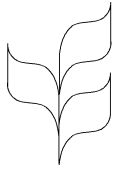




CBD



## CONVENTION ON BIOLOGICAL DIVERSITY

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SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND  
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Fourth meeting

Montreal, Canada

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Item 4.3 of the Provisional Agenda\*

### FURTHER ADVANCEMENT OF THE GLOBAL TAXONOMY INITIATIVE

#### Note by the Executive Secretary

#### INTRODUCTION

1. The issue of the role of taxonomy in advancing the implementation of the Convention on Biological Diversity was first considered by the Conference of the Parties (COP) in an in-depth manner at its second meeting, under the agenda item "Preliminary consideration of components of biological diversity particularly under threat and action which could be taken under the Convention". The COP had before it recommendation I/3 adopted by the first meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA). Paragraph 2 (ii) of this recommendation made reference to the need to evaluate methodologies for identification, characterization and classification of biological diversity and its components so as to identify methods suitable for different conditions of data availability and how their effectiveness could be enhanced. The COP adopted decision II/8 in which it requested SBSTTA to address, at its second meeting, the issue of lack of taxonomists, who would be needed for the national implementation of the Convention, and to advise the COP at its third meeting on ways and means to overcome this problem, taking into account existing studies and ongoing initiatives, while adopting a more practical

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direction of taxonomy linked to bio-prospecting and ecological research on conservation and sustainable use of biological diversity and its components (decision II/8, paragraph 7).

2. Pursuant to the request from the COP, SBSTTA at its second meeting addressed the issue of lack of taxonomists who are required for Parties to implement the Convention and adopted recommendation II/2, which outlined practical approaches for capacity-building for taxonomy, for consideration by the COP at its third meeting.

Paragraph 10 of this recommendation proposed a Global Taxonomy Initiative to promote capacity-building for taxonomy in order to overcome the taxonomic impediment to sound management and conservation of biological diversity, and highlighted some priority actions needing support from the Global Environment Facility. The taxonomic impediment referred to by SBSTTA is a term that describes the gaps of knowledge in our taxonomic system (including knowledge gaps associated with genetic systems), the shortage of trained taxonomists and curators, and the impact these deficiencies have on our ability to manage and use our biological diversity.

3. At its third meeting, the COP re-examined the issue of capacity-building for taxonomy under the agenda item "Identification, Monitoring and Assessment" and adopted to this effect two decisions aimed at advancing further the taxonomic agenda of the Convention: i) decision III/10 which, inter alia, endorsed recommendation II/2 outlining practical approaches for capacitybuilding for taxonomy adopted by SBSTTA at its second meeting, and ii) decision III/5, paragraph 2 (b), which stipulates additional guidance to the Global Environment Facility concerning provision of financial resources to developing countries for capacitybuilding purposes, including taxonomy, in relation to the implementation of Article 7 of the Convention.

4. Although the third meeting of SBSTTA did not have on its agenda a specific item on capacity-building for taxonomy, the urgency of needed action on taxonomy was reiterated in the framework of thematic work on ecosystems (specifically in inland water ecosystems, which was the main thematic focus of the meeting). Consequently, recommendation III/1.D was adopted by SBSTTA advising the COP to consider, at its fourth meeting, directing the Executive Secretary to take decisive action to advance the Global Taxonomy Initiative as set out in decision III/10, which should be implemented as soon as possible.

5. The fourth meeting of the COP, taking into account all its previous decisions and the recommendations of SBSTTA, as well as existing studies and ongoing initiatives in relation to capacitybuilding for taxonomy, adopted a new comprehensive decision regarding the implementation of a Global Taxonomy Initiative, namely decision IV/1.D.

This decision has an annex which contains detailed suggestions for action directed at various players and levels, namely the Secretariat of the CBD, Parties to the Convention, and relevant authorities and stake holders in the international community.

Furthermore, it calls on SBSTTA to examine and provide advice on the further

advancement of a Global Taxonomy Initiative (paragraph 3 of decision IV/1.D).

6. The present note has been prepared with the purpose of assisting the fourth meeting of SBSTTA in its deliberations on how to address the request from the COP as stipulated above. Since comprehensive background information and overviews on the problem of inadequate taxonomic knowledge and the shortage of taxonomists have been provided in previous documents for SBSTTA at the COP (ref. UNEP/CBD/SBSTTA/1/4; UNEP/CBD/SBSTTA/2/5; UNEP/CBD/COP/3/12), the present note has endeavoured to avoid repeating what has already been stated in the past. Rather, the approach followed in preparing this note has been an attempt to focus specifically on the suggestions contained in the annex to decision IV/1. D, with a view to identifying the type of final products, tools or instruments which can be expected from those suggestions and then to propose options which SBSTTA may wish to examine considering what advice it may provide the COP as to how the development of such products, tools or instruments can be brought about in a timely manner for the further advancement of a Global Taxonomy Initiative. The assumption is that the challenge for SBSTTA in respect of this agenda item is to avoid a repetition of the recommendations contained in the COP decisions, and rather to come up with advice on how to scientifically and technically follow them up with practical actions.

7. The note takes into account various recommendations, suggestions and ideas stemming from a number of initiatives related to advancing capacity-building for taxonomy that have taken place, particularly since the endorsement by the COP of the concept of a Global Taxonomy Initiative, in November 1996, at its third meeting. These initiatives include, but are not limited to the following:

- i) Darwin Declaration: Removing the Taxonomic Impediment (report of a workshop held in Darwin, Australia, 2-5 February 1998).
- ii) Recommendations from a DIVERSITAS working group of experts on scientific research that should be undertaken for the effective implementation of Articles 7, 8, 9, 10 and 14 of the Convention on Biological Diversity (meeting held in Mexico City 25-28 March 1998);
- iii) The Global Taxonomy Initiative: Shortening the Distance Between Discovery and Delivery (report from a meeting convened by DIVERSITAS, Environment Australia and the Scientific and Technical Advisory Panel of the Global Environment Facility, held at the Linnean Society, London, 10-11 September 1998).

8. The main message coming from these initiatives is that, to achieve any significant overcoming of the taxonomic impediment, there is a need for a cohesive global strategy for capacity-building for taxonomy which would best be achieved through a three-tiered approach consisting of within-country, regional/subregional, and global perspectives. This is essentially the message that the COP recognized and

translated in decision IV/1.D and its annex, whose provisions and suggestions are addressed at three levels, namely: the CBD Secretariat, for activities that will facilitate coordination, coherence, harmonization and review of actions undertaken by individual Parties; Parties, for activities that can be undertaken at the national and subregional/regional levels on the basis of national taxonomic priorities; international stake holders and players such as taxonomic institutions, donors, UNEP, OECD and the Global Environment Facility, for funding and other forms of assistance, cooperation and collaboration that would facilitate the global implementation of a Global Taxonomy Initiative.

## II. KEY PRODUCTS, TOOLS OR INSTRUMENTS ENVISAGED BY DECISION IV/1.D

9. With a few exceptions, most of the suggestions for action contained in the annex to decision IV/1. D constitute a framework of provisions that require amplification and operationalization before they can be thought of as providing a clear set of targets to guide the implementation of a Global Taxonomy Initiative. SBSTTA might therefore wish to consider the various suggestions from the perspective of the expected products, tools or instruments to be derived therefrom and provide advice that would lead to and facilitate their development where appropriate. The advice from SBSTTA could thus consist of a set of operational guidelines and parameters which amplify how the Convention requires a Global Taxonomy Initiative to work. Such guidelines should not be understood to refer to detailed recipe books but could rather take the form of a plan of action for implementing the provisions stipulated in the annex to decision IV/1. D, to bring about key products, tools and instruments to advance capacity-building for taxonomy. The plan of action would focus on outcomes and outputs at the practical level, point to desirable timeframes for reaching specific targets and suggest indicators of achievement or ways and means of measuring progress in the achievement of the objectives.

10. The following is an indicative list of some of the key products, tools or instruments for taxonomy-related capacity-building that can be envisaged from the suggestions for action contained in the annex to decision IV/1. D:

- a) Programme Officer in the Secretariat with responsibility for further development of a Global Taxonomy Initiative.
- b) Development of appropriate infrastructure for national biological collections.
- c) Partnerships between institutions in developed and developing countries to promote scientific collaboration and infrastructure rationalization, including training initiatives.
- d) Internationally agreed levels of collection housing.
- e) Training programmes at different educational levels and ongoing employment for trainees.

- f) Utilization of information systems to maximum effect in taxonomic institutions.
- g) Inclusion of taxonomy-related capacity-building measures in national reports.
- h) Establishment and maintenance of effective mechanisms for the stable naming of biological taxa.
- i) Development of a Global Biodiversity Informatics Facility.
- j) Development, by the clearing-house mechanism of the Convention, of protocols and strategies for coordinating access to and distribution of taxonomic information contained in collections.
- k) Establishment and updating, by the clearing-house mechanism, of directories of taxonomists and their research and identification expertise.
- l) Financial and administrative stability of institutions responsible for biological diversity inventories and taxonomic activities.
- m) Establishment of consortia to conduct regional projects.
- n) Identification of centres of excellence at different geographic levels which can provide training programmes.
- o) Support for international funding of fellowships<sup>1</sup> for specialist training.
- p) Programmes for re-training of qualified professionals moving into taxonomy-related fields.
- q) Suitable and needs-tailored training methods.
- r) Strengthening of business management capacities of managers of biological diversity institutions.
- s) Development, maintenance and availability on the Internet of national registers of practising taxonomists, areas of expertise and descriptions of collections.
- t) Assessment of national taxonomic priorities and development of regional taxonomic priorities.

### III. OPTIONS

11. Obviously, not all of the anticipated products, tools or instruments shown above require advice from SBSTTA for their development or materialization. As a matter of fact, some of the actions stipulated by the COP in the annex to decision IV/1. D have already been initiated, or are under way. Examples include the appointment of a Programme Officer in the Secretariat to coordinate the taxonomic work as per the terms of reference stipulated in paragraph 1 of the annex <sup>1</sup>. Other actions are

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<sup>1</sup> The governments of Australia and Sweden made voluntary contributions to cover the costs of the appointment of a Programme Officer at P-4 level, for a period of 3 years.

solely the responsibility of national governments and will thus be implemented in accordance with national biodiversity action plans. However, given the urgency of needed action on taxonomy recognized by the COP, SBSTTA may consider a recommendation to the COP that makes the provision of information on progress in taxonomy-related capacity building measures a standing item in national reports. As SBSTTA will have on the agenda for its fifth meeting an item on national reporting, with a view to providing advice to the COP on the intervals and form of future national reports, it might wish to reexamine the issue of reporting on measures adopted to strengthen national capacity in taxonomy at that time.

12. Furthermore, it may be unrealistic to expect SBSTTA to consider and address, to the same extent at the same time, all the components of a Global Taxonomy Initiative as suggested in decision IV/1. D and its annex. In order to be more effective, SBSTTA might wish to consider prioritizing among the suggestions for action highlighted in the annex and focus initially on providing advice for the operationalization of those that can constitute the basis for a quick-start agenda to activate and implement a Global Taxonomy Initiative. For example, even though there is merit in the development of a Global Biodiversity Informatics Facility (GBIF) recommended by the OECD Megascience Forum's Biodiversity Informatics Subgroup as a tool to allow people in all countries to share biological diversity information and to provide access to critical authority files, the modalities for bringing about this initiative are as yet undefined and it might therefore be premature for SBSTTA to provide operational recommendations on this type of activities, whereas there could be more value added in SBSTTA's input to initiatives linking institutions in developed countries and developing countries that are already under way and whose objectives are in line with those of the GBIF, such as the development of a global species index through a global linking of taxonomic databases involving all organisms (e.g. Species 2000 and the like), which could provide a useful starting point in the establishment and maintenance of effective mechanisms for the uniform and stable naming of biological taxa and provision of checklists and other tools to facilitate exchange of taxonomic information.

13. Should SBSTTA opt to follow such an approach based on prioritizing actions, it would need to identify criteria and other principles to guide this prioritizing exercise. Bearing in mind the key products, tools and instruments mentioned in paragraphs 9 and 10 above whose development would facilitate capacity building for taxonomy, the following considerations are suggested on an indicative basis to assist SBSTTA, should it wish to follow this approach:

- i) development of taxonomy-related products and tools that would assist decision-making on other provisions of the Convention for which a need for urgent action has been expressed by the COP (e.g. development of indicators; assessment and monitoring of components of biodiversity particularly under threat; implementation of the ecosystem approach,

particularly for the conservation and sustainable use of biodiversity within the ecosystem themes already identified by the COP, such as forest biodiversity, agricultural biodiversity, inland water ecosystems, and coastal and marine biodiversity; promotion of public awareness and education to ensure a high degree of public acceptance of the role and benefits of taxonomy in the major elements of the Convention; integration of indigenous and traditional taxonomic systems in global taxonomic knowledge systems);

ii) development of tools that disseminate taxonomic information as widely as possible (e.g. keys for identifying organisms; regional floras; databases) in a variety of media, including making available information housed in collections to countries of origin;

iii) development of tools that could assist in the creation and/or strengthening of appropriate infrastructure, particularly in developing countries that are lacking such infrastructure, to support taxonomy-related work;

iv) development of training programmes that would enhance regional collaboration and stimulate partnerships between institutions in developing countries and those in developed countries.

14. Given that time constraints might not make it possible for SBSTTA to come up with a complete plan of action to further advance a Global Taxonomy Initiative during its fourth meeting, even if it chooses to focus on a limited number of priority issues, SBSTTA might wish to consider the need to establish a mechanism, such as a liaison group, that would follow up on this task in a timely manner and provide SBSTTA with a report that would allow it to give advice to the COP at its next meeting.

15. Another approach that SBSTTA might consider as a way of providing the COP with advice for the further advancement of a Global Taxonomy Initiative is the compilation of a number of framework projects that could be started to activate this Initiative.

Such a project-based approach would also need to be based on criteria and guiding principles that would make it possible to set priorities, with the aim of building capacity across the range of levels required to rapidly enhance our taxonomic capacity to support decision-making. The generic considerations suggested in paragraph 12 above can also be applied for prioritizing among the broad range of possible framework projects. A sample list of such projects, which the meeting may wish to consider as a reference, can be found in the report of the meeting entitled "The Global Taxonomy Initiative: shortening the distance between discovery and delivery" (Environment Australia/DIVERSITAS/STAP) which is available to the fourth meeting of SBSTTA as an information document (UNEP/CBD/SBSTTA/4. Inf. ).

16. Should SBSTTA wish to recommend to the COP a sample of project concepts that

could activate a Global Taxonomy Initiative, for the COP to decide on the financing modalities, these projects would understandably primarily consist of those of a global or regional/subregional scope. Many countries are still in the process of formulating their national biodiversity strategies and action plans, which will constitute the framework against which projects for building capacity for taxonomy at national level will be identified and proposed by individual Parties on the basis of national taxonomic needs assessment. Therefore the advice of SBSTTA on projects at national level might be unfeasible, whereas there is a certain consensus in the scientific community on a number of global, regional and subregional initiatives that could be initiated.

These would enhance our taxonomic knowledge base to support decision-making, to foster partnerships between institutions dealing with biodiversity in different countries; or provide a valuable framework for the development of subregional, regional or global training programmes in taxonomy, focusing particularly on the less charismatic components of biodiversity such as invertebrates, lower plants and microorganisms which comprise the vast majority of biological species, some of which have great economic significance and ecological impact (ref. Proposals suggested in document UNEP/CBD/SBSTTA/4. Inf... mentioned in the preceding paragraph).

#### IV. ADDITIONAL CONSIDERATIONS

17. As has been stated in previous discussions by both the COP and SBSTTA on the issue of capacity-building for taxonomy, the importance of adequate taxonomic infrastructure and expertise for effective national implementation of the Convention cannot be overemphasized. The COP has set the framework for promoting capacity-building for taxonomy by adopting decisions II/8, III/10 and IV/1.D. It is therefore especially important that the COP is provided with adequate advice that would allow it to regularly review the progress achieved in removing the taxonomic impediment through the implementation of a Global Taxonomy Initiative that the COP supported when it adopted decision III/10. Bearing in mind paragraph 2 of decision IV/1.D, which recalled the urgent need for further implementation of recommendation II/2 of SBSTTA concerning capacity-building in the fields of taxonomy through the incorporation of targeted actions in SBSTTA's workplan, SBSTTA might wish to consider including in its recommendations to the next meeting of the COP a proposal on how it intends to continue its consideration of a Global Taxonomy Initiative in the context of the longer-term programme of work of SBSTTA.

18. A number of stakeholders at the international level have been called upon by the COP to provide support or assistance in the implementation of a Global Taxonomy Initiative, in particular the Global Environment Facility and the United Nations Environment Programme. SBSTTA might consider seeking a report from these entities on the steps they have taken in response to the request from the COP, if it is felt that this might have a bearing on the advice that SBSTTA will provide to the COP on further advancement of a Global Taxonomy Initiative. SBSTTA might also provide



recommendations on the scientific and technical requirements which ought to be fulfilled by the elements of a Global Taxonomy Initiative that these institutions could contribute, in order to bring coherence and cohesion in the overall strategy.

19. Finally, it has to be recognized that an important requirement for the successful implementation of a Global Taxonomy Initiative, both at national and international levels, is the availability of adequate financial resources, particularly to assist developing countries to implement the suggestions for action stipulated by the COP.

The COP has already identified the Global Environment Facility as the primary funding agency for these efforts but SBSTTA may wish to look at the various possibilities and tools for financing capacity building for taxonomy and provide advice to the COP.

Improving the flow of information on the financial alternatives available for the use of developing countries could constitute an important tool. The clearinghouse mechanism of the Convention, through its national focal points in developed countries, could provide information not only on scientific and technical possibilities, but also on the financial ones available in those countries that could be used by developing countries.