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RELATED PROVISIONS OF THE CONVENTION  
ON BIOLOGICAL DIVERSITY

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**BACKGROUND TO THE DRAFT GUIDELINES OR RECOMMENDATIONS FOR  
THE CONDUCT OF CULTURAL, ENVIRONMENTAL AND SOCIAL IMPACT  
ASSESSMENTS REGARDING DEVELOPMENTS PROPOSED TO TAKE  
PLACE ON SACRED SITES AND ON LANDS AND WATERS OCCUPIED  
OR USED BY INDIGENOUS AND LOCAL COMMUNITIES**

*Note by the Executive Secretary*

**I. INTRODUCTION**

1. The present note has been prepared by the Executive Secretary to accompany his note on draft guidelines or recommendations for the conduct of cultural, environmental and social impact assessments regarding developments proposed to take place on sacred sites and on lands and waters occupied or used by indigenous and local communities (UNEP/CBD/WG8J/2/6). It provides background information relevant to each of the elements proposed for inclusion in the draft guidelines, as contained in the annex to that document and is based on the same sources of information as the document to which it relates.

2. For ease of reference, the structure of the note is the same as that for the draft guidelines

**II. GENERAL CONSIDERATIONS**

3. It is recognized that the industrial exploitation of renewable and non-renewable resources (mining, oil extraction, fishing, agriculture and logging), the establishment of industrial facilities (factories, refineries, storage facilities), the construction of public works and infrastructure (urban development, waste-disposal facilities, dams, highways), and tourism and recreational facilities can constitute major threats to biological

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diversity, as well as the natural resources on which indigenous and local communities depend for their survival. Both components of biological diversity and the traditional knowledge and practices of indigenous and local communities that sustain that biodiversity continue to be at risk from unsustainable development and introduced resource-use practices that reduce or radically alter habitat and diminish the traditional natural resource base essential for the survival of such communities. It is therefore essential that before any development takes place, the potential impacts on both habitat and the lifestyles of affected indigenous and local communities are identified and given full consideration in cultural, environmental and social impact assessments.

**A. *Integration of cultural, environmental and social impact assessments as a single process***

4. In paragraph 1 (b) of decision V/18, the Conference of the Parties invited Parties, Governments and other relevant organizations to address loss of biological diversity and the interrelated socio-economic, cultural and human-health aspects relevant to biological diversity when carrying out environmental impact assessments.

5. In paragraph 16 of decision V/16, the Conference of the Parties recognized that the maintenance of knowledge, innovation and practices of indigenous and local communities is dependent on the maintenance of cultural identities and the material base that sustains them and invited Parties and Governments to take measures to promote the conservation and maintenance of such identities.

6. Many indigenous and local communities embodying traditional lifestyles have an holistic view of the world to the extent that their values, customs and traditions are tightly focused on and connected to the natural world which they inhabit. For many such communities, all life is interconnected. Such communities are characterized by the fact that the many aspects of their cultures are interwoven, with the consequence that changes in one aspect of their lives will invariably lead to changes in other aspects. Their cultures and societies are very much tuned to the local environments they inhabit, and their association with particular species, for example, is such that these species have significance far beyond economic considerations. Certain species may be the focus of spiritual relationships, or a species may be identified with a particular individual or group through a totemic relationship. The maintenance and well-being of particular species are core responsibilities of the community, or of some of its particular members.

7. While it may be necessary to distinguish between environmental, cultural and social impact assessments and establish parameters for each for administrative convenience (particularly with regard to engaging the necessary expertise in order to carry out each), an integrated approach to the conduct of an impact assessment is required.

**B. *Meeting the requirements of the Convention on Biological Diversity***

8. Article 14 of the Convention contains a number of requirements regarding impact assessment and minimizing adverse impacts that are of direct relevance when developments are proposed to take place within the territories occupied or used by indigenous and local communities. These requirements are that each Contracting Party as far as possible and as appropriate, shall:

(a) Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures (paragraph 1 (a)).

(b) Introduce appropriate arrangements to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account (paragraph 1 (b)).

9. The provision contained in paragraph 1 (b) complements Article 10(a), which requires Parties to integrate consideration of conservation and sustainable use of biological resources into national decision-making, and Article 6(b), which requires Parties to integrate conservation and sustainable use of biological diversity into relevant sectoral and cross-sectoral plans, programmes and policies.

### *C. Prior informed consent of the affected community*

10. Prior informed consent is essentially an administrative procedure that provides considerable flexibility. In the context of cultural, environmental and social impact assessment procedures, it enables both affected the affected community and the proponent of the development to put all their concerns on the table and identify solutions to problems before the affected community decides on whether to give consent. The affected community must retain the right to refuse consent (and should be empowered to do so by the relevant laws) or withhold consent until certain conditions are met by the proponent(s). For indigenous and local communities it offers the possibility to exercise customary law in the decision-making processes, and request that certain conditions based on customary law be taken into account in the terms of reference for the conduct of impact assessments, as well as in regard to any mutually agreed terms reached between the affected community and the proponent of a development. Such terms can form the essential conditions of any contracts entered into between the affected community and the proponent. In the absence of more formal recognition of indigenous and local community systems of customary law within the legal framework of the State, a prior informed consent regime can nevertheless give practical effect to the exercise of customary law, albeit within the limits of a regime governing impact assessments under which indigenous and local communities may be able to exercise a range of rights. This becomes particularly important in terms of being able to enforce intellectual property rights over traditional knowledge in accordance with customary law.

11. The matter of prior informed consent is currently under consideration in the context of Article 15, paragraph 5 with regard to access to genetic resources, <sup>1/</sup> and Article 8(j), in which the expression “approval and involvement” is employed with regard to the wider application of the traditional knowledge, innovations and practices of indigenous and local communities. <sup>2/</sup> In both contexts, the Conference of the Parties is concerned with adopting principles and guidelines on prior informed consent and prior informed approval and how interested parties should go about obtaining such consent/approval within the context of the Convention. Accordingly, the Conference of the Parties has mandated both the Ad Hoc Open-ended Intersessional Working Group on Access and Benefit-Sharing (decision V/26 A, para. 11) and the Ad Hoc Open-ended Inter-Sessional Working Group on the Implementation of Article 8(j) and Related Provisions to elaborate guidelines within the context of Articles 15, paragraph 5, and 8(j), respectively.

12. While one of the guiding principles for the implementation of the programme of work on the implementation of Article 8(j) states that access to traditional knowledge, innovations and practices of indigenous and local communities should be subject to prior informed consent or prior informed approval from the holders of such knowledge, innovations and practices, the process for the elaboration of

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<sup>1/</sup> See paragraphs 32-49 of the note by the Executive Secretary on elements for consideration in the development of guidelines and other approaches for access to genetic resources and benefit-sharing (UNEP/CBD/WG-ABS/1/3), prepared for the Ad Hoc Open-ended Working Group on Access and Benefit-sharing.

<sup>2/</sup> See task 7 of the programme of work on Article 8(j).

guidelines for prior informed consent/approval will not commence, in accordance with paragraph 2 of decision V/16, until tasks 5, 9 and 11 have been completed.

13. However, matters concerning prior informed consent within the context of Article 15, paragraph 5, have been addressed by the Panel of Experts on Access and Benefit-Sharing.<sup>3/</sup> In paragraph 9 of decision V/26 A, the Conference of the Parties noted the common understandings of the Panel of Experts with respect to prior informed consent and mutually agreed terms as contained in paragraphs 156 to 165 of its report. Against this background, the common understanding with respect to prior informed consent achieved by the Panel of Experts should be taken into consideration and adapted to suit the purposes of cultural, environmental and social impact assessment procedures for developments proposed to take place within territories occupied or used by indigenous and local communities.

14. In order to provide basic minimum protection to the affected community in the context of the impact assessment processes, a prior informed consent procedure should involve the full and legally accurate disclosure of information concerning the proposed development in a form which is both accessible and understandable to the affected community regarding, *inter alia*:

- (a) The nature, size and scope of the proposed development or activity;
- (b) The duration of the development (including the construction phase) or the activity;
- (c) The locality of areas that will be affected;
- (d) A preliminary assessment of the likely impact of the development on conservation and sustainable use, and particularly the continued customary access/use of biological resources;
- (e) The reasons/purpose for the development;
- (f) Personnel likely to be involved in both construction and operational phases (including local people, research institutes, sponsors, commercial interests, and partners - as possible third parties and beneficiaries) of the development process;
- (g) Specific procedures the development or activity would entail (land clearing, earthworks, introduction of new species or plant varieties, sample collecting, field trials, archaeological excavation);
- (h) Potential risks involved (e.g., entry into sacred areas, partial destruction of a significant site, disturbance of a breeding ground);
- (i) The full implications that can realistically be foreseen (e.g., commercial, economic environmental, cultural);
- (j) Conditions for third party involvement.

15. Provision of misleading or false information could result in a penalty or denial of consent for the proposed development to proceed.

16. The administrative process should involve both an approval and appeals process. In relation to the approval process, after due consideration of their own interests and concerns, the outcomes of the impact

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<sup>3/</sup> . See paragraphs 110-126 and 156-161 of the report of the Panel of Experts on the work of its first meeting (UNEP/CBD/COP/5/8).

assessments, and consultation with other communities likely to be affected by the proposed development, the affected community should then either approve or refuse the application for development. In cases where the application is approved, the community may set certain conditions regarding the proposed development. In cases where the application is refused, reason(s) for refusal should be given. In cases in which prior informed consent is refused, or to enable other indigenous and local communities to appeal a development proposal if they believe that their interests have not been adequately considered, an appeal process should be established.

17. The overall prior informed consent process should also be set within a realistic and agreed time-frame (e.g., 6 months from date of submission), and with appropriate time frames for each of the stages. Adequate time (2-3 months) must be given for the affected indigenous and local communities to assess the development proposal. This must particularly be the case where the development proposal has the potential to affect a wide area and there are a number of indigenous and local communities that could be affected.

18. While it is desirable for Governments to formulate national guidelines for the information required in a prior informed consent procedure, some indigenous and local communities may wish to devise their own guidelines.

#### ***D. Full and effective participation of the affected community***

19. In paragraph 7 of decision IV/10 C, the Conference of the Parties emphasized the need to enable active participation by interested and affected stakeholders in the assessment process, including indigenous and local communities embodying traditional lifestyles and non-governmental organizations. In paragraph 1 (d) of decision V/18, the Conference of the Parties invited Parties and Governments and other relevant organizations to ensure the involvement of interested and affected stakeholders in a participatory approach to all stages of the assessment process, including government bodies, the private sector, research and scientific institutions, indigenous and local communities and non-governmental organizations, including by using appropriate mechanisms, such as the establishment of committees, at the appropriate level.

20. For any impact assessment procedure to be effective, the concerned indigenous and local communities must be able to participate in all phases of the assessment process and, if need be, must be adequately resourced financially and with appropriate legal and technical expertise so that their social, cultural and economic concerns are fully taken into account. It is also vital to the outcomes of the assessment process that the traditional biodiversity-related knowledge of the affected indigenous and local communities is integrated with modern scientific assessment methodologies and procedures. To ensure that these considerations occur in a systematic way, it is therefore necessary to formulate guidelines appropriate to the various purposes and phases of the environmental, cultural and social impact assessment process, which incorporate the necessary preventative, monitoring, control and mitigation measures.

#### ***E. Gender considerations***

21. The Convention recognizes the vital role that women play in the conservation and sustainable use of biological diversity and affirms the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation. It is therefore particularly necessary to fully study and understand the impacts that a proposed development may have on the women of an affected community, particularly in relation to agricultural and tourism developments.

#### ***F. Consideration of the capacity-building needs of the affected community***

22. Consideration should also be given to the capacity-building needs of indigenous and local communities, particularly with regard to access to the relevant technologies and equipment (such as geographic information systems for identifying and recording sensitive environmental areas; air-, soil- and water-quality test kits; remote-sensing; bio-informatics; modelling tools) and the relevant training both to operate such technology, to carry out ongoing monitoring of impacts during and after a development has taken place, and for such communities to undertake control and mitigation measures.

23. In paragraph 1 (e) of Decision V/18, the Conference of the Parties invited Parties and Governments and other relevant organizations to organize expert meetings, workshops and seminars, as well as training, educational and public awareness programmes and exchange programmes, and carry out pilot environmental impact assessment projects, in order to promote the development of local expertise in methodologies, techniques and procedures.

#### ***G. Development and the alleviation of poverty***

24. In the preamble to the Convention, Contracting Parties recognize that economic and social development and poverty eradication are the first and overriding priorities of developing countries.

25. Many indigenous and local communities often experience extreme conditions of poverty. Much of this is a result of inappropriate developments in which the needs of such communities have not been adequately taken into consideration. The Commission on Human Rights, particularly in the context of various mandates on economic, social and cultural rights, has paid growing attention to the issue of poverty through the realization of the right to development, and notes that a strong relationship exists between the realization of the right to development and poverty eradication. <sup>4/</sup> The Commission's Sub-Commission on the Promotion and Protection of Human Rights has also stressed the need to work towards the realization for all people and communities of the rights, including the right to food, housing, work, health and education, enshrined in the International Covenant on Economic, Social and Cultural Rights, but reminded all Governments of the primacy of human rights obligations over economic policies. <sup>5/</sup>

#### ***H. Strategic environmental assessments and community development plans***

26. Strategic environmental assessment is the environmental assessment of a strategic action: a policy, plan or programme. More specifically, strategic environmental assessment has been defined as: "the formalized, systematic and comprehensive process of evaluating the environmental effects of a policy, plan or programme and its alternatives, including the preparation of a written report on the findings of the evaluation, and using the findings in publicly accountable decision-making".<sup>6/</sup>

27. Policies or plans for strategic environmental assessments may contain strategic directions for environmental impact assessments and mitigation to preserve biological diversity. Some of these directions might indicate, for example, how to use environmental impact assessments to determine the potential effects of development on ecosystems, species and genetic resources and recommend appropriate ways of avoiding or reducing these effects to acceptable levels; to continue to examine and develop ways of harmonizing environmental impact assessments nationally and internationally, where appropriate; and to

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<sup>4/</sup> E/CN.4/Sub.2/2000/14, para. 2.

<sup>5/</sup> E/CN.4/Sub.2/2000/7, para. 3.

<sup>6/</sup> UNEP/CBD/SBSTTA/4/10, para. 14.

enhance efforts to identify and eliminate, or reduce to acceptable levels, the cumulative environmental effects resulting from human activities on ecosystems, species and genetic diversity. This includes developing early-warning indicators and working towards incorporating cumulative environmental effects into relevant national and international agreements. 7/

28. Policies and plans for strategic environmental assessments should outline what a good environmental impact assessment should include and emphasize that biological diversity considerations are a cornerstone of environmental impact assessments; provide an overview of the legal responsibilities related to biological diversity under the Convention on Biological Diversity and other similar environment related agreements; and provide guidance to practitioners of environmental impact assessments in considering biological diversity within current approaches to such assessments. 8/

29. Policies and plans for strategic environmental assessments should also provide a framework for addressing biological diversity, including examples for biological diversity considerations (at ecosystem, species and genetic level) and questions that practitioners might consider during various stages of an environmental impact assessment process, namely: scoping, analysis, mitigation measures, determining the significance of effects, and monitoring/follow up programmes. 9/ .

30. While environmental impact assessments are generally used for evaluating the likely environmental impacts of a proposed development project or activity and often address only a limited range of alternatives and mitigation measures, a strategic environmental assessment applies at policy and decision-making level. Consequently, environmental impact assessment usually only takes place once many strategic decisions have already been taken, thereby reacting to development proposals rather than proactively anticipating them. Strategic environmental assessment, on the contrary, can incorporate environmental issues intrinsically into project planning by influencing the context within which project decisions are made and allowing the consideration of alternatives or mitigation measures that go beyond the confines of individual projects. 10/

31. With regard to strategic environmental assessments, the Conference of the Parties, in paragraph 2 (a) of decision V/18, encouraged Parties and Governments and relevant organizations to use such assessments to assess not only the impact of individual projects, but also their cumulative and global effects, incorporating biological diversity considerations at the decision-making and/or environmental planning level.

32. In paragraph 4 of decision V/18, the Conference of the Parties requested the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to further develop guidelines for incorporating biodiversity-related issues into legislation and/or processes on strategic environmental assessment impact assessment, in collaboration with the scientific community, the private sector, indigenous and local communities, non-governmental organizations and relevant organizations at the international, regional, subregional and national levels, such as the Scientific and Technical Review Panel of the Convention on Wetlands, the Scientific Council of the Convention on Migratory Species, DIVERSITAS, IUCN-The World Conservation Union, the International Association for Impact Assessment and the United Nations Environment Programme, as well as the Parties, and further elaborate the application of the precautionary

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7/ Ibid, para 28.  
8/ Ibid, para. 31.  
9/ Ibid, para. 32.  
10/ Ibid, paras 15 and 74.

approach and the ecosystem approach, taking into account needs for capacity-building, with a view to completion by the sixth meeting of the Conference of the Parties.

33. Strategic environmental assessments usually form the core of national and subnational resource sector policies and strategic plans for their conservation and sustainable use and development. As such they (ideally) take into account the ecological contexts of the particular resource (forests, fisheries), sustainable harvesting levels, and socio-economic factors. The principles guiding the development of strategic environmental assessments may also be applied at the local community level and may take the form of community development plans or strategies. The purpose of community development plans is generally to enable communities to adopt a strategic, integrated and phased approach to their developmental needs which will enable them to accommodate change at a pace which is comfortable. community development plans will also frequently prioritize a community's development goals and needs.

34. Typically, community development plans set out a number of community development objectives which would normally include economic, social and cultural goals, and which would identify strategies for achieving them within short- medium- and long-term time frames, that is, for example, over 5, 10 and 25-year periods. Such plans are usually based on assessments of a community's current situation: its assets (including natural resources); size and age-structure of its population; its educational and skills base; levels and areas of employment; infrastructure needs (housing, schools, health services, transport, etc.); economic opportunities and potential for development; and cultural needs (e.g., need for language maintenance programmes). A community development plan may contain a development objective with regard to the environment that could, for example, aim at promoting sustainable development and economic growth while protecting the environment in the long term, by actively promoting and maintaining the welfare of the community and its inhabitants by adopting policies aimed at the maintenance of ecosystems, essential ecological processes and biological diversity, and utilization of living natural resources on a sustainable basis for the benefit of all members the community, both present and future. The community might place a high priority on maintaining maximum biological diversity by ensuring the survival and promoting the conservation in their natural habitat of all species of flora and fauna, in particular those of endemic, threatened, endangered, and of high economic, cultural, educational, scientific and conservation interest. <sup>11/</sup>

35. A strategic environmental assessment policy or plan might form part of a community's overall development plan, providing a systematic process for integrating environmental, socio-economic, cultural and health considerations in planning and decision-making, and include formal requirements for the application of cultural, environmental and social impact assessments to development proposals. It might also, for example, outline the relevant project contexts where biological diversity may be adversely impacted or, conversely, projects that offer opportunities for conserving or enhancing biological diversity. <sup>12/</sup>

36. It is within the context of a community development plan, and in particular its policy on strategic environmental assessments, that a development proposal may be assessed and the terms of reference for cultural, environmental and social impact assessments established. This means, that in the initial screening process some development proposals may be dismissed because they are incompatible with the objectives of the community development plan. And those development proposals that pass screening and appear compatible with a community's community development plan can then be subjected to a rigorous assessment process taking into account environmental, social, and cultural parameters that have already

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<sup>11/</sup> Ibid, para. 63.

<sup>12/</sup> Ibid, paras 33-34.



been defined in the community development plan. In this way, a community can control the development process and in a way which fits with its objectives and time-frame, and within the parameters/requirements of environmental sustainability.

### ***I. Legal considerations***

37. Legal considerations are a necessary part of impact-assessment procedures regarding development proposals. In the context of developments proposed to take place within territories occupied or used by indigenous and local communities, these considerations generally exist in at least three separate domains, but need to be considered together in an impact assessment procedure. These three domains are: national (and subnational) legislation which establishes the rights and responsibilities of both government and the respective indigenous and local communities under their jurisdiction; the extent to which the exercise of customary law is recognized and enforceable within an indigenous or local community affected by a development proposal; and national (and subnational) requirements, as expressed in legislation regarding environmental assessments, but in particular, in relation to issues of liability and redress.

#### ***Rights and responsibilities of Governments and indigenous and local communities under national and subnational laws***

38. National (and subnational) legislation detailing the respective rights and responsibilities of governments and the indigenous and local communities over whom they exercise jurisdiction usually stems from at least one of the following three sources: the national constitution; treaties or agreements concluded with indigenous and local communities; or obligations under international law (which includes the Convention on Biological Diversity, but may also include the international human rights instruments, and International Labour Organization Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries).

39. In the context of environmental impact assessments, indigenous and local communities may have various codified legal rights, including rights with regard to land and waters, and associated biological diversity; and rights to control access to their territories and monitor and police any activities carried out. These rights need to be taken into account in any assessment procedure.

#### ***Jurisdictional issues regarding the application of customary laws in area of proposed development***

40. Usually, as an expression of constitutional and/or treaty rights, but particularly in countries that maintain a system of legal pluralism, indigenous and local communities may have the power within their territories to exercise laws based on their customs and traditions with regard to impact assessment procedures. Such powers may extend to issues of decision-making, access to and control over (certain types of) traditional knowledge, consideration of sacred sites and other areas of particular significance, rights and responsibilities with regard to particular species, benefit-sharing, and so on. However, in most instances, the exercise of relevant customary law only extends to members of the community, and may not be used to address offences committed against customary law by outsiders.

41. In environmental impact assessment procedures, there needs to be a clear articulation of legal responsibilities regarding, for example, offences committed during an assessment procedure, and particularly in relation to which party (that is, the national/subnational government or the government of the indigenous or local community) has jurisdiction over such matters, how judgements are to be enforced, and how issues of liability and redress are to be resolved.

***Issues of liability and redress with regard to development proposals***

42. As noted in paragraph 35 of the note by the Executive Secretary on impact assessment and minimizing adverse impacts prepared for the fourth meeting of the Conference of the Parties (UNEP/CBD/COP/4/20), provisions on liability and redress in international agreements usually contain a number of substantive and procedural elements. These elements are listed in paragraph 17 of the draft guidelines.

43. It is suggested that in the assessment process, due consideration be given to each of these elements in the context of the needs and requirements of affected indigenous and local communities, and particularly in any environmental management plan established to manage the impacts of a development proposed to take place within their territories or in adjacent areas.

***J. Ownership, protection and control of traditional knowledge and technologies used in impact assessment processes***

44. In the context of environmental impact assessments and the need to consider issues related to the ownership, protection and control of traditional knowledge and technologies used in impact assessment procedures, it is noted that the Working Group, under task 12 of the programme of work endorsed by the Conference of the Parties in decision V/16, is also to develop guidelines that will assist Parties and Governments in the development of legislation or other mechanisms “that recognize, safeguard and fully guarantee the rights of indigenous and local communities over their traditional knowledge, innovations and practices, within the context of the Convention”. While falling within the first phase of the programme of work, however, it is also noted that task 12, in accordance with paragraph 2 of decision V/16, is to be addressed after the completion of tasks 5, 9 and 11, that is after the completion of the task under consideration in the present note.

45. Attention is also drawn to task 1 of the programme of work, whereby Parties are to take measures to enhance and strengthen the capacity of indigenous and local communities to be effectively involved in decision-making related to the use of their traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity subject to their prior informed approval and effective involvement. To assist Parties in this and other tasks under element 1 (Participatory mechanisms for indigenous and local communities) of the programme of work, the Executive Secretary has prepared a note on participatory mechanisms for indigenous and local communities in the implementation of Article 8(j) and the programme of work (UNEP/CBD/WG8J/2/4). Among the most important measures which Parties and Governments can undertake to facilitate the effective involvement of indigenous and local communities in decision-making related to the use of their traditional knowledge, are those concerned with:

- (a) Ensuring indigenous and local community representation on any statutory or other bodies established to provide advice or oversee any activity related to the conservation and sustainable use of biological diversity;
- (b) Formalizing, in either legislation or policy, procedures to address the need to gain the prior informed approval (or consent) of knowledge-holders;
- (c) Capacity-building to ensure that traditional knowledge holders have an equitable say in decision-making processes;
- (d) Administrative support; and

(e) Development of traditional knowledge registers.

46. In the meantime, it is suggested that indigenous and local communities establish their own protocols for access to and use of secret knowledge in impact-assessment procedures. It is also suggested that such protocols should form part of any contractual arrangements negotiated or concluded between the parties to an impact assessment procedure (principally, the government or its agents, affected indigenous and local communities, those authorized to conduct the impact assessments, the proponents of the proposed development, and any parties (scientists, consultants) engaged to provide independent evaluation of impact assessment findings).

47. In the development of indigenous and local community protocols to safeguard ownership, protection and control of their traditional knowledge and technologies used in impact assessment procedures, such communities may need access to scientific and legal advice.

***K. Integration of traditional and global scientific knowledge in impact-assessment processes***

48. The Conference of the Parties has recognized in both decisions III/14 and IV/9, that traditional knowledge should be given the same respect as any other form of knowledge in the implementation of the Convention. Furthermore, in the implementation of the programme of work under decision V/16, one of the general principles to be followed is that traditional knowledge should be valued, given the same respect and considered as useful and necessary as other forms of knowledge.

49. In paragraph 1 of decision II/8, the Conference of the Parties stated that the ecosystem approach should be the primary framework for action under the Convention. In paragraph 1 of decision V/6, the Conference of the Parties endorsed the description of the ecosystem approach in section A of the annex to the decision, and recommended the application of the principles contained in section B. Principle 11 states that the ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices.

50. It is noted that further work is to be carried out that will facilitate the integration of traditional and other forms of knowledge in the service of the Convention. In accordance with task 13, which falls within the second phase of the programme of work, the Ad Hoc Working Group is to develop a set of guiding principles and standards to strengthen the use of traditional knowledge and other forms of knowledge for the conservation and sustainable use of biological diversity, taking into account the role that traditional knowledge can play with respect to the ecosystem approach, *in situ* conservation, taxonomy, biodiversity monitoring and environmental impact assessment in all biodiversity sectors.

***L. Application of the ecosystem approach***

51. Principle 1 of the ecosystem approach recognizes that the objectives of management of land, water and living resources are a matter of societal choice. This principle also recognizes that indigenous peoples and other local communities living on the land are important stakeholders and their rights and interests should be recognized, and that both cultural and biological diversity are central components of the ecosystem approach, and management should take this into account.

52. Furthermore, the ecosystem approach is identified as one of the general principles to guide the programme of work for the implementation of Article 8(j) and related provisions, and is described in the annex to decision V/16 as “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use of biological diversity in an equitable way”.

*M. Application of the precautionary approach*

53. The precautionary principle states that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage. In the context of the conservation and sustainable use of biological diversity, the approach essentially means that lack of full knowledge should not be an excuse for postponing action to conserve biological diversity.

54. In the context of impact assessments concerning developments proposed to take place on sacred sites and on lands and waters occupied or used by indigenous and local communities, and particularly with respect to mitigation and threat abatement measures associated with a development, the precautionary approach should be applied.

*N. Need for transparency*

55. In all disclosures and dealings concerning the development proposal, in the conduct of all phases of the impact assessments, and in any decision-making processes, except in cases of national security and where confidentiality regarding the handling of secret/sacred traditional knowledge is required, transparency and public accountability should be maintained.

*O. Establishment of review and dispute resolution procedures*

56. In order to manage any disputes that may arise in relation to a development proposal and in the ensuing impact assessment processes, a special body should be established to oversee any review processes and to mediate disputes. Ideally this should be a body (court, tribunal) specially constituted under legislation with clearly defined powers to hear disputes in relation to environmental matters, including environment-related disputes with regard to development projects.

57. Disputes may arise at least three levels: the community level (with respect to disagreements about issues related to the proposal, the conduct of impact assessments, adequacy of consultation and participation, and decision-making responsibilities) and may involve differences of opinion (over these and other issues) between affected communities; between the development proponents and the affected community; or between an affected community and the government (national or subnational) as the ultimate authority over matters relating to development. Irrespective of the level at which a dispute may take place, affected indigenous and local communities should be fairly and adequately represented.

58. In situations where development is authorized to proceed by the Government because of overriding national interests and contrary to the interests and well-being of the affected community, the court or tribunal should be able to award compensation to the affected community.

*P. Reporting*

59. In conformity with the request made by the Conference of the Parties in paragraph 3 of decision V/18, Parties should include in their national reports submitted pursuant to Article 26 of the Convention information on practices, systems, mechanisms and experiences in the area of strategic environment assessment and impact assessment. Parties should also include in their national reports their experiences with regard to the implementation of these guidelines for cultural, environmental and social impact assessment, and any measures adopted to formalize these guidelines in any policies, plans or programmes regarding strategic environment assessment.

### III. INSTITUTIONAL AND PROCEDURAL CONSIDERATIONS

#### A. *Recognition of the diverse nature of development proposals*

60. It is recognized that developments that may affect biological diversity and the cultures and societies of indigenous and local communities that depend on that biological diversity may take many forms. Development and its associated activities can involve, for example:

- (a) Resource extraction (mining, logging, quarrying);
- (b) Collection or harvesting of a particular biological resource from the wild;
- (c) Agricultural and pastoral development (clearing land of its natural vegetation; conversion of traditional farming systems to suit industrial/commercial production systems based largely on monocultures and which often require the introduction of new agricultural species/varieties and the use of chemical fertilizers, pesticides and irrigation);
- (d) Establishment of factories, refineries, storage facilities and industrial complexes (whose manufacturing processes and waste products can pose environmental hazards);
- (e) Tourism, recreation and sports development (resorts, theme parks, golf courses, marine activity centres, interpretative centres, walking trails, etc);
- (f) Urban development; and
- (g) Infrastructure development (roads, dams, airports, defence installations, waste disposal facilities, power lines, irrigation channels, pipelines, fencing) created to serve any of the above developments.

61. Proposed developments may also be of long-, medium- and short term duration. Examples of each are:

- (a) Long term/permanent—typically infrastructure facilities (roads, dams, etc);
- (b) Medium term—mining, forestry (where a resource may be exploited for a 10 - 20 year period);
- (c) Short term—all-terrain car rallies, and some adventure or eco-tourism activities may involve once-only, a few or sporadic visits into a particular region, but their impacts on biological diversity and indigenous and local communities may be more lasting (eg, the eco-challenge and survivor ventures).

62. Each of these different types of development can have both direct and indirect impacts on biological diversity at ecosystem, species and genetic levels. Direct impacts are those that involve, for instance, the taking or harvesting of particular species, or the destruction or alteration of habitat (for example, forestry, mining, agriculture) as a goal of the development. Indirect impacts typically result from pollution of the local environment (smog, dust, noise, industrial contamination of water supplies), which then has consequences for biological diversity in the area as well as for the health and livelihoods of affected communities. Indirect impacts may also result from the reduction in the availability of an essential local resource, such as water, because of excessive industrial usage or diversion of a water course to supply other, non-local, needs (a hydroelectric facility, irrigation system). Impacts may also be quite localized, may extend over wide areas, or may occur at some distance from the site of the

development (typically, downstream pollution or siltation of a river system, or downwind in cases of air pollution). Similarly, the nature of impacts can affect indigenous and local communities in varying ways, both positive and negative.

63. Proposed developments may also vary considerably in scale from, for example, the commercialization of local agricultural production to meet national economic goals and export demands, or the construction of a power line across the territory of an indigenous and local community, to the development of a local artefact industry, using local biological resources, to supply a nearby tourism resort.

64. It is also recognized that the initiators of development proposals may be governments (national, subnational or local), the private sector, an indigenous or local community, or a combination of any of these. It is also assumed that any development proposal will have to conform to national (and subnational and local) development policies and goals, and conform with any guidelines established for achieving these.

#### ***B. Phases in the conduct of impact assessment procedures***

65. The phases of an impact assessment procedure are listed in paragraph 29 of the draft guidelines.

66. While the focus of environmental, cultural and social impact assessments is necessarily different, it is assumed, however, that the steps or phases for carrying out all three kinds of assessment will for the most part be the same. However, in the case of small-scale locally based and initiated development, it may be possible to omit some of these steps.

#### ***C. Public notification by the proponent of the development proposal***

67. The proponent of a development proposal should engage in a process of public notification of intention to carry out a development. Such notification should use all normal public means of notification (newspapers, radio, television, mail-outs, etc), and ensure that such notification takes place in the language(s) of the communities and region that will be affected. The notification should clearly identify the proponent, contain a brief summary of the proposal, the areas and communities likely to be affected, arrangements for public consultation, contact details, key dates in the life of the project - including those regarding impact assessment procedures, and identify obligations under national and subnational laws.

68. Full copies of the development proposal should be made available to organizations representing affected indigenous and local communities and other stakeholders for public scrutiny and to facilitate informed discussion, such copies to contain full disclosure of all details of the proposal, and all information contained in the proposal should be legally and factually correct.

#### ***D. Identification of stakeholders***

69. In paragraph 1 (d) of decision V/18, the Conference of the Parties further elaborated the requirements regarding public participation identified in paragraph 1 (a) of Article 14 of the Convention, by inviting Parties, Governments and other relevant organizations to ensure the involvement of interested and affected stakeholders in a participatory approach to all stages of the assessment process, including government bodies, the private sector, research and scientific institutions, indigenous and local communities and non-government organizations, including by using appropriate mechanisms, such as the establishment of committees, at the appropriate level.

### *E. Screening development of proposal*

70. The first stage of the environmental impact assessment process itself is the determination of whether such an assessment is required; this stage is generally known as “screening”. In the context of a development proposed to take place within the territory of an indigenous or local community, screening should involve an evaluation of the merit of the proposed development addressing issues of feasibility, environmental/cultural/social/economic cost/benefit analyses, identification of beneficiaries, and compatibility with national and local community development goals. Ideally this should take place within the context of the community development plan of the affected community.

71. One commonly used procedure for screening is to establish a set of criteria based on the type of activity, the character of the environment and the character of the project in order to enable the competent authorities to take a decision on the need for an environmental impact assessment. <sup>13/</sup>

72. The criteria and procedures for determining whether an activity is likely to significantly affect the conservation and sustainable use of biological diversity and is, therefore, subject to environmental impact assessment, ideally should be comprehensively defined by legislation, regulation, or other means, so that relevant activities can be quickly and surely identified, and environmental impact assessment can be applied as soon as the activity is being planned. This principle may be implemented through a variety of mechanisms, including lists of categories of:

- (a) Activities that by their nature are, or are not, likely to have significant effects;
- (b) Areas that are of special importance or sensitivity (such as sacred sites, national parks or wetland areas), so that activities affecting such areas are likely to have significant effects;
- (c) Resources (such as water, tropical rain forests, etc.) or environmental problems (such as increased soil erosion and salination, desertification, deforestation) that are of special concern, so that diminution of such resources as well as exacerbation of such problems are likely to be “significant”. <sup>14/</sup>

### *F. Development of terms of reference for conduct of impact assessments*

73. Once a decision is taken that a proposed project or activity should be subject to an environmental impact assessment, the next stage is gathering data and identifying those matters that could be covered in the assessment, a process generally known as “scoping”. The information gathered usually focuses on the most important impacts expected from the identification of the activity and the site. The assessment identifies the type of alternatives to be considered and may address the measures that would be taken to mitigate adverse impacts. <sup>15/</sup>

74. Gathering information relevant to the cultural, environmental and social impact assessment processes, as well as baseline studies and surveys, are necessary processes which should be undertaken in order to effectively assess the impact of a proposed project or activity on the conservation and sustainable use of biological diversity and on affected indigenous and local communities. The scoping stage will also require the development of methods to be used to predict the magnitude of cultural, environmental and social impacts as well as the establishment of criteria against which the significance of impacts should be evaluated. This process can only be carried out successfully if adequate resources and expertise are

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<sup>13/</sup> UNEP/CBD/COP/4/20, para 13

<sup>14/</sup> Ibid, para. 14.

<sup>15/</sup> Ibid, para. 15.

available and may require training and/or development of programmes for training people in the affected indigenous and local community in undertaking and reviewing cultural, environmental and social impact assessments. <sup>16/</sup> Once the scoping of the proposal has been completed, the terms of reference for the impact assessment can be formulated.

75. Scoping should also take into account the development of alternatives with respect to the different facets of the development proposal. In paragraph 2(b) of decision V/18, the Conference of the Parties encourages Parties, Governments and relevant organizations to include the development of alternatives, mitigation measures and consideration of the elaboration of compensation measures in environmental impact assessment.

### ***G. Participation of the affected community***

76. The World Bank Environment Department paper on “Biodiversity and Environmental Assessment”, <sup>17/</sup> emphasizes the importance of local community and non-governmental organization involvement in conserving biological diversity, especially for situations where conservation involves the imposition of restrictions upon the use of lands enjoyed by the public or considered the domain of indigenous people. Therefore, with regard to identification and assessment of potential impacts “it is particularly important to pursue a dialogue with affected groups on: the importance of biological diversity and benefits to be gained from its conservation; realistic management options; and local customs, traditions and cultural values”. <sup>18/</sup>

### ***H. Identification and provision of human, financial, technical and legal resources to enable effective participation of the affected community***

77. In order to facilitate effective community involvement and participation in the impact assessment processes, early identification and provision of human, financial, technical and legal resources are essential. In general, the larger the proposed development, the greater and more widespread the potential impacts and therefore there may be greater requirements for support and capacity-building.

### ***I. Establishment of an environmental management plan***

78. An environmental management plan should also include components regarding mitigation, and a regime for monitoring of impacts:

- (a) During the development/construction phase;
- (b) During operational phase and where applicable,
- (c) Cessation of operations/site-rehabilitation phase.

79. It should also include requirements for capacity building and training, an implementation schedule and cost estimates for the above processes. As appropriate, environmental management plans may also detail measures for flood, wildfire and soil erosion control; control of weeds and vermin; and environmental enhancement (e.g., improvement of native habitat values, habitat compensation, revegetation).

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<sup>16/</sup> Ibid, para. 16.

<sup>17/</sup> No. 20, October, 1997.

<sup>18/</sup> UNEP/CBD/COP/4/20, para 18.



***J. Identification of parties responsible for liability and redress***

80. In order to maintain the health, well-being and security of affected indigenous and local communities and the ecosystems that sustain them and, to the extent that it is possible, to anticipate adverse impacts of any proposed development, parties that should bear responsibility for such adverse impacts should be clearly identified, and the extent of their liabilities defined in the event that damage is caused to the environment, biological diversity, sacred sites, or that impacts on the health, well-being or livelihoods of affected indigenous and local communities and which can be directly attributed to the development.

***K. Conclusion of an agreement between the proponent and the affected community***

81. In order to protect the interests of affected indigenous and local communities, an agreement, preferably legally binding, should be negotiated between the community and the proponent of the development. Such an agreement may take the form of a formal, legally enforceable contract, a memorandum of understanding or other form of agreement.

82. Such agreements may be extended, as appropriate, to address such matters as training and recruitment of members of indigenous and local communities for employment associated with the proposed development, the supply of materials for construction, accommodation of non-community employees, and so on. It may be opportune for specifying conditions regarding access to community villages, sacred sites, the need to comply with local community laws, and set out a code of behaviour for non-community employees associated with the development.

**IV. SPECIFIC GUIDELINES FOR THE CONDUCT OF  
CULTURAL, ENVIRONMENTAL AND SOCIAL IMPACT  
ASSESSMENTS**

***A. Cultural impact assessments and cultural heritage impact assessments***

***Scope of cultural impact assessments***

83. The term “culture” generally refers to the way of life of a particular group or community of people. The cultural component of an impact assessment procedure should address those aspects of a community’s way of life identified in paragraph 43 of the draft guidelines.

***Definition and scope of cultural heritage impact assessments***

84. A cultural impact assessment may also need to take into account an assessment of the physical manifestations of the local culture, or that of any predecessors, that is a cultural heritage impact assessment. Cultural-heritage impact assessments frequently involve archaeological surveys of the area potentially to be affected by a proposed development. In some cases, archaeological sites may have been identified and recorded, but their significance may not have been determined. It is also not uncommon to uncover sites or objects of archaeological significance when earth-works are being carried out. This may necessitate the cessation of such activities until a proper archaeological assessment has been completed.

85. In arriving at the terms of reference for any cultural impact assessment, it is important that the community concerned be able to identify issues which are of particular cultural concern.

***Possible impacts on continued customary use of biological resources***

86. Of major concern is the possible impact that a proposed development may have on the customary use of biological resources. Article 10(c) of the Convention states that each Contracting Party shall, as far as possible and as appropriate, protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation and sustainable use requirements. There is also considerable evidence pointing to the mutual relationship between the maintenance of genetic diversity (particularly with regard to genetic resources for food, agriculture and traditional medicines) and traditional knowledge - a loss of one will invariably lead to a loss in the other. The Conference of the Parties, in paragraph 16 of decision V/16, also recognizes that the maintenance of traditional knowledge, innovations and practices of indigenous and local communities is dependent on the maintenance of cultural identities and the material base that sustains them and invites Parties and Governments to take measures to promote the conservation and maintenance of such identities.

***Possible impacts on the respect, preservation and maintenance of traditional knowledge, innovations and practices***

87. In the conduct of cultural impact assessments, care should be taken to respect both the custodian or holder of traditional knowledge and the knowledge itself. Customary laws governing ownership, access, control, use and dissemination of traditional knowledge should be strictly observed. Traditional knowledge will be an important component of the assessment process and may be gathered as evidence. In the event of disputes over the alleged nature of impacts, traditional knowledge may be questioned. It is therefore necessary to establish protocols that can cover all foreseeable circumstances particularly with regard to the disclosure of secret/sacred knowledge, including those that may involve public hearings and judicial processes in the courts.

***Protocols***

88. In order to facilitate the proper conduct of development and those associated with it within indigenous and local community territories protocols should be jointly established by the proponent of the development and the concerned communities. Specific protocols may need to be established for particular kinds of development activity (for example, adventure tourism, mining) and may need to take into account the behavior to be observed when visiting local communities, particular sites or when dealing with members of indigenous and local communities.

***Possible impacts on sacred sites and associated ritual or ceremonial activities***

89. Many sacred sites serve important biodiversity functions as refuges or sanctuaries for particular species, sacred groves for medicinal plants, and as special places where ceremonies and rituals (eg, associated with harvest, or hunting) are performed to honour species and promote their survival and maintenance. Some sacred places may cover a large area, while others can be pinpointed to specific locations. Some sites are sacred because they contain crucial habitat for particular species of, for instance, ritual or healing significance and their preservation and maintenance is important to the health and well-being of the community.

90. In some cultures, the specific location of a sacred site, the nature of its significance and the nature of the ceremonial activities that take place there are kept secret, known only to those who have particular custodial responsibilities for the site. Breaches of secrecy may be severely dealt with under customary law. Sometimes such sites are recorded in national registers of sacred places, with the general locality of the site being recorded (for example, by reference to a grid square on a map), while knowledge of its

specific location within the grid square remains with its custodians. In some countries, sacred sites of indigenous and local communities are protected under national and subnational laws, which regulate access and the kinds of activities which can be carried out within their vicinity. Such laws also usually recognize the customary authority of the custodians of sacred sites and empower them to make decisions on any matters relating to the sites.

### ***Respect for the need for cultural privacy***

91. Some indigenous and local communities may not want to have outsiders (as employees or clients) associated with a development visiting their villages. There are also sound health reasons for minimizing or restricting such contacts with regard to the spread of infectious diseases for which the community/village members may have no immunity.

### ***Possible impacts on the exercise of customary laws***

92. Development proposals should be assessed for possible impacts on the customary laws of an affected community. If a development requires the introduction of an outside work force or large numbers of visitors (e.g., as tourists), or results in or requires changes in local customary systems (e.g., regarding land tenure, distribution of resources and benefits), conflicts may result. It may therefore be necessary to codify certain parts of customary law, clarify matters of jurisdiction, and negotiate ways to minimize breaches of local laws.

## ***B. Environmental impact assessments***

### ***Scope of environmental impact assessments***

93. Environmental impact assessment is a category of impact-assessment procedures that are generally used for evaluating the likely environmental and consequent social impacts, both beneficial and adverse, of a proposed development project or activity. An environmental impact assessment should address all the expected effects on human health, the natural environment and property as well as social effects, particularly gender specific and special group needs, resettlement and impacts on indigenous people resulting from environmental changes. <sup>19/</sup>

94. The environmental impact assessment process usually includes elements that act as mitigating and incentive measures. The environmental impact assessment process aims at eliminating or at least minimizing potential adverse impacts that may affect the environment. The predictable effects of a project can be mitigated through appropriate actions that include, *inter alia*: the application of design; changes in planning; project management; and measures to restore or rehabilitate ecosystems and to recreate habitats and valued resources. The possible link between impact assessment and incentive measures is pointed out by the Conference of the Parties in its decision III/18, on incentive measures. In paragraph 6 of that decision, Conference of the Parties encourages Parties to incorporate biological diversity considerations into impact assessments as a step in the design and implementation of incentive measures. <sup>20/</sup>

95. To be most effective, the environmental impact assessment should be carried out at the design stage of a project to identify where practical plans can be made to minimize any adverse effects. The environmental impact assessment should, where adverse impacts are envisaged, identify alternative project

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<sup>19/</sup> Ibid., para 4.

<sup>20/</sup> UNEP/CBD/SBSTTA/4/10, para 72.

designs (including rejection or the “no-action” alternative) as well as mitigation measures or environmental safeguards that can be incorporated into the project design to reduce the adverse impacts. <sup>21/</sup>

### ***Baseline studies***

96. In order to effectively undertake an environmental impact assessment for a proposed development, it is desirable to carry out baseline studies. Detailed knowledge of biological resources (ecosystems, species and genetic diversity) is essential to the protection of biodiversity values. Such baseline studies should include whether, for example, habitat types to be affected by the proposed development are represented elsewhere in existing conservation reserves (under national reserve systems).

### ***Direct impacts on local biological diversity***

97. A proposed development may result in a number of direct impacts on biological diversity, for example, habitat fragmentation through alteration of physical environment (roads, marinas, resource extraction, canals, pipelines, and fences) that may obstruct critical movements of species. Agricultural developments, for example, may impact more at the level of genetic diversity whereby local plant varieties are replaced with high yielding genetically uniform varieties supplied by a commercial seed distributor.

### ***Indirect impacts on local biological diversity***

98. As with direct impacts, local traditional knowledge may be of great assistance in the monitoring process as local people are very often skilled in detecting slight changes to their immediate environments. Efforts could be directed to local capacity-building that ensures that their observations can be systematically recorded.

### ***Assessment of potential for introduction of invasive species***

99. Development proposals should be rigorously assessed for their potential to introduce alien and invasive species into local ecosystems. Introduction may result from pests taking advantage of new migratory paths, or may result from an introduced species spreading beyond its designated area or escaping into the wild.

## ***C. Social impact assessments***

### ***Scope of social impact assessments***

100. Social impact assessments are generally concerned with impacts which may affect the well-being, vitality and viability of a community— that is, the quality of life of a community as measured in terms of various socio-economic indicators, such as income distribution, employment levels and opportunities, health and welfare, education, and availability and standards of housing and accommodation, infrastructure, and services.

### ***Baseline studies–socio-economic indicators***

101. In determining the parameters and content of base-line studies, it is important that the affected community be actively involved, particularly in designing and carrying out the studies, and in the selection of any outside personnel to assist in, for example, data processing and collation of results. For affected

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<sup>21/</sup> UNEP/CBD/COP/4/20, para 5.

communities whose economies are subsistence-based, more appropriate sets of socio-economic indicators may have to be devised.

### ***Economic impacts***

102. Many indigenous and local communities remain economically independent in terms of being able to gain all that they need from their local environments, supplemented through barter and exchange/trading arrangements with their neighbours. Such communities do not depend on a cash economy for many of their goods and services. One of the key issues in socio-economic assessments is the degree to which a proposed development will enhance or jeopardise the independent economic status of an affected community. Conversion of local subsistence-based economies to a cash economy may leave a community vulnerable.

103. Nevertheless, such communities may benefit from the introduction of new economic opportunities, and therefore there is a need to identify such opportunities (employment, training, small-business development) that might arise in the context of the proposed development. However, this should also be accompanied by an analysis of possible effects on the local traditional economy and possible social repercussions (particularly with regard to how economic benefits will be distributed).

### ***Possible impacts on traditional systems of land tenure***

104. Developments that particularly involve changes to traditional practices for food production, or involve the introduction of commercial cultivation and harvesting of a particular wild species (e.g., to supply market demands for a particular herb, spice, medicinal plant) may lead to pressures to restructure traditional systems of land tenure to accommodate new scales of production. The ramifications of these kinds of changes can be far-reaching and need to be properly assessed.

### ***Gender considerations***

105. According to the Food and Agriculture Organization of the United Nations (FAO) in its report on the state of the world's genetic resources for food and agriculture, worldwide, women produce more than 50 per cent of all the food that is grown. In many developing countries, this percentage can be much higher. For instance, it is estimated that women produce 80 per cent of the food grown in sub-Saharan Africa, 50-60 per cent in Asia, 46 per cent in the Caribbean, 31 per cent in North Africa and the Middle East, and about 30 per cent in Latin America.

106. Women in the agricultural sector have also been adversely affected by the promotion of export-oriented economic policies, trade liberalization and activities of transnational corporations in agriculture-related industries. Emphasis on export crops has displaced women workers in certain countries from permanent agricultural employment into seasonal employment. Subsistence farming has been severely affected in the new economic environment, leaving women farmers to seek seasonal employment. Aside from the tenuous and low economic returns of seasonal agricultural employment, the FAO has noted that the destruction of subsistence farming, increased industrial pollution and the loss of land to large commercial ventures, often financed by transnational corporations, have given rise to grave problems relating to food security and the health of the rural poor. <sup>22/</sup>

107. Particularly in many traditional rural communities, women bear the major responsibility for food production, or provide most of the labour making them particularly susceptible to commercial agricultural

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<sup>22/</sup> E/CN.4/Sub.2/2000/13, para. 37.

developments whereby they become seasonal workers, rather than full-time self-employed producers of food for their own and family needs. As paid seasonal workers they may become particularly vulnerable to a range of market-determined situations, such as low wages, poor working conditions, and the need to follow the rural employment market (necessitating travel and periods away from their families and communities).

### ***Generational considerations***

108. In any impact assessment, it is important to examine the potential impact of a proposed development on all generations within a community.

### ***Health and safety aspects***

109. In the impact assessment process, the health and safety aspects of the proposed development should be scrutinized. Safety aspects should include such risks as physical injury during construction, and health risks associated with various forms of pollution, disruption to medicinal plant habitat, and use of chemicals (e.g., pesticides).

### ***Effects on social cohesion***

110. Developments can have uneven impacts on members of a community, for example, by rewarding particular members or classes of members (e.g., by creating employment opportunities for the younger women in the community). A change of land-use, or removal of rights to use certain areas in order to accommodate a particular development may impact unfairly on particular families. Or by placing commercial value on a particular resource that the community traditionally relies upon to service a particular need, may make it less available or affordable. Changing the nature and scale of production of a particular product traditionally made for local consumption to capitalize on the opportunities available by servicing a wider market, could for example, render certain traditional skills and know-how redundant as these are replaced by mechanization. This in turn could lead to a loss of traditional knowledge. Thus, as these examples indicate, there is a need to take into account the impact that a proposed development may have on the cohesion or stability of an affected community. A development proposal should therefore ensure that negative effects are minimized or adequately compensated for, and benefits are equitably distributed across all groups within an affected community.