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# GLOBAL TAXONOMY INITIATIVE: PROGRESS AND IMPLEMENTATION OF THE PROGRAMME OF WORK

*Note by the Executive Secretary*

## I. INTRODUCTION

1. In its decision VI/8, the Conference of the Parties, recognizing the need for a programme of work on the Global Taxonomy Initiative (GTI) at national, regional and global levels, and the particular value of regional activities, endorsed the programme of work annexed to that decision and urged Governments, international and regional organizations, and other relevant organizations, to promote and, as appropriate, carry it out.

2. Within the programme of work, the Conference of the Parties called for national, regional and global taxonomic needs assessments, and a global plan of action. The Parties recommended regional and global workshops as a mechanism for achieving this end. At its fifth meeting, the Conference of the Parties, in decision V/9, had previously asked the Executive Secretary, with the assistance of the Coordination Mechanism of the GTI, to organize regional meetings of scientists, managers and policy makers to facilitate the formulation of specific regional and national projects to meet the needs identified.

3. Following decision VI/8, notifications were sent to all organizations and initiatives identified as possible actors in the programme of work soliciting their involvement of implementation of the Global Taxonomy Initiative.

4. The purpose of the present note is to report on progress in implementation of the GTI programme of work, and specifically on the outcome of workshops held to meet the calls of the Conference of the Parties.

## II. PROGRESS IN IMPLEMENTING THE PROGRAMME OF WORK

### *A. Regional meetings*

5. Prior to the sixth meeting of the Conference of the Parties, regional meetings had been held for Central America and Africa in response to decision V/9 and in the context of the draft programme of work proposed by the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) at its sixth meeting, held in March 2001.

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6. The results of the Central American Workshop on the GTI were reported to SBSTTA at its sixth meeting (UNEP/CBD/SBSTTA/6/INF/4/Add.1).

7. The results of the African Workshop on the GTI have been published in the journal *Strelitzia* under the title "The Global Taxonomy Initiative: documenting the biodiversity of Africa. Proceedings of a workshop held at the Kirstenbosch National Botanical Garden, Cape Town, South Africa (27 February-1 March 2001)" (Klopper, R.R., Smith, G.F. Chikuni, A.C., eds, 2001).

8. As a response to decision V/9 and to the suggestion in the programme of work that regional workshops should be held to identify and address priority needs within regions a regional workshop for Asia was held in September 2002 in Malaysia, with additional support from the Governments of Japan and Australia.

9. The Asian workshop had 122 participants from 22 countries and economies. It recognized a number of key issues in implementation for the GTI in Asia, and formulated a preliminary programme of work for the Asian region.

10. The four main impediments to adequate taxonomic input to the GTI in the region were identified as lack of resources for research, inadequate staffing levels, high running costs, and difficulty in accessing taxonomic literature. Participants requested more interaction with the Convention on Biological Diversity and GTI national focal points, where the latter had been appointed. A need was recognized for more information about the Convention process and decisions of the Conference of the Parties to be made available at the level where implementation takes place.

11. The report of the Asian meeting is being circulated as an information document for the ninth meeting of SBSTTA (UNEP/CBD/SBSTTA/9/INF/17).

12. Progress is being made towards holding regional workshops in other areas of the world.

### *B. Global meeting and a strategy for implementing the programme of work*

13. Planned activity 3 of the GTI programme of work calls for a global taxonomic needs assessment, and suggests the need for agreed global cooperation to finalize taxonomic work on globally important groups and to provide a major input into the development of capacity-building initiatives. To this end, the Third Global Taxonomy Workshop was held in South Africa in July 2002, organized jointly with the Global Network for Taxonomy, BioNET-INTERNATIONAL and the Man and the Biosphere programme of the United Nations Educational, Scientific and Cultural Organization (UNESCO-MAB), and in association with the Secretariat of the International Plant Protection Convention. Support for the workshop was provided by the BioNET-INTERNATIONAL Fund, ASEANET, EAFRINET, SAFRINET, Commonwealth Science Foundation, Centre Technique de Cooperation Agricole et Rurale (CTA), the Finnish Ministry for Foreign Affairs, the South African National Botanical Institute (NBI), the Swiss Agency for Development and Cooperation (SDC), the South African Plant Protection Research Institute, South African Breweries, the United States Geological Survey (USGS) and WAFRINET.

14. The workshop included 218 participants from 95 countries (see annex III below). Participants represented the taxonomic institutions and networks, end users of taxonomic outputs, technology providers and organizations that support national development programmes to underpin the eradication of poverty, sustainable agricultural development, sustainable use and conservation of biodiversity.

15. Within the workshop working groups addressed topics including, *inter alia*, end-user needs and the capacity required to meet them; networking as a mechanism to optimize partnerships to build demand-driven capacity; technology development and transfer; and building and resourcing taxonomic capacity-building programmes in support of sustainable development. The results of these were discussed in plenary and used to develop a strategy and action plan for implementing capacity building in the context of the GTI programme of work.

16. The workshop agreed a draft strategy and action plan based on partnerships of stakeholders that will achieve the synergies required to overcome the taxonomic impediment through implementation of

the GTI at regional and global levels. Participants also discussed how to put this strategy into action at regional and global levels.

17. The workshop also produced a statement to the World Summit on Sustainable Development stressing the importance of removing the taxonomic impediment in terms of sustainable development (see annex II below).

18. Within the context of meeting end-user needs for implementing the Convention on Biological Diversity, the participants of the workshop identified nine strategic elements for capacity-building in taxonomy. These strategic elements are all required to meet operational objective 2 of the GTI programme of work, which has two planned activities: global and regional capacity-building to support access to and generation of taxonomic information and strengthening of existing networks for regional cooperation in taxonomy.

19. Capacity-building for taxonomy for the GTI should take place in the context of national and regional needs assessments of what was required to support implementation of the thematic areas and cross-cutting issues under the Convention on Biological Diversity. Needs assessments at national and regional levels were seen as crucial to identify requirements to be met.

20. The strategic elements identified by the workshop were:

(a) Meet stakeholder needs;

(b) Generate effective political and multi-sectoral commitment to fulfil national and regional obligations;

(c) Enhance collaboration, cooperation and partnerships, building to global scales;

(d) Improve access to and analysis of policy level information within the taxonomic community;

(e) Build human and infrastructural capacity to meet sustainable development needs;

(f) Sustainably maintain and enhance taxonomic skills and knowledge base to enable responsiveness to emerging needs;

(g) Improve access to and exchange of taxonomic information and products;

(h) Accelerate the full taxonomic cycle: discovery, description, determination and dissemination;

(i) Access and mobilize resources (ensure resources are available for production of appropriate output).

21. Actions to take these elements further, and some organizations and initiatives that could act as partners in the initiative, were identified by the workshop.

22. In order to further examine the actions and obtain commitment from partners in carrying them out, a further workshop was organized jointly by the Secretariat of the Convention on Biological Diversity, UNESCO-MAB and BioNET-INTERNATIONAL and was held in Paris in February 2003 at UNESCO headquarters.

23. Twenty-eight participants representing 26 organizations and initiatives participated in the workshop, and written submissions were received from a further ten organizations. Participants and correspondents are listed in annex IV below.

24. For the first strategic element—"end-user focus: meet stakeholder needs"—activities identified by the two workshops are for taxonomists and taxonomic institutions to:

(a) Carry out needs assessments, including identifying the full range of stakeholders and users;

(b) Incorporate market research techniques in assessing stakeholder needs, including methods of ensuring stakeholder take-up of taxonomic products;

(c) Establish discussion forums;

(d) Form partnerships with users;

(e) Establish regional coordination;

(f) Improve stabilization of names and develop concordances between different classifications;

(g) increase the rate at which specimens are identified and species described;

(h) Share biodiversity data with developing country end-users;

(i) Make taxonomic products more relevant to non-taxonomic issues;

(j) Assist with the delivery of products;

(k) Include feedback on products from users and lessons learned in projects.

Organizations and initiatives that have so far stated a commitment to undertake activities to meet this element are listed in annex I below.

25. To carry out these activities several specific actions are needed, including:

(a) Hold stakeholder workshops, as part of national taxonomic needs assessments under the GTI and as part of any project development;

(b) Undertake for use as a model a national taxonomic needs assessment as outlined in the note by the Executive Secretary presented to SBSTTA at its fourth meeting (UNEP/CBD/SBSTTA/4/INF/7);

(c) Remove barriers to use of taxonomic output (access, format, language, inconsistencies, etc.);

(d) Increase commitment to partnerships;

(e) Play link/facilitation role between stakeholders; and

(f) Make outputs from projects widely accessible so not re-created on project-by-project basis.

26. For the second strategic element—"political partnership: generate effective political and multi-sectoral commitment to fulfil national and international obligations"—activities identified by the two workshops are for taxonomists and taxonomic institutions to:

(a) Establish regional coordination;

(b) Work with the Convention on Biological Diversity and other conventions and related United Nations bodies;

(c) Participate in the global initiative on biodiversity communication, education and public awareness (CEPA);

(d) Raise awareness through the Interim Commission on Phytosanitary Measures regarding the need for support of taxonomy;

(e) Participate in bodies reporting to governments on biodiversity issues;

(e) Raise the profile of taxonomy with key sectors of society, including policy and decision makers (and 'champion' taxonomy regionally and nationally);

(f) Engage decision makers;

(g) Conduct media campaigns;

(h) Develop education programmes.

Organizations and initiatives which have so far stated a commitment to undertake activities to meet this element are listed in annex I.

27. To carry out these activities several specific actions by individuals, institutions and initiatives are needed, including:

(a) Developing visionary leadership and advocacy skills and employing these to articulate the value of taxonomy to the aims of the Convention and the goals of other users;

(b) Emphasizing the key role of taxonomy, ensuring other sectors are aware of the need for an appropriate taxonomic input to their work;

(c) Encouraging inclusion of taxonomists on appropriate registers of experts according to thematic area or cross-cutting issue to ensure their participation on expert groups dealing with these issues;

(d) Holding a workshop on best practices for raising the profile of taxonomy to meet user needs among educators, media and policy makers;

(e) Developing communications toolkits for taxonomists, GTI partners and GTI focal points, based on the draft guide to the GTI;

(f) Collecting, making available and using case studies of where taxonomic input has had a major positive impact on user needs, successful integration of taxonomy and other sectors, and instances where lack of taxonomic input has hindered implementation;

(g) Developing clarity in discussion and project formulation that the taxonomic component is part of attaining a higher goal, namely implementation of the Convention on Biological Diversity;

(h) Developing proactive interaction with governments, politicians and civil servants;

(i) Working with national focal points for the Convention on Biological Diversity to assist in designation of appropriate GTI national focal points;

(j) Working to incorporate taxonomy in political and legal instruments nationally and locally where appropriate;

(k) Assisting in regular updates of legislation where taxonomic knowledge, including changes and discovery, makes this necessary; and

(l) Working with the media; setting up communications and public relations programmes.

28. For the third strategic element—"global partnership: enhance collaboration, cooperation and partnerships, building to global scales"—activities identified by the two workshops are for taxonomists and taxonomic institutions to:

(a) Improve the effectiveness of national focal points;

(b) Drive pro-activity of groups, networks and societies in linking together;

(c) Promote access and benefit-sharing for inclusiveness of all;

(d) Strengthen networking between institutes, individuals and countries;

(e) Increase collaboration with BioNET-INTERNATIONAL LOOPs;

(f) Build on the collaboration of Convention on Biological Diversity and IPPC; (7) Establish regional coordination. Organizations and initiatives which have so far stated a commitment to undertake activities to meet this element are listed in Annex I.

29. To carry out these activities several specific actions by individuals, institutions and initiatives are needed, including:

(a) Improving linkages to and among GTI, the Convention on Biological Diversity, SBSTTA focal points and focal points of the implementing agencies;

(b) Creating and expanding national networks;

(c) Expanding national networks to regional levels;

(d) Linking regional networks to form global networks;

(e) Developing multi-partner international taxonomic projects to meet needs under the GTI;

(f) Developing memoranda of understanding to facilitate flexible partnerships around projects; and

(g) Developing visionary leadership to reduce "turf-protection" and enhance collaboration.

30. For the fourth strategic element—"awareness and action: improve access to and analysis of policy level information within the taxonomic community"— activities identified by the two workshops are for taxonomists and taxonomic institutions to:

(a) Develop and sustain awareness of development programme processes and objectives;

(b) Develop and sustain awareness of national biodiversity strategies and action plans;

(c) Develop and sustain awareness of relevant decisions of the Conference of the Parties to the Convention on Biological Diversity, including on the thematic areas and cross-cutting issues as well as the GTI;

(d) Develop and sustain awareness of donor policy backgrounds;

(e) Analyse information obtained to relate taxonomic output to development objectives;

(f) Contribute to harmonising the format of national reports under various conventions;

(g) Promote support to taxonomy as it relates to phytosanitary issues of national plant protection organizations (NPPOs);

(h) Liase through International Phytosanitary Portal (in future);

(i) Build awareness of taxonomic networks among regional plant protection organizations; and

(j) Establish regional coordination.

Organizations and initiatives which have so far stated a commitment to undertake activities to meet this element are listed in annex I below.

31. To carry out these activities several specific actions by individuals, institutions and initiatives are needed, including:

(a) Making and maintaining contact with local focal points of development and implementing agencies;

(b) Identifying development priorities nationally and regionally;

(c) Locating and contributing to contents of national biodiversity strategies and action plans;

(d) Identifying relevant conventions to which home country is Party;

(e) Discussing Convention processes and decisions with focal points and relevant stakeholders;

(f) Contacting bilateral and multilateral donors through appropriate channels; and

(g) GTI focal points should work with scientific societies and other relevant bodies to build awareness and involvement in the GTI, and work taxonomy, where appropriate, into national biodiversity strategies and action plans.

32. For the fifth strategic element—"capacity-building: build human and infrastructural capacity to meet sustainable development needs"—activities identified by the two workshops are for taxonomists and taxonomic institutions to:

(a) Develop long-term strategies for sustaining capacity;

(b) Develop capacity within current structures and processes;

(c) Identify and include new elements, structures and processes;

(d) Improve access to new information technologies;

(e) Access and mobilise resources;

(f) Assist in development of curricula in tertiary institutions;

(g) Pursue current activities in relation to training in taxonomy and parataxonomy;

(h) Help assess taxonomic needs for NPPOs using the IPPC "phytosanitary capacity evaluation";

(i) Support advanced training in taxonomy, curation and other relevant disciplines;

(j) Establish regional biodiversity centres based on existing infrastructure; and

(k) Establish regional coordination.

Organizations and initiatives that have so far stated a commitment to undertake activities to meet this element are listed in annex I below.

33. To carry out these activities several specific actions by individuals, institutions and initiatives are needed, including:

(a) Assessing ongoing efforts and where development is needed, including synergies and opportunities within CDI process;

(b) Assisting in developing national reference centres where such centres are not yet in place;

(c) Establishing regional biodiversity centres based on existing infrastructure;

(d) Developing partnerships for training on North-North, North-South and South-South bases, involving agencies and donors where appropriate;

(e) Developing and delivering curricula in universities and other training institutions;

(f) Making taxonomic education and curricula more relevant, popular and enjoyable;

(g) Training new taxonomists;

(h) Ensuring facilities and networks include personnel with project management, grant preparation, human resource and business skills, and developing training links to ensure this is the case;

(i) Ensuring facilities and networks include personnel with appropriate leadership and conflict resolution skills;

(j) Using opportunities for training to increase personal effectiveness, both in networks and for focal points;

(k) Implementing CEPA activities;

(l) Enhancing collaboration and exchange, for example on the tracking of invasive alien species;

(m) Working with GTI focal points to identify broader training opportunities.

34. For the sixth strategic element—"science: sustainably maintain and enhance taxonomic science skills and knowledge base to enable responsiveness to emerging needs"—activities identified by the two workshops are for taxonomists and taxonomic institutions to:

(a) Support and strengthen existing collections, institutions and networks;

(b) Generate interest in taxonomy as a science and encourage people to join the discipline, find mechanisms and incentives for employing taxonomists;

(c) Develop and improve training programmes and curricula;

(d) Develop mechanisms for linking taxonomists to end users;

(e) Complete the catalogue of life;

(f) Adopt new technologies/techniques; and

(g) Establish regional coordination.

Organizations and initiatives which have so far stated a commitment to undertake activities to meet this element are listed in annex I below.

35. To carry out these activities several specific actions by individuals, institutions and initiatives are needed, including:

(a) Publicizing the value of sound science for socio-economic returns;

(b) Keeping abreast of funds available for work in taxonomic institutions in other countries;

(c) Advocating for and mobilizing funds for research;

(d) Creating a database of case studies to support advocacy; and

(e) Establishing and demonstrating how the catalogue of life meets user needs.

36. For the seventh strategic element—"taxonomic information: improve access to and exchange of taxonomic information and products"—activities identified by the two workshops are for taxonomists and taxonomic institutions to:

(a) Decrease publication time for taxonomic works;

(b) Improve accessibility of publications;

(c) Develop and link databases of taxonomic information;

(d) Improve access to specimens and data;

(e) Exploit appropriate information technology;

(f) Improve access and communication among experts;

(g) Improve transfer and interpretation of taxonomic products from providers to users;

(h) Establish regional coordination.

Organizations and initiatives that have so far stated a commitment to undertake activities to meet this element are listed in annex I below.

37. To carry out these activities several specific actions by individuals, institutions and initiatives are needed, including:

(a) Streamlining existing publications procedures and develop and encourage electronic publishing;

(b) Establishing new, and making more effective use of existing, discussion forums;

(c) Working to overcome language barriers;

(d) Improving access to *ex situ* taxonomic collections;

(e) Actively seeking and including traditional knowledge to enhance information, bearing in mind issues relating to intellectual property rights;

(f) Engaging with workers across the Convention's thematic areas and cross-cutting issues in terms of product format and placement;

(g) Developing partnerships between taxonomists and users to ensure appropriate format for products;

(h) Optimizing networking and sharing of information by standardizing metadata;

(i) Ensuring nodes of GTI, the clearing-house mechanism, GBIF, GISP and other appropriate initiatives able to communicate and collaborate electronically;

(j) Ensuring portal systems for information are compatible between different initiatives, such as the GISP, GBIF and the clearing-house mechanism; and

(k) Developing a system for the automatic provision of taxonomic name changes to users.

38. For the eighth strategic element—"timeliness: accelerate the full taxonomic cycle: discovery, description, determination and dissemination"—activities identified by the two workshops are for taxonomists and taxonomic institutions to:

(a) Improve and develop new tools and technologies in taxonomic research;

(b) Improve response times—provide quicker and more accurate identification and description;

(c) Examine new approaches to components of the taxonomic cycle and the cycle in total;

(d) Establish regional coordination.

Organizations and initiatives that have so far stated a commitment to undertake activities to meet this element are listed in annex I below.

39. To carry out these activities several specific actions by individuals, institutions and initiatives are needed, including:

(a) Identifying and addressing bottlenecks in the taxonomic cycle;

(b) Improving rates of discovery;

(c) Tailoring research and products to fit user needs;

(d) Promoting electronic instead of hard-copy publishing, where appropriate;

(e) Reducing costs of tools, for example software;

(f) Seeking new areas of application requiring faster responses, e.g. environmental impact assessments; and

(g) Developing standardized taxonomies/concordances.

40. For the ninth strategic element—"resourcing: access and mobilize resources (to ensure resources are available for production of appropriate products)"—activities identified by the two workshops are for taxonomists and taxonomic institutions to:

(a) Identify new resources via new areas of application (e.g. trade; expanding ecotourism products to new groups);

(b) Enhance skills/institutional capacity in writing and managing successful proposals;

(c) Improve communication skills;

(d) Improve media relation skills;

(e) Develop co-funding partnerships based on end-user needs (e.g. with GBIF and IUCN);

(f) Assist with workshops aimed at developing project proposals for funding;

(g) Establish regional support and coordination.

Organizations and initiatives that have so far stated a commitment to undertake activities to meet this element are listed in annex I below.

41. To carry out these activities specific actions by individuals, institutions and initiatives are needed, including:

(a) Ensuring applications for funding meet national and international policies where appropriate;

(b) Ensuring applications for funding meet donor remits and interests;

(c) Ensuring funding applications to the GEF stress support for and engagement with thematic areas and cross-cutting issues under the Convention on Biological Diversity;

(d) Entrenching existing funding lines within institutions and Governments;

(e) Lobbying to redirect government resources for underpinning science;

(f) Exploring private industry applications;and

(g) Developing a case-study database of successful applications and making freely it accessible.

42. A number of actions are significant for all of the elements, including improving digital access to information, establishing or improving regional coordination and the need for action on both an individual and an institutional basis.

43. The participants agreed on the importance of developing targets for activities under the GTI.

44. Among the next steps agreed by the participants in Paris is that a workshop should be held on mobilizing the financial and other resources to implement the Strategic Plan with particular emphasis on establishing and meeting the needs of particular end-users within thematic areas and cross-cutting issues of the Convention. The meeting will focus on one or more particular themes or issues, namely corals (marine and coastal biodiversity), invasive alien species or pollinators (International Pollinators Initiative). Participants will include representatives of appropriate taxonomic institutions and networks, representatives of key initiatives and institutions in the user communities, and the GEF, NSF and other interested funders. The aim will be to jointly build an action plan with realistic and necessary targets, to ensure appropriate taxonomic capacity and output to meet user needs in these sectors. The Smithsonian Institute has offered to host the meeting.

### *C. Call for involvement in implementing the GTI programme of work*

45. As a response to the call for action in promoting and implementing the Programme of Work made by the Conference of the Parties in decision VI/8 a number of organizations and initiatives have taken action or committed themselves to global partnerships in doing so, including: BioNET-INTERNATIONAL, UNESCO, GBIF, Species 2000 Asia/Oceania, IUCN, WFCC, GISP, CABI-Bioscience, the Smithsonian Institution, ITIS, Species 2000, ICIPE, The Natural History Museum (London), The Royal Botanical Gardens Kew, University of Amsterdam. Numerous other organizations have expressed a desire to work with the GTI. All other interested organizations are urged to contact the Executive Secretary.

### *D. Regional networks to aid the Parties in their taxonomic needs in implementing the Convention on Biological Diversity*

46. Decision VI/8 calls for regional networks to be set up to aid the Parties in their taxonomic needs in their implementation of the Convention on Biological Diversity, while also building on existing initiatives, institutions and networks.

47. EASIANET, the eighth technical cooperation network for taxonomic capacity building affiliated to BioNET-INTERNATIONAL, was set up with formal government endorsement from China, Japan, Mongolia, the Republic of Korea and the Democratic People's Republic of Korea in 2002. Following the UNDP rules for technical cooperation networks, the network is now formally operational. The formulation document on which government approval was based explicitly stated the objectives of the network in terms of implementation of the Convention on Biological Diversity.

48. NAFRINET, the ninth technical cooperation network for taxonomic capacity-building affiliated to BioNET-INTERNATIONAL, was set up with formal government endorsement from Egypt, Morocco and Algeria in February 2003. Following the UNDP rules for technical cooperation networks, the network is now formally operational and will focus on implementing the Global Taxonomy Initiative by building taxonomy to meet priority user-needs in the region. The work plan agreed at a regional workshop in May 2002 benefited from the inputs of a number of regional programmes including Euro+Med PlantBase, FAO, IUCN-WESCANA, the Global Taxonomy Initiative-Convention on Biological Diversity and others. Further endorsements are anticipated from the Governments of the Libyan Arab Jamahiriya, Mauritania and Tunisia.

49. A formulation workshop was held in October 2002 in Venezuela for representatives of taxonomic institutions in the Andean countries—Bolivia, Colombia, Ecuador, Peru and Venezuela. At this workshop a document was agreed that delegates were to take back to their governments with a view to obtaining formal endorsement for ANDINONET, a technical cooperation network for taxonomic capacity-building focused on implementing the Global Taxonomy Initiative by building taxonomy to meet priority user-needs in the region. The Government of Venezuela has endorsed the nascent network.

### *E. World Summit on Sustainable Development*

50. As noted above, delegates at the Third Global Taxonomy Workshop in South Africa sent a statement to the World Summit on Sustainable Development regarding the Global Taxonomy Initiative, committing themselves to working with Governments and civil society to help provide the essential taxonomic basis for sustainable development, and, through the World Summit, requesting world Governments and relevant international organizations to: recognize the essential role and contribution of taxonomy to sustainable development; support taxonomic institutions to rapidly document the biodiversity which forms the basis of sustainable human livelihoods; promote the necessary linkages between taxonomic centres and civil society; and Build adequate capacity in all regions for taxonomy to play this essential role (see annex II below).

51. The World Summit, in paragraph 44 (s) of its Plan of Implementation, included the promotion of the implementation of the programme of work on the Global Taxonomy Initiative as one of the actions required to secure a "more efficient and coherent implementation of the three objectives of the Convention and the achievement by 2010 of a significant reduction in the current rate of loss of biological diversity".

*Annex I*

## PARTNER COMMITMENTS

A sample of partner commitments[1] to a strategy for delivering taxonomic capacity and products needed by users including those in the following sectors: agriculture; forestry; environment managers; conservationists; policy and decision makers; indigenous and local communities; private sector (national and multinational); publicly-owned companies; ecotourism; biosecurity; biosafety; Access and benefit sharing; bioindicators; biotechnology and health issues (including emerging diseases). Many of the partners listed will be taking action at some level in most if not all areas; although only the largest components of their undertaking are listed.

| ***Strategy element*** | ***Actions identified by partners at the workshops*** | ***Partners committed to date*** |
|---|---|---|
| **1. End-user focus:** Meet stakeholder needs. | 1. Carry out needs assessments, including identifying full range of stakeholders and users;<br>2. Incorporate market research techniques in assessing stakeholder needs, including methods of ensuring stakeholder take-up of taxonomic products;<br>3. Establish discussion fora;<br>4. Form partnerships with users;<br>5. Establish regional coordination;<br>6. Improve stabilisation of names and develop concordances between different classifications;<br>7. Increase the rate at which specimens are identified and new species described;<br>8. Sharing of biodiversity data with developing country end-users;<br>9. Make taxonomic products more relevant to non-taxonomic issues;<br>10. Assist with delivery of products;<br>11. Include feedback on products from users and 'lessons learned' in projects. | 1. GBIF, GISP, ICIPE, NHM, UNESCO, WFCC<br>2. –<br>3. GBIF, IUCN<br>4. CCC, GBIF, GISP, ICIPE, IPPC, ITIS, IUCN, RBGK, SP2000, UNESCO<br>5. BioNET LOOPs<br>6. GBIF, ITIS, NHM, RBGK, SP2000<br>7. GBIF, RBGK<br>8. CCC, ENBI, NHM, RBGK<br>9. ABRS, GBIF, GISP, ICIPE, ITIS, RBGK, SPP, SP2000<br>10. ABRS, GISP, SPP, UNESCO, WFCC<br>11. GBIF, GISP, IUCN |

[1] Full details of partner commitments made to date will be included in a forthcoming report of the workshop to be prepared by BioNET-INTERNATIONAL

| *Strategy element* | *Actions identified by partners at the workshops* | *Partners committed to date* |
|---|---|---|
| **2. Political partnership:** Generate effective political and multi-sectoral commitment to fulfil national and international obligations. | 1. Establish regional coordination;<br>2. Work with CBD and other conventions and related UN bodies;<br>3. Participate in global initiative on biodiversity communication, education and public awareness (CEPA);<br>4. Raise awareness through Interim Commission on Phytosanitary Measures regarding need for support to taxonomy;<br>5. Participate in bodies reporting to government on biodiversity issues;<br>6. Raise profile of taxonomy with key sectors of society, including policy and decision makers and champion taxonomy nationally and regionally;<br>7. Engage decision makers;<br>8. Conduct media campaigns;<br>9. Develop education programmes. | 1. BioNET LOOPs<br>2. ABRS, CCC, GBIF, GISP, IUCN, SPP, UNESCO<br>3. UNESCO<br>4. IPPC<br>5. ABRS, CCC, GBIF, GISP, ICIPE, IUCN, RBGK<br>6. ABRS, GBIF, GISP, ICIPE, IUCN, NHM, RBGK, SPP, SP2000, UNESCO, WFCC<br>7. ABRS, CCC, GBIF, GISP, ICIPE, IUCN, RBGK, UNESCO<br>8. GBIF<br>9. CCC, GBIF, NHM, UNESCO |
| **3. Global partnership:** Enhance collaboration, cooperation and partnerships, building to global scales. | 1. Improve effectiveness of national focal points;<br>2. Drive pro-activity of groups, networks and societies in linking together;<br>3. Promote Access and Benefit-sharing for inclusiveness of all;<br>4. Strengthen networking between institutes, individuals and countries;<br>5. Increase collaboration with BioNET-INTERNATIONAL LOOPs;<br>6. Build on the collaboration of CBD and IPPC;<br>7. Establish regional coordination. | 1. GBIF, NHM<br>2. ABRS, CCC, GBIF, IUCN, NHM, SPP, UNESCO<br>3. GBIF, IUCN, RGBK, WFCC<br>4. CETAF, GBIF, IUCN, NHM, SPP, UNESCO<br>5. UNESCO, WFCC<br>6. GISP, IPPC,<br>7. BioNET LOOPs |
| 4. **Awareness and action:** Improve access to and analysis of policy-level information within the *taxonomic community*. | 1. Develop and sustain awareness of development programme processes and objectives;<br>2. Develop and sustain awareness of NBSAPs ;<br>3. Develop and sustain awareness of relevant Convention COP decisions, including on Thematic Areas, Cross-cutting Issues as well as the GTI;<br>4. Develop and sustain awareness of donor policy backgrounds;<br>5. Analyze information obtained to relate taxonomic output to development objectives;<br>6. Contribute to harmonising the format of national reports under various conventions;<br>7. Promote support to taxonomy as it relates to phytosanitary issues of National Plant Protection Organizations (NPPOs); | 1. ABRS, GISP, IUCN, WFCC<br>2. IUCN, WFCC<br>3. ABRS, GISP, NHM, IUCN, RBGK, WFCC<br>4. GISP, IUCN, WFCC<br>5. GISP, IUCN, WFCC<br>6. IUCN<br>7. ABRS, GISP, IPPC<br>8. IPPC |

| *Strategy element* | *Actions identified by partners at the workshops* | *Partners committed to date* |
|---|---|---|
| | 8. Liase through International Phytosanitary Portal (in future);<br>9. Build awareness of taxonomic networks among Regional Plant Protection organizations;<br>10. Establish regional coordination | 9. BioNET LOOPs<br>10. BioNET LOOPs |
| **5. Capacity building:** Build human and infrastructural capacity to meet sustainable development needs. | 1. Develop long-term strategy for sustaining capacity<br>2. Develop capacity within current structures and processes;<br>3. Identify and include new elements, structures and processes;<br>4. Improve access to new information technologies<br>5. Access and mobilise resources<br>6. Assist in development of curricula in tertiary institutions<br>7. Pursue current activities in relation to training in taxonomy and parataxonomy<br>8. Help assess taxonomic needs assessments for NPPOs using "Phytosanitary Capacity Evaluation"<br>9. Support advanced training in taxonomy, curation and other relevant disciplines<br>10. Establish Regional Biodiversity Centres based on existing infrastructure<br>11. Establish regional coordination | 1. CCC, GBIF, GISP, IUCN, RBGK, UNESCO<br>2. ABRS, CABI, GBIF, GISP, IUCN, NHM, SPP, UNESCO, WFCC<br>3. GBIF, GISP, UNESCO<br>4. GBIF, GISP, RBGK<br>5. GBIF, GISP<br>6. UNESCO<br>7. ABRS, UNESCO<br>8. IPPC<br>9. CABI, University of Amsterdam, National Herbarium (Netherlands),<br>10. CABI, ICIPE, WFCC<br>11. BioNET LOOPs |
| **6. Science:** Sustainably maintain and enhance taxonomic science skills and knowledge base to enable responsiveness to emerging needs. | 1. Support and strengthen existing collections, institutions and networks;<br>2. Generate interest in taxonomy as a science and encourage people to join discipline; find mechanisms and incentives for employing taxonomists;<br>3. Develop and improve training programmes and curricula;<br>4. Develop mechanisms for linking taxonomists to end users;<br>5. Complete the catalogue of life;<br>6. Adopt new technologies and techniques;<br>7. Establish regional coordination. | 1. ABRS, CCC, GBIF, NHM, RBGK, UNESCO, WFCC<br>2. IUCN, NHM, RBGK, UNESCO, WFCC<br>3. CCC, GBIF, GISP, NHM, UNESCO, WFCC<br>4. GBIF, GISP, IUCN, RBGK, WFCC<br>5. ABRS, GBIF, ICIPE, RBGK, SPP, SP2000<br>6. GBIF, RBGK<br>7. BioNET LOOPs |

| *Strategy element* | *Actions identified by partners at the workshops* | *Partners committed to date* |
|---|---|---|
| **7. Taxonomic information:**<br>Improve access to and exchange of taxonomic information and products.<br><br>*[This is one of GBIF's major goals]* | 1. Decrease publication time for taxonomic works;<br>2. Improve accessibility of publications;<br>3. Develop and link databases of taxonomic information;<br>4. Improve access to specimens and data;<br>5. Exploit appropriate information technology;<br>6. Improve access and communication among experts;<br>7. Improve transfer and interpretation of taxonomic products from providers to users;<br>8. Establish regional coordination. | 1. ABRS, GBIF, SPP, UNESCO<br>2. ABRS, CCC, *Fauna Europea*, GBIF, NHM, RBGK, SI<br>3. ABRS, European Catalogue of Names, GBIF, ITIS, IUCN-SIS, NHM, NSF, RBGK, SP2000<br>4. ABRS, ENBI, GBIF, ITIS, IUCN, NHM, RBGK, WFCC<br>5. ENBI, ETI, GBIF, ITIS, IUCN, NHM, RBGK, SP2000, WFCC<br>6. ETI, GBIF, GISP, IUCN, SP2000, WFCC<br>7. CCC, ETI, GBIF, GISP, ITIS, RBGK, SP2000, UNESCO, WFCC<br>8. BioNET LOOPs |
| **8. Timeliness:**<br>Accelerate the full taxonomic cycle: discovery, description, determination and dissemination. | 1. Improve and develop new tools and technologies in taxonomic research;<br>2. Improve response times – provide quicker and more accurate identification and description;<br>3. Examine new approaches to components of the taxonomic cycle and the cycle in total;<br>4. Establish regional coordination. | 1. ETI, GBIF, NHM, RBGK, WFCC<br>2. ABRS, ETI, GBIF, NHM, SPP, WFCC<br>3. ABRS, UNESCO, WFCC<br>4. BioNET LOOPs |
| **9. Resourcing:**<br>Access and mobilize resources ( ensure resources are available for production of appropriate product) | 1. Identify new resources via new areas of application (e.g. trade; expand ecotourism products to new groups);<br>2. Enhance skills/institutional capacity in writing/managing successful proposals;<br>3. Improve communication skills;<br>4. Improve media relation skills;<br>5. Develop co-funding partnerships based on end-user needs;<br>6. Assist with workshops aimed at developing project proposals for funding;<br>7. Establish regional support and coordination. | 1. CCC<br>2. CCC, GISP, NHM<br>3. -<br>4. NHM<br>5. ABRS, GBIF, GISP, NHM, RBGK, SPP, WFCC<br>6. GISP, UNESCO, WFCC<br>7. BioNET LOOPs |

***Acronyms used in Annex I***

ABRS - Australian Biological Resources Study
BioNET LOOPs – Locally Owned and Operated Partnerships of BioNET INTERNATIONAL

CABI – CAB International
CCC – Coral Cay Conservation
CETAF - Consortium of European Taxonomic Facilities
ENBI – European Network for Biodiversity Information
ETI – Expert Center for Taxonomic Identification
GBIF - Global Biodiversity Information Facility
GISP – Global Invasive Species Programme
NHM – The Natural History Museum (London)
ICIPE - The International Centre of Insect Physiology and Ecology
IPPC – International Plant Protection Convention
ITIS – Integrated Taxonomic Information System
IUCN - The World Conservation Union
NSF – National Science Foundation (USA)
RBGK – Royal Botanic Gardens, Kew
SI – Smithsonian Institution
SPP – Species Plantarum Project
SP2000 – Species 2000
UNESCO – United Nations Educational, Scientific and Cultural Organization
WFCC – World Federations of Culture Collections

*Annex II*

**STATEMENT TO THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT FROM THE THIRD GLOBAL TAXONOMY WORKSHOP, PRETORIA, SOUTH AFRICA, 8-12 JULY, 2002**

Taxonomy is the science of discovery, identification, naming and classification of life on earth. Taxonomy thus allows for the documentation, understanding and knowledge dissemination of the Earth's estimated 10 million-plus species and provides the scientific basis for conservation and sustainable use of biodiversity, sustainable agriculture, forestry and all other forms of natural resource use. Taxonomy is therefore essential for sustainable human livelihoods, for example through maintaining water supply from protected landscapes, pollination, control of pests and diseases, trade quarantine, and innumerable other services which contribute to food security and human welfare.

Recognizing that taxonomy is the science of documenting all plant, animal and microbial life-forms which comprise the biological diversity on Earth, on which humanity depends and which can positively or adversely affect human health and livelihoods;

Further recognizing that the diverse life-forms referred to are becoming extinct at an unprecedented rate, threatening the integrity of all life on Earth, and that we have so far only managed to document some 10 percent of estimated biodiversity, and the urgent need to document the unknown portion;

Recalling that the majority of the world's Governments have signed the Convention on Biological Diversity (CBD) and Agenda 21 at the Rio 'Earth Summit' in 1992 to better conserve, sustainably use, and equitably share the benefits arising from the use of biological resources;

Noting that the Parties to the Convention on Biological Diversity have adopted as a programme of work the Global Taxonomy Initiative (GTI) to build the necessary taxonomic capacity to support, amongst other things, sustainable development and poverty reduction:

Members of the world's taxonomic institutions and other interested parties, from 95 countries and representing all regions, met at the 3rd Global Taxonomy Workshop in Pretoria, 8-12 July 2002, and committed themselves to working with governments and civil society to help provide this essential basis for sustainable development.

The participants of the 3rd Global Taxonomy Workshop, through the WSSD, request world governments and relevant international organizations to:

§ Recognise the essential role and contribution of taxonomy to sustainable development;
§ Support taxonomic institutions to rapidly document the biodiversity which forms the basis of sustainable human livelihoods;
§ Promote the necessary linkages between taxonomic centres and civil society; and
§ Build adequate capacity in all regions for taxonomy to play this essential role.

Furthermore, recognizing the Special Programme for Africa at the World Summit on Sustainable Development and the recent creation of NEPAD, the participants urge African governments to ensure that these recommendations are fully incorporated in the future work programmes of these new initiatives.

*Annex III*

**PARTICIPANTS IN THE THIRD GLOBAL TAXONOMY WORKSHOP**

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| Edward | Sakufiwa | Ministry of Agriculture and Cooperatives | Zambia |
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*Annex III*

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| Frank A. Bisby | Species 2000 | UK |
| Pamela Harling | Species 2000 | UK |
| Alastair Taylor | UK-GTI Focal Point | UK |
| Jamie K. Reaser | GISP | USA |
| Michael A. Ruggiero | ITIS / USGS / NIABIN | USA |
| Crispen Wilson | Conservation International | USA |

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