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ANALYSIS OF INFORMATION CONTAINED IN SECOND NATIONAL REPORTS*Note by the Executive Secretary***I. INTRODUCTION**

1. The present note is prepared in response to a request made in paragraph 3 (a) of decision VI/25, adopted by the Conference of the Parties at its sixth meeting, in which the Executive Secretary was requested to draw appropriate conclusions from the analysis of the second national reports and of the experiences of Parties in preparing national reports that can serve to facilitate the implementation of the Convention by the Parties.

2. The note and the following analysis also constitute a part of the work undertaken by the Executive Secretary pursuant to paragraph 9 (a) of decision V/19, in which the Conference of the Parties requested the Executive Secretary to prepare reports based on information contained in national reports for consideration by the Conference of the Parties at its meetings.

3. The following analysis is based on 94 out of a total of 104 second national reports received by the Secretariat by the end of October 2003. Ten reports could not be included in the analysis because they are either incomplete or the presentation of the content do not conform to the format adopted for the second national reports. This analysis also draws on the assessments presented to the Conference of the Parties at its sixth meeting (UNEP/CBD/COP/6/5/Add.3 and UNEP/CBD/COP/6/INF/10 and 11).

4. Section II below contains an analysis of information concerning thematic programmes of work adopted by the Conference of the Parties; section III reviews information concerning cross-cutting issues under the Convention; section IV looks at other issues addressed in second national reports; and section V presents preliminary conclusions made on the basis of the above analysis.

5. It should be noted that the analysis of each programme of work or issue employs the following structure below, where applicable, considering the possible contribution of this analysis to the second edition of the Global Biodiversity Outlook:

* UNEP/CBD/COP/7/1 and Corr.1.

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- (a) Context;
- (b) Status and trends;
- (c) Impacts of implementation (successes/achievements/progress);
- (d) Impediments to implementation;
- (e) Conclusion.

6. It should be noted that different from the assessments contained in the documents UNEP/CBD/COP/6/Inf. 10 and 11, this analysis attempts to capture meaningful inferences and findings, if they can be possibly drawn on the basis of data and information provided in the second national reports. The analysis aims to capture some trends, developments or progress in implementing various programmes of work, cross-cutting and other issues covered in the second national reports. Meanwhile, an attempt is made to analyse some obstacles experienced by some countries in the process of implementation. In this regard, it should be made clear that any findings or inferences drawn from the following analysis should be considered as of very limited applicability considering the limited number of second national reports available for this analysis and the differing circumstances of the countries from different regions.

7. In the following analysis, attempts will be also made to analyse the information from the perspectives of either economic groups of countries or regional groups of countries of the United Nations. However, the above perspectives will be employed only in cases where meaningful inferences or findings can be drawn from that perspective. In cases where such perspectives are not applicable, the information will be presented in general without any distinction of economic or regional groups of countries.

8. It should be stressed again that the following analysis or synthesis is based on the information contained in second national reports ONLY. Instead of using the percentage as was the case in the earlier assessment, in most cases, “one-third, “half”, “two-thirds” or “three-fourths” are used to indicate the percentage of responses to certain questions. It should be made clear that the percentage here is calculated in relation to the total number of reporting countries rather than to the total number of Parties. In some cases, “ a considerable or significant number of reporting countries” are also used to indicate the percentage close to a half or well above a half. In some cases, specific figures are cited or put in brackets.

II. ANALYSIS OF THEMATIC PROGRAMMES OF WORK UNDER THE CONVENTION

A. *Forest biological diversity*

1. *Context*

9. At its fourth meeting, the Conference of the Parties endorsed a programme of work on forest biological diversity as contained in the annex to decision IV/7, based on the recommendations from the third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA). In the same decision, the Conference of the Parties urged Parties, countries, international and regional organizations, major groups and other relevant bodies to collaborate in carrying out the tasks identified in the programme of work. The Conference of the Parties reviewed the implementation of the programme of work at its fifth meeting and called for its further implementation by Parties and relevant organizations. In decision V/4, COP 5 also decided to consider expanding the focus of the programme of work while calling on the Parties to take practical actions within the scope of the existing programme of work.

10. In the format for the second national reports, altogether 13 questions were developed based on the elements of decisions II/9, IV/7 and V/4. It should be noted that no questions were developed on the elements of the programme of work endorsed at the fourth meeting of the Conference of the Parties. One reason might be that in decision V/19, the Parties were invited to submit a thematic report on forest ecosystems in which most of the questions were formulated on the basis of the elements of the programme of work. In this case, it would be possible to present a more detailed picture of the implementation of the programme of work if this analysis was undertaken on the basis of the information from both second national reports and thematic reports on forest ecosystems.

11. From the responses received, a slightly varying number of countries have answered different questions in this section. In most cases, 92 out of 94 countries have answered most of the questions. In some cases, 89 or 91 countries responded. One of the causes of this small gap in responses is that some countries find relevant questions not applicable to their national circumstances.

2. *Status and trends*

12. It is very difficult to present here the status and trends of forest biological diversity because no questions in the second national reports requested such information. The additional information provided by some Parties in response to some questions mostly addressed forest as a whole rather than specifically forest biodiversity.

13. The limited information provided by some Parties indicates that they have made an assessment or an inventory of the forest within their jurisdiction, including forest biological diversity. However, partly as a result of the design of relevant questions, few Parties provided the results of their assessments or inventories. Some Parties referred to sources where the results of such assessments or inventorying can be accessed or retrieved.

14. As far as the review of the programme of work is concerned, relatively only a small number of countries (21) have reviewed it and identified ways of its implementation. A considerable number of countries (37) indicated that the programme of work was under review. Notably, a considerable number of countries (34) have not reviewed the programme of work yet. This may be explained partly by the level of priority some countries attach to the programme of work on forest biological diversity because a similar number of countries report (31) that they attach medium and low priorities to the implementation of this programme of work. Another reason could be that some Parties may wish to do this until an expanded programme of work is adopted by the Conference of the Parties.

3. *Impacts of implementation*

15. Relevant information contained in the second national reports is too limited to assess the impacts of the implementation of the programme of work and relevant provisions of the Convention at national level. It is useful though to present a summary of the actions taken by some countries.

16. First of all, a number of countries have established national forest management programme or national forest sector action plan, which aim to provide policy guidance for relevant actions at national and local levels. Some countries have integrated forest biological diversity into their national environmental action plan, national biodiversity strategies and action plans and other relevant sectoral policies and action plans. A few countries have formulated and enforced forest-related regulations, such as the Forest Act in India. Some countries have even incorporated forest sector in their long-term development or environmental planning. At the regional level, the European Community reports that the Ministerial Conference for the Protection of Forests in Europe has been established as a regional mechanism to deal with the forest-related issues. And some regional regulatory frameworks have been developed by the European Union for the protection and management of forest. Forest biological diversity also constitutes an important part of various programmes within the European Union for rural development, research and development cooperation.

17. A large majority of the reporting countries are of the view that their actions in the conservation and sustainable use of forest biological diversity conform to the principles identified in the ecosystem approach. They have applied to varying extents (44 to a limited extent and 37 to a significant extent) the ecosystem approach and sustainable forest management in integrating national forest programmes into their national biodiversity strategies and action plans. However, from the additional information provided, it is clear that the application of the ecosystem approach is still in the early stage, considering the fact that the principles embodied in the ecosystem approach are being tested and further explored by some countries.

18. The multi-stakeholder participation is recognized by many countries as an effective mechanism in the sustainable forest management and the implementation of the programme of work. A significant number of countries (54) have taken measures to ensure the participation of *some* stakeholders. One fourth of reporting countries have involved all stakeholders in the implementation of the programme of work. This may be because many countries are increasingly aware of the importance of the participatory approaches for the conservation and sustainable use of forest resources and forest biodiversity, including access to and benefit sharing of forest genetic resources.

19. To strengthen national capacities for implementation of sustainable forest management, including enhancing the effectiveness and functions of forest protected areas, about a half of the reporting countries (46) have established some programmes to address some needs in this regard while less than a half of countries have developed many programmes covering some needs. But very few countries have developed the programmes covering all needs.

20. Most of the reporting countries are promoting the national-level synergies between the programmes of work on forest biodiversity under the Convention on Biological Diversity and the proposed actions under the United Nations Forum on Forests (UNFF). A significant number of countries (68) indicated that they had taken into consideration the outcome of the fourth session of the United Nations Forum on Forests while taking actions to address the conservation and sustainable use of forest biological diversity. More countries (80) indicated they would continue to contribute to the future work of UNFF. However, it should be noted that a significant number of countries (70) are yet to take measures to implement the proposed actions under the Intergovernmental Forum on Forests (renamed later as the United Nations Forum on Forests), particularly on valuation of forest goods and services. In addition, a big majority of countries have integrated forest biodiversity considerations in their participation and collaboration with those organizations, institutions and conventions affecting or working with forest

biological diversity. A considerable number of countries report that they have established a national-level body to coordinate forest-related activities.

4. Impediments to Implementation

21. Few reports touched specifically on impediments to the implementation of the programme of work. Most of the reporting countries indicate that they have limited or very limited resources available for the implementation of the programme of work, although they give high priority to allocating resources to activities that advance the objectives of the Convention in respect of forest biological diversity. From the additional information provided, one country mentioned about the limited availability of financial and human resources for carrying out technical work, and another country found resources severely limited for scientific management and conservation of high altitudinal protected areas.

5. Conclusion

22. A considerable number of countries are taking some measures to implement the programme of work and associated decisions of the Conference of the Parties, such as undertaking research and assessment, formulating and implementing forest policies or programmes, establishing protected areas networks and promoting multi-stakeholder participation and sustainable forest management practices, and strengthening capacities for the implementation of the programme of work. The ecosystem approach is being promoted by a considerable number of countries for the conservation and sustainable use of forest biological diversity, though the practical application of the ecosystem approach is still in the early stage in many countries. Most of the countries are working to build up synergies between programme of work under the Convention on Biological Diversity and the proposed actions under UNFF. As to impediments to implementation, a few countries cited limitations in technical, human and financial resources.

B. Agricultural biological diversity

1. Context

23. At its third meeting, in decision III/11, the Conference of the Parties decided to establish a multi-year programme of work on agricultural biological diversity. At its fifth meeting, the Conference of the Parties reviewed the implementation of phase I of the programme of work and adopted a programme of work to further implement decision III/11. The programme of work on agricultural biological diversity comprises four mutually reinforcing programme elements: (a) assessments; (b) adaptive management; (c) capacity building; and (d) mainstreaming. In addition, in decision V/5, the Conference of the Parties adopted the International Initiative for the Conservation and Sustainable Use of Pollinators and decided to continue the work on genetic use restriction technologies within the four elements of the programme of work.

24. It should be noted that the work on agricultural biological diversity under the Convention on Biological Diversity has much to do with some of the work under the Food and Agriculture Organization of the United Nations (FAO), and some conventions, treaties, initiatives, action plans adopted under FAO.

25. There were 29 questions in the second national reports covering various decisions on agricultural biological diversity. It should be noted that no questions were designed to address the elements of the programme of work. In this regard, the information contained in the second national reports can be only used to assess the implementation of various related decisions rather than the programme of work itself. Almost all the reporting countries responded to the questions in this section, with a slightly varying number of responses in some cases.

2. *Status and trends*

26. From the responses as well as additional information provided, it is very difficult to generalize any status and trends of agricultural biodiversity at the global level for the same reason that no questions or requests were designed to solicit the information in this regard. From the additional information, most of the reporting countries give high priority to the conservation and sustainable use of agricultural biodiversity considering its significance to national economy and livelihood of many countries.

3. *Impacts of implementation*

27. From the data and additional information available, it is difficult at this stage to identify any important impacts or outcomes of the actions taken by some Parties at the national level. However, some progress in the implementation of the programme of work is still noteworthy. It should be noted that some countries had initiated some actions in this field long before the entry into force of the Convention.

28. First, a considerable number of reporting countries are dealing with the issue of genetic restriction use technologies (GURTs) in a precautionary way. Some countries have completely banned the use of GURTs and some countries have put in place restrictive procedures or regulations for approving the research or use of such technologies. However, very few countries have carried out scientific assessments on ecological, social and economic effects of GURTs and only a small number of countries have identified ways and means to address the potential impacts of GURTs on the conservation and sustainable use of agricultural biodiversity. It should be noted that a considerable number of reporting countries (39) have not yet assessed the need to develop effective regulations at the national level with respect to GURTs.

29. Secondly, a considerable number of reporting countries have developed various programmes or policies for conservation and sustainable use of agricultural biodiversity. It should be noted that only a small number of countries have developed programmes especially for conservation and sustainable use of agricultural biodiversity. Instead, most of them have incorporated it as a part of their programmes or policies for agricultural or rural development. Some of these programmes or policies have been put in place and implemented years before the entry into force of the Convention. In addition, the responses to question 335 indicate that more than a half of reporting countries are in various stages of developing relevant strategies, policies and programmes.

30. As far as the programme of work is concerned, more than a half of reporting countries (54) have not yet reviewed it or identified means of its implementation. However, a considerable number of countries report that cooperation of various scales is being promoted at various levels within the framework of the programme of work. In addition, the financial support for the implementation of the programme of work is not encouraging as indicated by the responses to question 343 (37 for No, 34 for limited funds and 8 for significant funds). A half of the reporting developed countries indicated that they had provided assistance to developing countries for the implementation of the programme of work while the other half indicated that they had not provided such assistance. A little over a half of reporting developed countries indicate that funds are provided mostly within existing cooperation programmes to developing countries and countries with economies in transition to assist in their efforts in implementing the programme of work.

31. A big majority of reporting countries (85) are promoting to various extents (mostly to a limited extent) the transformation of unsustainable agricultural practices into sustainable production practices as well as the use of farming practices that not only increase productivity, but also arrest degradation and reclaim, rehabilitate, restore and enhance biological diversity. A similar number of reporting countries are also promoting (mostly to a limited extent) the mobilization of farming communities for the development, maintenance and use of their knowledge and practices in the conservation and use of

biological diversity. And the two-thirds of reporting countries are collaborating with other Parties to identify and promote sustainable agricultural practices and integrated landscape management.

32. Most of the reporting countries have identified or are identifying issues and priorities that need to be addressed at the national level for the conservation and sustainable use of agricultural biodiversity. In addition, a very small number of countries are using some methods and indicators to monitor the impacts of agricultural development projects on biodiversity while more than a half of reporting countries are in various stages of developing such methods or indicators.

4. *Impediments in implementation*

33. Few reports mentioned the impediments encountered in the implementation of the programme of work and associated decisions. However, some restraints in implementation have been explicitly or implicitly mentioned in a few reports, particularly from some developing countries. First, lack of or gaps in knowledge or information in this regard has been mentioned by a number of Parties as one of major constraints for conservation and sustainable use of agricultural biodiversity. Secondly, relevant to the first, limited human, technical and technological resources are also considered by some Parties as main constraints to their efforts in the conservation and sustainable use of agricultural biodiversity. The limited financial resources available clearly hinder the implementation of some actions planned.

5. *Conclusion*

34. From the above, it may be concluded that progress, some noteworthy, is being made in the implementation of some elements of the programme of work. Most of the reporting countries are promoting the conservation and sustainable use of agricultural biodiversity as a part of their efforts to promote agricultural or rural development.

C. *Marine and coastal biological diversity*

1. *Context*

35. At its second meeting, the Conference of the Parties, in decision II/10, provided guidance on the process to develop a work programme on marine and coastal biological diversity and key substantive elements of the work programme. The Ministerial Statement also adopted at second meeting of the Conference of the Parties referred to the global consensus on the importance of marine and coastal biological diversity as “Jakarta Mandate” and reaffirmed the critical need for the Conference of the Parties to address the conservation and sustainable use of marine and coastal biological diversity and urged Parties to initiate immediate action to implement decisions of the Conference of the Parties on this issue. At its fourth meeting, the Conference of the Parties adopted decision IV/5, which contains in its annex the programme of work arising from decision II/10.

36. Five key thematic issues were identified in the Jakarta Mandate. These issues are reflected in the programme elements of the work programme adopted in decision IV/5, which are:

- (a) Integrated marine and coastal area management (IMCAM);
- (b) Marine and coastal living resources;
- (c) Marine and coastal protected areas;
- (d) Mariculture;
- (e) Alien species and genotypes.

37. The following analysis is based on the responses from 84 out of a total of 94 reports because some land-locked countries indicated that the questions in this section did not apply to their national circumstances. The following analysis is also limited by the scope of the questions in this section which

did not cover the elements of the programme of work, so the analysis focuses mostly on the implementation of relevant decisions at the national level.

2. *Status and trends*

38. Again it is very difficult to present any status and trends of the marine and coastal biological diversity at the global level because the questions in this section did not request relevant information and very few Parties provided additional information in this regard. However, a considerable number of reporting Parties, particularly those island and coastal states, attach high priority to the conservation and sustainable use of marine and coastal biological diversity and have developed some plans and programmes to implement the priority actions they have identified to implement the programme of work.

3. *Impacts of implementation*

39. At this stage it is very hard to identify any impacts of national-level implementation of the programme of work adopted at the fourth meeting of the Conference of the Parties and associated decisions, considering that a considerable number of reporting Parties have not yet reviewed the programme of work or are yet to review it and identify means of implementation.

40. However, a significant number of reporting Parties indicate that their national strategies and action plans promote to varying extents the conservation and sustainable use of marine and coastal biological diversity. More than a half of reporting Parties are in the early or advanced stages of establishing institutional, administrative and legislative arrangements for the development of integrated management of marine and coastal ecosystems. And only one fourth of reporting Parties have already put in place such arrangements.

41. Although coral bleaching is not a problem that has occurred in many marine areas, the responses to relevant questions and the additional information provided by a number of Parties, particularly where coral bleaching has been identified and proven as a serious threat to marine and coastal biodiversity, show that these countries are taking some measures to address this issue, which contributes to the implementation of the work plan on coral bleaching adopted under the Convention.

42. Some countries report that they have developed some regulations and programmes for conservation and sustainable use of marine biological diversity, even though some of them address generally the protection of marine resources. A number of countries have undertaken or are undertaking some cooperative projects with some of their neighbouring countries or at the regional level in the conservation and sustainable use of marine biological diversity.

4. *Impediments in implementation*

43. Only a few Parties mentioned the impediments they had encountered in the implementation of the programme of work. One of them was lack or inadequacy of technical capabilities and human resources to collect relevant data and information, which provide a basis for policy and programme development.

5. *Conclusion*

44. The implementation of the programme of work is in the early stage in many reporting countries. However, a considerable number of reporting countries attach high priority to this programme of work and their national biodiversity strategies and action plans promote to varying extents the conservation and sustainable use of marine and coastal biological diversity. A number of countries are taking measures to address some issues such as coral bleaching.

D. *Inland waters biological diversity*

1. Context

45. At its second meeting, in decision II/18, the Conference of the Parties decided to assess the status and trends of inland water biodiversity and identify options for conservation and sustainable use at the fourth meeting of the Conference of the Parties. Based on the recommendations from the third meeting of SBSTTA, the Conference of the Parties, through decision IV/4, adopted a work programme on the biological diversity of inland water ecosystems. In addition, at its third and fifth meetings respectively, the Conference of the Parties endorsed two joint work plans on inland water biodiversity with the Ramsar Convention on Wetlands.

46. in decision IV/4, the Conference of the Parties urged Parties to give priority to certain projects related to inland water ecosystems when requesting financial support from the Global Environmental Facility (GEF). It has also urged Parties to integrate elements of the programme of work into their national and sectoral plans and to implement these as soon as possible. At its fifth meeting, the Conference of the Parties further encouraged Parties to address the lack of information on inland water biodiversity and to include this information in their national reports and urged capacity-building measures for developing and implementing national and sectoral plans.

47. Ten questions concerning the programme of work were included in the second national reports. It should be noted that the questionnaire in this section did not cover the elements of the programme of work. Due to their national circumstances, two or three countries did not respond to the questions in this section. The following analysis is based on 91 reports in most cases.

2. Status and trends

48. From the additional information, a significant number of reporting countries (72) indicate that relevant assessments are ongoing. Only a few reporting Parties indicated that they had made some assessments or undertaken research activities about the status of wetlands or biological diversity of inland water ecosystems (rivers, lakes, marshlands, etc.), with some reference to specific sources or publications that contain relevant information. A few countries gave a brief introduction of inland water ecosystems in their jurisdiction, such as data on rivers, lakes, Ramsar wetland sites. Nevertheless, it is still very hard to generalize the status and trends of biological diversity of inland water ecosystems.

49. However, from the additional information, one emerging trend could be that some countries sharing the inland water ecosystems (such as a lake, sea, river) are working to cooperate in this field. One example of this kind is the cooperation among some European countries to conserve inland water biological diversity in the Danube. Another example is the cooperation among Caspian Sea countries. One eastern African country reports on the joint efforts of some countries in that region in the conservation of the Victoria Lake. Canada also reported on its Ecosystem Initiative for working with United States of America on pollution control in the Great Lakes. The initiatives launched by the European Community such as NATURA 2000 and the 2000 Water Framework Directive are examples of regional cooperation to address relevant issues.

50. Another noteworthy trend may be that a considerable number of reporting countries are promoting synergy for the implementation of the Ramsar Convention and the Convention on Biological Diversity, through integrating relevant programmes and projects and incorporating biological diversity of inland water ecosystems as an important part of their strategies and plans for wetland, river or lake basin, catchment management.

3. *Impacts of implementation*

51. It is difficult to assess the impacts of implementation of the programme of work at this stage since many reporting countries are reviewing the programme of work or are yet to review it and identify priorities for national action in implementing the work programme. The additional information provided by many reporting countries addressed in general the issues related to inland water ecosystems, rather than specifically biological diversity of inland water ecosystems.

52. However, there are still a number of developments at the national level that are worth our attention. As said earlier, a big majority of the reporting countries (82 out of 93) have included inland water biological diversity considerations in their work with organizations, institutions and conventions affecting or working with inland water. A significant number of reporting countries (77 out of 91) have also incorporated into their national biodiversity strategies and action plans the conservation and sustainable use of wetlands and of migratory species and their habitats. Furthermore, more than three-fourths of reporting countries have developed national and/or sectoral plans for the conservation and sustainable use of inland water ecosystems. When requesting financial support from the Global Environment Facility (GEF), most of the eligible countries have given priority to important areas for conservation, preparing and implementing plans for integrated watershed, catchments and river basin management, and investigating processes contributing to biodiversity losses.

53. In terms of capacity-building measures, more than a half of the reporting countries (52) have implemented some measures for implementing their national and/or sectoral plans for conservation and sustainable use of inland water biological diversity. Also notably, a considerable number of countries (32) have not taken any measures for this purpose. In addition, slightly over a half of the reporting countries indicate that they support and participate in the activities of the River Basin Initiative.

4. *Impediments in implementation*

54. When elaborating the question concerning resources availability, only a few countries mentioned about the impediments they encountered in the implementation of the programme of work. All of them cited constraints in human, technical and financial resources in the implementation of the programme of work.

5. *Conclusion*

55. The implementation of the programme of work on inland water biodiversity is still in the early stage in many countries considering the fact that they are reviewing the programme of work or are yet to review it and identify national priorities. However, a number of reporting countries have developed relevant strategies, plans, programmes, projects and initiatives for conservation and sustainable use of inland water biological diversity, though some of them addressed these issues in a broader scope, such as plans for river basin, watershed or catchments management. A majority of reporting countries have incorporated into their national biodiversity strategies and action plans the conservation and sustainable use of inland water biodiversity and of migratory species and their habitats. Some countries are promoting synergy between the Convention on Biological Diversity and the Ramsar Convention including through integrated wetland, catchments and watershed management.

E. Dry and sub-humid lands biodiversity

1. Context

56. At its fourth meeting, the Conference of the Parties decided that one of the items for in-depth consideration at the fifth meeting of the Conference of the Parties would be dryland, Mediterranean, arid, semi-arid, grassland and savannah ecosystems. Based on SBSTTA recommendation V/8, the Conference

of the Parties endorsed at its fifth meeting a programme of work on dry and sub-humid lands biological diversity as contained in the annex I to decision V/23.

57. The programme of work on dry and sub-humid lands biological diversity was divided into two parts: (i) assessments; and (ii) targeted actions in response to identified needs. In decision V/23, the Conference of the Parties urged Parties to implement it, to support it scientifically, technically and financially its activities at the national and regional levels and to foster cooperation among countries within regions and subregions sharing similar biomes.

58. Considering this programme of work was adopted at the fifth meeting of the Conference of the Parties, the format for second national reports contained only three questions concerning decision V/23. Hence, the information available is too inadequate to assess the implementation of the programme of work. In addition, due to their national circumstances, 82 out of 94 reporting countries responded to the questions in this section.

2. *Status and trends*

59. Since the elements of the programme of work were not covered in the questions in this section, very few Parties provided information on the status and trends of dry and sub-humid lands biodiversity. In addition, most of the reporting countries are reviewing or are yet to review the programme of work.

3. *Impacts of implementation*

60. It is very difficult to identify at this stage any impacts of the implementation of the programme of work and related provisions of the Convention since this is a relatively new programme of work under the Convention and most of the reporting countries indicate that they have not yet identified any means to implement it. However, more than a half of reporting countries indicate that they are supporting to different extents (mostly to a limited extent) scientifically, technically and financially the activities identified in the programme of work. A similar number of countries are fostering regional or subregional cooperation for the implementation of the programme of work among countries sharing similar biomes.

61. From the additional information provided, a number of countries are promoting synergy at the national level in the implementation of the Convention on Biological Diversity, the United Nations Convention to Combat Desertification and the United Nations Framework Convention on Climate Change to address the issues related to dry and subhumid lands biodiversity, as well as enhancing synergies with other programmes of work under the Convention, such as forest and agricultural biodiversity.

4. *Impediments to implementation*

62. Only a few developing Parties report on the impediments they encountered in the implementation of the programme of work. For example, Nepal mentioned about resources constraints for scientific management and conservation of high altitudinal protected areas. Namibia reported on the limitation in the availability of financial and human resources to carry out technical work, including development of case-studies.

5. *Conclusion*

63. Considering it is a relatively new programme of work under the Convention, most of the reporting Parties are reviewing it or are yet to review it and identify how to implement it. The limited information available does not allow for an assessment of its implementation at this stage. However, it should be noted that a number of countries are providing scientific, technical and financial support to the

activities identified in the programme of work and fostering cooperation at regional or sub-regional levels among the countries sharing similar biomes.

III. ANALYSIS OF THE PROGRAMMES OF WORK ON CROSS-CUTTING ISSUES UNDER THE CONVENTION

A. Access and benefit-sharing

1. Context

64. The fair and equitable sharing of the benefits arising out of the utilization of genetic resources is one of the three objectives of the Convention. At its second meeting, the Conference of the Parties, in decision II/11, urged Governments to send information to the Secretariat on national measures to implement Article 15. Through decision III/15, Governments were urged to promote successful development and implementation of legislative, administrative and policy measures and to conduct analysis of ongoing experience in this field. Governments were also encouraged to explore, develop and implement the guidelines and practices to ensure mutual benefits to providers and users of access measures. At its fifth meeting, the Conference of the Parties urged Parties to ensure that national biodiversity strategies as well as legislative, administrative and policy measures on access and benefit-sharing contribute to conservation and sustainable-use objectives of the Convention.

65. At its fourth meeting, the Conference of the Parties decided to establish a panel of experts to develop a common understanding of basic concepts and to explore all options for access and benefit sharing on mutually agreed terms. At its fifth meeting, the Conference of the Parties decided to establish an Ad Hoc Working Group on Access and Benefit-sharing to develop guidelines and other approaches for consideration at its sixth meeting.

66. Altogether 21 questions were developed on Article 15 and associated decisions. In most cases, 92 out of a total of 94 countries responded to the questions in this section.

2. Status and trends

67. It is very difficult at this stage to present a global picture of the status of access to genetic resources and benefit sharing from the utilization of genetic resources. Even though they were identified as one of the three objectives of the Convention, these issues are relatively new to many countries, particularly developing countries that find their human, technical and financial resources very limited to address these issues. In addition, many countries, including developed countries, are still exploring the practices and codes of conduct for facilitating access and benefit sharing. In some countries, the awareness of these issues is yet to be raised. Access to genetic resources in some countries are unimpeded and unregulated and ways for benefit-sharing from these activities are yet to be explored.

68. However, a number of countries, both developing and developed countries, have developed some policies, measures, regulations or guidelines to facilitate access to genetic resources and encourage benefit sharing among users and providers of genetic resources. Some countries included the provisions concerning access and benefit-sharing in their agreements or regulations concerning the management of traditional and/or indigenous knowledge.

3. Impacts of implementation

69. Considering that related issues are new to many countries, it is very difficult to assess at this stage the impacts of implementation of related provisions of Article 15 and associated decisions of the Conference of the Parties. However, it may be useful to provide below some information which may reflect the current situation in this field in a considerable number of reporting countries.

70. First, less than a half of reporting countries attach a high priority to this Article, partly due to the low level of awareness of relevant issues in some countries and partly due to the fact that some countries attach high priority to other issues due to their national circumstances.

71. In regard to the measures taken to facilitate access to genetic resources, more than three-fourths of reporting countries indicated that they had made some efforts (50 countries made limited efforts and 20 countries made significant efforts) to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties. From the additional information, some countries with good expertise and adequate resources to address relevant issues have developed some effective measures for this purpose, including legal, administrative and policy measures. More than a half of reporting countries are in various stages of developing mechanisms or processes to ensure that access to genetic resources is subject to prior informed consent. Only a few countries have put in place such processes while a considerable number of countries report that no such processes are in place.

72. With regard to the measures to involve the Parties providing genetic resources in relevant scientific researches, about the two thirds of reporting countries have not taken any measures or are considering possible measures. A little more than one third of reporting countries have put in place some measures for this purpose. The situation is more or less similar for the measures taken to ensure the fair and equitable sharing of the results of research and development and the benefits arising from the commercial and other uses of genetic resources with those Parties providing genetic resources. Specifically, some Parties have adopted some administrative and policy measures and some Parties have adopted relevant legislation for the above purposes.

73. For capacity-building programmes to promote successful development and implementation of legislative, administrative and policy measures, more than a half of countries (51) report that they have developed some programmes covering some needs. Notably, a considerable number of countries (35) report that they have not implemented any programmes for this purpose. More than a half of reporting countries are of the view that their legislative, administrative or policy measures for access and benefit-sharing make limited contribution to conservation and sustainable-use objectives of the Convention. Meanwhile, more than one third of reporting countries considered that their measures made significant contributions to conservation and sustainable-use objectives of the Convention. Fifty countries report that an analysis is in progress of the experiences of legislative, administrative and policy measures and guidelines for use in the further development and implementation of relevant measures and guidelines while 39 countries indicate they are not making any analysis in this regard.

74. A significant number of countries (53) are undertaking limited collaboration with all relevant stakeholders to explore, develop and implement guidelines and practices that ensure mutual benefits to providers and users. Only a few countries (13) are collaborating to a significant extent. The rest of reporting countries have not initiated any collaboration for this purpose.

75. For those Parties that are recipients of genetic resources, more than a half of them (41 out of 78) have not yet adopted any administrative or policy measures to support the efforts of provider countries to ensure that access to genetic resources is subject to related articles and provisions of the Convention. An even bigger number of countries (49) are not cooperating with other Parties to find practical and equitable solutions to this end. In developing legislation on access, only a few countries (10) have taken into account and allowed for the development of a multilateral system to facilitate access and benefit-sharing in the context of the International Undertaking on Plant Genetic Resources.^{1/} A considerable number of countries (36) are developing such a legislation.

^{1/} The International Undertaking on Plant Genetic Resources was further developed into the Convention on Plant Genetic Resources for Food and Agriculture in 2001.

4. *Impediments to implementation*

76. A number of countries mentioned about some constraints they had encountered in implementing Article 15 and addressing issues related to access and benefit-sharing. Common to these countries are the constraints in human, financial, technical and technological resources. We can also see from the responses to the question concerning resources availability that a significant number of countries, including developed countries, find resources limited or severely limited.

5. *Conclusion*

77. Since issues related to access and benefit-sharing are relatively new to many countries, national actions in this field are still limited. In particular, the actions of some reporting countries restrained by limited human, financial, technical and technological resources. The low level of awareness of relevant issues and priority-setting may also explain limited actions taken by some Parties. As a result, a considerable number of Parties, particularly developing countries, have clearly indicated more needs for capacity-building to enable them to adopt and implement effective measures and mechanisms to address issues related to access and benefit-sharing. Meanwhile, it should be noted that a number of countries have already developed and implemented some policies, measures, regulations or guidelines on access and benefit-sharing.

B. *Ecosystem approach*

1. *Context*

78. At its fifth meeting, the Conference of the Parties, in decision V/6 and its annex, endorsed the ecosystem approach and its twelve principles. At its fifth meeting, the Conference of the Parties also called upon Parties to apply the approach, as appropriate, and develop practical expressions of the approach for national policies and legislation and for appropriate implementation activities, with adaptation to local, national and regional conditions. Parties were also encouraged to promote regional cooperation in applying the ecosystem approach across national borders. Meanwhile, at its fifth meeting, the Conference of the Parties recognized the need to review the approach and the principles and further develop the guidelines for their implementation based on case studies and information provided by Parties, other Governments and relevant bodies. The Conference of the Parties also recognized the need for capacity building to implement the ecosystem approach and invited Parties and international organizations to provide technical and financial support for this purpose.

79. Five questions relating decision V/6 were included in the format for the second national reports. Almost all the reporting countries have answered all the five questions. It should be noted that no Parties provided additional information in this case for the reason that no additional space was provided. However, some relevant information could be found in the responses to some questions or the additional information provided concerning some programmes of work like those on forest and agricultural biological diversity, GTI and identification, monitoring, impact assessment.

2. *Status and trends*

80. It appears that most of reporting countries are making various efforts to explore the application of the ecosystem approach while continuing to follow the practices of species-based or habitat-based conservation by establishing protected areas or networks of protected areas for this purpose. Some countries, particularly those sharing similar ecosystems with other countries, are trying to apply this approach in the joint efforts of ecosystem management, through the establishment of transboundary protected areas or reserves and a joint body for transboundary management.

3. *Impacts of implementation*

81. As indicated above, the ecosystem approach is relatively new to many countries, so it is very difficult to identify any impacts of the implementation of the approach at this stage. However, it is still useful to present some information about how some Parties are trying to explore the application of the approach.

82. First, it is encouraging to note that more than a half of reporting countries (56) are applying some principles of the approach and 11 Parties are implementing many principles of the approach. And about one fourth of countries report that they are considering the application of the approach. 54 countries are developing practical expressions of some aspects of the approach for national policies and legislation for implementation activities, with adaptation to local, national and regional conditions. Twenty-three countries are considering the development of practical expression of the ecosystem approach. A considerable number of countries indicate that they are trying to integrate the concept and practices of the ecosystem approach when they implement the programmes of work on forest, inland water, marine and coastal and agricultural biodiversity.

83. In terms of specific actions to explore the application of the ecosystem approach, 13 countries report that they have identified case studies. 24 countries are preparing pilot projects to demonstrate the ecosystem approach. 13 countries have held or are planning to hold workshops to further elaborate and explore the approach as well as enhance awareness and share experience in this regard. 3 countries have made relevant information available through their national clearing-house mechanism. It should be noted that a considerable number of reporting countries (37) have not yet initiated any action of the above.

84. About a half of the reporting countries are strengthening their capacities for implementation of the ecosystem approach through various means. In addition to their own efforts in this field, some developed countries have provided technical and financial support to developing countries to strengthen their capacity for applying the ecosystem approach. However, a considerable number of countries (33), mostly developing countries, have not initiated any action for capacity building or strengthening. As regards to the cooperation in applying the ecosystem approach, about two-thirds of countries report that various forms of cooperation have been undertaken, ranging from signing memoranda of understanding or agreements with neighbouring countries for jointly establishing and managing cross-border protected areas to undertaking joint research activities to explore the possibility of an ecosystem management. In this case, 33 countries indicate that they have not initiated any cooperation for this purpose. Part of the reasons is the lack of awareness of such a need and relevant capacities.

4. *Impediments to implementation*

85. Since little additional information was provided in this section, so it is very difficult to tell directly from the responses to the question about the specific impediments Parties may have in the implementation of the ecosystem approach. However, from some information scattered in other sections, we can see that some Parties, particularly developing countries, lack the expertise and the capacity to explore the application of the ecosystem approach. In addition, it can be also inferred that some countries have some difficulties in making transition from the existing management practices such as protected areas and species conservation to this relatively new approach of integrated management.

5. *Conclusion*

86. Clearly the implementation of the ecosystem approach is in a very early stage, even though many countries are trying to apply some principles of the approach through various means, including regional cooperation. A considerable number of countries have indicated needs for capacity building for practical application of the ecosystem approach at national, subregional or regional level. Some countries call for strengthening international and/or regional cooperation to implement the ecosystem approach.

C. *Public education and awareness*

1. Context

87. The Conference of the Parties addressed Article 13 for the first time at its fourth meeting. At both its fourth and fifth meetings, in decision IV/10 B and decision V/17, it was decided that public education and awareness would be integrated into and become an integral component of all sectoral and thematic areas under the programmes of work of the Convention. Meanwhile, the Conference of the Parties urged Parties to place special emphasis on Article 13 in the development of their national strategies and action plans. The Conference of the Parties also urged Parties to: (i) allocate resources for the use of education and communication instruments; (ii) allocate appropriate resources for the strategic use of education and communication instruments at each phase of policy formulation, planning, implementation and evaluation; (iii) integrate biodiversity concerns into education strategies; (iv) support relevant initiatives by major groups which foster stakeholder participation in biodiversity conservation and sustainable use.

88. At its fourth meeting, the Conference of the Parties invited the United Nations Educational, Scientific and Cultural Organization (UNESCO) to consider launching a global initiative on biodiversity education, training and public awareness, and requested the Executive Secretary to explore the feasibility of such an initiative and report to it on progress at its fifth meeting. At that meeting, the Conference of the Parties requested the Executive Secretary to convene a consultative working group of experts to identify priority activities for the proposed Global Initiative on Communication, Education and Public Awareness.

89. In this section, 12 questions were formulated on the basis of decisions IV/10 and V/17. All the reporting countries responded to all the questions in this section, with a substantial amount of additional information provided by a considerable number of countries.

2. Status and trends

90. A significant number of countries attach high priority to the implementation of Article 13. Many countries have recognized the importance of public education and awareness to the achievement of the objectives of the Convention. Many countries are undertaking various forms of educational activities at national and local levels to enhance public awareness and promote actions for conservation and sustainable use of biological diversity. A big number of countries have incorporated environmental or biodiversity education into their strategies for environmental protection or biodiversity conservation. Some countries have formulated their plans, programmes or strategies for public education on conservation and sustainable use of biodiversity. A number of countries have integrated biodiversity education into their school curriculums or courses. It can be inferred from the additional information that an increasing number of countries will undertake more educational activities through various means for the purpose of achieving the objectives of the Convention, if they could overcome the restraints in financial, human and technical resources.

3. Impacts of implementation

91. From the additional information provided by some Parties, it appears that the implementation of Article 13 and associated decisions has yielded some impacts generally on the implementation of the Convention in some countries, in terms that some activities undertaken in this field have raised the public awareness and mobilized the public participation to varying extents in the implementation of the Convention. However, it is still difficult at this stage to identify the specific impacts of these educational activities on the implementation of the Convention. One reason is that even though many countries have provided some detailed and useful information concerning the policies or programmes they have adopted and the activities they have undertaken or are undertaking, however, very few countries provided any

information about how these policies, programmes and activities have impacted the implementation of various articles of the Convention, decisions of the Conference of the Parties and the programmes of work under the Convention. Despite this, attempts are made in the following to summarize some policies, programmes and activities undertaken by a considerable number of countries in enhancing public awareness and education for achieving the objectives of the Convention.

92. First, an overwhelming majority of countries (92 out of 94) report that their national biodiversity strategies and action plans have covered public education and awareness needs. Some countries report that their educational strategies and plans have incorporated education on biological diversity. A number of countries have formulated environmental education plans or programmes of which education and public awareness for conservation and sustainable use of biological diversity is an important part. A few countries have even formulated or developed plans or programmes particularly for conservation and sustainable use of biological diversity.

93. Secondly, a significant number of countries (76) are supporting initiatives by major groups that foster stakeholder participation and that integrate biological diversity conservation matters in their practice and education programmes. A number of countries have recognized the important roles played by some non-governmental organizations, national, local or international, in the formulation and promotion of some educational programmes and activities in their countries. Almost all the reporting countries are supporting (though mostly to a limited extent) local, national, regional and subregional education and awareness programmes. A few countries report on joint educational programmes or activities undertaken in collaboration with their neighbouring countries or at the regional level.

94. Thirdly, a majority of reporting countries support capacity building for education and communication in biological diversity as part of their national biodiversity strategies and action plans. Some countries report on the coordinated efforts among government departments, schools and communities in developing and undertaking some educational activities. To this end, a majority of countries are also cooperating with other countries and international organizations in developing capacities for developing and implementing educational and public-awareness programmes.

95. It should be noted that education and public awareness programmes and activities vary from country to country. However, there is something in common. One of these commonalities is the increasing use of media, traditional and modern, for educational purposes. Some countries, particularly those developing countries with limited technical resources, are still using traditional means of communications like radio, newspapers, publications, brochures and other printed materials to disseminate relevant information. More countries are using some modern means like television, video and CD-Rom, to undertake some educational activities. Definitely, Internet is increasingly used by a considerable number of countries for this purpose. Some countries report that specialized Internet websites have been created to disseminate relevant information and provide educational programmes.

96. Another commonality is that many countries are organizing on-site education, such as tours to protected areas or national parks. For this purpose, some countries have trained some nature interpreters who try to explain to the visitors why and how they should protect nature. In addition, a number of countries have organized workshops, seminars and lectures to provide training to the general public. A few countries report that they have established environmental educational centres or parks for this purpose. As indicated earlier, some countries have been making great efforts in incorporating biodiversity or environmental education into their school curricula or courses or after-school activities for different grades and ages of students.

97. A number of countries also report that special educational activities are organized to celebrate the International Day for Biological Diversity, World Environment Day, International Water Day and International Desertification Day. Some countries have even established their own day, week or month at the national or local levels for protecting certain species, which aim to enhance public awareness and

mobilize public actions for the protection of these species. In addition, a few countries mentioned that for educational purposes they had translated many materials and publications in this field into their national or local languages and disseminated them through national clearing-house mechanisms or specialized Internet websites.

4. *Impediments to implementation*

98. One common constraint experienced by a significant number of countries is the limited resources available for them to implement this Article. This point was echoed by a number of reports in the additional information provided on the implementation of this Article. Specifically, a number of countries cited limitations in human, technical, financial resources. Some countries mentioned that they are lacking these resources to undertake some educational programmes or activities even though they have developed the programmes or plans in this field. Limited access to and exchange of information also posed a certain restraint to some Parties.

5. *Conclusion*

99. In conclusion, relatively the implementation of Article 13 is being promoted by a considerable number of countries. Various forms of educational programmes and activities are being or have been undertaken for various target audiences in a considerable number of countries for the purpose of achieving the objectives of the Convention. However, it should be noted that a number of countries have not developed any programmes or initiatives in this regard. It should be also noted that some countries are experiencing a number of constraints, even though they have made some efforts in this field.

D. *Global Taxonomy Initiative*

1. *Context*

100. At its fourth meeting, the Conference of the Parties, in decision IV/1 D, launched a Global Taxonomy Initiative and set out suggestions for actions on taxonomy. The annex to decision IV/1 D stressed that GTI should be implemented on the basis of country-driven projects at national, regional and subregional levels. The annex also contained a series of recommendations for Parties to implement GTI, such as maintenance, coordination and development of taxonomic institutions, priority setting, training, and exchange and dissemination of information.

101. At its fifth meeting, the Conference of the Parties reviewed the implementation of the GTI and established a coordination mechanism for GTI (decision V/9). In addition to that, taxonomy has also been recognized as fundamental for implementing the thematic programmes of work under the Convention, so the importance of taxonomy and of capacity-building for taxonomy has been stressed in the various programmes of work under the Convention.

102. Under the umbrella section of identification and monitoring (Article 7), altogether 20 questions were developed on taxonomy-related decisions. Almost all the reporting countries responded to all the questions and a number of countries had provided detailed additional information.

2. *Status and trends*

103. It is very difficult to generalize any global status and trends of taxonomy at this stage. For one reason, it is clear that most reporting countries are in the early stage of implementing the Global Taxonomy Initiative, even though a few countries, particularly some developed countries, have established the capacities and the infrastructure for taxonomic studies and collection. Some countries have been working on taxonomic collection and surveys which have produced some important publications such as Red Data Book and the Red List, but it is still very difficult to generalize about any global taxonomic status on the basis of the existing information. From the additional information, a considerable

number of reporting countries are experiencing some difficulties or restraints in implementing the recommendations put forward in the GTI.

3. *Impacts of implementation*

104. At this stage, it is very difficult to identify any impact of implementation of taxonomy-related decisions adopted at meetings of the Conference of the Parties as well as the Global Taxonomy Initiative. As indicated above, a considerable number of reporting countries are in the early stage of developing their capacity and infrastructure for taxonomic researches and surveys for the purpose of implementing the Convention. It should be said that most of the reporting countries have recognized the importance of taxonomy for their planning and actions for conservation and sustainable use of biodiversity, however, the implementation of GTI at national level is still greatly constrained by a number of impediments, which will be elaborated later on. Nevertheless, an attempt is made in the following paragraphs to summarize the current situation at the national level in implementing taxonomy-related decisions and the GTI.

105. First, more than a half of reporting countries are in the early stage of assessing their national taxonomic needs or identifying their national taxonomic priorities. A considerable number of reporting countries (30) have not initiated any assessment yet, and only a few countries have completed the assessments. From the additional information, there may be a number of reasons for this situation. Some countries report that they are faced with such impediments as lack of adequate infrastructure (like housed collections), lack of taxonomists and trained personnel in this field, shortage of funds to support the activities in this field.

106. Clearly, without any assessment of national taxonomic needs or priorities, very few countries have formulated their national action plan for taxonomy. More than a half of reporting countries have not developed any action plan (56). A number of reporting countries (25) are in the early stage of developing such action plan.

107. As to the development of appropriate infrastructure for taxonomic collections, more than a half of reporting countries are making some investment and 11 Parties are investing significantly. In this case, the level of investment needs further assessment because this may be subject to different interpretation by different countries considering their different national circumstances. Here it should be noted that from the additional information, a number of countries, mostly developed countries and a few developing countries as well, maintain a considerable level of taxonomic collections that meet or exceed international standards for housing collection, as a result of years of their endeavors in this field. A little more than one third of reporting countries (34) have taken steps to ensure financial and administrative stability for some institutions responsible for biodiversity inventorying and taxonomic activities. A similar number of reporting countries have not taken any step to ensure financial and administrative stability for their taxonomic institutions. A number of countries are reviewing this matter to see whether they are going to take any steps. Forty-two countries have established or consolidated taxonomic reference centres while 50 countries have not established or consolidated any taxonomic reference centers. From the additional information, it would appear that some countries are collaborating with other countries in establishing taxonomic reference centres.

108. More than a half of reporting countries (51) have identified their information requirements in the area of taxonomy and undertaken basic assessments of their capacity to meet these requirements. However, a considerable number of countries (37) have not identified their information requirements in this area or assessed their capacity to meet these requirements. Similarly, 51 reporting countries have made efforts to increase their capacity in the area of taxonomic research while 40 countries have not taken any measure to strengthen their capacity for taxonomic research.

109. Another aspect of capacity building is the training of specialized personnel in this field. A considerable number of the reporting countries are encouraging some opportunities of bilateral and

multilateral training and employment for their taxonomists. A considerable number of countries (53) have provided some training programmes in taxonomy. However, a considerable number of Parties find it very difficult to provide programmes for retraining of qualified professionals working in the field of taxonomy, either due to their limited capacity or their urgent need to use the expertise in taxonomy. To explore other ways or means of capacity strengthening, many countries are encouraging the partnerships between taxonomic institutions in developed and developing countries. A considerable number of countries have given some attention to the international funds or fellowships for specialist training abroad or for attracting international experts to national or regional courses. The additional information indicates that some universities and research institutions in some countries have provided specialized training to their students or have incorporated relevant content in their curricula or courses.

110. The exchange or dissemination of taxonomic information in this field also prove helpful for taxonomic capacity building. More than a half of reporting countries (57) are allocating appropriate resources to enhance the availability of taxonomic information, however, this does not cover all known needs adequately. 40 countries report that they have participated in the development of regional networks to facilitate information sharing for GTI while notably, 52 countries indicate that they have not. This is partly due to the fact that these countries are yet to collect some taxonomic information and need to establish their own taxonomic information system. The additional information indicates that some countries, particularly developed countries, have established their database or information system in this field, and some even helped some developing countries collect taxonomic information and establish relevant databases. Some countries or regional organizations are working on some projects aiming to increase information availability.

111. Finally, it should be noted that most developing countries or countries with economies in transition have not sought resources from the financial mechanism of the Convention to support their priority actions in this field. This partly reflects the level of priority they attach to the implementation of GTI.

4. *Impediments to implementation*

112. A number of countries did mention some constraints they faced in undertaking their priority actions and implementing some recommendations put forward in the Global Taxonomy Initiative. The first impediment is the lack of infrastructure needed for taxonomic studies, surveys and information collection. Some countries particularly underlined the shortage of housing facilities or equipment for taxonomic collection. They also mentioned about the difficulty in allocating proper human and financial resources to maintain the existing facilities even though they had established some. The second constraint they have is the lack of expertise in this field. A few countries report quite frankly that they do not have any taxonomist to undertake relevant activities. Some countries indicate they have to resort to bilateral or multilateral cooperation to undertake some taxonomic activities. A few countries mentioned that their expertise in this field is declining while very few students show interest in taxonomy.

113. The third major obstacle is the lack of adequate funding for undertaking relevant activities. It seems that this problem is common to many countries, particularly those small island developing States. The fourth impediment is the lack of taxonomic information exchange or dissemination. A number of countries are seeking various means to increase information availability or exchange, however, access to and sharing of relevant information is still very limited at this stage. Part of the reason is the limited availability of taxonomic information.

5. *Conclusion*

114. In general, the implementation of the Global Taxonomy Initiative is in the early stage in many countries, primarily because of a number of restraints, as elaborated above. However, it should be recognized that a number of countries have made considerable efforts in this field, such as establishment

of a variety of taxonomic collection, relevant database or information exchange system and publications of research results and surveys in this field. Many reporting countries have indicated strong needs for building and strengthening their taxonomic capacities considering the fundamental role of taxonomy in facilitating the implementation of the Convention.

E. Invasive alien species

1. Context

115. At its fourth meeting, in decision IV/1 C, the Conference of the Parties decided that alien species would be one of the cross-cutting issues under the Convention. It also requested SBSTTA to develop proposals for further action under the Convention on this issue. In decision V/8, the Conference of the Parties adopted the interim guiding principles for the prevention, introduction and mitigation of impacts of alien species. It also decided that, at its sixth meeting, it would consider further options for implementing Article 8(h), including the possibility of developing an international instrument. The Conference of the Parties also urged Parties, Governments and international organizations to apply the interim guiding principle as contained in the annex I to decision V/8. Parties were also invited to develop country-driven projects at national and international levels to address alien species, and incorporate the issue into their national biodiversity strategies and action plans. In addition, Parties were encouraged to develop mechanisms for transboundary, regional and multilateral cooperation and effective measures for education, training and public awareness.

116. A total of 16 questions were developed on the provisions of Article 8(h) and decisions IV/1 C and V/8. Almost all the reporting countries responded to these questions. It should be noted here that as indicated by a number of Parties, detailed information was submitted in their thematic reports on this issue, following a request made by the Conference of the Parties in decision V/19. The following analysis is based on the information contained in the second national reports only.

2. Status and trends

117. It is very difficult to identify any status and trend of alien species at the global level based on the information contained in the second national reports. The additional information indicates that some countries have made assessments of the impacts caused by alien species and taken some measures accordingly, such as border examination, quarantine of imported living organisms, and impact assessment prior to any decision to import living organisms. Some countries have developed specialized policies or regulations to address this issue after severe threats or impacts caused by alien species were identified. Some countries with adequate expertise and resources as well as a high level of awareness to address this issue, particularly some developed countries, have put in place effective policies, regulations and measures to monitor, prevent and control alien species. Some countries are trying to facilitate information exchange among the countries affected or establish multilateral mechanisms to address this issue. Meanwhile, it should be noted that a number of countries have not paid adequate attention to this issue, therefore very few measures were put in place. This is partly because they have not experienced any impacts caused by alien species or paid any attention to relevant issues in the absence of any assessments in this field. A considerable number of countries are still constrained by lack of capacities, resources, and awareness to address this issue.

3. Impacts of implementation

118. In this case, it is difficult to generalize any impacts of implementation of Article 8(h) at the national level for the reason that the awareness of many reporting countries of this issue is relatively low and most of them have not taken effective measures to address this issue even though they are already aware of this issue. However, as indicated above, a number of countries have developed policies or regulations and taken various measures to address this issue. They indicated that some policies and measures they have implemented or are implementing have proven effective to some extent in preventing,

monitoring or controlling the alien species. However, very few countries have assessed the effectiveness of these measures already taken or being taken. Furthermore, very little information is available from the second national reports concerning the impacts of these measures. Therefore it is more appropriate to summarize some actions taken by some countries to address the issue of alien species.

119. First, as far as priority setting is concerned, out of 93, only 31 countries attach high priority to the implementation of Article 8(h) and associated decisions. In the additional comments provided, a number of countries clearly indicated that this issue was not a high priority for the time being probably because of a few constraints they had, including shortage of expertise, funding and technical measures to address this issue. Resources limitation is another restraining factor for a considerable number of countries. For some countries, other issues may outweigh this issue due to their particular national circumstances.

120. As fundamental work to address this issue, most reporting countries have identified major alien species of concern that are introduced to their countries. However, only a few Parties have established the systems to track all known introductions or new introductions of alien species. Most of the reporting countries (78) have made assessments on some alien species of concerns as to their risks to the ecosystems, habitats or species to which they are introduced. Nevertheless, a majority of reporting countries did not provide detailed information concerning the assessments they had undertaken, so it is difficult to undertake any further analysis of these risks.

121. A great majority of reporting countries have also addressed, mostly to a limited extent, the issue of alien species in their national biodiversity strategies and action plans. This situation (addressing this issue to a limited extent) may be related to the low-level of awareness of this issue of many countries when they were developing their national biodiversity strategies and action plans. Encouragingly, a significant number of countries (60) indicated that they had given high priority to the development and implementation of a strategy and action plan to address the issue of invasive alien species, even though they do not attach high priority to this issue for the time being.

122. The application of the interim guiding principles adopted at the fifth meeting of the Conference of the Parties is limited in some sectors in a considerable number of countries (45). About one fourth of reporting countries are considering applying these principles. Only a few countries are extensively implementing these principles in some sectors. From the additional information, only a few countries touched on the guiding principles. It can be inferred that the practical application of these principles at national level is still in the very early stage considering that most countries feel they need more exploration and efforts to put these principles into practice.

123. A considerable number of countries have recognized that transboundary, regional or multilateral cooperation is needed to address this issue, however, the two-thirds of the reporting countries are in the stage of discussing about such cooperation and developing some cooperative projects in this field. It should be also noted that a number of countries (27) have taken little or no action in this regard and even a few more countries (36) indicate that they have not developed or participated in any mechanisms for international cooperation. Nevertheless, a number of countries have provided some good examples of such cooperation in the additional information they provided. One of them was the signing of the agreements or memoranda of understanding between the Governments in joint efforts to address alien species that have been identified as a threat to the countries involved. Within some countries, the system of cooperation among different provinces or states has been established to address this issue.

124. Due to the differences in national circumstances, a minority of reporting countries (33) pay priority attention to the geographically and evolutionarily isolated ecosystems in their work on alien species. But more countries (48) are employing the ecosystem approach and precautionary and biogeographical approaches in dealing with the issues of alien invasive species. However, it should be noted here that a considerable number of countries (45) are not using these approaches. This is partly relevant to the lack of expertise and resources to apply these approaches in their work on alien species.

As indicated earlier, the application of the ecosystem approach itself is still in the very early stage considering it needs further exploration in theory and practice by many countries.

125. To address this issue requires the participation of many sectors as well as the general public. As indicated by a number of reports, a few sectors, such as forestry, agriculture, fishing, were involved in their efforts to address the issue of alien species. However, in many countries, involvement of the sectors concerned is still limited. To this end, many reporting countries (63) have developed some initiatives for education, training and public awareness concerning the issue of alien species. Notably, very few countries have developed many initiatives while a number of countries (24) have not yet initiated any educational programmes or activities to address the issue of alien species.

126. Finally, it should be noted that a significant number of reporting countries are not providing support to enable the Global Invasive Species Programme (GISP) to fulfil its tasks. This is partly due to their own limited capacity to address this issue. Another possible reason is that GISP itself is in the early stage of development and takes some time to involve more countries. More than one fourth of reporting countries, mostly developed countries, are providing limited support to GISP, with a few countries having provided substantial support to GISP.

4. Impediments to implementation

127. A considerable number of countries did mention about a few impediments they had encountered in implementing Article 8(h) and the associated decisions. First, the impediment common to many countries is the shortage of expertise, which constrain them from undertaking substantive studies or assessments of relevant issues. Secondly, related to the first, many countries have limited financial resources available to address this issue. Thirdly, the low awareness of policy makers leads to a low priority attached to this issue. As a result, few measures or policies were put in place or implemented. Fourthly, lack of coordination among related sectors restrain some countries from taking comprehensive approaches to address this issue. This has also lowered the effectiveness of some measures already in place. Finally, some countries feel they need more effective technical measures to control alien species after their negative impacts have been identified on the ecosystems, habitats or species into which they were introduced.

5. Conclusion

128. A number of reporting countries, particularly those with good expertise and resources to address this issue, have made some progress in implementing Article 8(h) and associated decisions. As elaborated above, some countries have developed some effective policies, regulations or programmes to address the issue of alien species. It should be noted that a considerable number of countries are taking very limited or no action to address this issue due to a range of constraints they had. It should be also noted that the application of the interim guiding principles adopted at the fifth meeting of the Conference of the Parties is still in the very stage in many countries.

F. Traditional knowledge, innovations and practices

1. Context

129. As part of its medium-term programme of work, the Conference of the Parties decided to address at its third meeting the issue of traditional knowledge, innovations and practices of indigenous and local communities and further advance the implementation of Article 8(j) (decisions I/9 and II/18). At its third meeting, the Conference of the Parties adopted decision III/14 on implementation of Article 8(j) which set in motion a process for consideration of further work in this area, including convening a workshop to advise the Conference of the Parties on the possibility of developing a work plan on Article 8(j) and related provisions and examining the need for an intersessional working group to consider the role of

traditional knowledge, innovation and practices in the conservation and sustainable use of biological diversity.

130. At its fourth meeting, in decision IV/9, the Conference of the Parties decided to establish an Ad Hoc Working Group to address the implementation of Article 8(j) and related provisions, based on the recommendations for a work plan provided by the Workshop on Traditional Knowledge and Biodiversity held prior to the fourth meeting of the Conference of the Parties. Based on the recommendations of the Working Group, the Conference of the Parties, in decision V/16, adopted a programme of work for Article 8(j) and related provisions. Meanwhile, the mandate of the Working Group was extended to undertake specific tasks under the programme of work, to review progress in its implementation and to make recommendations for further actions.

131. The Conference of the Parties has provided guidance to Parties relating to the implementation of Article 8(j) and related provisions both in its decisions addressing this article, and also in decisions on other articles and thematic areas and cross-cutting issues. It has requested Parties to develop national legislation and corresponding strategies for the implementation of Article 8(j) in consultation with representatives of their indigenous and local communities. Thematic work programmes also address Article 8(j) and related provisions. For example, in relation to agricultural biodiversity, the Conference of the Parties has encouraged Parties to develop national strategies, programmes and plans which empower their indigenous and local communities and build their capacity for *in-situ* management of agricultural biodiversity.

132. A total of 21 questions were included in the second national reports on Article 8(j) and associated decisions, mainly decisions III/4, IV/9 and V/16. It should be noted that no questions were developed on the elements of the programme of work adopted at the fifth meeting of the Conference of the Parties. Because of different national circumstances and different interpretation of the definition of indigenous and local communities, a few reporting countries did not respond to some questions in this section.

2. *Status and trends*

133. From the responses to the questions in this section and some additional information, generally, the implementation of Article 8(j) and related provisions is still in the early stage for many countries. However, some countries, particularly those with indigenous communities, give a high priority to the implementation of Article 8(j) and related provisions. They have developed some policies and programmes to promote the role of indigenous communities in the conservation and sustainable use of biodiversity through use of their traditional knowledge, innovations and practices. Meanwhile some countries, particularly those with a long history of agricultural activities, pay high attention to the collection, maintenance and use of traditional knowledge accumulated for years in their local communities, through development and implementation of specialized policies and programmes. However, their actions in this regard are still limited due to various constraints, such as lack of funding, human resources and a low level of awareness.

3. *Impacts of implementation*

134. At this stage, it is difficult to identify any impacts of implementation of Article 8(j) and related provisions. One reason is that the programme of work on Article 8(j) was adopted at the fifth meeting of the Conference of the Parties, and Parties need some time to review this work programme and identify means of implementation. Another reason is related to the fact that many Parties do not have indigenous communities, therefore the level of priority they attach to this article is relatively lower than to other articles, even though this article addresses both indigenous and local communities. One more reason may be that even some countries are aware of the importance and the urgency of taking some action in this field, they are restrained by lack of trained personnel, technical resources and expertise. In addition, generally the awareness of relevant issues is still low in many countries.

135. Nevertheless, it is still useful to look at some national developments in the implementation of Article 8(j) and related provisions. First, less than a half of reporting countries are in various stages (mostly in the early stage) of developing national legislation and strategies for the implementation of Article 8(j) and related provisions. A few countries mentioned that their national legislation or strategies for indigenous people are already in place, but the enforcement of these legislations or strategies is not easy in some countries.

136. More than a half of reporting countries have taken some measures to ensure that the traditional knowledge, innovations and practices of indigenous and local communities are respected, preserved and maintained. Very few Parties have placed comprehensive measures in this regard. From the additional information, some countries have developed specialized policies and programmes in this field. In addition, a considerable number of countries have taken measures to promote the preservation and maintenance of knowledge, innovations and practices of indigenous and local communities. A number of examples can be found in the additional information provided by a few countries. One of them is the Canadian efforts to establish co-management boards to shape and develop traditional knowledge and campaign for its recognition.

137. In regard to the benefit-sharing from use of traditional knowledge, most of reporting countries are in different stages of developing relevant policies, programmes or mechanisms. Very little additional information was provided on the policies or mechanisms established to encourage the equitable sharing of the benefits arising from the utilization of traditional knowledge, innovations and practices.

138. In terms of participation of indigenous and local communities in relevant activities under the Convention, more than a half of reporting countries (49 out of 87) indicated that they had fully incorporated women and women's organizations in the activities undertaken to implement the programme of work and other relevant activities under the Convention. More than a half of reporting countries have taken limited or significant measures to facilitate full and effective participation of indigenous and local communities in the implementation of the Convention. However, less than a half of reporting countries are facilitating the participation of representatives of indigenous and local communities in the Working Groups and relevant meetings under the Convention. A small number of Parties have included them in their official delegations to meetings held under the Convention.

139. It should be mentioned here that a number of countries (38) are trying to develop the registers of traditional knowledge, innovation and practices of indigenous and local communities. One of the examples of this is the Indian People's Biodiversity Registers which were intended to record and maintain the traditional knowledge found in local communities. It should be also noted that a number of countries do not support the development of such registers because they are concerned about whether such registers will be used in the interest of the indigenous and local communities concerned. In addition, their capacity to develop such a register is also limited.

140. Finally, the information exchange among Parties and submission of case studies as requested by various decisions of the Conference of the Parties is not encouraging in general. Specifically only a small number of countries have submitted case studies on methods and approaches concerning the preservation and sharing of traditional knowledge, and the control of that information by indigenous and local communities. The same observation applies to the exchange of information and the sharing of experiences concerning national legislation and other measures for protection of traditional knowledge. This may be related to the priority level attached by many Parties to this article, their limited capacities in this regard as well as various constraints mentioned earlier.

4. *Impediments to implementation*

141. A number of countries did mention the impediments they had experienced in implementing Article 8(j) and related provisions. Again, common constraints are the lack of human, technical and

financial resources. A few countries have some other constraints. For example, some countries have not established proper regulations, policies or institutions to deal with related issues although they are aware of the need to take some actions to protect and maintain traditional knowledge. Some countries indicated that they are short of expertise in this field even though they are aware that some traditional knowledge is disappearing. Some countries have established some facilities like museums to maintain traditional knowledge, but they do not have adequate resources to maintain the operation of these facilities. Some countries also feel limitations in access to relevant information so they have difficulty in identifying proper methods and approaches to protect and preserve traditional knowledge.

5. *Conclusion*

142. In conclusion, the implementation of Article 8(j) and related provisions is in the early stage in many countries. Meanwhile it should be recognized that a number of countries, particularly those countries with indigenous populations and a long history of agricultural activities, attach a high priority to the protection and preservation of traditional knowledge and are making various efforts to this end, including through development of some specialized regulations, policies and programmes. It should be also mentioned that some countries, even without indigenous communities in their own jurisdictions, are providing some support to other countries to facilitate the implementation of Article 8(j) and related provisions.

G. *Incentive measures*

1. Context

143. At its third meeting, the Conference of the Parties, in decision III/18, endorsed a recommendation made by the SBSTTA on economic valuation of biodiversity and decided that incentive measures should be integrated into the thematic programmes of work and cross-cutting issues under the Convention. At the same time, the Conference of the Parties also encouraged Parties to review existing policies to identify and promote incentives for the conservation and sustainable use of components of biodiversity and ensure adequate incorporation of market and non-market values of biodiversity into plans, policies and programmes, including national accounting system and investment strategies. Parties were also encouraged to develop training and capacity-building programmes and promote private sector initiatives in this area and incorporate biodiversity considerations into impact assessments.

144. At its fourth meeting, the Conference of the Parties, in decision IV/10 A, requested Parties, Governments and international organizations to: (i) promote the design and implementation of appropriate incentive measures; (ii) identify threats to biodiversity and underlying causes of reduction or loss of biodiversity and relevant actors, as a first step in the formulation of incentive measures; (iii) develop supportive legal and policy frameworks for the design and implementation of incentive measures; (iv) carry out participatory consultative processes at relevant level to define incentive measures to address the identified underlying causes of biodiversity reduction and loss and unsustainable use; (v) identify perverse incentives and consider the removal and mitigation of their negative effects on biological diversity; and (vi) undertake value addition and enhancement of naturally occurring genetic resources, based on the participatory approach.

145. At its fifth meeting, the Conference of the Parties, in decision V/15, established a programme of work on incentive measures to support Parties in developing practical policies and projects and to develop practical guidelines to the financial mechanism for effective support and prioritization of these policies and projects. In accordance with decision V/15, the programme of work should result in: (i) the assessment of representative existing incentive measures, review of case-studies, identification of new opportunities for incentive measures, and dissemination of information through the clearing-house mechanism and other means; (ii) the development of methods to promote information on biodiversity in consumer decisions; (iii) the assessment of the values of biodiversity; (iv) a consideration of biodiversity

concerns in liability schemes; and the creation of incentives for integration of biodiversity concerns in all sectors.

146. A total of 16 questions were developed on Article 11 and associated decisions. There were no questions concerning the programme of work on incentive measures. Almost all the reporting Parties responded to all the questions in this section.

2. *Status and trends*

147. It is very difficult to generalize at this stage the status and trends of the development and implementation of incentive measures for the purpose of achieving the objectives of the Convention. From the responses to questions in this section and the additional information, many reporting countries are in the early stage of developing and implementing incentive measures for achieving the objectives of the Convention. However, a number of reporting countries have developed or are developing a variety of incentive measures for the conservation and sustainable use of biodiversity or environmental protection in general. A number of reporting countries have recognized the importance of developing and implementing some incentive measures as well as the need to do more work in this area, even though they have not taken any initiative for the time being.

3. *Impacts of implementation*

148. As mentioned above, a number of reporting countries have developed or are developing a variety of incentive measures for the conservation and sustainable use of biological diversity. Nevertheless, it is very difficult to identify the impacts these incentive measures have had upon the conservation and sustainable use of biological diversity. This is because that very few Parties have provided information concerning to what extent some incentive measures they have implemented or are implementing have impacted on the conservation and sustainable use of biological diversity. However, it is useful to have an overview of some incentive measures adopted by some Parties and how they are implementing relevant decisions adopted by the Conference of the Parties.

149. First, in terms of priority-setting, about a half of reporting countries attach a medium priority to Article 11, and 18 Parties give a low priority to this Article. This may partly explain the status of implementation of Article 11 and associated decisions in a considerable number of reporting countries. To a majority of reporting countries, the resources are limited or very limited for the implementation of this Article. A considerable number of developing countries underlined their needs for human, technical and financial resources to meet the obligations and recommendations made to implement this Article and associated decisions and the programme of work.

150. About a half of reporting countries are in various stages (mostly in the early stage) of developing programmes to identify and adopt incentive measures for the conservation and sustainable use of biological diversity. Over one fourth of reporting countries have put such programmes in place. Notably, a number of countries (17) have not developed any programme for this purpose. The design and implementation of incentive measures is also in the early stages for more than a half of reporting countries. A number of countries (19) have put measures in place for the design and implementation of incentive measures. As to the steps and processes for the design and implementation of incentive measures, more than two-thirds of reporting countries indicate that they have incorporated biodiversity considerations into impact assessments. As a stage in designing incentive measures, a significant number of countries (58) have partially identified the threats to biodiversity and underlying causes of biodiversity loss. Only a few countries (11) have undertaken a thorough review of the threats to biodiversity and the underlying causes to biodiversity loss. And a significant number of countries are identifying or have put in place the consultative processes to define clear, target-oriented incentive measures to address the underlying causes of biodiversity loss.

151. A considerable number of reporting countries are in the early stages of identifying mechanisms to incorporate both market and non-market values of biodiversity into relevant plans, policies and programmes, including national accounting systems and investment strategies. Very few Parties have put such mechanisms in place. As to the range of sectors these incentive measures have covered, more than a half of reporting countries indicate that the measures they have identified or adopted cover only some sectors. A number of countries (17) indicate that relevant measures they have identified cover all major sectors. Very few incentive measures cover all sectors. Most of the existing incentive measures have considered to a limited extent the economic, social, cultural and ethical valuation of biodiversity. The incentive measures developed by some countries (19) do not take into account various values of biodiversity.

152. The review of legislation and economic policies are in progress in a considerable number of countries (33) to identify and promote incentives for the conservation and sustainable use of biodiversity. A number of countries (30) have completed such reviews. The additional information indicates that they have identified some perverse measures that they are taking steps to correct or improve. A few countries are reviewing a broader range of legislation and economic policies for this purpose. It should be mentioned that some reporting countries have incorporated into their relevant legislation or policies various incentive measures for the conservation and sustainable use of biological diversity.

153. As to the efforts to identify and neutralize perverse incentives, more than one third of reporting countries are identifying these incentives. A number of countries have identified these incentives but not neutralized them yet. Only one Party has identified and neutralized such incentives. It should be noted that a considerable number of countries (34) have neither identified nor neutralized perverse incentives.

154. From the additional information, a number of countries have developed and implemented a variety of incentive measures for the conservation and sustainable use of biological diversity. First, some countries have adopted some economic incentives, such as tax incentives, financial subsidies and compensation paid to individuals for their income loss due to their action to conserve natural resources and biodiversity. One example of this kind can be found in the Canadian announcement in 2000 that two-thirds of the tax on deemed capital gains associated with any ecological gift will be exempted from income and that new measures for certifying the appraisals of such gifts will be implemented, which simplified the donation of ecological gifts. Some countries have adopted the policies to discourage the overuse or overexploitation of natural resources, such as payment for use of natural resources and heavy fines paid for overexploitation of natural resources. A few countries report that they are using accounting tools to assess the economic costs of loss of natural resources and biodiversity.

155. Secondly, a few countries have adopted some social incentives, such as rewarding managers of protected areas and fellowships provided to encourage studies on ecology and biodiversity. Some countries provide prizes and awards in kind, such as books on conservation and T-shirts. However, it seems that most of the reporting countries are exploring or considering exploring possible ways and means by which these incentives can support the objectives of the Convention.

4. *Impediments to implementation*

156. A number of impediments were mentioned in some reports. First, common to many developing countries, are the constraints in terms of human, technical and financial resources to develop and implement incentive measures for conservation and sustainable use of biodiversity. Secondly, some countries have not yet established the mechanisms or processes to develop and implement such incentive measures. Thirdly, more importantly, a number of countries feel that the awareness of values of biodiversity is at a low level for developing incentive measures for its conservation and sustainable use. In addition, the lack of knowledge and awareness of how to develop incentive measures related to biodiversity conservation also leads to weak or no incentive measures. Fourthly, development and implementation of incentive measures requires cross-sectoral coordination and efforts. Some countries

find it difficult to develop and implement incentive measures for biodiversity conservation due to lack of coordination and joint efforts of relevant sectors.

5. *Conclusion*

157. As indicated above, the implementation of Article 11 is in the early stage for many countries because of the constraints elaborated above. Meanwhile, a number of countries have developed and are implementing a variety of incentive measures for the conservation and sustainable use of biological diversity, though some incentive measures are designed and implemented for environmental protection and conservation of biological resources in general. A considerable number of countries have indicated a great need to build various capacities for the development and implementation of incentive measures. In particular, many developing countries find resources and expertise very limited to develop and implement incentive measures and to undertake some fundamental work for this purpose, such as assessing the threats and underlying causes of biodiversity loss.

H. Sustainable use of the components of biological diversity

1. Context

158. The sustainable use of the components of biological diversity is one of the three objectives of the Convention. At its fourth meeting, the Conference of the Parties decided to consider the issue of sustainable use at its fifth meeting. At that meeting, the Conference of the Parties, in decision V/24, endorsed sustainable use as one of the cross-cutting issues under the Convention.

159. In decision V/24, Parties were invited to identify indicators and incentive measures for sectors relevant to the conservation and sustainable use of biological diversity. Parties were also urged to develop or explore mechanisms to involve the private sector and indigenous and local communities in the initiatives on sustainable use of biodiversity, and in the mechanisms to ensure that indigenous and local communities benefit from such sustainable use. In addition, Parties and Governments were invited to assist other Parties, especially developing countries and countries with economies in transition, to increase their capacity to implement sustainable-use practices, programmes and policies at regional, national and local levels, especially in pursuit of poverty alleviation.

160. A total of nine questions were developed on Article 11 and the associated decisions. All the reporting countries responded to all the questions in this section.

2. Status and trends

161. It is difficult to generalize about the status and trends of sustainable use of biological diversity at the global level based on the information contained in the second national reports. However, we can still see that a quite number of reporting countries have recognized the importance of sustainable development as well as sustainable use of biological resources. The relevant principles and rules have been included in their relevant laws, regulations, strategies, policies, plans and programmes. A considerable number of reporting countries have provided some success stories in promoting ecotourism, through good planning, formulating best practices and guidelines and improving the on-site management of tourist attractions. Though many countries have recognized sustainable use of biological diversity as an important part of their strategies for sustainable development, many Parties may need more efforts to implement relevant strategies. In addition, there is a need for many Parties to explore a variety of ways to achieve the sustainable use of biological diversity.

3. Impacts of implementation

162. Although the sustainable use of biological diversity is one of the three objectives of the Convention, this issue has only been addressed in depth in recent years. Hence, the information provided

in the second national reports is not adequate to identify impacts of implementation of this objective as well as Article 10. In particular, there is little information from the second national reports illustrating the impacts of sustainable use of biological diversity on the conservation of biological diversity. However, as indicated above, a quite number of reporting countries have recognized the importance of this issue and have taken some actions in this field. Therefore, it is still useful to look at some national developments in implementing Article 10 and the associated decisions as well as promoting sustainable use of biological diversity.

163. First, a significant number of reporting Parties attach a high priority to the implementation of the Article 10. The additional information provided by a considerable number of countries indicates that they have recognized the importance of sustainable use of biological resources and diversity and incorporated relevant principles and rules into their relevant strategies, plans and programmes. Some countries have included sustainable use as one of important objectives and principles for a number of sectoral strategies and plans, particularly for forest, agriculture, fishery, tourism and energy. A few countries have integrated the principles of sustainable development and sustainable use into their relevant laws and regulations. Some national strategies and action plans for sustainable development have endorsed the importance of sustainable use of biological resources and diversity.

164. More than a half the reporting countries are in various stages (mostly in the early stage) of developing relevant policies or programmes to integrate consideration of conservation and sustainable use of biological resources into their national decision-making. A considerable number of countries (35) report that they have put such policies or programmes in place.

165. As to the measures to avoid or minimize the adverse impacts of use of biological resources on biological diversity, more than the two-thirds of reporting countries indicate that they have put some measures in place and a number of countries (13) have adopted comprehensive measures. However, very few Parties provided additional information concerning specific measures they had taken in this regard. Only a few Parties mentioned generally about their agricultural environmental measures (like organic farming) adopted for this purpose. A few countries report that they have exercised strict control over the pollution discharging and release of genetically modified organisms into the environment in order to avoid their adverse impacts on biological diversity.

166. More than two thirds of reporting countries have put some measures in place to encourage and protect the customary use of biological resources that is compatible with conservation and sustainable use requirements. A few countries have established comprehensive measures for this purpose. Again, little detailed information was provided on the measures in this regard. One country mentioned that a licensing system was adopted to protect customary use of biological diversity. The European Community reports that financial support is provided to local farmers to encourage them to follow their traditional use of biological resources. A few countries report on some measures taken to protect the use of biological resources in forests and medicinal plants.

167. Again, about the two-thirds of reporting countries (62) have put in place some measures to help local populations develop and implement remedial action in degraded areas where biological diversity has been reduced. Detailed information in this regard is again short. One country reports on its approach to sign contracts with local communities to restore or rehabilitate degraded areas or encourage the private sector involvement in relevant actions. One country reports that financial support is provided to local people for their efforts to restore degraded areas in forests. The European Community mentioned about its agricultural environmental measures and the LIFE programme.

168. To encourage the cooperation between government authorities and the private sector in developing methods for the sustainable use of biological diversity, more than a half of reporting countries are in the early or advanced stages (mostly in the early stages) of developing relevant policies or programmes. More than one quarter of reporting countries have put such policies or programmes in

place. Specific information in this regard is very little. Only one or two countries report on the collaboration between government authorities and the farmer's associations and the commercial fishing communities. The European Community mentioned that most areas of high biological diversity, including many of the NATURA 2000 Network sites, are under private ownership and hence government-private sector collaboration in land use is widespread in the region. In addition, over a half of reporting countries are developing (49) mechanisms to involve the private sector and indigenous and local communities in initiatives on sustainable use. More than one fourth of reporting countries have established such mechanisms. Only a few countries mentioned about some mechanisms they have established, such as establishment of a certain coordinating mechanism, arrangement of hearing before relevant decisions are made, involving the private sector in the implementation of relevant initiatives, plans and programmes.

169. More than the two-thirds of reporting countries are identifying indicators and incentive measures for sectors relevant to the conservation and sustainable use of biodiversity. Only 12 countries have identified such indicators. However, very few countries provided information concerning the indicators they have developed. Only a few countries indicated that the specific indicators had been reported in their responses to the questionnaire relating to the indicators of biological diversity. A few countries mentioned generally that relevant indicators had been developed within the regional framework of environmental reporting.

170. It should be noted that a significant number of reporting countries have not yet identified areas for conservation that would benefit the sustainable use of biodiversity. Very few countries provided specific reasons why they have not done this. This may be related to the constraints that will be elaborated below.

4. Impediments to implementation

171. Since there were no questions requesting information concerning impediments to implementation, so most of the reporting countries did not provide specific information in this regard. However, a few countries mentioned about the impediments they had experienced in the additional information they provided. Again lack of human, technical and financial resources is the constraints faced by some developing countries and countries with economies in transition. One country indicated that lack of political will was also a factor to cause non-action in promoting sustainable development and sustainable use of biological diversity. One country cited lack of investment, lack of information on ecosystem management and inadequate legislative framework for promoting sustainable use as impediments to implement relevant provisions concerning sustainable use of biological diversity. One country also cited the lack of incentives and lack of awareness and common vision concerning sustainable-use issues as constraints for taking any action in this field.

5. Conclusion

172. In conclusion, it should be recognized that most of the reporting countries are taking some actions or measures to implement relevant provisions of Article 10 as well as associated decisions. A number of reporting countries have recognized the importance of sustainable use and incorporated the concept and relevant principles into their relevant regulations, strategies, plans and programmes. Meanwhile, many Parties have indicated needs for more efforts to explore ways for sustainable use of biological diversity, including exploration of some guidelines and principles for sustainable use.

I. Biological diversity and tourism

1. Context

173. At its fourth meeting, the Conference of the Parties decided to consider the relationship between tourism and biological diversity at its fifth meeting. In decision IV/15, Parties were requested to submit relevant case studies on sustainable tourism for this purpose. Based on the work and recommendations of

SBSTTA, the Conference of the Parties, in the annex to decision V/25, endorsed the assessment of potential benefits of tourism for conservation and sustainable use of biological diversity and its possible adverse impacts. At the same time, the Conference of the Parties also recommended that Governments, the tourism industry and relevant international organizations use the assessment as a basis for their policies, programmes and activities of sustainable tourism.

174. At the same meeting, the Conference of the Parties noted that the United Nations General Assembly had declared 2002 as the International Year of Ecotourism and accepted an invitation to participate in the international work programme on sustainable tourism development under the United Nations Commission on Sustainable Development (CSD). The Conference of the Parties also transmitted to the Commission on Sustainable Development the assessment of the interlinkages between tourism and biodiversity.

175. A total of five questions were developed on the issue of biodiversity and tourism. All the reporting countries responded to all the questions.

2. *Status and trends*

176. At this stage it is very difficult to generalize any status and trends in this field. One of the reasons is that this issue was addressed in depth only at the fifth meeting of the Conference of the Parties. Another reason is that the questionnaire in this section was not designed to request substantive information on this issue. However, it should be noted that a considerable number of countries did cite eco-tourism as one of the examples to demonstrate their efforts in promoting sustainable use of biological diversity. They provided little information on how they promoted eco-tourism, but some reports did mention that they had incorporated relevant rules and principles for sustainable use into their policies, plans and programmes for sustainable tourism.

3. *Impacts of implementation*

177. For the reasons above, it is very difficult now to present any impacts of the implementation of the relevant provisions and decisions relating to this issue. The additional information provided by some countries is inadequate to identify any impacts. However, it is still useful to summarize here the responses to some questions and the activities undertaken by some Parties to promote sustainable tourism.

178. First, as indicated above, Conference of the Parties at its fifth meeting recommended that governments use the assessment of the interlinkages between tourism and biodiversity as a basis for formulating their policies, programmes and activities in the field of sustainable tourism. To the question addressing this issue, most reporting countries (57) indicated that their policies or programmes were based to a limited extent on the aforementioned assessment. 21 countries were of the view that their relevant policies and programmes were based to a significant extent on the assessment endorsed at the fifth meeting of the Conference of the Parties. In this case, it is difficult to determine the extent indicated by different Parties due to lack of relevant, detailed information. From the additional information, a considerable number of reporting countries are trying to take some measures to address some possible adverse impacts while exploring ways to promote sustainable tourism or eco-tourism, including through good planning, promoting better understanding of the relation between tourism and biodiversity and taking measures to improve tourism management.

179. In response to a question concerning whether they have established enabling policies and legal frameworks for effective implementation of sustainable tourism, more than a half of reporting countries replied that these policies and legal frameworks had been established to a limited extent, while a little over one-fourth of reporting countries indicated that they had not established such policies or legal frameworks. A few countries (13) indicated that their policies or legal frameworks had been established

to a significant extent. In this case, detailed information is very little concerning specific policies and legal frameworks and their impacts on the implementation of sustainable tourism.

180. There was very little information from the second national reports concerning how Parties celebrated the International Year of Ecotourism and Mountains in 2002. One reason is that second national reports under the Convention were supposed to be submitted by 15 May 2001, so it was impossible for some reporting countries to include this information in their national reports regarding the activities that should be undertaken in 2002. Some information in this regard could be found in the thematic reports on mountain ecosystems, which were requested by the Conference of the Parties at its sixth meeting in its decision VI/25.

4. Impediments to implementation

181. Very few reports provided information concerning impediments to implementation of relevant provisions and decisions relating to this issue. Only one country indicated that the tourism industry in the country did not really understand the meaning, principles and objectives of ecotourism, even though they have developed and organized various forms of eco-tourism. Another country indicated that more research would be needed on the relationship between tourism and conservation and sustainable of biodiversity.

5. Conclusion

182. In conclusion, because this issue was addressed only at the fifth meeting of the Conference of the Parties, the implementation of relevant provisions and decisions relating to this issue is in the early stage for many countries. However, a considerable number of reporting countries have recognized the importance of promoting sustainable tourism for conservation and sustainable use of biological diversity. They are trying to take measures to address possible negative impacts of tourism on biological diversity while making efforts to promote sustainable tourism or eco-tourism, including through formulating relevant policies, programmes and activities.

J. Impact assessment and indicators

1. Context

183. At its fourth meeting, the Conference of the Parties, in decision IV/10 C, requested information on: (i) impact assessments that consider environmental effects and interrelated socioeconomic aspects relevant to biodiversity; (ii) strategic environmental assessments; (iii) reports relating to existing legislation on environmental impact assessment; (iv) reports and case-studies relating to environmental impact assessment in the thematic areas. The Conference of the Parties also requested SBSTTA to identify actions to promote implementation of Article 14 and to consider whether there was a need to develop guidelines on the incorporation of biodiversity considerations into environmental impact assessment. In addition, the Conference of the Parties recommended that appropriate issues related to environmental impact assessment should be integrated into, and become an integral component of relevant sectoral and thematic items under the programmes of work adopted by the Conference of the Parties.

184. At its fifth meeting, based on the SBSTTA recommendation IV/6, the Conference of the Parties requested SBSTTA to develop guidelines for incorporating biodiversity-related issues in legislation and/or processes on strategic environmental assessment. The Conference of the Parties invited Parties and Governments to take certain actions at the national level to address biodiversity concerns in environmental impact assessment. The Conference of the Parties has also emphasized the need to ensure involvement of interested and affected stakeholders in all stages of the assessment process. Parties have been also encouraged to assess not only impacts of individual projects, but also their cumulative and global effects through strategic environmental assessment, incorporating biodiversity considerations at the

decision-making and/or environmental planning level. It should be noted that a number of programmes of work under the Convention have also incorporated guidance to Parties concerning environmental impact assessment.

185. A total of 21 questions were developed on Article 14 and the associated decisions. It should be noted that the questionnaire in this section mostly covered the provisions of Article 14, paragraph 1, and the associated decisions. All the reporting countries responded to all the questions in this section.

2. *Status and trends*

186. It is difficult at this stage to generalize the status and trends of the implementation of Article 14 based on the information contained in the second national reports. However, it should be recognized that a number of reporting countries have made considerable progress in taking legislative, administrative and policy measures to implement Article 14. It is noteworthy that a considerable number of countries have adopted the laws and regulations that have incorporated clear provisions requiring environmental impact assessment for projects as well as strategic environmental assessment for development policies and programmes. In some countries, even though relevant regulations are not in place, relevant procedures or mechanisms have been established to require environmental impact assessment as a compulsory prerequisite for project approval. A few countries have also required information exchange and notification with relevant stakeholders as well as the affected countries in the cases where proposed projects are likely to have local or cross-border impacts. In the case of the latter, some countries have concluded bilateral agreements or memoranda of understanding for this purpose, which requires mutual prior notification and consultation before any decision is made that may have negative impacts on the environment of the other. In Europe, there are a number of regional agreements adopted for this purpose, such as the Aarhus Convention. It should be also noted here that some countries have adopted specialized regulations requiring environmental impact assessment for both individual projects and development policy and programmes, and some countries have incorporated relevant provisions in the environmental protection laws or acts. Some countries also point out that there are clear provisions in their legislations or procedures established concerning environmental impact assessment for those projects and policies that may have negative impacts on biodiversity or biological resources.

187. Nevertheless, some countries also indicate that they had various difficulties in implementing some legislative, administrative and policy measures even though they have adopted them. For various reasons, such as bureaucracy, some administrative procedures for implementing EIA are difficult to be practiced although they are in place for some time. Another difficulty is the technical capacity to undertake some assessments though relevant regulations require that EIA is done before any project is initiated.

188. It can be inferred from the additional information that more and more countries are planning to incorporate biodiversity-related considerations into their environmental impact assessments or strategic environmental assessments, considering the level of priority most of the reporting countries attach to this Article and the progress made so far. However, more efforts are clearly needed to establish and strength various capacities of the Parties, particularly developing countries, to undertake the impact assessments.

3. *Impacts of implementation*

189. It is very difficult to identify the impacts of implementation of Article 14 because it is not feasible to identify to what extent biodiversity losses have been prevented as a direct result of the implementation of the requirements for environmental impact assessment or strategic environmental assessment. It is certain that some negative impacts can be avoided or minimized if environmental impact assessment or strategic environmental assessment is undertaken for those projects, policies or programmes that may have negative impacts on biological resources or biodiversity. Having said this, it may be useful to look at some actions taken by some Parties in implementing Article 14 and associated decisions.

190. First, Article 14 enjoys a high level of priority from a significant number of Parties. But the resources available for its implementation are still limited or severely limited for a majority of reporting countries. It should be noted that more than one quarter of reporting countries find resources adequate for the implementation of this Article.

191. As indicated above, more than the two-thirds of reporting countries (69) have put in place the legislation requiring an environmental impact assessment of proposed projects likely to have adverse effects on biological diversity. It should be noted that some countries have formulated specialized regulations requiring environmental impact assessment for projects that may have negative impacts on biodiversity. Some countries have included relevant provisions in their laws or acts on environmental protection or environmental impact assessment that require environmental impact assessment for all projects that may have negative impacts on the environment, including biological resources and biodiversity. Though they have not adopted specialized regulations or general environmental laws for this purpose, some countries have established relevant administrative procedures requiring environmental impact assessment or strategic environmental assessment for those projects likely to have adverse impacts on the environment and/or biodiversity. In most reporting countries, such procedures allow for public participation, though still limited in some countries. Furthermore, a big majority of reporting countries indicated that the mechanisms were in place to ensure the consideration of biodiversity concerns from the early stages of the drafting process when developing new legislative and regulatory frameworks. But it should be noted that most of the above reporting countries employ such mechanisms in some circumstances while a number of reporting countries use the mechanisms in all circumstances.

192. A majority of reporting countries (71) are also developing mechanisms to ensure that the environmental consequences of national programmes and policies likely to have significant adverse impacts on biodiversity will be fully taken into account. A number of countries (17) have established such mechanisms based on the existing knowledge. In the relevant laws or procedures established in some countries, there are clear provisions requiring environmental impact assessment or strategic environmental assessment for national programmes and policies that may have adverse impacts on the environment, including biological resources and diversity. Some countries have established inter-agency or cross-sectoral coordination mechanisms to make sure that environmental factors will be considered in all stages of development and implementation of national programmes and policies that may have some negative environmental impacts.

193. To deal with those projects, policies and programmes that may have cross-border impacts, more than one third of reporting countries have put in place some mechanisms to notify other States of cases or imminent or grave danger or damage to biodiversity originating in their countries. Another one third of reporting countries are various stages of developing such mechanisms. The rest of them have not taken any action in this field or identified the need to do so. Some countries have concluded bilateral agreements or memoranda of understanding for this purpose. Some European countries have even concluded a number of regional agreements or conventions to disseminate relevant information or notify the affected countries of possible impacts. Most of the reporting countries are involved in bilateral, regional and/or multilateral discussion on activities likely to significantly affect biodiversity outside their own jurisdictions. However, it should be noted that most of the countries were involved in the above discussion to a limited extent, and the mechanisms for information dissemination and notification were still not in place in a number of countries. Furthermore, a number of countries (14) have established the mechanisms to prevent or minimize danger or damage originating in their countries to biological diversity in other States or in areas beyond the limits of national jurisdiction. About one half of reporting countries are in various stages of developing such mechanisms. However, a considerable number of countries have not established such mechanisms or identified the need to do this.

194. A considerable number of reporting countries have established national mechanisms for emergency response to activities or events which present grave and imminent danger to biological diversity. A considerable number of reporting countries are in various stages of developing such national

mechanism. Most of the reporting countries do encourage the international cooperation to establish joint contingency plans for emergency responses to those activities or events which present a grave and imminent danger to biodiversity.

195. More than the two-thirds of reporting countries have integrated environmental impact assessment into some programmes on thematic areas and on alien species and tourism. Some countries indicated that environmental impact assessments were undertaken in some selected sectors where their technical capacities allowed, even though their relevant regulations require environmental impact assessment for all projects. Only a few countries have fully integrated environmental impact assessment in implementing all the programmes under the Convention. In carrying out environmental impact assessments, a considerable number of reporting countries (53) address only some aspects relevant to biological diversity while one third of reporting countries address fully the loss of biodiversity and the interrelated socio-economic, cultural and human-health aspects relevant to biodiversity.

196. It should be mentioned that more than the two thirds of reporting countries require strategic environmental assessment to assess not only the impacts of individual projects, but also their cumulative and global effects, and ensure that the results are applied in the decision-making and planning processes. It should be noted that this is being done to a limited extent in many countries. In addition, a majority of reporting countries require the inclusion in environmental impact assessments of development of alternatives, mitigation measures and compensation measures. In this case, an equal number of the reporting countries are doing the above to a limited extent and to a significant extent.

197. To enhance the capacity or expertise in the field of environmental impact assessment, a majority of reporting countries have put in place various programmes (mostly some programmes), such as organizing workshops, expert meetings, seminars, training programmes, educational and public awareness programmes and exchange programmes. However, a significant number of reporting countries (54) have not carried out pilot environmental impact assessments as a way to promote local expertise in methodologies, techniques and procedures.

198. Finally, it should be also mentioned that two thirds of the reporting countries have not exchanged information with other Parties on measures and agreements on liability and redress applicable to damage to biodiversity. However, more than a half of the reporting countries have exchanged information and experience relating to environmental impact assessment and resulting mitigating measures and incentive schemes. More than a half of the reporting countries indicate that the information concerning the practices, systems, mechanisms and experiences in the field of strategic environmental assessment and impact assessment is available while the rest of countries report that such information is not available.

4. *Impediments to implementation*

199. Only a few reports mentioned about the impediments to implementation of this Article. Similar to other Articles and provisions, the lack of human, technical and financial resources poses difficulty to some Parties, particularly those developing countries and small island developing countries, in undertaking some assessments. Some countries also consider weak institutional capacities as a limiting factor to implement some requirements for EIA even though they are in place. A few countries were of the view that the low level of awareness also contributed to the low level of implementation of this Article in their countries. Some countries also indicated that some administrative procedures, such as bureaucracy, posed some difficulty for implementing environmental impact assessments. A few countries indicated that more studies would be needed on indicators for undertaking impact assessment. In addition, some countries report that more efforts would be needed to get relevant stakeholders involved in the process of environmental impact assessment, strategic environmental assessment or impact assessment.

5. Conclusion

200. In conclusion, it should be said that there is some progress in a considerable number of countries in implementing Article 14. Indicative of this is the adoption of relevant legislative, administrative and policy measures in these countries. It is also encouraging to note that a considerable number of countries are using strategic environmental assessment to address the impacts of individual projects, but also their cumulative impacts, and to make sure that the results of the assessments will be applied in the decision-making, planning and legislating processes. Meanwhile, it should be admitted that many developing countries are still faced with various difficulties in putting in place relevant legislation and undertaking some assessments even though they have adopted some laws and procedures for this purpose. There is a need to provide more assistance, particularly capacity building and strengthening, to developing countries in order to promote the implementation of this Article in these countries.

K. Protected areas

1. Context

201. Paragraphs (a), (b), (c) and (e) of Article 8 contain specific references to protected areas. At its fourth meeting, the Conference of the Parties, in the annex to decision IV/16, decided that protected areas would be one of the three items for in-depth consideration at the seventh meeting of the Conference of the Parties. The Conference of the Parties has also emphasized the importance of protected areas in the work programmes on forest, marine and coastal, inland water, dry and sub-humid lands biological diversity. In addition, in decision III/9, the Conference of the Parties recommended protected areas as one of four specific themes for the compilation and dissemination of information on the implementation of Articles 6 and 8.

202. Six questions in the section on Article 8 addressed protected areas. Two of them (one relating level of priority and the other concerning availability of resources for implementation) addressed Article 8 in general, but the results of these questions are also presented here to indicate the level of priority attached to and resources available for addressing the issue of protected areas. Almost all the reporting countries responded to all the six questions.

203. It should be noted that, at its sixth meeting, the Conference of the Parties requested Parties to submit thematic reports on protected areas. The information from these thematic reports will be synthesized and presented to the ninth meeting of SBSTTA and the seventh meeting of the Conference of the Parties to facilitate in-depth consideration of the issue of protected areas.

2. Status and trends

204. Very detailed information was provided by the reporting countries on the implementation of Article 8 and associated decisions, with most of the information covering protected areas. A number of countries provided detailed data on the land coverage, categories, systems of protected areas established in their countries. Some countries submitted detailed information concerning the legislation, policies and programmes by which protected areas are established and managed. A few countries provided further information in this regard, building on what they had reported in their first national reports under the Convention. However, even with all this information, it is still difficult to generalize about the status and trends of protected areas in the world. One reason is that the percentage of those having provided detailed information in this regard is relatively small if compared with the total number of reporting countries, and even smaller if compared with the total number of Parties.

205. Nevertheless, from the additional information, we can still see some developments in many reporting countries, which can be considered some trends in this field. First, many reporting countries have recognized that *in situ* conservation is the most effective means of protecting species, habitats and ecosystems. Secondly, many reporting countries have established protected areas or a system of protected

areas to conserve the species, habitats and ecosystems which they have identified as priorities for protection. Some countries began to establish this kind of protected areas long before the entry into force of the Convention. Thirdly, to this end, many reporting countries have formulated and adopted various laws, regulations, policies and programmes. Some countries have even developed specialized regulations for establishment and management of protected areas. Meanwhile, it should be noted that many countries, both developed and developing countries, are experiencing some constraints in their efforts to establish and manage protected areas, such as lack of human, technical and financial resources.

3. *Impacts of implementation*

206. As indicated above, many reporting countries have taken or are taking some measures and actions and achieved some progress in conservation of various components of biodiversity through establishment and proper management of different categories of protected areas. However, it is difficult to identify specific impacts of these measures and actions on the basis of the information contained in the second national reports. Due to the nature of the questions asked in the second national reports, the information available does not give an indication of how effectively the existing protected areas are managed to accomplish conservation and sustainable use of biodiversity, and whether their extent and coverage is adequate to accomplish this objective. These measures and actions may prove helpful in preventing the loss of various components of biological diversity. But more data and information are needed to identify the impacts resulting from these measures and actions.

207. It is still useful to look at some national developments in this field. First, more than two-thirds of reporting countries attach a high priority to the implementation of Article 8. Many reporting countries indicated that *in situ* conservation and development of protected areas had been identified as a high priority for conserving biodiversity and recognized as one of the most effective ways to protect biodiversity. Indicative of this is the formulation and adoption by a considerable number of countries of relevant laws, regulations, policies and programmes or incorporation of relevant provisions into some sectoral regulations, plans and programmes. However, while giving a high priority to this Article, many reporting countries, including some developed countries, find resources available limited or very limited for implementation of their plans, programmes and activities in this field. Some countries clearly indicated that the lack of financial and human resources is one of main constraints to their efforts to establish and manage protected areas.

208. As pointed out earlier, a significant number of reporting countries have established protected areas in the territory under their jurisdiction. About half of reporting countries report that they have established a relatively complete system of protected areas in their own countries. Some countries have even worked with neighbouring countries in having established joint or collaborative protected areas to protect those species, habitats and ecosystems of a transboundary nature. In Europe, the NATURA 2000 network initiative is promoting the establishment of regional networks of protected areas. It should be mentioned that many reporting countries have established or are establishing protected areas of different categories for different purposes and functions, taking into consideration their national and local circumstances, such as national parks, nature reserves, animal sanctuaries, hunting reserves, wetland reserves, Man and Biosphere reserves, and marine protected areas. A few countries also reported on the institutional structure for management of protected areas, which varies from country to country. In some countries, both federal or central and local governments have a joint responsibility for managing national protected areas. In some countries, some departments are given the responsibility to manage various levels of protected areas, through working with other relevant departments, local governments and communities. In some countries, management bodies have been established particularly for management of some protected areas.

209. More than two thirds of the reporting countries indicated that they had adopted the national guidelines for the selection, establishment and management of protected areas. A number of reporting countries indicated that they are developing such guidelines. But very few countries had provided

detailed information about their national guidelines, partly because no request was made in the question for such information. In addition, some countries indicated that they also followed some international guidelines and criteria for selecting, establishing and managing protected areas. A few countries referred to the UNESCO guidelines for establishing Man and the Biosphere reserves and the Ramsar guidelines for establishing wetland sites in their countries.

210. A considerable number of reporting countries (53) have put some measures in place to promote environmentally sound and sustainable development in areas adjacent to protected areas. Some countries report that buffer zones have been established in areas adjacent to protected areas. Some countries report that environmental impact assessment requirements and procedures have been established and implemented for any activities in areas adjacent to protected areas. Some countries report that some policies and measures have been adopted to help with those local communities living in areas adjacent to protected areas, which aimed to reduce the impacts of local activities on protected areas. A few countries (12) have established reasonably comprehensive measures and a few other countries are reviewing potential measures for this purpose.

4. *Impediments to implementation*

211. Many countries mentioned the impediments or constraints they experienced in implementing Article 8 in general as well as in the process of establishing and managing protected areas. Above all, again lack of financial and human resources is a common impediment faced by many reporting countries, including some developed countries. Specifically, some countries find the investment in protected areas very limited or inadequate to cope with the actual needs for protection and management. Some countries feel a serious shortage of well-trained managers of protected areas. A few countries have great difficulty in establishing and managing protected areas due to lack of adequate management bodies. The facilities for in-situ protection such as transportation are very inadequate in some countries. In addition to these, a few countries have also identified the following constraints:

- (a) Land use conflicts between protected area management and local communities;
- (b) Low level of awareness and knowledge of local communities;
- (c) Lack of due consideration to various needs of local communities;
- (d) Lack of technical and scientific resources;
- (e) Limited research capacity;
- (f) Heavy reliance on external funding;
- (g) Lack of coordination between different responsible departments;
- (h) Improper institutional structure for management of protected areas;
- (i) Undermining of conservation efforts due to heavy dependence on limited natural resources.

5. *Conclusion*

212. In conclusion, it should be recognized that some progress is being made in some countries in the establishment and management of protected areas, particularly in terms of developing relevant legislation, policies, plans and programmes as well as establishing protected areas of various categories. Meanwhile, various impediments, particularly lack of human and financial resources, are restraining many countries from achieving more progress in this field.

IV. ANALYSIS OF OTHER ISSUES COVERED BY SECOND NATIONAL REPORTS

A. *Technical and scientific cooperation*

1. *Context*

213. At its first meeting, the Conference of the Parties, in decision I/3, decided to establish the clearing-house mechanism as a means of promoting scientific and technical cooperation. At its second meeting, the Conference of the Parties, in decision II/3, decided to initiate the pilot phase of the clearing-house mechanism. At its third meeting, the Conference of the Parties, in decision III/4, noted the crucial part played by technical and scientific cooperation on all aspects of biological diversity as well as the progress in the implementation of the pilot phase of the clearing-house mechanism, and requested Parties, Governments as well as the Global Environment Facility (GEF) to support the implementation of the clearing-house mechanism at the national, regional and subregional levels. COP 4 reviewed the operations of the clearing-house mechanism and requested all Governments and relevant international organizations to provide funding to support the development and implementation of the clearing-house mechanism at national, regional and subregional levels. At its fifth meeting, the Conference of the Parties, in decision V/14, endorsed a long-term programme of work for the clearing-house mechanism.

214. A total of 16 questions were developed on Article 18 and the associated decisions. It should be noted that the questionnaire in this section did not touch on the elements of the programme of work endorsed at the fifth meeting of the Conference of the Parties. All the reporting countries responded to all the questions in this section.

2. *Status and trends*

215. More than a half of reporting countries attach a high priority to scientific and technical cooperation. A considerable number of countries (32) give a medium priority and only a few countries accord a low priority. A majority of reporting countries find resources limited or very limited for implementation of this Article. Partly due to the nature of the questions asked in the second national reports, very few Parties provided detailed information concerning how they promote scientific and technical cooperation at the national, regional and global levels. Therefore, it is very difficult to generalize the status and trends of scientific and technical cooperation at various levels for the purpose of the implementation of the Convention. However, from the additional information, a number of reporting countries have undertaken or are undertaking scientific and technical cooperation within countries and with other countries to promote the implementation of the Convention. A number of countries, particularly those with adequate technical, financial and human resources, have established the clearing house mechanism at the national level.

3. *Impacts of implementation*

216. Scientific and technical cooperation are increasingly recognized by many relevant stakeholders and countries as one of important and effective means to promote the implementation of the Convention. A few cases provided by some countries indicate that cooperation within and without countries does accelerate and enhance the implementation activities. However, as indicated above, very few Parties provided detailed information concerning the results these means have accomplished. Hence, it is very difficult to identify the impacts of these cooperative efforts on the implementation of the Convention. However, it is still useful to summarize some actions taken by some countries to promote cooperation to implement the Convention.

217. First, many reporting countries (62) have taken some measures to promote international scientific and technical cooperation in the field of conservation and sustainable use of biodiversity. A few countries (12) have put in place comprehensive measures for this purpose. From the additional information,

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various forms of cooperation have been undertaken among countries. Some countries report on the bilateral cooperation in this field, particularly between some developing and developed countries. Some countries report on the regional and interregional cooperation in this field. The cooperation between the European Community and the Association of South-East Asian Nations-(ASEAN) is an example of interregional cooperation. Some developed countries report on their efforts to promote scientific and technical cooperation at various levels, through provision of funds and technical expertise. One example of this kind can be found in the United Kingdom Darwin Initiative.

218. As far as the contents of cooperation are concerned, most of the reporting countries (63) pay limited attention to the development and strengthening of national capabilities for the implementation of the Convention, such as human resources development and institutional building. A number of countries (17) pay significant attention to these aspects. From the additional information, a number of countries, particularly developed countries, indicated that their international programmes in this field aimed to establish or strengthen national capacities of their partner countries in the areas of cooperation, including personnel training and exchange of experts. The two-thirds of reporting countries have promoted to a limited extent the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of the Convention. A number of examples can be found in the additional information about joint research programmes, either at bilateral, regional or multilateral levels. However, very little information is available about the joint ventures established to develop technologies for achieving the objectives of the Convention. This is partly related to the fact that many reporting countries (57) are in the early stage of developing methods of cooperation for the development and use of technologies in pursuance of the objectives of the Convention. And a number of countries (21) have not yet initiated the development of such methods of cooperation.

219. Many reporting countries are undertaking various forms of information exchange and dissemination in this field, within countries and with other countries. A number of countries report that their national clearing-house mechanism play an important role in information exchange and dissemination. 26 countries report that their national clearing-house mechanism is operationalized; 43 countries are developing their national clearing-house mechanism, and 25 reporting countries have not established their clearing-house mechanism. Forty-seven countries are providing resources for the development and implementation of the clearing-house mechanism. In addition to allocating resources to development of national clearing-house mechanisms, some developed countries also provided some resources and assistance to other countries to help establish national clearing-house mechanisms in these countries. It should be noted that 27 reporting countries are not providing resources for the development of clearing-house mechanisms. Most of the reporting countries (81) have established national focal points for the clearing-house mechanism. But a significant number of reporting countries (62) have not established a national-level multi-sectoral steering committee or working group for the clearing-house mechanism.

220. A dozen countries (12) have reviewed and implemented as appropriate priorities identified in the programme of work endorsed at the fifth meeting of the Conference of the Parties. Less than a half the reporting countries (42) have reviewed but not implemented them. A considerable number of countries (38) have not reviewed them yet.

4. *Impediments to implementation*

221. A number of reports mentioned about the impediments encountered in the implementation of this Article and the associated decisions. One in common for many developing countries is the lack of financial, technical and human resources for development and operation of clearing-house mechanisms. Another common restraint for many developing countries is the limited capacity for undertaking scientific and technical cooperation in this field. Some countries indicated that limited access to and exchange of relevant information restrained them from undertaking scientific and technical cooperation in this field.

A few countries report that the actual means available for cooperation are very inadequate in relation to needs.

5. *Conclusion*

222. In conclusion, it should be said that there is still much to do to promote scientific and technical cooperation for achieving the objectives of the Convention. Even though some progress is being made in establishing clearing-house mechanisms at national level, more efforts are clearly needed to enhance their development and operation, considering the number established and operationalized. Assistance should be provided to those developing countries, particularly least developed countries, to help with their efforts to establish clearing-house mechanisms and build up the capacities to undertake scientific and technical cooperation for the implementation of the Convention.

B. *Access to and transfer of technology*

1. Context

223. At its third meeting, the Conference of the Parties, in decision III/16, emphasized the importance of technology transfer in the achievement of each of the three objectives of the Convention. It also endorsed the recommendation that SBSTTA conduct its work on technology transfer within its sectoral themes related to the priority issues under its programme of work as set out in SBSTTA recommendation II/12. Technology transfer is referred to in decisions of the Conference of the Parties relating to some programmes of work, and included as one of the elements of the programmes of work. As part of the long-term programme of work, the Conference of the Parties, in decision IV/16, decided that transfer of technology and technology cooperation would be one of the items for in-depth consideration at its seventh meeting.

224. Access to technology, particularly genetic resources and benefit-sharing has also been addressed by the Conference of the Parties. In separate decisions, the Conference of the Parties has also addressed the issue of intellectual property rights. Most decisions with respect to intellectual property rights have focused on gathering information on their impacts on the objectives of the Convention and on exploring the relationship between the provisions of the Convention and the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights.

225. The Conference of the Parties has adopted little direct guidance to Parties relating to action at the national level on access to and transfer to technology, although some relevant guidance was provided in the decisions primarily addressing other issues, such as access and benefit-sharing, the clearing-house mechanism, alien species, sustainable use and some programmes of work.

226. Most of the questions in this section were developed on the basis of the provisions of Article 16. Only one question addressed decision III/17 (Intellectual property rights). All the reporting countries responded to all the questions in this section. However, it should be noted that little additional information was provided in this section.

2. Status and trends

227. As stated above, little information was provided by the reporting countries on the status and trends of access to and transfer of technology for the achievement of the objectives of the Convention, so it is very difficult to summarize the status and trends in this regard. From the limited additional information, there is still something in common to some, but not all the reporting countries. First, some countries have adopted laws or regulations for protection of intellectual property rights. Secondly, some countries, particularly developed countries, have introduced some programmes to facilitate access to and transfer of technology. Thirdly, some countries, particularly developing countries, have recognized the

importance of obtaining technologies beneficial to the conservation and sustainable use of biodiversity. Meanwhile, they indicated that they experienced some difficulties in access to relevant technologies.

3. *Impacts of implementation*

228. As indicated above, the Conference of the Parties provided little direct guidance to Parties relating to access to and transfer of technology. In addition, little information was submitted on the implementation of Article 16. Therefore, it is almost impossible to identify any impacts of the implementation of this Article. It is useful, however, to look at some national developments in implementing some provisions of this Article.

229. First, half the reporting countries have taken some measures to facilitate access by and transfer to other Parties of technologies relevant to the conservation and sustainable use of biodiversity. Only a few countries reported that technology transfer had been incorporated as a part of their initiatives or programmes for international cooperation and assistance. Very few countries provided information as to any mechanism or policy they had put in place to facilitate access to and transfer of technology. A considerable number of countries (35) have not taken any measures for this purpose. Only five countries have put comprehensive measures in place.

230. A majority of reporting countries (75) are not aware of any initiatives under which relevant technology is transferred to their countries on preferential terms. Those aware of some initiatives in this regard provided little information. A few countries reported on joint technology research and development programmes. But there were very few cases in which transfer of specific technologies in this field was undertaken. Some developed countries reported on their initiatives or programmes of which technology transfer has been incorporated as a part.

231. More than one quarter of reporting countries have put in place some measures to provide access to and transfer of technologies that use genetic resources provided by other Contracting Parties. Only a few countries report that in their relevant legislation or policy, there are some provisions that are intended to facilitate access to and transfer of technologies that use genetic resources provided by other countries. Some countries indicated that they had put in place some policies and administrative arrangements. It should be noted that more than a half of reporting countries find this either irrelevant to their national circumstances or have not put any measures in place even relevant. A few countries (12) are reviewing potential measures, but no country has put comprehensive measures in place for this purpose.

232. More than one quarter of reporting countries have put in place some measures to facilitate the involvement of the private sector in joint technology development and transfer for the benefit of government institutions and the private sector of developing countries. However, very little detailed information was provided by those Parties having provided such responses. A few countries report that they have adopted some policies or administrative arrangements to encourage the industry sector to participate in some programmes for joint technology development. A considerable number of reporting countries (56) have not taken any measures for this purpose.

233. A majority of reporting countries have put in place a national system for protection of intellectual property rights and most of these systems have covered to varying extents (37 to a limited extent and 18 to a significant extent) biological resources. According to some additional information, some countries have covered many components of biological resources in their IPR systems while some countries have addressed only some components of biological resources in their IPR systems partly due to their expertise and level of awareness.

4. *Impediments to implementation*

234. Only a few countries mentioned the impediments they had experienced in the implementation of this Article. Again common to them is the lack or inadequacy of human, technical and financial resources. A few countries indicate that the level of research and financial investment in this field is a constraining factor. One or two countries report that the main constraints are the lack of government support and relevant incentives to share the benefits of technological development. One or two countries report that very limited efforts were made to adapt those useful technologies to local needs or conditions, which is also a factor to impede access to and transfer of technology. One country reports that it has no institutional establishment to monitor or coordinate the work in this field.

5. *Conclusion*

235. It is clear from the above that much needs to be done to facilitate access to and transfer of technology for the purpose of achieving the objectives of the Convention. Most of the measures taken by some Parties are limited, in particular those measures to facilitate access to and benefit-sharing of genetic resources and the private-sector involvement in technology development and transfer.

C. *General measures for conservation and sustainable use*

1. *Context*

236. As part of its medium-term programme of work, the Conference of the Parties decided to address Article 6 for the first time at the second meeting of the Conference of the Parties (decision I/9). At its second meeting, the Conference of the Parties, in decision II/7, urged Parties to exchange information on the measures taken for the implementation of Articles 6 and 8 and requested Parties to take into account the guidelines such as those provided in National Biodiversity Planning published by UNEP, WRI and IUCN when preparing and implementing their national strategies and action plans in collaboration with relevant organizations.

237. At its third meeting, in decision III/9, the Conference of the Parties gave further guidance on the implementation of Articles 6 and 8. Parties were requested to include in their national plans, strategies or legislative measures for *in situ* and *ex situ* conservation; sectoral integration of biodiversity considerations, and equitable sharing of benefits from the use of genetic resources. Meanwhile Parties were encouraged to set measurable targets to achieve biodiversity conservation and sustainable use objectives. Parties were also requested to integrate elements of all the thematic work programmes into their national biodiversity strategies and sectoral plans. The Conference of the Parties has also stressed the need for cross-border coordination of national strategies and the importance of regional and international cooperation for implementation of Article 6.

238. A total of 12 questions were included in the second national reports concerning Article 6 and the associated decisions. Almost all the reporting countries responded to all the questions in this section.

2. *Status and trends*

239. More than a half of reporting countries have completed (some have adopted as well) their national biodiversity strategies. Less than a half of reporting countries have completed their national biodiversity action plans. A majority of the rest of countries are in various stages of developing such strategies and action plans. Some countries have developed and adopted national legislation and policies for sustainable development or environmental protection where conservation and sustainable use of biodiversity has been identified as one of important objectives and priorities. Some countries have incorporated biodiversity considerations into their sectoral regulations, plans and programmes. Institutionally, some countries have identified or established the departments, agencies or coordination bodies to implement the Convention and other related conventions or agreements. Meanwhile, a

considerable number of countries, particularly developing countries, report that they experienced a number of impediments in the implementation of this Article, which will be elaborated on below.

3. *Impacts of implementation*

240. It is very difficult to identify impacts of implementation of this Article. As a general measure, national strategies, action plans and programmes for conservation and sustainable use of biodiversity provide a fundamental framework for actions and measures at the national and local levels. In this sense they are indispensable directives. Generally speaking, the impacts of these general measures are important and extensive. Partly due to the design of questions in the second national reports, very few Parties provided information concerning to what extent these general measures impact the implementation of the Convention in general. However, it is useful to look here at the national developments in formulating their national biodiversity strategies and action plans as well as some general measures taken by some Parties to implement the Convention.

241. First, more than two thirds (71) of reporting countries attach a high priority to the implementation of this Article. A similar number of countries, including some developed countries, find resources limited or very limited for the implementation of this Article. A number of countries (20), including a few developed countries, find resources adequate for the implementation of this Article.

242. The following table presents the status of national biodiversity strategies and action plans of reporting countries.

<i>Status</i>	<i>National biodiversity strategies</i>	<i>National biodiversity action plans</i>
Completed and adopted	31	21
Completed	24	17
Advanced stages of development	21	25
Early stages of development	7	15
Implementation reported	8	10
No action	2	3
Total	93	91

243. In addition, some countries report that they have formulated some sectoral strategies, plans and programmes for conservation and sustainable use of biodiversity. As indicated above, some countries have developed national strategies, plans and programmes for sustainable development or environmental protection where conservation and sustainable use has been identified as one of important objectives and priorities.

244. In terms of the coverage or scope of national biodiversity strategies and action plans, most articles of the Convention and all major sectors are covered in most of those completed and/or adopted. Some national biodiversity strategies and action plans cover some articles or some sectors partly due to their national circumstances and partly because some issues were not recognized when these national biodiversity strategies and action plans were developed. This is why some countries have recognized the need to revise their national biodiversity strategies and action plans to cope with the issues they had not anticipated when they were developed.

245. Sixty-five out of 93 reporting countries indicate that their national biodiversity strategies and action plans include an international cooperation component. In developing national biodiversity strategies and action plans, 47 countries indicate that they have coordinated with neighboring countries in some areas/themes. Sixteen countries report that bilateral/multilateral discussion is under way. Twenty-two countries have not undertaken any coordination in this process. More than the two thirds of reporting

countries are taking various actions to exchange information and share experience with other countries on the national action planning process, including through regional meetings and sharing of strategies, plans and/or case-studies.

246. Only a few countries have set measurable targets within their national biodiversity strategies and action plans. More than a half of reporting countries are in various stages of developing programmes to identify or develop such targets (38 in early stages and 16 in advanced stages of development). A number of countries (14) indicate that they have put in place programmes to develop such targets, but it is not clear whether they have included the targets in their national biodiversity strategies and action plans. Eighteen countries report that they have not set any targets in their national strategies or action plans. Even for those having set targets, little detailed information was provided as to what targets they have developed and included in their national biodiversity strategies and action plans.

247. The additional information provided indicates that, in addition to development of national biodiversity strategies and action plans, a number of countries have taken some other general measures to implement the Convention. First, some countries have developed regulatory and policy frameworks for sustainable development and environmental protection in which conservation and sustainable use of biodiversity has been identified as one of important priorities. Secondly, some countries are incorporating or mainstreaming biodiversity considerations into the sectoral policies, plans and programmes. Some countries are taking various steps to incorporate biodiversity into the decision-making processes or planning processes that may have adverse impacts on the conservation and sustainable use of biodiversity. Thirdly, some countries are trying to establish research capacity for conservation and sustainable use of biodiversity. Fourthly, some countries are taking measures to increase the public awareness of relevant issues of biodiversity. Fifthly, some countries are taking some measures for *in situ* and *ex situ* conservation of biodiversity. It should be noted that this is only a summary of some measures taken by some reporting countries, but there are some other measures taken by a few individual countries taking into account their particular national circumstances and the priorities they have identified.

4. *Impediments to implementation*

248. A number of countries, including a few developed countries, mentioned about the difficulties they experienced in the implementation of this Article. Unexceptionally, constraints in financial, human and technical resources are common to many reporting countries, particularly developing countries. There are some other individual cases. One or two countries report that they have weak infrastructural and human capacities to effectively conserve, use and develop biological resources. In addition, inadequate organization, coordination and decision-making mechanisms have further compounded the above problem. A few countries provided a detailed list of constraints they faced, which may reflect the situation of other countries:

(a) Significant divergence between the willingness to address biodiversity issues and effective implementation;

(b) Low level of awareness and knowledge of biodiversity issues, and the differences in these levels between the scientific community and the general public, governments and the private sector;

(c) Shifting of focus from environmental issues due to other domestic priorities like economic development;

(d) Lack of incentives for conservation and sustainable use of biodiversity;

(e) Lack of training;

(f) Inadequate integration of biodiversity issues into relevant legislation and policies;

(g) Lack of enforcement of relevant regulations and policies;

- (h) Adoption of top-down approach which ignores the interests and priorities of relevant stakeholders;
- (i) Lack of comprehensive information concerning the state of biodiversity in the country;
- (j) Heavy dependence on external funding for activities in this field;
- (k) Lack of monitoring indicators.

5. *Conclusion*

249. In conclusion, it should be said that many reporting countries have developed or are developing their national biodiversity strategies and action plans. However, the implementation of these strategies and action plans remain a great challenge to a considerable number of countries. Meanwhile some countries are experiencing various difficulties in implementing this Article, as elaborated above.

D. *Cooperation*

1. *Context*

250. To date, the Conference of the Parties has not explicitly addressed this Article. However, it has made a number of references to bilateral and regional cooperation between Parties in its decisions, particularly at its fifth meeting, in respect of areas beyond national jurisdiction or on other matters of mutual interest. It should be noted that this section does not include decisions on cooperation with other biodiversity-related conventions, processes and organizations.

251. Eight questions were developed on this Article and relevant decisions relating to this Article. All the reporting countries responded to the questions in this section.

2. *Status and trends*

252. Many reporting countries attach a high priority to various forms of cooperation in the implementation of the Convention. A considerable number of countries report that they have undertaken or are undertaking various forms of cooperation at bilateral, regional and global levels to implement some provisions of the Convention and some decisions of the Conference of the Parties. Having recognized the importance of cooperation, a considerable number of countries indicate that there is a strong need to increase cooperation in this field to meet more challenges ahead, particularly to address those issues of transboundary nature.

3. *Impacts of implementation*

253. Cooperation does have some impacts on the implementation of the Convention at the national or local levels of the countries involved. At least, cooperation is a means of efficiently using resources and building on each other's efforts of the sides involved. Cooperation is particularly important for those countries in need of expertise, financial support and capacity building. However, it is very difficult to identify any visible impacts at this stage because very few countries provided information about to what extent some cooperative initiatives and activities they had undertaken or are undertaking have impacted their implementation of the Convention, particularly on achieving certain goals and objectives, addressing some issues or implementing some programmes of work.

254. As said above, in general, many reporting countries are undertaking various forms of cooperation in the implementation of the Convention. Some countries report on successful cases of bilateral cooperation in this field. Some countries cooperate not only with their neighboring countries to address issues of mutual interest but also with those countries with good expertise and adequate resources to strengthen their own capacities for the implementation of the Convention. Some of them have included cooperation in this field into their bilateral agreements for environmental cooperation or programmes for

international aid or development cooperation. A number of developed countries indicate that they have provided funds and technical assistance to developing countries through their international development and/or environmental cooperation programmes. Some countries also report on a number of regional initiatives, such as ASEAN Center for Biodiversity Conservation, cooperation among the South Pacific countries, the European Community Biodiversity Action Plan for Economic and Development Cooperation, and the cooperation between Canada, the United States and Mexico to conserve species in North America. At the global level, all of the European Community's regional agreements for development cooperation mention environment, and by implication, biodiversity as a priority for cooperation.

255. As to specific areas of cooperation, a few countries outlined some areas of cooperation at the bilateral or regional level. In response to some questions in this section, a majority of countries have developed the bilateral or multilateral cooperation to varying extents (47 to a limited extent and 30 to a significant extent) for the sustainable management of transboundary watersheds, catchments, river basins and migratory species. Fifty-nine countries have developed to different extents (41 to a limited extent and 18 to a significant extent) management practices for transboundary protected areas.

4. *Impediments to implementation*

256. Only a few countries mentioned the impediments to the implementation of this Article. Again the lack of financial, technical and human resources has been identified as one of important impediments. One or two countries report that some administrative procedures, low capacities and lack of coordination have hindered some cooperation activities.

5. *Conclusion*

257. Many countries have recognized the importance of cooperation and have undertaken or are undertaking various forms of cooperation. Partly due to the nature of questions asked in the second national reports, it is difficult to assess to what extent these cooperative activities have impacted the implementation of the Convention at the national level. A considerable number of countries have clearly indicated various needs for strengthening cooperation in various areas for the purpose of the implementation of the Convention.

E. *Financial resources and mechanism*

1. *Context*

258. Under Article 20, Parties undertake to provide financial and incentives in respect of those national activities which are intended to achieve the objectives of the Convention, in accordance with their national plans, priorities and programmes. Developed countries are required to provide new and additional financial resources to enable developing countries to meet the agreed full incremental costs to them of implementing measures which fulfill the obligations of this Convention. They may also provide, and developing countries avail themselves of, financial resources related to the implementation of this Convention through bilateral, regional and other multilateral channels.

259. The Conference of the Parties has adopted a number of decisions that requested or encouraged Parties to provide financial resources for the implementation of the programmes of work and cross-cutting issues. Meanwhile, the Conference of the Parties has been giving guidance to the financial mechanism to provide funding to the areas which the Conference of the Parties has identified for implementation at the national, regional and global levels.

260. The second national reports included 16 questions on Articles 20 and four on Article 21. Almost all the countries responded to all the questions in these two sections.

2. *Status and trends*

261. Many reporting countries indicate that they are providing financial support to implement some activities they have identified as priorities to implement the Convention. However, from the responses and the additional information, it is clear that the financial resources allocated for biodiversity-related programmes and activities are limited or very limited, in cases of both developing and developed countries. Most of developed countries report that they have developed some mechanisms and programmes to provide some funds to developing countries and countries with economies in transition. Due to inadequacy of relevant information, it is very difficult to assess to what extent these funds have helped or are helping relevant activities in developing countries and countries with economies in transition. Some countries eligible for GEF funds report that they have received such funds. Again, because of the lack of relevant information, it is very difficult to assess whether the funding from GEF is adequate to meet the needs of these countries related to the implementation of the Convention. Some countries also report that they have received other sources of funding for the activities in this field.

3. *Impacts of implementation*

262. As mentioned above, relevant information is not adequate to identify any impacts of the implementation of this Article. Partly due to the design of questions in the second national reports, the information provided by most of the reporting countries did not provide an assessment of the extent to which the domestic and/or international funds and investments have impacted their level of implementation of the Convention. However, it is still useful to look at some national situations in this regard.

263. First, 42 out of 93 reporting countries have provided both financial support and incentives for the national activities intended to achieve the objectives of the Convention. Thirty-two countries provided financial support only and six countries provided incentives only. It should be noted that 12 countries provided neither financial support nor incentives. Only a few countries provided detailed information as to what level of financial support they allocate to the activities in this field. Most of the reporting countries provided general information in this regard. Since some countries have provided information concerning incentive measures in the section on Article 11 (Incentive measures), so very few countries provided detailed information concerning the incentives they have developed. Asked whether to consider tax exemption in national taxation systems for biodiversity-related donations, 24 countries responded that exemptions were in place and six countries report that exemptions are under development. Forty-two countries have not yet considered this and eight countries find it not appropriate to their national circumstances. Fourteen countries did not respond to this question.

264. As to the provision of new, additional financial resources, 20 developed countries report that they have provided some financial support to developing countries to enable them to implement the measures for fulfilling the obligations under the Convention. Twenty developed countries indicate that they have not provided new and additional financial resources. Nineteen developed countries report that they have provided financial resources through bilateral, regional and other multilateral channels.

265. On the receiving side, 35 developing countries or countries with economies in transition report that they have received some new, additional financial resources and 37 countries indicate that they have not. Fifty developing countries or countries with economies in transition report that they have received some funds from bilateral, regional and other multilateral channels. Only a few countries provided some detailed information concerning sources of funding and level of funding.

266. A big majority of the reporting are trying to make the activities of all the funding institutions supportive of the Convention, including bilateral funding agencies. However, the level of supportiveness is not clear in most cases because the relevant information is lacking. Most developed countries report that they promote support for the implementation of the Convention in the funding policies of bilateral,

regional and multilateral funding institutions. Most of the developing countries also discuss ways and means to support the implementation of the Convention in their dialogue with the funding institutions.

267. To date, only a small number of countries (9), mostly developed countries, have developed standardized information on the financial support they have provided for the implementation of the Convention. Similarly, a number of countries (16) have established a process of monitor the financial support to biodiversity. Most of the reporting countries (68) have collected information concerning domestic financial resources allocated to biodiversity-related activities, but mostly not in a standardized format. Most of the countries that provide funds to other countries keep records of the financial resources they have provided or are providing, but only a few countries (11) put relevant data in a standardized format. An overwhelming majority of reporting countries have not compiled information on the financial support provided by the private sector to the activities in this field.

268. More than a half of reporting countries (53) are strengthening the existing financial institutions to provide financial resources for the conservation and sustainable use of biological diversity. It should be noted that a considerable number of countries (37) are not working towards this direction.

4. *Impediments to implementation*

269. A considerable number of developing countries report that the financial resources, both domestic and external, are limited or very limited in relation to their needs for implementing the Convention. A few countries indicate that they have difficulty in accessing international financial support. Some countries indicate that there is a need to improve the procedures of the financial mechanism of the Convention to allow easier access to its funding. One country also indicated that little knowledge of relevant procedures and requirements of GEF also hinders their efforts to get funds. A few countries report that very limited domestic financial resources are allocated to biodiversity activities due to lack of national planning in this field or due to economic transition. A few countries also cited inadequate human capacity as one of restraining factors. Some countries report that they are mostly dependent on external funding sources, with very little domestic financial support.

5. *Conclusion*

270. In conclusion, it should be said that many reporting countries are providing financial support to the national activities intended to implement the Convention. However, most of them, particularly developing countries and some countries with economies in transition, find the financial resources allocated to the activities for the implementation of the Convention limited or very limited. Some developed countries have provided or are providing some funds to developing countries and countries with economies in transition, through various sources of funding. However, a number of developed countries indicated that they had provided their financial support to developing countries mostly within their existing development cooperation and/or international aid programmes. In the view of some developed countries, no new and additional financial resources were provided to developing countries for the activities to implement the Convention. Because of the lack of adequate information, it is difficult to assess whether the financial mechanism of the Convention has provided adequate funds to meet the needs of those countries eligible for such funding.

V. **CONCLUSION**

A. *Introduction*

271. The above analysis addressed all the programmes of work and cross-cutting issues adopted under the Convention. In addition, the analysis also touched some other issues covered in the second national reports. It should be noted that a few articles covered in the second national reports were not included in the analysis either because the Conference of the Parties has not addressed them as a separate issue or because the information concerning these articles is of very limited value or relevance to assess the

implementation of the Convention at the national level. The former can be found in the cases of Articles 12 and 17 and the latter in the cases of Articles 23, 24 and 25.

272. From the above analysis, the information contained in the second national reports is found inadequate to identify the status and trends and the impacts of implementation in most cases. This is particularly true in cases where little detailed information was provided. Therefore, in most cases, a synthesis or summary is presented of some national developments in implementing some programmes of work, cross-cutting and other issues, even though they are put under the title of “impacts of implementation”. In most cases, it is very difficult to describe any status and trends, considering the information available is qualitative and limited. In addition, even though some countries provided some detailed quantitative information, it is still very difficult to generalize any status and trends considering their low level of representativeness.

273. As indicated at the outset, this analysis attempted to look at some information from the perspective of either regional groups or economic groups of countries. This was intended to find reasons for the differences if any in the level of implementation. However, in most parts of the analysis, very few significant differences were identified. One reason relates to the number of second national reports submitted by the countries of different regions. For most of the regions, the number of reports submitted represents only a small portion of the total number of the countries. Therefore, their representativeness is in question. In addition, even within one region, different countries made different choices on relevant questions considering they have different national circumstances. In most cases, the differences among regional groups of countries were not found to be sufficiently significant to be presented here. In a few cases, there is some analysis of the differences of economic groups of countries.

274. It should be noted that the conclusions drawn from the analysis of different programmes of work, cross-cutting and other issues should be considered preliminary. The most important reason is that this analysis itself is preliminary considering it is based only on a limited number of second national reports, which is only a half of the total number of Parties (as of end of October 2003). Another reason is that the conclusions attempt only to capture those developments or trends clearly emerging from the analysis, so they may be applicable to a limited number of countries. In addition, it should be noted that no other sources of information than second national reports contributed to these conclusions, which are preliminary in most cases.

275. In concluding, for an overall picture of the implementation of the Convention at the national level, it might be useful to attempt to make a comparison of the levels of implementation of different programmes of work, cross-cutting and other issues. However, it is very difficult to identify an approach or perspective into which this comparison can be reasonably fit. So in the following, an attempt is made just to look at the differences in the levels of priority setting and resources availability among different Articles and programmes of work to get some idea of the overall picture of the implementation in terms of priority setting and resources availability. In addition, this perspective is feasible because relevant questions were asked in the sections on every Article and programme of work, and there is adequate data available for this comparison. It should be noted that the graphics or data in the following is presented by regional groups of countries of the United Nations.

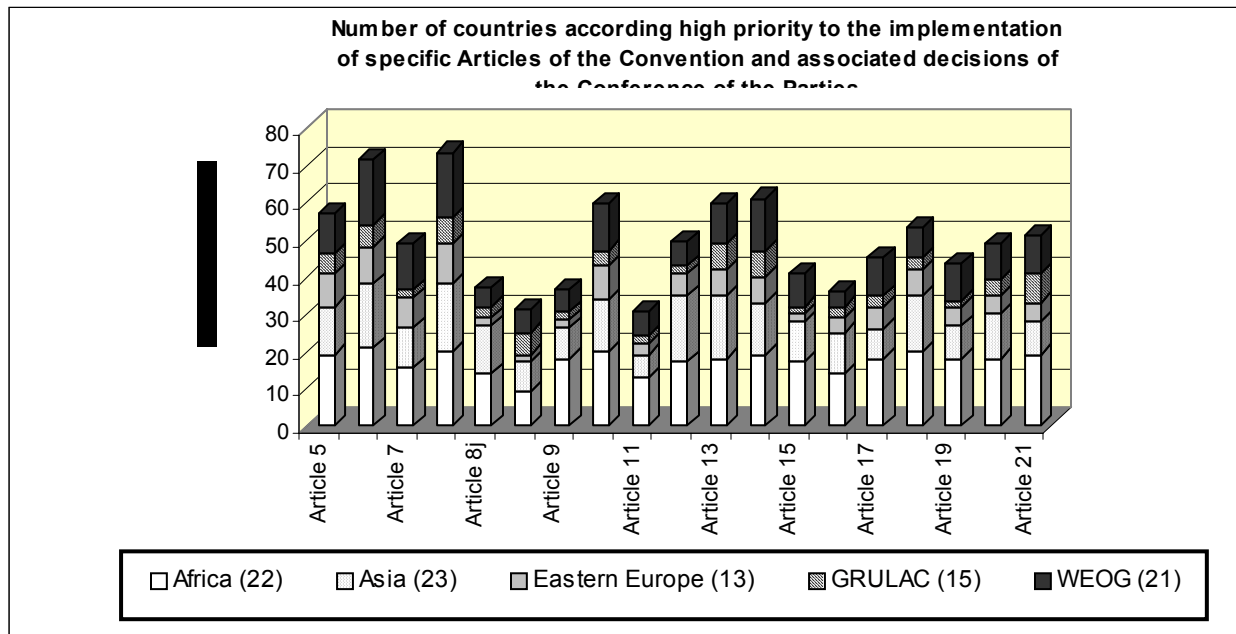
B. Comparative cases

1. Differing levels of priority attached to different Articles

276. Figure 1 indicates that African countries give a relatively high priority to the implementation of Articles 6, 8, 10, 14, 18 and 21; Asian and Pacific countries accord a relatively high priority to the implementation of Articles 6, 8, 12 and 13; the countries from Central and Eastern Europe attach a relatively high priority to the implementation of Articles 5, 6, 8 and 10; the Latin American and Caribbean countries gives a relatively high priority to Articles 6, 8, 8(j), 13, 14 and 21; and the Western European and other countries attach a relatively high priority to Articles 6, 8, 10 and 14. A cross-regional

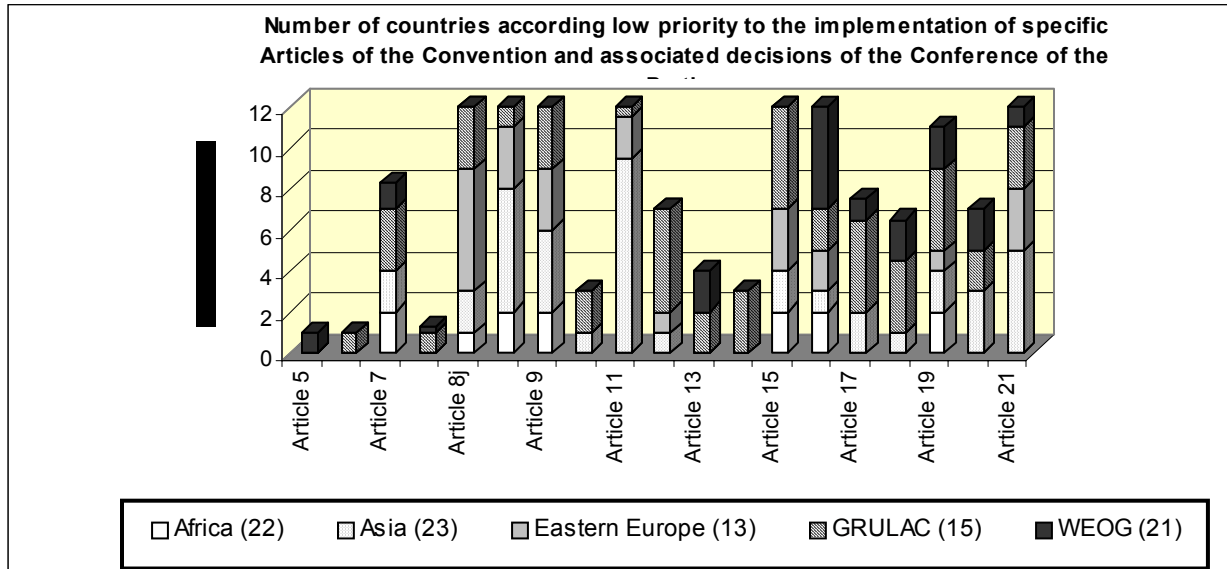
look at priority setting indicates that all the regions accord a high priority to the implementation of Articles 6 and 8. This may suggest that at this stage many reporting countries are taking some general measures for conservation and sustainable use of biodiversity and pay more attention to *in-situ* conservation through establishing protected areas or networks of protected areas. Some regions accord a high priority to Articles 13 and 21. This indicates that a considerable number of reporting countries attach great importance to the public education and awareness and providing financial resources to the activities intended to achieve the objectives of the Convention. Some regions give a high priority to Articles 10 and 14. This may show that some countries pay equal attention to both conservation and sustainable use and are trying some measures to minimize adverse impacts on biodiversity.

Figure 1. High priority attached to implementation of some Articles



277. Figure 2 indicates that African countries attach a relatively low priority to Articles 7, 8(j) and 19; Asian countries to Articles 8(j) and 11; Central and Eastern European countries to Article 8(h); Latin American and Caribbean countries to Articles 8(h) and 16; and Western European and other countries to Article 8(h) and 16. It seems that Articles 8(j) and 8(h) are accorded a low priority by some regions. The low priority attached to Article 8(j) may be related to the fact that some regions do not have indigenous communities, even this provision also relates to local communities embodying traditional lifestyles. The low priority attached to Article 8(h) indicates that some countries have not recognized the importance of alien species issues when they submitted their second national reports. Some regions accord a low priority to Article 16. In case of Latin American and Caribbean countries, some countries indicated that they had difficulty in access to some technologies. In case of Western European and others group, this may suggest that currently relevant mechanisms or programmes are not in place in some countries to facilitate access to and transfer of technologies.

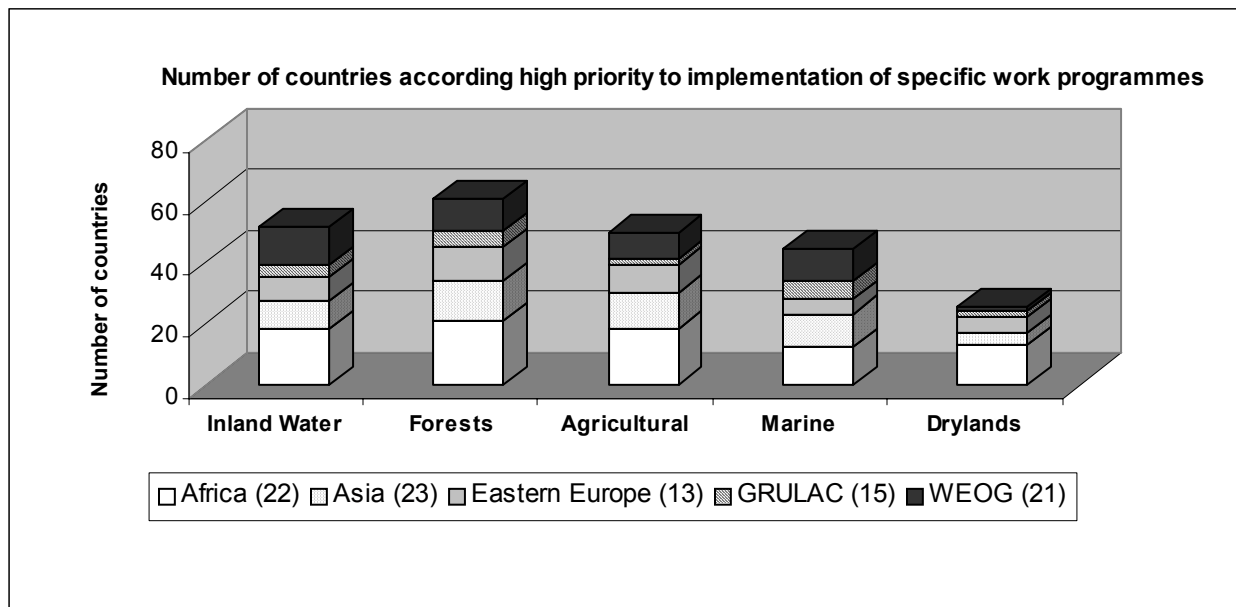
Figure 2. Low priority attached to implementation of some Articles



2. Differing levels of priority attached to different programmes of work

278. From figure 3, African countries give a high priority to all the programmes of work. Among them, agricultural, inland water and forest biodiversity are given higher priorities. Asian countries accord a relatively high priority to the programmes of work on forest, agricultural and marine biodiversity; Central and Eastern European countries give a relatively high priority to forest and agricultural biodiversity; the Latin American and Caribbean countries accord a relatively high priority to forest and marine biodiversity; and the Western European and other countries attach a relatively high priority to inland water, forest and marine biodiversity. It seems that most of the regions attach a high priority to agricultural biodiversity. Some regions attach a high priority to forest biodiversity since many reporting countries recognize that forests contain a high level of biodiversity. The same could be said about why some regions attach a high priority to marine and coastal biodiversity. It should be noted that these observations are limited considering the fact that different countries select priorities on the basis of their national circumstances. Obviously, coastal or island countries attach a higher priority to the programme of work on marine and coastal biodiversity than those land-locked countries or countries with a short coastline.

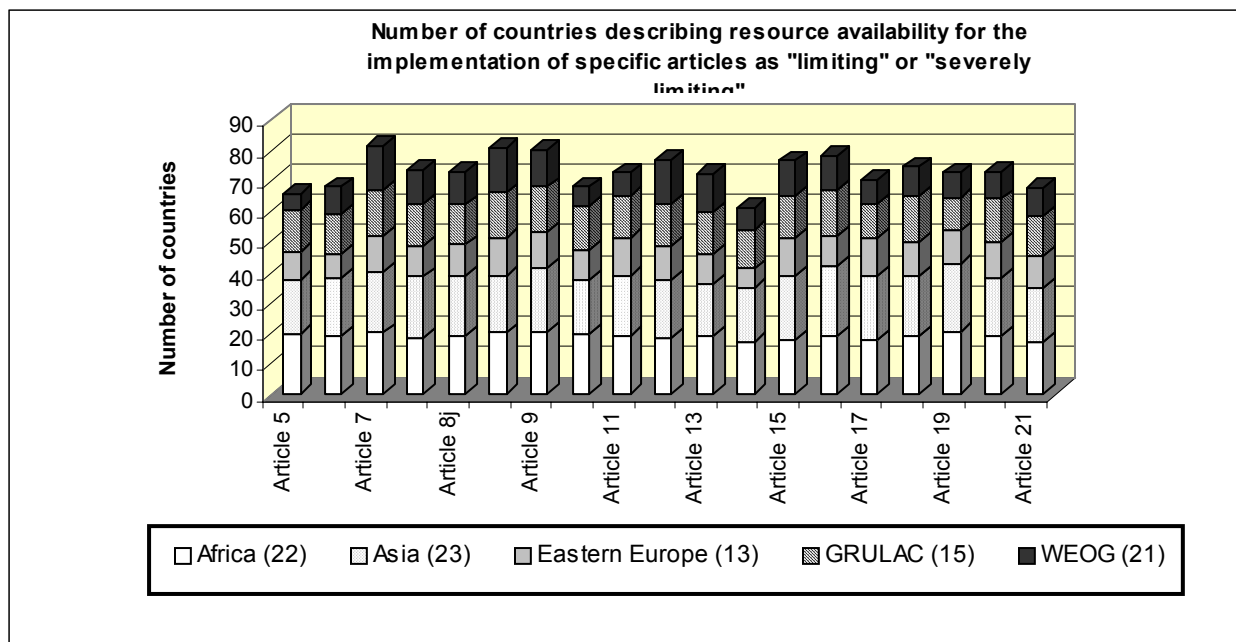
Figure 3. High priority attached to implementation of specific programmes of work



3. Differing levels of resources for implementing different Articles

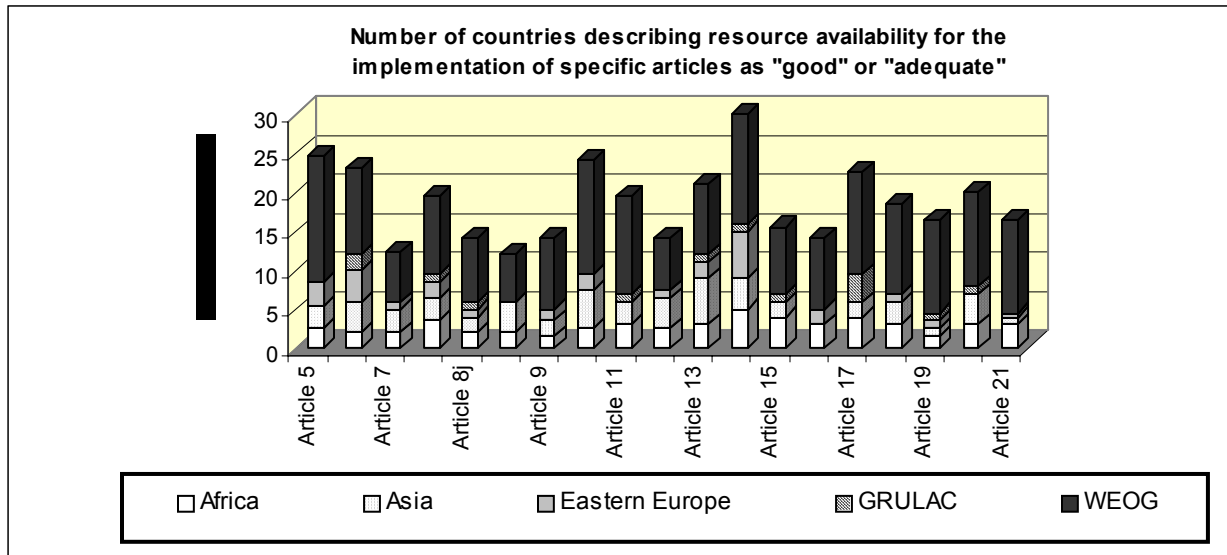
279. Figure 4 indicates that African countries find resources limited or very limited for the implementation of most of the Articles, particularly Articles 5, 6, 7, 8(j), 8(h), 9, 10, 11, 13, 14, 15, 16, 19 and 20; Asian countries find resources limited or very limited for the implementation of most of the Articles, in particular Articles 7, 8, 8(h), 9, 11, 15, 23, 19 and 20; the Latin American and Caribbean and Central and Eastern European countries are more or less in a similar situation; and the Western European and other countries only find resources limited for the implementation of Articles 7, 8(j) and 12. This suggests that developing countries and countries with economies in transition find resources limited or very limited for the implementation of most articles of the Convention.

Figure 4. Level of resources availability described as "limiting" or "very limiting"



280. Figure 5 shows that very few developing countries and countries with economies in transition find resources adequate for implementing any articles. Most of the Western European and other countries find resources adequate, in particular for the implementation of Articles 5,10, 11 and 14.

Figure 5. Level of resources availability described as “good” or “adequate”



4. Differing levels of resources for implementing different programmes of work

281. A similar observation to the above can be made about the level of resources availability for the implementation of specific programmes of work. A majority of developing countries and countries with economies in transition find resources limited or very limited for the implementation of all the programmes of work. More than a half of the Western European and other countries find resources adequate for implementing the programmes of work on inland water, forest, agricultural and marine biodiversity. The situation is also dependent on the priorities each individual country has identified.

C. Conclusion

282. A comparative look at the level of priority setting and resources availability for the implementation of different articles and programmes of work leads to a few general observations. First, most regions attach a high priority to the implementation of Articles 6 and 8. Secondly, most regions accord a relatively high priority to the implementation of the programmes of work on agricultural and forest biodiversity. Thirdly, a big majority of developing countries and countries with economies in transition find that resources available both domestically and internationally are limited or very limited for the implementation of most articles and programmes of work. The developed countries are allocating an adequate level of resources to implement those articles and programmes of work they have identified as priorities.
