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PROGRAMME OF WORK ON AGRICULTURAL BIOLOGICAL DIVERSITY

Note by the Executive Secretary

EXECUTIVE SUMMARY

1. The present note contains a report by the Executive Secretary on progress made in initiating the multi-year work programme on agricultural biological diversity, in response to decision III/11 of the Conference of the Parties. In preparing the note, the Executive Secretary has drawn upon the contributions provided by Parties and Governments and a preliminary progress report prepared by the Food and Agriculture Organization of the United Nations (FAO) on ongoing instruments and activities of international and regional organizations, and has referred to relevant intergovernmental processes.

2. The present report recalls the mandate outlined in decision III/11 and refers to the objectives of the Convention, other relevant decisions of the Conference of the Parties and recommendations of the Subsidiary Body for Scientific, Technical and Technological Advice (SBSTTA). It reports on the review of ongoing activities and existing instruments in the area of agricultural biological diversity and presents an overview of the initial findings of the review at international level, including areas of focus of ongoing work. It identifies the work that is needed, with the scientific collaboration and input of key partners, in order to complete the review, to identify and set priorities and to develop the first phase of the multi-year work programme.

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* UNEP/CBD/COP/4/1

I. INTRODUCTION

3. In its decision III/11, the Conference of the Parties, decided to establish a multi-year programme of activities on agricultural biological diversity, 1/ aiming, first, to promote the positive effects and mitigate the negative impacts of agricultural practices on biological diversity in agricultural ecosystems and their interface with other ecosystems; secondly, to promote the conservation and sustainable use of genetic resources of actual or potential value for food and agriculture; and, thirdly, to promote the fair and equitable sharing of benefits arising out of the utilization of genetic resources. In support of ongoing and new policies, programmes and plans in this field, it further decided on the preliminary work to be conducted under the work programme.

4. In paragraph 2 of decision III/11, the Conference of the Parties requested the Executive Secretary to invite FAO, in collaboration with other relevant organizations, to identify and assess relevant ongoing activities and existing instruments at the international level, choosing among the thematic areas in annex 2 of the decision, and to report back on a phased basis to the Conference of the Parties.

5. In paragraphs 4 and 5 of the same decision, and with reference to the thematic areas in its annex 2, the Conference of the Parties requested Parties to identify and assess relevant ongoing activities and existing instruments at the national level, and further to identify issues and priorities that needed to be addressed at the national level, and to report back to the Conference of the Parties.

6. Paragraph 7 of the decision further requested the Executive Secretary, in close collaboration with FAO, as appropriate, to report the results of the above initiatives, together with advice from SBSTTA, as a basis for setting priorities by the Conference of the Parties for further work.

7. Accordingly, the present report has been prepared to indicate progress made in implementing decision III/11, taking into account contributions by Parties and countries and by international and regional organizations and bodies in regard to their review of ongoing activities and existing instruments on agricultural biodiversity.

8. Reference is made to SBSTTA recommendation III/4, contained in the annex to the report of the third meeting of SBSTTA (UNEP/CBD/COP/4/2) (see agenda item 4), regarding its review of ongoing activities on agricultural biological diversity, based on its consideration of the note by the Executive Secretary on the review of ongoing activities on agricultural biological diversity (UNEP/CBD/SBSTTA/3/6). SBSTTA welcomed the progress made in initiating the identification and assessment process and, in particular, the focus on farming systems and agro-ecosystems approaches provided through

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1/ "Agricultural biological diversity" is hereafter referred to as "agricultural biodiversity" and refers, *inter alia* to activities in the fields of agriculture, animal husbandry, aquaculture and agroforestry including microbial resources and the management of agro-ecosystems, wildlife and protected areas.

support by FAO and the Government of Netherlands (see document UNEP/CBD/SBSTTA/3/Inf.10). It requested the completion of this initial review well ahead of the next SBSTTA meeting.

II. ONGOING COLLABORATION AND COORDINATION

A. Collaboration with FAO

9. The Executive Secretary reported to the third meeting of SBSTTA on collaboration with FAO in documents UNEP/CBD/SBSTTA/3/6 and UNEP/CBD/SBSTTA/3/Inf.21. The outputs included a memorandum of cooperation signed between the two bodies in September 1997, and a joint Convention on Biological Diversity-FAO work programme intended to contribute to the work programme on agricultural biodiversity established by decision III/11.

10. Cooperation between FAO and the Secretariat was facilitated by the Government of the Netherlands through its support for a workshop on farming systems approaches for the conservation and sustainable use of agricultural biological diversity and agro-ecosystems, held in Rome in June 1997. The results, recommendations and technical background documents were provided to SBSTTA in documents UNEP/CBD/SBSTTA/3/Inf.10 and UNEP/CBD/SBSTTA/3/Inf.20. The workshop also resulted in the signing by FAO, the Secretariat and the Government of the Netherlands of an aide-mémoire pledging further support for the conservation and sustainable use of agricultural biodiversity, including a second joint technical workshop to be held in 1998. SBSTTA, in its recommendation III/4, welcomed the focus on farming systems and ecosystems provided by the workshop.

11. The Executive Secretary also reported to SBSTTA on the cooperation that has been developed between the Convention and the FAO Commission on Genetic Resources for Food and Agriculture (CGRFA) (UNEP/CBD/SBSTTA/3/6). In accordance with resolution 3 of the Nairobi Final Act and decisions II/15 and III/11 of the Conference of the Parties, the CGRFA report to the third meeting of SBSTTA outlined progress being made in the ongoing negotiations for the adaptation of the International Undertaking on Plant Genetic Resources to bring it into harmony with the Convention. It also reported on the implementation of the Global Plan of Action for the Conservation and Sustainable Utilisation of Plant Genetic Resources and the development of the Global Strategy for the Management of Farm Animal Genetic Resources. (see document UNEP/CBD/SBSTTA/3/Inf.8).

12. SBSTTA in its recommendation III/4 noted the progress made by CGRFA at its seventh session in May 1997, and recalled the importance to the Convention of the revision of the International Undertaking. The Secretariat attended the fourth extraordinary session of CGRFA in December 1997 and witnessed the progress made in consolidating a complete negotiating text and furthering deliberations on issues of access and benefit-sharing. The fifth extraordinary session will take place from 8 to 12 June 1998 and the Commission's Inter-Governmental Technical Working Group on Animal Genetic Resources will meet in September 1998.

B. Collaboration with the Global Environment Facility

13. The Secretariat provided inputs to the secretariat of the Global Environment Facility (GEF) for the revision of the Operational Criteria for Enabling Activities and Operational Programmes and for the development of an operational policy framework aiming at more effective consideration of agricultural biodiversity by the financial mechanism.

14. With regard to paragraph 22 of decision III/11, it is noted that GEF, the financial mechanism of the Convention, has supported a number of projects addressing agricultural biodiversity, many of which also address one or more other focal areas. Nonetheless, it is recognized that Parties require further support in developing and implementing their national strategies, programmes and plans for the conservation and sustainable use of agricultural biodiversity, as outlined, in particular, in paragraphs 15, 16 and 17 of decision III/11.

15. Through its participation in an expert group workshop on the sustainable use of biological diversity, organized by the GEF Scientific and Technical Advisory Panel (STAP) in Malaysia in November 1997, the Secretariat further collaborated with the GEF secretariat and the implementing agencies (World Bank, UNEP and UNDP) in the development of guidance to GEF for support to sustainable use initiatives. The workshop considered sustainable use in the context of arid and semi-arid, marine and coastal, forest and mountain ecosystems.

C. Collaboration with Parties and countries

16. The Executive Secretary has established a roster of experts on agricultural biodiversity on the basis of submissions by Governments of names of experts and relevant specializations. As of 31 December 1997, 70 countries had submitted names of some 357 experts, a significant number having expertise in the area of plant sciences or plant genetic resources. This roster is open to continual review and updating by Parties and Governments and will be used in a transparent and effective manner, in coordination with the other thematic rosters, in furthering the work of the Convention.

III. DEVELOPMENT OF THE AGRICULTURAL BIODIVERSITY WORK PROGRAMME

A. Review of activities and instruments at the national level

17. In accordance with paragraphs 4 and 5 of decision III/11, the Executive Secretary invited contributions from Parties and Governments on relevant ongoing activities and existing instruments at the national level and the identification of issues and priorities. An initial overview of the findings was presented to SBSTTA based on inputs by Belarus, Canada, Greece, Latvia, Thailand, the United States of America and Venezuela (UNEP/CBD/SBSTTA/3/Inf.9). Further inputs have since been provided by Canada, Finland, the Netherlands, New Zealand, Norway, Peru, the Republic of Korea and Switzerland (see annex I below).

18. The fourteen national contributions on agricultural biodiversity are very diverse in content and scope, ranging from short progress reports, referring directly to the thematic areas in annex 2 to decision III/11, to comprehensive reports containing detailed sectoral assessments, for instance, on animal genetic resources or the state of plant genetic resources for food and agriculture. No attempt has been made in this note to present an update of the findings at national level. Such an analysis will, however, be provided at the fourth meeting of SBSTTA.

19. Several countries have included substantive information on the conservation and sustainable use of agricultural biodiversity in their reports on national biological diversity strategies and action plans submitted in accordance with decisions II/17 and III/9 of the Conference of the Parties on implementation of Articles 6 and 8 of the Convention (see UNEP/CBD/COP/4/11). This information could be helpful in work to complete the overall findings of the review to be presented to SBSTTA.

B. Case-studies

20. In accordance with paragraph 11 and annex 3 of decision III/11, some countries provided or proposed case-studies on the two initial issues identified by SBSTTA. The case-studies submitted reflect SBSTTA recommendation III/4, which agreed to expand the scope of the theme on soil micro-organisms important to agriculture to all soil biota.

21. The Government of Canada provided three relevant case-studies on soil biota. The first is Worm Watch (AAFC), a nationwide programme aiming to raise awareness of the importance of soil ecology to sustaining agriculture, the environment and humankind; the second, a technical paper on microbial biodiversity and grass seed cropping systems, illustrating the beneficial effects of grass cropping and no-till seeding on soil biodiversity and sustainable cropping systems; and the third, a paper on the biodiversity of mycorrhizal fungi (AAFC) showing the potential use and benefits of arbuscular mycorrhizal fungi (a symbiotic association between soil fungi and plant roots). A case-study was also provided on the biodiversity of pollinators in Canadian agriculture.

22. The Governments of Latvia, Belarus and the United States of America provided information on pollinators. The United States provided a brief report, based on a literature survey of some 270 articles and providing recommendations for the promotion of best conservation practices, technologies and educational programmes either to maintain or to promote the re-establishment of pollinators.

23. The United Nations Environment Programme (UNEP) has proposed further case-studies to fill knowledge gaps and improve understanding of, first, rhizobium-legume symbiosis and factors affecting biological nitrogen fixation; and, second, the relationship between pollinators and biological diversity. These will complement the national case-studies and should also be made available through the clearing-house mechanism and to SBSTTA.

24. A case-study was submitted by the Government of Switzerland on a financial incentive measure in Swiss agriculture for the conservation and sustainable use of agricultural biodiversity, in particular wild species (see document UNEP/CBD/COP/4/18).

25. The provision of additional case-studies on pollinators and on soil biota important to agriculture by countries and organizations would enable SBSTTA, as agreed in paragraph 12 of decision III/11, to conduct a meaningful assessment of the lessons learned on the two topics. As appropriate, a mechanism could be established to enable scientific collaboration and inputs to assist SBSTTA in this process.

C. Review of activities and instruments at international and regional levels

26. In accordance with paragraph 2 of decision III/11, following the requests of the Executive Secretary and of the consultations between FAO and the Convention Secretariat in June 1997, and further to the initial reports by organizations that were provided to SBSTTA 2/ (UNEP/CBD/SBSTTA/3/Inf.6), FAO invited a wide range of international and regional organizations to report on their ongoing activities and existing instruments related to agricultural biodiversity, including priorities for future development of the multi-year programme; proposals for case-studies on the issues identified; and indications of the organizations' willingness to implement the case-studies and participate in the implementation of decision III/11. Attention was also drawn to paragraphs 17 and 22 of decision III/11.

27. As a result, further contributions have been received from nine United Nations bodies, 10 international and regional intergovernmental bodies, nine non-governmental organizations and 13 Consultative Group on International Agricultural Research (CGIAR) centres.

28. The contributions that have been reviewed in the preparation of this progress report are as follows (See annex 2 for list of acronyms):

(a) United Nations system and intergovernmental bodies. CAB International, Commonwealth Secretariat, GEF, the International Fund for Agricultural Development (IFAD), the Organisation for Economic Cooperation and Development (OECD), the Office International des Epizooties (OIE), UNEP, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Industrial Development Organization (UNIDO), the International Union for the Protection of New Varieties of Plants (UPOV), the World Bank and the World Trade Organization (WTO) provided inputs in addition to information made available by FAO and the joint FAO/IAEA Division. The World Health Organization (WHO), the United Nations Conference on Trade and Development (UNCTAD) and the World Intellectual Property Organization (WIPO) indicated that they have no ongoing activities of direct relevance to the survey;

(b) International agricultural research centres. Reports were provided by 13 of the CGIAR centres (the International Centre for Tropical Agriculture (CIAT), the International Potato Centre (CIP), the Centre for

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2/ Previously submitted to the seventh session of CGRFA.

International Forestry Research (CIFOR), the International Centre for Agricultural Research in the Dry Areas (ICARDA), the International Centre for Living Aquatic Resources Management (ICLARM), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the International Irrigation Management Institute (IIMI), the International Livestock Research Institute (ILRI), the International Institute of Tropical Agriculture (IITA), the International Food Policy Research Institute (IFPRI), the International Plant Genetic Resources Institute (IPGRI), the International Rice Research Institute (IRRI), and the International Service for National Agriculture Research (ISNAR) provided an overview of the CGIAR system-wide genetic resources programme. The Asian Vegetable Research Development Centre (AVRDC) also reported as an independent international agricultural research centre;

(c) Regional organizations. African Development Bank, Nordic Gene Bank, the Southern African Development Community/Plant Genetic Resources Centre (SADC/PGRC), the Commission of the Cartagena Accord and Council of Europe submitted inputs. The Agency for Cultural and Technical Cooperation (ACCT) and the Association of South-East Asian Nations (ASEAN) reported that their work was not of direct relevance to the survey;

(d) International non-governmental organizations, private organizations and networks. Inputs were provided by the International Association of Plant Breeders for the Protection of Plant Varieties (ASSINSEL/FIS), the Botanic Gardens Conservation International (BGCI), the GAIA Foundation, the International Centre for Underutilized Crops (ICUC), the Intermediate Technology Development Group (ITDG), World Conservation Union (IUCN), World Conservation Monitoring Centre (WCMC) and the World Resources Institute (WRI), as well as interim letters by ENDA, ICSU/SCOPE, IUFRO and RAFI.

29. In screening their activities and instruments related to agricultural biodiversity, contributions of a rather broad nature were provided by some institutions. Others referred to their precise mandates and policies in this field. Most organizations that responded to the survey are positive towards biological diversity and are either already active in this field or interested in being more active in the future. In some cases, the areas identified for further attention are actual priorities that have been targeted for incorporation into plans of action, whereas other organizations indicate possible areas for case-studies or options for eventual action.

30. Substantial contributions were provided by CGIAR. The 16 CGIAR centres share a mission to contribute, through research, to promoting sustainable agriculture for food security in developing countries. Their inputs reflect the centres' individual mandates: the extent to which they are commodity-oriented, and/or address research on aspects of natural resources management, technologies, policies and institutional management. The CGIAR system-wide genetic resources programme, also provided a consolidated report on CGIAR activities on plant, animal and microbial genetic resources, with a focus on ex situ and in situ conservation and sustainable use.

31. The important contributions provided by environmentally and agriculturally oriented non-governmental organizations and networks, including the private sector, reflect the importance they attribute to agricultural biodiversity, and illustrate the valuable role that such

organizations can play at policy, technical and local levels in promoting the conservation and sustainable use of agricultural biodiversity and the fair and equitable sharing of benefits.

IV. PRELIMINARY FINDINGS OF THE REVIEW OF ACTIVITIES AND INSTRUMENTS AT INTERNATIONAL AND REGIONAL LEVELS

32. The ongoing activities are distinguished at ecosystem, farming system and genetic resources level, including inter- and intra-species variation. The following types of instruments have been identified and reported upon:

(a) Policy measures and legal instruments;

(b) Programming and planning instruments;

(c) Identification, monitoring and assessment instruments;

(d) Information exchange and technology transfer instruments; and

(e) Partnerships and networks.

A. Activities

33. Parties have agreed that the ecosystem approach should be the primary framework of action under the Convention. Accordingly, the first aim of the multi-year work programme (paragraph 1 of decision III/11) is to promote the positive effects and mitigate the negative impacts of agricultural practices on biological diversity in agro-ecosystems and their interface with other ecosystems. The Conference of the Parties further recognized, in paragraphs 14 and 15 (h) of decision III/11:

(a) The need for an integrated and multidisciplinary approach to the planning and management of land resources;

(b) The need for a system approach for achieving the multiple objectives related to sustainable agriculture and rural development; and

(c) The need to integrate national strategies, programmes and plans on agricultural biodiversity with those relating to the conservation and sustainable use of other terrestrial and aquatic ecosystems.

34. Contributions by organizations that refer to the ecosystem or landscape levels address the following thematic areas from the indicative list in annex 2 of decision III/11:

(a) Integrated land resources management(1.vi);

(b) Stock of agricultural land including pressures of urbanization (1.v);

(c) Land use pressures (10);

(d) Marginal land use (1.iv);

(e) Restoration of degraded landscapes (1.vii);

(f) Wildlife habitats (4.i);

(g) Air and climate: greenhouse gas emissions, temperature and precipitation variability (5.i-ii);

(h) Traditional knowledge (8).

35. Other relevant themes reported that complement the indicative list of thematic areas of annex 2 of decision III/11 include:

(a) Sustainable agro-ecosystems;

(b) Land use change;

(c) Soil erosion control at watershed level;

(d) Impact on ecosystems and on biological diversity of introduced, invasive species;

(e) Impact on ecosystems and on biological diversity of desertification and drought.

36. Substantial work is ongoing worldwide through programmes and activities that take a comprehensive natural resources management perspective and address agricultural biodiversity at ecosystems and landscape level. Activities focus on developing and implementing strategies and techniques for integrated land resources management, for sustainable agricultural, fisheries and forestry management and for the restoration of a degraded natural resources base.

37. In the past, in many programmes and projects, emphasis was often placed on physical (land, soil and water) resources and, even when biological resources were targeted, biological diversity issues were frequently underplayed or neglected. There has also been a tendency to assign attributes to protected areas and specific agricultural systems without consideration of potential complementarities and interrelationships provided by a mosaic of land-use and management types. There is, however, increasing recognition of biological diversity issues in the principles and practice of natural resources management and land use planning. For instance, in relation to forest and protected areas, one of the criteria systematically identified for sustainable forest management in ongoing international, regional and eco-regional processes is the conservation of biological diversity at landscape or ecosystem, and inter- and intra-species levels.

38. Although land-use pressures are referred to as a major cause of biological diversity (habitat) loss there is no comprehensive picture emerging of the status and trends in different parts of the world, different agro-ecological zones, and/or different agricultural systems or land use types, in terms of the extent and severity of land-use changes and their impacts on "wild" and domesticated biological diversity important to food and agriculture and the subsequent identification of priority issues for further attention. Valuable information regarding the state of plant genetic

resources in agricultural production systems and the major causes of genetic erosion is provided in the Report on the State of the World's Plant Genetic Resources (1996). Moreover, lessons can be learned from work in the forest sector, where biological diversity issues, such as the impacts of human pressures on changes in forest cover and species loss, were explicitly addressed in the 1990 Global Forest Assessment and are being given even closer attention in the 2000 Forest Resources Assessment.

39. There has been little reporting in terms of ongoing activities and existing instruments with regard to the following areas:

(a) The development of criteria and indicators and methodologies for assessments and monitoring (over time and space) of the sustainability of different agricultural production systems;

(b) The development and use of technical guidelines for integrating agricultural biodiversity issues into natural resources management programmes;

(c) The interrelations between agriculture, land use, biodiversity and climate change, or their effects in terms of greenhouse gases, temperature and precipitation variability;

(d) The identification and valuation (actual and potential) of ecosystem functions in different agricultural systems; and

(e) An overall assessment of the impact of alien invasive species on agricultural ecosystems.

40. Contributions provided by organizations regarding their ongoing activities to support biodiversity-friendly and sustainable farming systems and agricultural practices (see paragraphs 15 (a), 15 (e) and 17 of decision III/11) refer to the following thematic areas in Annex 2 of decision III/11:

(a) Sustainable farming or cropping (1.iii);

(b) Agroforestry (11);

(c) Soil erosion control (1.i);

(d) Sustainable tillage(1.ii);

(e) Water resources: precipitation, irrigation management, sustainable use, water quality and use of farm waste (2.i-v);

(f) Wildlife: populations e.g. pollinators, nematodes, soil

(g) Micro-organisms (4.ii);

(h) Wild sources of food and wild relatives of domesticated species (7.I, 7.ii);

(i) Biocontrol organisms (4.iii);

(j) Border habitats for natural organisms beneficial to agriculture (4.iv);

(k) Farm inputs: water/energy use efficiency, input costs, pesticide use; integrated pest management (IPM); soil nutrient balance; symbiotic soil microorganisms (6.i-v)

(l) Traditional knowledge (8);

(m) Marketing conditions for agricultural products (9).

41. Other relevant themes reported that complement the indicative thematic list in annex 2 include:

(a) Sustainable farming or cropping systems including crop and livestock management practices;

(b) Aquaculture, agro-pastoral and rangeland systems;

(c) Soil and water conservation at farm/field level and soil fertility management.

42. Substantial work is continuing on the conservation and sustainable use of biological resources as an integral part of sustainable farming systems based on cropping, livestock and soil management practices. Key programmes and activities include: farming systems development and management, including integrated production systems such as agroforestry, aquaculture and agropastoral systems; and the promotion of sustainable agricultural practices, including soil and water management, crop and livestock management and the management of wildlife important to agriculture, both detrimental and beneficial.

43. Recognition is also made of the need to pay adequate attention to traditional knowledge, innovations and practices. There has, however, been little reporting so far on activities relating to the mobilization of farming communities, provision of economic incentives or promotion of benefit-sharing arrangements.

44. Important contributions have been provided by organizations with regard to their activities at genetic resources level (see paragraph 16 of decision III/11), including the conservation and sustainable use of animal, plant and microbial genetic resources and the fair and equitable sharing of benefits derived from the use of genetic resources. Contributions refer to the following thematic areas in annex 2 of decision III/11:

(a) Plant, animal and microbial genetic resources (3):

(i) In situ conservation (3.i);

(ii) Ex situ conservation (3.ii);

(iii) Role of botanical gardens and zoos (3.ii);

(iv) Sustainable use of plant and animal genetic resources (3.iv);

(b) Wild relatives of domesticated species and other wild species that are sources of food (7.i, ii); and

(c) Traditional knowledge (8).

45. Other relevant themes reported that complement the indicative list include:

(a) Introduction of exotic species and alien species eradication;

(b) Biotechnology and genetically modified organisms (GMOs/LMOs); and

(c) Access to genetic resources and the fair and equitable sharing of benefits derived from genetic resources.

46. Many organizations refer to ex situ conservation, and to the important role of gene banks, and their activities in characterizing, monitoring and assessing available biological diversity. Some organizations are working on inventories and the identification of special groups, such as threatened wild relatives of economically important species of domestic cattle and domesticated plant species and promotion of their sustainable use. In the field of biotechnology and applied and environmental microbiology, activities include capacity building, collaboration with the private sector (for instance, in bio-activity screening programmes), and advice on rights.

47. It is recognized that better appreciation is required of the actual and potential value of conserving biological diversity in situ and the importance of devising land use practices that enhance rather than destroy the richness of biological diversity and ecosystem processes. Attention is drawn to the importance of complementary strategies for the in situ and ex situ conservation of plant and animal genetic resources, in order to sustain and enhance the productivity of agricultural systems, especially those in marginal environments. It is recognized that greater effort should be made to promote the in situ conservation and sustainable use of agricultural biodiversity through support for research, development and dissemination of underutilized varieties and breeds adapted to local environments and the increased use of genetically diverse populations of crop varieties and animal breeds.

48. Several organizations reported on their ongoing programmes on soil micro-organisms important to agriculture. These organizations include CABI (soil micro-organisms in agriculture), the joint FAO/IAEA Division, and the CGIAR centres (see annex 3 of decision III/11). Similarly CABI, WCMC and OIE referred to their ongoing programmes and interest with regard to pollinators.

49. The above findings are consistent with paragraph 6 of SBSTTA recommendation III/4, by which it acknowledged the complexity of agricultural biodiversity and the breadth and scope of decision III/11 and, recognizing the importance of agricultural biodiversity in ensuring food security and sustainable development, noted the need to address ecosystems, species and genetic levels, to focus on the environment-agriculture interface and to consider linkages with other ecosystems.

B. Policy measures and legal instruments

50. With regard to policy measures, in decision III/11 the Conference of the Parties recalled its decision II/15 which recognized the special nature of agricultural biodiversity, its distinctive features and problems, needing distinctive solutions. In paragraph 15 of the same decision, the Conference of the Parties encouraged Parties to develop national strategies, programmes and plans which, inter alia:

(a) Redirect support measures which run counter to the objectives of the Convention regarding agricultural biodiversity (subparagraph 15 (b));

(b) Internalize environmental costs (subparagraph 15 (c)); and,

(c) Implement targeted incentive measures which have positive impacts on agricultural biodiversity, in order to enhance sustainable agriculture (cf. Articles 11 and 22) (subparagraph 15 (d)).

51. Most organizations reported on their activities in the development and application of policies and legal instruments relevant to promoting sustainable agriculture and the conservation and sustainable use of agricultural biodiversity. Reference was made to specific conventions, agreements and codes of conduct, the provision of advice regarding their application, as well as ongoing work to harmonize existing environmental and agricultural agreements and conventions.

52. In accordance with subparagraph 15 (l) and paragraph 23 of decision III/11, most organizations noted the importance for sustainable agriculture of relevant legislation and policies regarding the safe and rational use of pesticides and other potentially dangerous chemicals.

53. International and regional organizations noted that the application of legal agreements, and their direct and indirect impacts on agricultural biodiversity, depend upon the development of appropriate policies and strategies at national, regional and international levels. Their policy-oriented activities and programmes, include:

(a) Development of guidelines (e.g., safety in biotechnology, integrating agricultural biodiversity into action plans);

(b) Setting of priorities; and

(c) Development of strategies and programmes (e.g., national biodiversity strategies, action plans and country reports, country assistance strategies, national environmental action plans, agricultural sector reviews, etc.);

(d) Conduct of policy research, analysis and advocacy;

(e) Development of methods and tools (technical and economic.);

(f) Development of publications and education kits.

C. Programming and planning instruments and activities

54. In regard to paragraph 22 of decision III/11, the African Development Bank, the World Bank and the International Fund for Agricultural Development reported on their policy and programme support in the fields of sustainable agriculture and the conservation and sustainable use of agricultural biodiversity.

55. In accordance with Articles 6 (b) and 10 (a) of the Convention, and with regard to paragraphs 16, 19 and 20 of decision III/11, many organizations reported on their involvement in the implementation of the priority activity areas outlined in the Global Plan of Action. References were also made to the Global Strategy. FAO and CGIAR are organizing regional workshops in support of the implementation of the Global Plan of Action in early 1998, to help identify subregional priorities and to assist developing countries in project development and the identification of funding opportunities.

D. Identification, monitoring and assessment instruments

56. Identification, monitoring and assessment are addressed in paragraphs 9 and subparagraphs 15 (g), (m) and (n) of decision III/11. The World Bank was the only body to report substantively on the impact of its projects on agricultural biodiversity. It classified 361 of its projects, by rating key project activities having known or potential positive, negative or mixed effects on biological diversity, including agricultural biodiversity. The development of genetic impact statements has been proposed by funding organizations as a necessary step in the project approval (and implementation) process.

57. The assessment conducted by over 160 countries in the preparation of the State of the World Report on Plant Genetic Resources (1996) and the resulting Global Plan of Action, provides important lessons regarding the conduct of assessments as well as comprehensive information on this component of agricultural biodiversity.

E. Information exchange and technology transfer

58. Paragraphs 8, 10 and 13 of decision III/11 refer, respectively, to the Convention's clearing-house mechanism, to information exchange and to technology transfer. In this regard, and in accordance with SBSTTA recommendation III/4, the Secretariat has established contacts with FAO regarding the development of the clearing-house mechanism in the area of agricultural biodiversity, through linkages with ongoing information and data systems on genetic resources for food and agriculture. This would include access to existing databases and information management systems, including the Domestic Animal Diversity Information System (DADIS), the World Information and Early Warning System for Plant Genetic Resources (WIEWS), the World Agricultural Information Centre (WAICENT), the Global Information System on Forest Genetic Resources (REFORGEN), as well as the fish genetic resources database (FISHBASE) and the system-wide information network for genetic resources (SINGER) of CGIAR.

F. Partnerships and networks

59. Subparagraphs 15 (f), (i) and (j) of decision III/11 address the issue of partnerships and networks. Most organizations have recognized that due consideration of the human dimensions is essential in the conservation and sustainable use of agricultural biodiversity. Particular attention is drawn to the recognition, use and protection of traditional knowledge, as well as participatory processes, benefit-sharing, access to productive resources and genetic resources, incentive measures, partnerships and networks. Submissions refer to the outcome of the Madrid Workshop on Traditional Knowledge and Biological Diversity (see the report of the Workshop in document UNEP/CBD/TKBD/1/3).

60. Reports referred to many types of formal and informal, regional and global networks that they belong to or support, including:

(a) Global, regional and subregional plant genetic resources networks and crop/commodity-specific networks;

(b) The International Network of Ex Situ Collections held in trust for the benefit of the international community under the auspices of FAO;

(c) The world network of microbial resource centres (MIRCENs), the World Network of Biosphere Reserves and the regional Man and the Biosphere networks, all supported by UNESCO;

(d) Intergovernmental networks such as the technical secretariat of Biodiversity Action Network (BioNET) International, hosted by CABI;

(e) Farmers' and indigenous people’s networks and policy level and advocacy networks supported by non-governmental organizations;

(f) The International Programme of Biodiversity Science of Diversitas supported, inter alia, by UNESCO, SCOPE and ICSU.

G. Identification of priority issues

61. Until the review is complete, it would be premature to indicate the priority issues that have so far been reported upon. Different organizations determine priorities in view of their individual mandates. In this light, it appears essential that the mechanism for determining priority themes for inclusion in the multi-year work programme should be based on a scientific assessment that takes into account, inter alia, the determination of the magnitude and significance of threats to, and severity of impacts on, agricultural biological diversity.

V. FURTHER DEVELOPMENT OF THE MULTI-YEAR WORK PROGRAMME

62. In accordance with paragraph 22 of decision III/11 and SBSTTA recommendation III/4, the Executive Secretary will continue to liaise with the GEF secretariat and the implementing agencies, with a view to promoting priority support to Parties in developing and implementing their national strategies, programmes and plans for the conservation and sustainable use of

agricultural biodiversity (see paragraphs 15, 16 and 17 of decision III/11). In this regard, the operational policy note on agricultural biodiversity that is being prepared by GEF is awaited with interest. The outcome of the STAP/GEF workshop on the sustainable use of biological diversity is expected to provide further guidance.

63. The Executive Secretary will maintain close collaboration with CGRFA regarding the outcome of the negotiations for the revision of the International Undertaking, in view of its importance with regard to issues of access to genetic resources and benefit-sharing arrangements.

64. In accordance with recommendation III/4 of SBSTTA, the Executive Secretary will seek collaboration with FAO and WTO, with the inputs of Parties and Governments, in order to consider ways to develop a better appreciation of the relationship between trade and agricultural biodiversity and to initiate the identification of issues that need to be addressed by the Conference of the Parties. Notable in this regard are the WTO reviews of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) and the Agreement on Agriculture (scheduled for completion in 1999 and 2000, respectively).

65. In the first phase of the work programme, linkages will be developed with related conventions to ensure collaboration, including the RAMSAR Convention, concerning wetlands and protected habitats and their adjacent areas; CITES, concerning threatened species especially wild relatives of domesticated species and wild food species; the Convention to Combat Desertification, concerning areas threatened by desertification, drought and land degradation; and the Framework Convention on Climate Change, on the impact of agriculture on climate change and biological diversity, including greenhouse gases, precipitation and temperature variability.

66. With regard to decision III/11 and SBSTTA recommendation III/4, the Executive Secretary, in close collaboration with FAO, and working together with relevant organizations and bodies, including CGIAR centres and non-governmental organizations, will present the results of the ongoing phase of the review and gap analysis at international and national levels in the form of a comprehensive report for consideration by SBSTTA at its fourth meeting. The report will highlight areas of focus of relevant ongoing activities and instruments, complementarities with other work programmes and processes, potential gaps and weaknesses identified and priorities for further work in the development of the multi-year work programme.

67. As outlined in decision III/11, SBSTTA has, been instructed to provide advice to the Conference of the Parties on its assessment of lessons learnt from work on the two topics described in Annex 3 of decision III/11. SBSTTA has also been requested to provide advice to the Conference of the Parties on the findings of the review and determination of priority issues/themes for further work, using as criteria, inter alia, the relevance of the issue to the objectives of the Convention and the results of the gap analysis. Once priorities for the first phase of the work programme have been established, there will be a need to design a programme structure and budget for its implementation and to identify required mechanisms to support implementation at country, regional and global levels.

68. Taking into account, inter alia, the coordinating role of FAO vis-à-vis other relevant partners in the review process, and in the light of deliberations under agenda item 4 (the report and recommendations of the third meeting of SBSTTA, including its modus operandi), SBSTTA may wish to consider ways and means of enhancing scientific and technical collaboration in order to facilitate its work.

69. SBSTTA reaffirmed that reporting on and development of the multi-year work programme on agricultural biodiversity constitute an iterative and phased process. In the light of deliberations on the operations of the Convention (under agenda item 13), it has been suggested that the work programme on agricultural biodiversity, as for other thematic areas, shall be established within the framework of a rolling ten-year, long-term programme of work for the Conference of the Parties. This should also reflect the frequency and timing of consideration of this item by the Conference of the Parties and SBSTTA.

70. The phases and outputs of the long-term work programme should take into account the time-frames and programmes of relevant intergovernmental processes including, for example, consideration by the Commission on Sustainable Development, in the year 2000, of agriculture and forests as the key economic sectors, together with financial resources/trade and investment/economic growth as cross-sectoral themes, under the sectoral theme "Integrated planning and management of land resources".

71. Different components of agricultural biodiversity could be addressed in a sequential manner in the multi-year work programme within an overall framework on agricultural biodiversity, in order to ensure that due attention is paid to ecosystems and their functions. Each phase of the assessment would be subject to periodic review and technical guidance by SBSTTA. The joint Convention on Biological Diversity-FAO work programme, being developed under the memorandum of cooperation, would feed into this process.

72. Further development of the phases of the multi-year work programme may require consideration, inter alia, of ways and means:

(a) To assess different agricultural systems in different agro-ecological zones and to coordinate the results;

(b) To conduct and coordinate assessments of key components (thematic areas) of agricultural biodiversity;

(c) To develop criteria and indicators for the monitoring and assessment of agricultural biodiversity at different levels and for different thematic areas;

(d) To assess the results of relevant instruments at global, regional and national levels; and

(e) To support Parties in the implementation of the priority activity areas identified and in evaluating and building on the results of strategies, programmes and action plans.

73. In its consideration of this item, the attention of the Conference of the Parties is drawn to other relevant agenda items, in particular: the ecosystem approach and linkages with other ecosystems (item 7); the integration of agricultural biodiversity into sectoral planning (item 11); cooperation in in situ conservation (item 12.2); development of indicators (item 4.2); and impact assessment (item 15.3).

IV. CONCLUSION

74. In the light of the above, the Conference of the Parties is invited to endorse recommendation III/4 of SBSTTA on the programme of work on agricultural biological diversity.

Annex I

CONTRIBUTIONS BY PARTIES AND GOVERNMENTS TO THE REVIEW ON ONGOING ACTIVITIES AND EXISTING INSTRUMENTS IN THE AREA OF AGRICULTURAL BIODIVERSITY AS AT 31 JANUARY 1997

COUNTRY	DATE RECEIVED BY CBD SECRETARIAT	NATURE OF CONTRIBUTION
Belarus	1 August 1997 (fax)	· Particular aspects of conservation of agricultural biological diversity in the Republic of Belarus (2.p/Eng.)
Canada	3 May 1997 27 August 1997 (tabled SBSTTA-3) 13 January 1998 (hard + elec.)	· Advance copy Canadian action plan for agricultural-biodiversity (AAFC)(44p./E)and 4 technical papers: 1. The biodiversity of pollinators in Canadian agriculture (15p. E/F.) 2. Biodiversité des champignons mycorhiziens (12p. E/F.) 3. Worm Watch (15p. E/F) 4. Soil biodiversity and grass cropping systems (21p. E/F.)
Finland	26 January 1998	· Country report on agricultural biological diversity, MAFF (13p/E) and 12 annexes: 1. Some research activities connected to biological diversity (32p./E) 2. Finnish Biodiversity Research (FIBRE) 1997-2002 (..p./E) 3. ICPPGR country report on the state of Finnish plant genetic resources (‘94) 4. Report on activities in the area of conservation and sustainable use of animal genetic resources for food and agriculture, 1997 (17p/E + annexes) 5. Agri-environmental Programme 1995-1999, WGM 1996:18, MAFF (21p./E+ Fin.) 6. The Finnish Research Programme on Climate Change, PAF:4/96 (505p./E) 7. Good agricultural practices: cultivation recommendations/Hyvat Viljelymenetelmat, WGM 1993:7, MAFF (45p./E.+ 31p./Fin.) 8. 6 further publications in Finnish (1997) 9. The Nordic Gene Bank (extract from PGR country report of Sweden)(3p./E.) 10. The national action plan for biological diversity in Finland 1997-2005 (1997) (189p./Fin.) ISBN 951-37-2299-6 11+12. Strategy for the Sustainable use of renewable natural resources in Finland, MMM:1997:2a, MAFF (53p./E+…p./Fin.)
Greece	10 June 1997	· Information on major ongoing activities and projects concerning agricultural biological diversity in Greece (2p./Eng.)

COUNTRY	DATE RECEIVED BY CBD SECRETARIAT	NATURE OF CONTRIBUTION
Latvia	6 May 1997	· Country report: conservation and sustainable use of biological diversity in Latvia (18 p./E) · 4 project proposals (20p./E)
Netherlands	22 January 1998	· Fourth COP Progress report on agricultural biological diversity (3p./E) and · Case-study: Development of an indicator for life support functions in soil (2p/E.)
New Zealand	9 December 1997 (fax)	· Bibliography of New Zealand research on two initial case-studies areas: pollinators and soil micro-organisms (11p./Eng.)
Norway	4 September 1997 (advance copy 28 August E mail)	· Preliminary report from Norway on ongoing activities and measures for maintenance of biological diversity in agriculture (6.p/Eng.)
Peru	4 September 1997 (tabled SBSTTA-3)	· Diversidad biologica agricola (3p./Sp.)
Republic of Korea	23 September 1997	· Articles related with access to genetic resources (2p./Eng.)
Switzerland	24 December 1997 (fax)	· Case-study: Direct payments in Swiss agriculture: an incentive measure for the conservation and sustainable use of biological diversity (8p./Eng.)
Thailand	12 June 1997	· Wild resources of crop plants (5.p/Eng.)
United States of America	2 June 1997	· Conservation and sustainable use of agricultural biological diversity (25p./E)
Venezuela	28 July 1997	- Recursos Fitogenéticos en Venezuela (14p./Sp.)

Annex II

LIST OF INTERNATIONAL AND REGIONAL ORGANIZATIONS CONTACTED AND CONTRIBUTIONS RECEIVED IN RESPONSE TO THE SURVEY ON AGRICULTURAL BIODIVERSITY CONDUCTED BY FAO/SCBD IN 1997

ACRONYM	NAME OF ORGANIZATION	RECEIVED
UNITED NATIONS SYSTEM		
FAO	Food and Agriculture Organization of the United Nations, Rome	direct inputs
GEF *	Global Environment Facility, Washington DC	*
IAEA *	International Atomic Energy Agency (Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture), Vienna	01/12/97
IPCC/WMO	Intergovernmental Panel on Climate Change, World Meteorological Office, Geneva	
UNCCD	Secretariat of the United Nations Convention to Combat Desertification, Geneva	
UNCTAD	United Nations Conference on Trade and Development, Geneva	19/11/97
UNDP	United Nations Development Programme, New York	04/03/98
UNEP *	United Nations Environment Programme, Nairobi	13/01/98
UNESCO *	United Nations Educational, Scientific and Cultural Organization, Paris	12/12/97
UNFCCC	Secretariat of the United Nations Framework Convention on Climate Change, Bonn	
UNIDO *	United Nations Industrial Development Organization, Vienna	*
WHO **	World Health Organization, Geneva	04/11/97
WIPO **	World Intellectual Property Organization, Geneva	28/11/97
WORLD BANK	International Bank for Reconstruction and Development/International Development Association, Washington DC	13/11/97
WTO	World Trade Organization, Geneva	13/11/97

* Initial contributions by international organizations on their policies, programmes and activities on agricultural biodiversity provided for the seventh session of CGRFA (Rome, 15-23 May 1997) and subsequently submitted to SBSTTA (1-5 September 1997) for information in document UNEP/CBD/SBSTTA/3/Inf. 6.

** Organization indicated that it has no ongoing activities or instruments of relevance to the survey.

INTERGOVERNMENTAL BODIES		
ACCT/IEPF **	Agency for Cultural and Technical Cooperation, Paris/Institut de l'Energie des Pays ayant en commun l'usage du Français, Canada	- - 3/11/97
AUPELF-URE	Association of Partially or Wholly French Language Universities, Montreal	
CITES	Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, Geneva	
CABI *	International Centre for Agriculture and Biosciences, UK	03/12/97
CS *	Commonwealth Secretariat, London	05/11/97
IFAD *	International Fund for Agricultural Development, Rome	03/12/97
IICA *	Inter-American Institute for Cooperation on Agriculture, Costa Rica	*
OECD	Organisation for Economic Co-operation and Development, Directorate for Food, Agriculture and Fisheries, Paris	01/12/97
OIE *	Office International des Epizootics, Paris (World Organization for Animal Health)	13/11/97
RAMSAR	Secretariat of the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Gland	
UPOV	International Union for the Protection of New Varieties of Plants, Geneva	06/11/97
REGIONAL BODIES		
ACCT	Agency for Cultural and Technical Cooperation	05/11/97
AFDB	African Development Bank, Cote d'Ivoire	01/12/97
ASDB *	Asian Development Bank	*
ASEAN **	Association of South-East Asian Nations	23/10/97
CE/ECNC	Council of Europe, Strasbourg, France: European Centre for Nature Conservation (independent foundation in field of nature conservation)	- Indirect - 09/12/97
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel, Ouagadougou	
EU	European Commission	
IADB	Inter-American Development Bank	
CARTAGENA ACCORD	Commission of the Cartagena Accord/Andean Pact (Decision 391: "The Common System on Access to Genetic Resources" a regional measure on access and benefit-sharing effective in Bolivia, Colombia, Ecuador, Peru and Venezuela	23/10/97
MERCOSUR	Southern Common Market, Montevideo	
NGB	Nordic Gene Bank (regional genebank for Sweden, Denmark, Norway, Iceland and Finland)	12/12/97
REDARFIT	Andean Plant Genetic Resources Network	
REMERFI	Central American Network of Plant Genetic Resources	

SADC/PGRC	Southern African Development Community (SADC) , Botswana and SADC Plant Genetic Resources Centre , Lusaka	19/12/97
TROPIGEN	Amazonian Plant Genetic Resources Network	
NON-GOVERNMENTAL ORGANIZATIONS		
ASSINSEL * FIS	International Association of Plant Breeders/ International Seed Trade Association, Nyon	02/12/97
AVRDC	Asian Vegetable Research and Development Centre, Tainen, Taiwan Province of China (international research and training centre)	06/11/97
BGCI	Botanic Gardens Conservation International, Richmond, UK (independent charity with member botanic gardens worldwide)	12/01/98
ENDA	Environment and Development in the Third World, Dakar	
GAIA	Gaia Foundation, UK	19/12/97
GRAIN	Genetic Resources Action International, Barcelona	4/11/97
ICSU/SCOPE	International Council of Scientific Unions/Scientific Committee on Problems of the Environment, Paris	
ICUC *	International Centre for Underutilized Crops, Southampton (charity promoting species for food, nutrition, industry and sustainable devt.)	28/11/97
IFAP	International Federation of Agricultural Producers, Paris	
IIED	International Institute for Environment and Sustainable Development, London	
ITDG	Intermediate Technology Development Group, Rugby (specialist NGO supporting countries working on, *inter alia*, food production),	10/11/97
IUCN	World Conservation Union, Gland, Switzerland (global organization assisting societies to conserve the integrity and diversity of nature and promote equitable sustainable use of natural resources)	17/11/97
IUFRO *	International Union of Forestry Research Organizations, Vienna	*
RBI *	Rare Breeds International,	*
RAFI *	Rural Advancement Foundation International, Ottawa	forthcoming publication
RGB-KEW	Royal Botanic Garden, Kew, Richmond	
WCMC	World Conservation Monitoring Centre, Cambridge, UK (founded by IUCN/ UNEP/ WWF to support information services on conservation and sustainable use of species and ecosystems)	10/11/97
WRI	World Resources Institute, Washington DC	14/01/98
WWF	World Wide Fund for Nature, (WWF International), Gland	

CGIAR CENTRES (Consultative Group on International Agricultural Research) *		
CIAT	International Centre for Tropical Agriculture, Cali	18/11/97
CIFOR	Centre for International Forestry Research, Jakarta	
CIMMYT	International Centre for Maize and Wheat Improvement, Mexico	
CIP	International Potato Centre, Lima	
ICARDA	International Centre for Agricultural Research in the Dry Areas, Aleppo	02/11/97
ICLARM	International Centre for Living Aquatic Resources Management, Manila	20/10/1997 07/11/1997
ICRAF	International Centre for Research in Agroforestry, Nairobi	-
ICRISAT	International Crop Research Institute for the Semi-Arid Tropics, Andhra Pradesh	05/12/1997
IFPRI	International Food Policy Research Institute, Washington DC	20/11/1997
IIMI	International Irrigation Management Institute, Colombo	-
IITA	International Institute of Tropical Agriculture, Ibadan	19/11/1997
ILRI	International Livestock Research Institute, Nairobi	27/11/1997
IPGRI *	International Plant Genetic Resources Institute, Rome	14/11/1997
SGRP	CGIAR system-wide genetic resources programme	16/12/1997
IRRI	International Rice Research Institute, Manila	11/12/1997
ISNAR	International Service for National Agricultural Research, The Hague	28/11/1997
WARDA	West Africa Rice Development Association, Bouaké	-
