CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

Joint sessions of the 29th meeting of the Animals Committee and
the 23st meeting of the Plants Committee
Geneva (Switzerland), 22 July 2017

Interpretation and implementation matters

General compliance and enforcement

SPECIMENS PRODUCED FROM SYNTHETIC OR CULTURED DNA

1. This document has been prepared by the Secretariat.

2. At its 17th meeting (CoP17, Johannesburg, 2016), the Conference of the Parties adopted Decisions 17.89 to 17.91 on *Specimens produced from synthetic or cultured DNA*, as follows:

Directed to the Secretariat

17.89 The Secretariat, subject to external funding, is requested to:

a) undertake a review of relevant CITES provisions, resolutions and decisions, including Resolution Conf. 9.6 (Rev. CoP16) on Trade in readily recognizable parts and derivatives, to examine how Parties have applied the interpretation of Resolution Conf. 9.6 (Rev. CoP16) to wildlife products produced from synthetic or cultured DNA, under what circumstances wildlife products produced from synthetic or cultured DNA meet the current interpretation, and whether any revisions should be considered, with a view to ensuring that such trade does not pose a threat to the survival of CITES-listed species; and

b) report the findings and recommendations of this study to the 29th meeting of the Animals Committee, the 23rd meeting of the Plants Committee, and the 69th meeting of the Standing Committee.

Directed to the Animals and Plants Committees

17.90 At the 29th meeting of the Animals Committee and the 23rd meeting of the Plants Committee, the Animals and Plants Committees are requested to review the findings and recommendations of the Secretariat's report in Decision 17.89 and make recommendations for consideration at the 69th meeting of the Standing Committee, including appropriate revisions to existing resolutions.

Directed to the Standing Committee

17.91 At its 69th meeting, the Standing Committee is requested to review the findings and recommendations of the Secretariat's report in Decision 17.89 and the recommendations of the Animals and Plants Committees, and make recommendations for consideration at the 18th meeting of the Conference of the Parties, including appropriate revisions to existing resolutions.

Background

3. Document CoP17 Doc. 27 prepared by the United States of America suggested that a number of companies and researchers might be developing or have developed bioengineered rhinoceros horn and rhinoceros horn powder (see paragraphs 21 to 26). The document further suggested that, although the scientific processes through which these products are being developed may vary, the products appear to be genetically similar or identical to real rhinoceros horn. It also stated that this technology is not unique to rhinoceros horn, and that some of these companies or researchers have indicated that they may produce other cultured wildlife products, including elephant ivory, tiger bone, and pangolin scales. Further information can also be found in the information document CoP17 Inf. 22.

4. In its comments on the document, the Secretariat noted that it was aware of reports about wildlife products produced from synthetic or cultured DNA, and, given these recent developments, supported the adoption of Decisions 17.89 to 17.91 and recommended that Parties consider the implementation of the Convention as it relates to such products.

5. At its twelfth meeting (Pyeongchang, 2014), the Conference of the Parties of the Convention on Biological Diversity (CBD) established an Ad hoc Technical Expert Group (AHTEG) on Synthetic Biology (see decision XII/24 https://www.cbd.int/doc/decisions/cop-12/cop-12-dec-24-en.pdf). At its thirteenth meeting (Cancun, 2016), the Conference of the Parties to CBD adopted decision XIII/17 acknowledging, among other things, an operational definition for synthetic biology as follows:

> *synthetic biology is a further development and new dimension of modern biotechnology that combines science, technology and engineering to facilitate and accelerate the understanding, design, redesign, manufacture and/or modification of genetic materials, living organisms and biological systems.*

Progress made since CoP17

6. Pursuant to Decision 17.89, the Secretariat has approached potential donors and identified an initial amount of USD 20,000 to conduct the study. This financial contribution was provided by the government of the United States of America and is greatly appreciated.

7. The Secretariat has drafted terms of reference included in the annex to this document and will proceed to the selection of the consultant in the coming weeks. The Secretariat would like to invite the members of the Animals and Plants Committee to provide comments on the scientific/technological elements of the ToRs.

Discussion

8. According to Decision 17.89, the study should review relevant CITES, provisions, resolutions and decisions, including Resolution Conf. 9.6 (Rev. CoP16) to examine:

   a) How Parties have applied the interpretation of Resolution Conf. 9.6 (Rev. CoP16) to wildlife products produced from synthetic or cultured DNA;

   b) Under what circumstances wildlife products produced from synthetic or cultured DNA meet the current interpretation; and

   c) Whether any revisions should be considered, with a view to ensuring that such trade does not pose a threat to the survival of CITES-listed species.

Interpretation of Resolution Conf. 9.6 (Rev. CoP16)

9. In Resolution Conf. 9.6 (Rev. CoP16), the Conference of the Parties agrees in paragraph 1 that "*the term 'readily recognizable part or derivative', as used in the Convention, shall be interpreted to include any specimen which appears from an accompanying document, the packaging or a mark or label, or from any other circumstances, to be a part or derivative of an animal or plant of a species included in the Appendices, unless such part or derivative is specifically exempted from the provisions of the Convention.*"

10. The interpretation contains three 'ways' to determine whether the specimen is or not covered by CITES:

    a) An accompanying document;

    b) Packaging or a mark or label;

    c) From any other circumstances.

11. The first two options indicated in paragraph 10 appear to be clearer than the third one, which seems more ambiguous and should be clarified by the study.

12. There are several legal/regulatory/enforcement and scientific/technological interrelated elements that should be covered and developed by the mandated study.

    a) From a legal/regulatory/enforcement perspective:

        i) It is clear that CITES regulates trade in parts and derivatives that are readily recognizable and management authorities are allowed to issue CITES documents for international trade in those specimens in accordance with the provisions of the Convention.

        ii) Resolution Conf. 9.6 (Rev. CoP16) interprets the terms 'readily recognizable', but does not provide an operational definition for the terms 'parts' or 'derivatives'. The study may explore the pertinence and relevance of including operational definitions of the terms 'parts' and 'derivatives' in Resolution Conf. 9.6 (Rev. CoP16). The Secretariat has included in the draft model law it uses for the National legislation project a provisional definition for the term 'derivative', as follows:

            ''Derivative"; in relation to an animal, plant or other organism, means any part, tissue or extract, of an animal, plant or other organism, whether fresh, preserved or processed, and includes any chemical compound derived from such part, tissue or extract.

        iii) An underlying legal question is whether or not the CITES definition of "specimen" covers synthetic or cultured genetic material. The only existing reference to synthetic compounds initially identified by the Secretariat can be found in paragraph 1c) of Resolution Conf. 10.19 (Rev. CoP14) on *Traditional medicines*. Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates* refers to biological samples and its annex 4 specifies the types of biological samples and their use. The study may consider the pertinence and usefulness of creating a new source code B for bioengineered wildlife products as a separate category of specimens, similar to captive bred or ranched specimens.

    b) From a scientific/technological perspective, the Secretariat suggests that the study:

        i) Include tools to distinguish between synthetic and cultured DNA;

        ii) Review recent technological developments that produce substitutes for CITES-listed species within the field of synthetic biology to advise the Standing Committee if the developments will be detrimental to the survival of the concerned species; and

        iii) Analyse available evidence of positive and negative impacts of specimens produced from synthetic or cultured DNA and gather information on risk management measures and best practices;

13. The Secretariat suggests to cooperate with the Secretariat of the CBD and other United Nations entities and international organizations whose mandates are relevant to synthetic biology to understand the relevant implications with regards to the interrelationship with the access and benefit sharing regime as regulated under the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (CBD). The aspects related to trade and intellectual property of synthetic or cultured genetic material require some consultations with relevant international bodies and agreements, such as the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO), in particular on the issues related to the agreement on Trade-related Aspects of Intellectual Property Rights (TRIPs).

Recommendations

14. The Animals and Plants Committees are invited to:

    a) provide inputs to the Secretariat on the terms of reference included in the Annex to this document within 30 days after the conclusion of the present meeting, i.e. by 26 August 2017;

    b) provide relevant information on this matter to the Secretariat, including existing reports, examples of specimens produced from synthetic or cultured DNA, etc.; and

    c) consider the results of the study at the next Joint sessions of the 30th meeting of the Animals Committee and the 24th meeting of the Plants Committee.

DRAFT TERMS OF REFERENCE FOR THE STUDY ON SPECIMENS PRODUCED FROM SYNTHETIC OR CULTURED DNA

[DECISION 17.89]

1. Pursuant to Decision 17.89 and drawing upon document CoP17 Doc. 27 (paragraphs 21 to 26) and other relevant documentation submitted by Parties and observers, the study should review relevant CITES, provisions, resolutions and decisions, including Resolution Conf. 9.6 (Rev. CoP16) to examine:

   – How Parties have applied the interpretation of Resolution Conf. 9.6 (Rev. CoP16) to wildlife products produced from synthetic or cultured DNA;

   – Under what circumstances wildlife products produced from synthetic or cultured DNA meet the current interpretation; and

   – Whether any revisions should be considered, with a view to ensuring that such trade does not pose a threat to the survival of CITES-listed species.

2. Identify and differentiate relevant legal/regulatory/enforcement and scientific/technological interrelated elements that should be considered by the Standing Committee and the joint meeting of the Animals and Plants Committees.

   Elements to be considered from a legal/regulatory/enforcement perspective:

   – Resolution Conf. 9.6 (Rev. CoP16) interprets the terms 'readily recognizable', but does not provide an operational definition for the terms 'parts' or 'derivatives'. The study shall explore the pertinence and relevance of including operational definitions of the terms 'parts' and 'derivatives' in Resolution Conf. 9.6 (Rev. CoP16);

   – An underlying legal question is whether or not the CITES definition of "specimen" covers synthetic or cultured genetic material. The study shall consider the pertinence and usefulness of creating a new source code B for bioengineered wildlife products as a separate category of specimens.

   Elements to be considered from a scientific/technological perspective:

   The study shall:

   – Include tools to distinguish between synthetic and cultured DNA;

   – Review recent technological developments that produce substitutes for CITES-listed species within the field of synthetic biology to advise the Standing Committee if the developments will be detrimental to the survival of the concerned species; and

   – Analyse available evidence of positive and negative impacts of specimens produced from synthetic or cultured DNA and gather information on risk management measures and best practices.

3. The consultant shall consult the Parties and cooperate with the CBD Secretariat and other United Nations entities and international organizations whose mandates are relevant to synthetic biology to understand the relevant implications with regards to the interrelationship with the access and benefit sharing regime as regulated under the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (CBD). The aspects related to trade and intellectual property of synthetic or cultured genetic material require some consultations with relevant international bodies and agreements, such as the World Intellectual Property Organization and the World Trade Organization (WTO), in particular on the issues related to the agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS).