Antarctica, and (b) existing models and their relevance to biological prospecting in Antarctica. In the absence of any concrete proposals, the discussions at ATCM XXVIII and XXIX were not conclusive with respect to the need and extent of further work. The sponsors of this working paper believe that further work would be useful and should not wait for the results of the work in other international forums. However, it is proposed to limit further work at this stage to identifying and assessing issues related to biological prospecting in Antarctica.

## 2. State of Play in Other International Forums on Biological Prospecting

The access to and the sharing of benefits arising out of the use of genetic resources has become a prominent item on the agenda of international forums in recent years. The sponsors of this working paper believe that the ATCM should not wait for the results of the work in these international forums, but should take the lead on the question of biological prospecting in Antarctica. They are convinced that the ATCM is the appropriate

<sup>1</sup> ATCM XXV WP 43 entitled ‘Biological Prospecting in Antarctica’.

<sup>2</sup> ATCM XXVI, IP 47 by New Zealand entitled ‘Biosprospecting in Antarctica, An Academic Workshop; and IP 75 by the United Kingdom and Norway entitled ‘Bioprospecting’.

<sup>3</sup> ATCM XXVII, IP 106 entitled ‘Industry Involvement in Antarctic Bioprospecting’.

<sup>4</sup> ATCM XXVIII, WP 13 entitled ‘Biological Prospecting in Antarctica’.

<sup>5</sup> ATCM XXVIII, IP 8 by Spain entitled ‘Biological Prospecting in Antarctica’; and IP 93 by UNEP entitled ‘Recent Developments in Biological Prospecting Relevant to Antarctica’.

<sup>6</sup> ATCM XXIX, IP 112 by Argentina entitled ‘Argentine Activities of Bioprospecting and Bioremediation in Antarctica’.

<sup>7</sup> ATCM XXIX, IP 13 by France entitled ‘In Search of a Legal Regime for Bioprospecting in Antarctica’; and IP 116 by UNEP entitled ‘Recent Trends in the Biological Prospecting’.

forum to discuss matters relating to Antarctica and that the successful resolution of any pertinent issues relating to biological prospecting in Antarctica by the ATCM will facilitate discussions on the need to regulate biological prospecting in Antarctica within the scope of the emerging regulatory frameworks in other international forums.

Other international forums that are in the process of developing regulatory frameworks related to the access to and the sharing of benefits arising out of the use of genetic resources include the following.

- *Convention on Biological Diversity*. The Plan of Implementation of the World Summit on Sustainable Development called upon States to negotiate an international regime promoting and safeguarding the fair and equitable sharing of benefits arising out of the utilisation of genetic resources within the framework of the Convention on Biological Diversity (para. 44). At the Eighth Conference of the Parties to the Convention on Biological Diversity in March 2006, it was agreed that the working group on access and benefit-sharing must complete its work before the Conference of the Parties that is scheduled for 2010 (UNEP/CBD/COP/8/4A, para. 6). Genetic resources in Antarctica have not, as yet, been excluded from the scope of the emerging international regime.
- *United Nations*. During its Sixty-first session, the United Nations General Assembly (UNGA) adopted a resolution on Oceans and the Law of the Sea on 20 December 2006 (UN Doc. A/RES/61/222). The UNGA decided to reconvene a working group on the conservation and sustainable use of marine biological diversity in 2008 which shall consider, *inter alia*, “[g]enetic resources beyond areas of national jurisdiction” (para. 91). The UNGA also decided that the Open-ended Informal Consultative Process on Oceans and the Law of the Sea will focus in 2007 on the topic of marine genetic resources (para. 123). The same resolution reaffirms the role of UNGA relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction and does not exclude Antarctic marine genetic resources from the scope of the discussions (para. 89).
- *Food and Agricultural Organization*. In 2001, the International Treaty on Plant Genetic Resources for Food and Agriculture was adopted. It provides, *inter alia*, for facilitated access to and the sharing of benefits arising from the use of plant genetic resources for food and agriculture that have been placed in the multilateral system established by the Treaty. The development of a regulatory framework for animal genetic resources is under consideration of the Commission on Genetic Resources for Food and Agriculture. Although the regulatory framework for plant genetic resources for food and agriculture is not likely to apply to Antarctic plant genetic resources, Antarctic animal genetic resources could be subject to a regulatory framework on animal genetic resources for food and agriculture.
- *World Intellectual Property Organization*. The WIPO Intergovernmental Committee has dealt with a range of issues concerning the interplay between intellectual property and genetic resources. The work has covered three main areas: (a) defensive protection of genetic resources through measures which prevent the grant of patents over genetic resources that do not fulfil the requirements of novelty and non-obviousness; (b) intellectual property aspects of access to genetic resources and equitable benefit-sharing arrangements that govern use of genetic resources; and (c) disclosure requirements in patent applications that relate to genetic resources and associated traditional knowledge used in a claimed invention ([www.wipo.int](http://www.wipo.int)).

### 3. Scoping for a Regulatory Framework for Biological Prospecting in Antarctica

In the introduction to this working paper, it has been said that further work should, at this stage, be limited to identifying and assessing issues related to biological prospecting in Antarctica, i.e. it should be limited to scoping for a regulatory framework. The outcome of such work may be that the development of a regulatory framework for biological prospecting in Antarctica is or is not opportune. This approach is based on the working paper submitted by New Zealand and Sweden to ATCM XXVIII which suggests that further work should focus on (a) the nature and extent of any problem and (b) existing models and their relevance to the particular situation.

The information paper by France submitted to ATCM XXIX provides useful guidance in this regard as it identifies and assesses a number of issues related to biological prospecting in Antarctica. A non-exhaustive list of such issues is presented below.

- *Scope.* Consideration could be given to the functional and territorial scope of biological prospecting in Antarctica. With respect to the functional scope, it is relevant to consider the observation of SCAR at its 27<sup>th</sup> meeting that biological prospecting occurs at two levels, namely the study of genetic materials and determination of commercially important genetic codes and the harvesting of *in situ* organisms for extraction of biochemicals. With respect to the geographical scope, 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.
- *Access.* Biological prospecting will normally involve the taking of species. Pursuant to Article 3.1 of Annex II of the Antarctic Treaty Protocol on Environmental Protection, the taking of native fauna and flora is prohibited, except in accordance with a permit. Taking into account the revision of Annex II, in particular the proposed extension of the Annex to micro-organisms, the access to genetic resources already seems to be subject to a basic regulation. It needs to be considered whether this basic regulation suffices to regulate all issues arising out of the use of Antarctic genetic resources. In this regard, it is also relevant whether different rules may be necessary for fundamental scientific research, applied scientific research and commercial use.
- *Environmental impact.* It needs to be clarified whether specific forms of biological prospecting may have more than a minor or transitory impact and whether the Antarctic Treaty Protocol on Environmental Protection provides an adequate regulatory framework for the assessment and regulation of environmental impacts.
- *Commercialization.* Pursuant to Article III.1 of the Antarctic Treaty, scientific observations and results from Antarctica shall be exchanged and made freely available to the greatest extent feasible and practicable. The patenting of substances and/or technology derived from genetic resources, resulting from biological prospecting in Antarctica, would therefore not seem to be inconsistent with Article III.1. It merits consideration whether commercialization should be subject to further regulation.
- *Benefit-sharing.* Another issue is whether and how to share the benefits arising out of the use of Antarctic genetic resources. Having regard to the principle of freedom of scientific research in the Antarctic Treaty area, the distinction between fundamental scientific research, applied scientific research and commercial use may be of relevance in this context as well.

#### 4. Summary of Proposal

This paper proposes that the ATCM undertakes work to identify and assess issues related to biological prospecting in Antarctica. Given the importance of the topic, as recognized by the ATCM on several occasions, it is appropriate to undertake further work on this topic in a separate working group – or another group with sufficient expertise and time to address the issue – that should commence its work at XXXI ATCM. This group should take into account existing regulatory frameworks, the on-going negotiations on emerging regulatory frameworks as well as the input from Antarctic Treaty Parties.