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COMPOSITE REPORT ON THE STATUS AND TRENDS REGARDING THE KNOWLEDGE, INNOVATIONS AND PRACTICES OF INDIGENOUS AND LOCAL COMMUNITIES RELEVANT TO THE CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY

Executive summary and recommendations

Note by the Executive Secretary

1. In paragraph 8 of decision VI/10 the Conference of the Parties adopted the outline of the composite report on the status and trends regarding the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity. In the same decision, the Conference of the Parties requested that the Executive Secretary undertake the first phase of the composite report based on elements 1 and 2 of the outline, namely:

(a) The state of retention of traditional biodiversity related knowledge;

(b) Identification and assessment of measures and initiative to protect, promote and facilitate the use of traditional knowledge.

2. The Executive Secretary adhered strictly to the plan and timetable for the preparation of the report (decision VI/10, annex, section C). Accordingly, the composite report was drafted by a team of consultants engaged by the Secretariat for that purpose. The report consists of a global (composite) report (UNEP/CBD/WG8J/INF/1), which is based on regional reports that are also available as information documents (UNEP/CBD/WG8J/INF/3-10).

3. As part of the plan for the preparation of the report the Conference of the Parties decided that an executive summary and recommendations should be prepared in a format suitable for presentation to the Ad Hoc Working Group on Article 8(j) and Related Provisions. The present note responds to that request. The executive summary is contained in paragraphs 1-63 of the attached annex and recommendations as contained in the report are reproduced in paragraph 64.

* UNEP/CBD/WG8J/3/1.

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Annex

I. EXECUTIVE SUMMARY

A. State of retention of traditional biodiversity-related knowledge: causes of loss and threats to preservation

1. All regions covered under the composite report produced examples of traditional knowledge having either disappeared or at risk of disappearing. This is due to a series of interlinked threats that, to different extents, seem to affect traditional knowledge in all indigenous groups analyzed in the reports.

1. Lack of respect for and recognition of the value of traditional knowledge and traditional knowledge holders.

2. Traditional knowledge is often neglected because considered not viable, "irrelevant" or based on "superstition" and folklore rather than scientific fact. The description of traditional knowledge as "folklore" in much of Africa, for instance, implicitly bears dismissive connotations of backwardness and superstition. Traditional knowledge continues to be the subject of scepticisms in Governments and among conservationists alike. In many European countries and elsewhere, traditional knowledge has been the subject of ridicule, considered unscientific, irrational and thus worthless.

3. Similarly, the problem of romanticizing traditional knowledge reduces its reliability. Numerous reports have observed the tendency, not only among non-governmental organizations and indigenous rights organizations, but also academics and governments, journalists and some conservationists, to romanticize indigenous peoples and their knowledge. In this regard, all reports have stressed the need to change and reassess the general attitude towards traditional knowledge if the principles and goals embodied in Article 8(j) are to be successfully enacted.

4. Furthermore, traditional knowledge is often undervalued because it is judged ineffective and inapplicable. In Niue, for instance, the national biodiversity strategy and action plan considers traditional knowledge and practices insufficient to manage biodiversity in their own right, unless enforced and supplemented through "modern management methods". Where traditional knowledge is recognized as potentially useful by governments, it is often considered subordinate to Western science. Yet, the reports stress that it is often the case that traditional methods can be just as effective in terms of sustainability and productivity as "modern" methods.

5. Traditional practices have been also open to condemnation on the grounds that they harm the environment, rather than protecting it. If not actually destructive, traditional practices are often perceived as inferior to "modern", "Western" and "scientific" methods. As the example provided in the composite report on the pro and cons of slash-and-burn practices shows, the problem of the sustainability of uses is often a matter of scale. In general, where traditional practices are held to be responsible for damaging local biodiversity, it is because the conditions of their application have somehow changed.

6. In the regional reports, it was often remarked that where traditional knowledge holders are not marginalized, threatened and oppressed, traditional knowledge is less vulnerable. The report on Australia, Asia and the Middle East draws attention to the problem of persecution and lack of recognition of indigenous peoples, and other traditional knowledge holders, as one of the main causes of traditional-knowledge loss. In the report on Africa, lack of recognition of the special status of indigenous people and of the value of their knowledge is considered responsible for the rapid destruction of traditional lifestyles. The example of traditional medicine in North America demonstrates that past, and sometimes enduring, persecution of traditional healers can lead to a reluctance on the part of today's traditional medical practitioners to discuss traditional medicine.

2. Traditional knowledge is difficult to define and identify

7. Traditional knowledge is most frequently regarded as knowledge held or mobilized by "traditional, local or indigenous" communities. This causes some problems, for not all indigenous peoples are traditional knowledge holders, and not all traditional knowledge holders are indigenous peoples. In

Central America, for instance, traditional knowledge is not only associated with indigenous peoples, but also African-American groups such as the Garifunas, who developed their own culture within the region following European contact.

8. The report on Australia, Asia and the Middle East describes the attitudes of South-East Asian countries, as well as China and India, who "have argued that the term cannot properly be applied to their countries given that the their majority populations can be considered 'indigenous' in that sense". Examples from Asia and Africa show that "indigenous" can be more than a vague and unworkable category—it can be actually divisive, depending as it does both on "self-identification" and official recognition.

9. It has also been argued that traditional knowledge is difficult to identify or to separate from other scientific knowledge or practices, since it has been partially or fully incorporated by them. In the European case, for instance, it was observed that Western folk knowledge (non-professional, experimental, uncodified, ad hoc, often orally transmitted) is arguably just as important as it ever has been; just different, informed by science where appropriate, and located in different contexts (domestic horticulture, dog-breeding, bee-keeping, etc.). In this context, Europe and industrialized countries in other parts of the world have been singled out as in need of special attention and special policies:

> "It is well recognized that many countries of Latin America, Asia, Africa, Oceania and countries of the North with ethnic indigenous groups have traditional knowledge. But especially European countries ignore that many professions that deal with biodiversity over generations hold highly valuable traditional knowledge for the conservation of biodiversity."

3. Traditional knowledge is associated with disappearing lifestyles and populations

10. Often "traditional" knowledge is not regarded as relevant to a contemporary indigenous or cultural group, but as knowledge relevant to the past, and therefore implicitly obsolete, and in need of "preserving". In Niue, for example, the Government recognizes a decline in traditional knowledge especially amongst young people. This trend is echoed by Saami and Maori elders, as well as those of North American indigenous communities. In Burundi and Zimbabwe, sacred forests are less respected due in part to increased pressure on land as populations grow, coupled with a breakdown of traditional beliefs and customs.

11. The composite report stresses that the loss of the existing balanced relationship between people and "their" environment is evidence of a more general cultural change and the impact of new market forces. "Whether in the form of a flood of new commercially produced products into local markets, the advent of new industries bringing changes to the local job markets, or the promise of economic security through western education, market forces are having a profound effect not only on local economies, but on the cultures and traditional practices of indigenous peoples and minorities."

12. The report on Latin America and the Caribbean discusses the problem of migration from local and indigenous communities in the Andean region of South America to urban centres. Similarly, in Kiribati, where fishing is the second largest source of foreign exchange, "instead of learning how to fish people are focusing on obtaining a western style education or learning other occupations". Fish traps and other fishing practices are being abandoned as people are pursuing other activities such as education and working abroad. Elsewhere in the Pacific, economic and cultural intervention by larger States is bringing changes to traditional consumption patterns, and thus has an indirect impact on traditional agricultural and culinary practices. There is a noticeable shift to Western-based values and practices, which have been linked directly to an over-reliance on associated aid programmes and increased urbanization, and the wider availability of imports from Western countries.

13. Another sphere in which international market forces have impacted upon traditional practices, and thus upon the balance of local biodiversity, is that of agriculture. Systems of agriculture based on traditional knowledge, are being gradually eroded, largely due to the adoption of "modern" farming methods and losing sight of the value of traditional knowledge and agrobiodiversity.

4. Traditional knowledge cannot be codified and categorized according to existing "Western" scientific and technical methods

14. Loss of traditional knowledge is also attributed to the fact that indigenous understandings of the world and nature are broadly holistic, and cannot be judged in terms of Western categories. In other words, traditional knowledge is resistant to codification according to Western scientific criteria, thus the implications for an assessment of the state of retention of traditional knowledge are predominantly problems of cultural translation. It is in the use of categories to conceptualize the natural environment that the difficulty seems most widespread: local and indigenous categories do not fit easily also with those of other stakeholders, including conservationists and development workers.

15. Many indigenous groups have knowledge systems linking together all aspects of the environment with cosmology and religion. The environmental knowledge of the Fulani in West Africa transcends technical notions such as carrying capacity and links ecology with cosmology and religious values. This image of a holistic system of knowledge is emphasized in the case of Latin America and the Caribbean, which calls for a re-evaluation of development and conservation approaches according to appropriate traditional concepts and categories. The problem of categorization and codification was stressed by many other case studies. What Western science defines as "traditional ecological knowledge" is, for example, distinguished by the Guanano in Colombia as "sacred" knowledge (held by a shaman), "specialized" knowledge, "women's knowledge" and "cross-sectional knowledge" (produced by exchanges between neighbouring groups).

16. Examples have shown that, in general, much traditional knowledge is conceived of by its creators according to its holders—the people who use it—rather than its subject matter (what it is used for). The way in which knowledge and related practices are conceptualized by those who use them, and thus the way in which they are managed and implemented, can be very different to the manner in which other stakeholders, such non-governmental organizations or governments, would proceed. The practical consequence is that any measure and initiative to protect, promote and facilitate the use of traditional knowledge will stand a much greater chance of success if it is designed and presented in terms that are meaningful to traditional knowledge holders themselves.

17. In this context, it is necessary "to understand the relationship between indigenous culture and nature in order to understand their bond with nature". Traditional knowledge is in fact a part of a complex, interwoven system that has been maintained for centuries. Such knowledge and practices "cannot be fragmented from everything that gives them sense and continuity".

B. Problems and challenges of existing measures to maintain and protect traditional knowledge

18. From the information available through the reports it is possible to identify the general trends at the regional level. Measures and initiatives to protect, promote and facilitate the use of traditional knowledge appear to be particularly undeveloped in the Middle East and the Pacific. There are many projects to restore and preserve traditional knowledge in Europe, from language programmes to folk museums. However, the conservation or sustainable use of biodiversity is rarely a priority in the planning of such activities. This is in fact a common theme throughout the regions. Measures are rarely intended to impact upon biodiversity conservation and there is often an understanding that such an effect may be incidental.

19. In general, reports emphasize the relative scarcity of examples of measures and initiatives specifically designed to protect, promote and facilitate the use of traditional knowledge. Many initiatives are directed towards the conservation and sustainable use of biodiversity, or the protection and promotion of traditional knowledge, but there are few examples which address both. For example, the Municipality of Kautokeino autonomous municipality project (Finnmark, Norway), did not prioritize biodiversity in dealing with local communities and traditional management. Conversely, most projects that do prioritize biodiversity in Europe (and elsewhere) do not prioritize traditional knowledge.

20. The measures and initiatives that are most effective appear to be those that are local in focus and involve the active participation of traditional knowledge holders in planning, execution and management. Yet enforcement of legislation, for example, by national authorities is often required, and is lacking in many instances.

1. Strengthening participatory mechanisms in decision-making and management

21. The report stresses that the most effective course for the use of traditional knowledge in project management and in the management of protected areas is close cooperation between local populations and the managing authorities on an equal footing, guaranteeing local populations a full and effective role in policy- and decision-making.

22. The report lists a series of examples of participatory mechanisms, and depicts their main characteristics. Emergence of a "community- and locality-based approach to fisheries management", which takes into account local concerns and practices in developing management strategies, has been for instance identified in northern Europe. In Sicily, the development of a sustainable socio-economic model based on natural resources and local traditions has involved an ongoing process of consultation between stakeholders, local public administrations and the private sector. In Poland, a collaborative project with France called "Areas, people, products" was initiated to mark and develop local products and services.

23. In Africa, the report recalls that Cameroon, Eritrea, Lesotho, Madagascar, Niger and Tunisia mention in their national reports the need for full participation of local communities in management planning. The Eritrean People's Forum on the Environment, a mechanism under development, will coordinate and catalyse a more intense popular participation in the development of the biodiversity strategy and action plan. In Lesotho many participants; including farmers, pastoralists, herbalists and medicine men, conservationists, home makers, educators, planners, Government officials, non-governmental organizations, and community-based organizations attended workshops leading to the formulation of the Biodiversity Strategies and Action Plans. In Cameroon "a timid approach towards the incorporation of traditional knowledge of indigenous and local communities into development and resource-management decision-making processes is being made through enlarged consultation meetings".

24. Although integrated participatory management of biodiversity is not applied in a widespread way in any country at present, it has been used in several projects with success. For example, the Management Plans of the Waza National Park and the Dja Reserve in Cameroon have made provisions for the involvement of local communities in the management committee of the reserves. In the Kilum, village communities are encouraged to plant *Pygeum africana*, (a medicinal plant that is being threatened and heavily used as the raw material for a pharmaceutical-processing factory,) along the Oku Forest and to protect the fragile Oku Forest montane vegetation.

25. In most cases, it was noted that the positive aspect of engaging in a participatory planning and implementation approach is the fact that the technologies developed are driven by need, priorities and expectations of communities, which is in itself a powerful driving force that gives local people the confidence and motivation to succeed.

26. In the report on North America, it was observed that many indigenous peoples manage at least local elements of their affairs and therefore have the opportunity to include traditional knowledge in their community development planning. There is evidence of the inclusion of traditional knowledge in community development planning, though it may not be couched in terms of "strategic plans". In general, evidence such as co-management arrangements, resource management strategies and local land use planning suggest indigenous communities are including traditional knowledge in community development planning.

27. The relationship between communities of humans, plants and animals are often recognized in natural resource management plans. As a matter of fact, one of the primary means indigenous peoples in North America have available for inclusion of traditional knowledge in community planning is in the management of natural resources. Forestry programmes, fish management initiatives, habitat rehabilitation, and protection of endangered species are often structured around traditional teachings

about environmental stewardship and respect. Wildlife management boards are a relatively common means in North America for integrating traditional knowledge through the participation of indigenous peoples. There are also a number of indigenous councils and government agencies responsible for environmental management that likely include traditional knowledge in their deliberations.

28. While greater efforts are being made to include indigenous peoples in the decision-making process there are still many other situations where indigenous peoples are sidelined. Even where indigenous peoples have been included, for example, in some co-management arrangements, concerns have been expressed that non-indigenous people dominate. There is therefore a need to ensure that participants recognize indigenous knowledge as being of at least equal value.

2.. Improving and enforcing legislation.

29. Each regional report echoes the same point: that access to the land upon which traditional knowledge is based, together with the opportunity to practice it, is paramount for retention of traditional biodiversity-related knowledge. Yet, most of the world's indigenous people live on land to which they have no legal title. In part this lack of legal recognition, and the serious practical difficulties that result, stem from the fact that the modern system of land tenure adhered to by the State seems inapplicable to the traditional model.

30. Traditional systems of land tenure are often conceptually very different from the legal systems adhered to by many modern States, whether industrialized or developing. In the Arctic and North America, indigenous peoples' rights to land are often recognized on the basis of traditional and continued use. In Canada, the Nisga'a Final Agreement provides them with the right to harvest wildlife in the Nass Wildlife Area in a manner consistent with their traditions.

31. The composite report stresses that there are all too many examples of legislation that appears to offer much to indigenous peoples and traditional knowledge, but for one reason or another fails to deliver. The most common reason seems to be a lack of enforcement of existing legislation.

32. In Europe as a whole, specific legislation directed towards traditional knowledge has not been implemented or even drafted. A number of Parties emphasize that, although no specifically targeted legislation has been developed, some legislative provision does deal with traditional knowledge indirectly. A substantial number of European Parties have expressed enthusiasm for the development of *sui generis* systems to protect traditional knowledge in principle. However, most do not consider such measures relevant to their own national context. Worldwide, from the information provided in the regional reports, the development of *sui generis* systems of protection remains in its infancy, and an assessment of processes claimed to be currently under way is not possible as yet.

33. The regional report on South America discusses the fragility of indigenous people's legal status, referring specifically to the great disparity in recognition of indigenous people, and lack of legal provisions for transboundary ethnic groups. This fragility affects the implementation of measures that seek to protect indigenous peoples interests and rights, including those over their traditional knowledge and practices. The report concludes that addressing the state of indigenous peoples' legal recognition thus must be seen as a priority if Article 8(j) is to be successfully implemented.

3. Assessing the pro and cons of registers

34. Regulation of access to traditional knowledge, once it is written down or documented in some other form, is a problem common to indigenous people in many regions.

35. It is believed that open access (by outsiders or members of the community in question who do not otherwise have rights of access) can jeopardize traditional resource management systems. Moreover, there are many questions on intellectual property to be addressed. "Intellectual property questions to be resolved for the creation of such a register include who operates the register, who provides access to its contents to which parties on which terms, who conducts documentation of the knowledge, who has the right to authorize documentation on behalf of the tribes, which knowledge elements will be documented

in which format, how to deal with local language documentation in relation to national and international use of the register, etc."

36. On the other hand, it is recognized that traditional knowledge registers do play a vital role in raising the profile of the knowledge and practices and their holders. They can demonstrate the relationship between traditional knowledge and conservation of biodiversity, where such a link has previously been in doubt.

37. The report warns against potential pitfalls of a strategy that assumes that "to ensure the continuation of valuable traditional wisdom, no more is needed than adequate institutional mechanisms for its storage and replication". However, examples show that arrangements can be made between researchers and knowledge-holders to enable traditional knowledge to be used for conservation. In most successful cases, information in the register was used and distributed only with the consent and knowledge of the villagers.

38. Another problem to be addressed is the one pertaining to "secret knowledge". Ways of documenting and preserving knowledge without infringing rights of ownership, undermining secret knowledge or denying the knowledge-holders and their communities' access to benefits have been developed in many cases. For instance, the report mentions the development of public report in which some details of the research carried out and the findings were provided, but data which could conceivably be of use to the community (and to outsiders) was excluded.

39. The issue of secret knowledge may also be frustrating to conservationists, who wish to use the specialist knowledge of an indigenous people or local community to better conserve or sustainably use biodiversity. Sometimes information is given freely, as in the case of the Maroon traditional healers of Suriname. Other times is closely guarded. In any case, outsiders are requested to respect the rules, and negotiate sensitively with the other factors, which govern access to knowledge.

4. Building the capacity and identifying the appropriate incentive measures

40. A large number of projects involving incentives and/or capacity-building measures in order to conserve and enable the sustainable use of biodiversity, and to incorporate – and thus sustain – relevant traditional knowledge and practices, are mentioned in the regional reports.

41. It is noted that many incentives are economic, although this is not considered the most effective or desirable option. One factor promoting participation in existing or future activities is in fact to ensure that the promises made to stakeholders are fulfilled.

42. Each of the reports emphasizes the importance of land in maintaining traditional knowledge and practices. Again, land is a major issue, and the guarantee of title or access to traditional territories is possibly one of the best examples of both incentive measures and capacity-building, as it acts as an incentive for involvement (providing what people want most) and builds the capacity of participants (by providing land upon which to subsist and thrive). Access to land is one of the most fundamental claims made by indigenous rights activists worldwide, but in many cases insufficient progress has been made in providing people with the land on which their subsistence and cultural survival depends.

43. Education is also considered a useful capacity building measure. Education is actually considered in two ways: either using Western science and learning to complement and support traditional knowledge, or prioritising traditional knowledge in the curriculum—whether that curriculum be based on formal western structures or an indigenous model—to teach indigenous people about their traditional knowledge and to help ensure its survival.

44. The danger that young people will lose touch with their knowledge, their cultures and traditions while away, and perhaps never return, is considered a serious one. To combat this trend, it was suggested that educational institutions be established in areas populated by indigenous peoples that are accessible to their children, thus stemming the flow of migrants to the cities.

45. Another solution identified is to integrate indigenous knowledge into mainstream education, although the report observes that Western-based education has in the past been criticized for dismissing and attempting to supplant indigenous knowledge. Doubts about the real intention of incorporating aspects of indigenous knowledge into their curricula are therefore expressed.

46. The report underlines that different, more directed form of educational initiatives have been proposed, and in some cases have proven successful. In Nigeria, for instance, education is provided by traditional-medicine hospitals, which not only provide healthcare, but also often act as centres for exchange and preservation of traditional medicine.

47. An excellent example of a project that is apparently both providing incentives to continued participation and building the capacity of participants to preserve the traditional knowledge of their people is the Aang Serian Community College in Arusha. The college provides a course on local traditional knowledge developed by and for indigenous youth from a variety of ethnic groups, in collaboration with the college, and encourages students to carry out their own research, discussing their culture and history with their elders, and thus help bridge the "generation gap" between young and old. Students produce a booklet on their research and what they have learned, a copy of which is retained by Aang Serian as part of an archive of indigenous knowledge from various ethnic groups. Access to the archive is restricted, in order to benefit the indigenous people concerned, rather than leaving them and their knowledge vulnerable to exploitation.

C. Measures to enhance the recognition of traditional knowledge, assess its loss and promote appropriate uses

48. The composite report stresses that a first step in securing traditional knowledge and its practitioners is to raise its profile and increase acceptance of it as a viable management strategy. This can be achieved through a closer engagement between traditional knowledge and Western science. In North America, the value of traditional knowledge is noted as being already proven by numerous examples of indigenous peoples having "shown up the mistaken assumptions of non-indigenous scientists". By strengthening traditional knowledge's credibility, such experiences encourage further participation of indigenous people in activities to which they can bring such knowledge. In addition to encouraging traditional-knowledge holders to share and apply their knowledge, however, improving the image of traditional knowledge can reverse a damaging trend whereby young indigenous people are forsaking, not applying, or even never learning, the traditional environmental wisdom of their communities—seduced by western education and its promise of a modern, urban, affluent lifestyle. This trend can only be reversed by lifting traditional knowledge from its current inferior position.

1. The identification of indicators to measure the level of retention and loss and to assess existing measures

49. The need to establish reliable and clear indicators, both for the assessment of the state of retention and traditional biodiversity-related knowledge, and to assess and evaluate measures and initiatives to protect, promote and facilitate the use of traditional knowledge, is voiced in each of the regional reports.

50. The report on Australia, Asia and the Middle East proposes four indicators "to gauge the existence of traditional biodiversity-related knowledge among indigenous peoples and local communities":

(a) Recognition of the land and sea upon which indigenous peoples and local communities rely for subsistence;

(b) The extent of the dependence of human populations on traditional knowledge for subsistence;

(c) The extent of language diversity;

(d) The persistence of religious beliefs and practices.

51. It also proposes a fifth, supplementary indicator: recognition of traditional medicinal knowledge.

52. Each of these potential indicators are discussed in the report. Two in particular—land rights and linguistic diversity—have received considerable attention.

53. The report on Central America suggests language retention to be a reliable indicator of retention of traditional knowledge in the region, highlighting the often detrimental impact of language loss.

54. The National Aboriginal Forestry Association (NAFA) of Canada suggests the inclusion of specific indicators for the pursuit of traditional practices in sustainable management. These include:

(a) Opportunities for the practice of cultural and spiritual activities;

(b) The extent to which traditional knowledge been used in forest management planning;

(c) The overall economic well being of aboriginal communities, including the continuation of traditional aboriginal economic activities; and

(d) Traditional land use through traditional land-use studies.

55. More work needs to be done in determining a coherent and reliable list of indicators. Without appropriate indicators of health, for instance, the state of retention of traditional biodiversity-related knowledge cannot be adequately assessed. The report concludes that such an assessment is the baseline necessary for planning future measures and initiatives to maintain, or reverse, current trends in the state of retention of traditional biodiversity-related knowledge.

56. One further suggestion made in the report regarding the structure of the phase 2 reporting is that attention be paid to traditional knowledge, folklore and cultural practices which do not appear to be directly relevant to the conservation and sustainable use of biodiversity. It has been argued in this report that such beliefs and practices constitute indicators of the retention of other forms of traditional knowledge.

2. Research and information sharing as means to value traditional knowledge

57. While it is acknowledged that an increasing amount of research is being conducted among indigenous people, and particularly relating to traditional knowledge, the consultants responsible for the regional reports have each called for more research to be done. In particular this should be targeted research, geared to better answer the questions posed in the outline of the composite report. Yet, despite the calls for more research, there has been a signal failure in most of the reports to adequately deal with the crucial topic of research ethics. Indeed, there are important qualifications to consider prior to any recommendation. These concern the sensitivities surrounding documentation and access to registers, and the need for a code of research ethics.

58. Although documentation of traditional knowledge seems to be essential to its retention there are concerns in opposition to documentation projects such as traditional knowledge registers and databases. Discussing the lack of detailed information in the available literature from which their report was compiled, participants in the regional meeting for Australia, Asia and the Middle East emphasized that theirs is not simply a methodological concern but, rather, it relates to the future retention of traditional biodiversity-related knowledge.

59. In addition to its role in physically preserving knowledge that is somehow at risk of disappearing, another vital purpose of sound documentation of traditional knowledge is the recognition of that knowledge, its use, and of indigenous people as its holders.

60. Again, the report reminds that traditional knowledge must be recognised as credible and useful, but the rights of ownership of its holders must also be ensured. For example, increased interest in the traditional knowledge of Inuit in Greenland has put them in a difficult position. Similarly, in the case of North America, the potential benefit is seen in the current high levels of academic interest in traditional knowledge, but there are warnings that this is not guaranteed to translate into benefits for indigenous people.

61. One possible solution to this dilemma is presented by organisations such as Terrawatu, a non-governmental organization working in the United Republic of Tanzania. Terrawatu's medicinal plant use and conservation scoping project compared and contrasted a rural and a peri-urban community, to investigate the influence of urbanization on patterns of plant use. It ground-truthed the widespread perception that supplies of priority plant species are decreasing in the district, and identified the threats to their preservation from both inside and outside the communities. The research produced a list of species (including both local and scientific names), habitats and uses, and a description of the patterns of use (medicinal, ritual, nutritional, cosmetic, hygienic, construction, fuel, fodder, etc.), importance, cultural significance, perceived availability and sustainability of harvest. The notable aspect of this project was the dissemination of its findings. A summary paper was published, presenting broad trends and a discussion of methodology, so as to enable replication of the project elsewhere. The more comprehensive data on plant names, their growing conditions and use, for example, was retained by the communities involved.

62. The report argues that a fair and equitable system of knowledge extraction must involve mutual benefit. All too often the definition of one community or group as "indigenous" or holders of traditional or indigenous knowledge can be used as an excuse to deny them access to "modern" or "scientific" knowledge and resources on the grounds that indigenous knowledge will be lost. Finding a balance between conservation and development demands that indigenous or local communities are treated fairly and equally. In this context, the report stresses that a number of initiatives are proving to be very successful and that improving networks of international communication, and facilitating the exchange of experience and expertise, will further improve the situation globally.

63. The report recommends that the Secretariat of the Convention on Biological Diversity facilitate the flow of information on traditional lifestyles and biodiversity use by producing and circulating a new thematic report on Article 8(j) and related provisions. There is an incredibly diverse range of groups and interests involved in issues surrounding Article 8(j), and indeed the need for this report and the Article as a whole is occasioned by the relatively poor state of integration of indigenous interests with the structures of biodiversity conservation. It is believed that this situation has not changed sufficiently, and there is a need for greater effort on the part of the Convention on Biological Diversity to facilitate communication with the groups involved. The survey has demonstrated that many of the most effective instances of the integration of traditional knowledge with the conservation and sustainable use of biodiversity are small, community-focused, resource-limited enterprises. Channels of communication with such groups, particularly in developing countries, require further development. Connections and relationships must be built up and maintained over time, and information allowed to flow in both directions.

II. SUGGESTED RECOMMENDATIONS

64. The following recommendations are contained in the composite report.

A. Improving the reporting process

1. Thematic reports on Article 8(j) should be compiled by Parties, based on a questionnaire produced by the Secretariat. Only 94 out of 183 Parties submitted Second National Reports, and many of these reports only contained generalizations and statements of intent. It may be useful to identify suitable reporting periods and for regular reviews to be made. Encouraging relevant reporting should encourage Parties to recognize and address the role and importance of traditional knowledge in biodiversity management.

2. Take steps to ensure parity between the submissions of indigenous peoples and, for example, Parties through national focal points. The "full and effective participation" of indigenous and local communities has not been achieved in the compilation of this report. Ensuring parity of esteem between all stakeholders at this level could encourage this further.

3. Establish mechanisms to encourage representatives of indigenous groups and local communities to present information under the Convention on Biological Diversity. The aim of an

"accurate and comprehensive assessment" of the status and trends regarding the state of traditional knowledge, and methods taken to ensure its promotion or preservation, requires further concrete steps to be taken under the Convention on Biological Diversity. Participation by indigenous groups cannot be achieved simply by issuing invitations: Parties must accept that this involves capacity-building and incentive measures, which require financial outlay and considerable political will.

4. Develop mechanisms to ensure input from overseas territories and autonomous or semi-autonomous regions. National reporting constituted an excellent starting point for assessing the state of retention of traditional ecological knowledge in many countries. However, in a number of important and highly politicized contexts, geographical and administrative distance, or the autonomy of indigenous peoples' regions, excludes such peoples from this forum.

5. Develop mechanisms to ensure input from groups within States that are not party to the Convention on Biological Diversity. In Africa, only one State is not party to the Convention on Biological Diversity. In other regions, however, this presents a much more serious problem.

6. A clearing house mechanism relating to Article 8(j) should be established. Information obtained from sources indicated in recommendations 1-5 should be mobilized and integrated, and further information incorporated as it becomes available. This will facilitate access to basic information, and identify quantitative indices related to the status of traditional knowledge, and measures taken to protect it, to better provide an indication of status and trends.

B. Definitions

7. Working definitions of "indigenous" and "traditional knowledge" should be agreed upon. "Indigenous" is a politically sensitive term. However, a working definition of "indigenous" and related terms such as "traditional knowledge" is essential for the implementation of Article 8(j). Precise definitions are also needed of the terms "indigenous people" and "local communities"

8. The Convention on Biological Diversity should define conditions for traditional knowledge in the context of Article 8(j) to be considered "in use". There is an apparent acceptance that traditional knowledge is least threatened when actively "in use" (being of a "practical nature" and transmitted orally). Yet, traditional knowledge can be said to be "in use" by a variety of groups and interests (multinationals, bioprospectors, "indigenous" businesses, or neighbouring indigenous groups), and to a variety of ends (traditional knowledge holders' economic development, treatment of diseases, conserving biodiversity or tourism). Traditional knowledge that is exploited by "outsiders", without the involvement and subsequent benefit of traditional knowledge holders, is still "in use". When does such "use" cease to be healthy?

9. Interpretations of Article 8(j) should be clarified in such a way as to determine the relevance of traditional knowledge that is apparently unrelated to biodiversity management. Not all "traditional knowledge" can be easily evaluated in terms of its relevance to the conservation or sustainable use of biodiversity. It must be decided what interest Article 8(j) has in traditions or practices which do not appear to fit the purposes of conservation and sustainable use.

C. Indicators

10. Establish baseline indicators for the state of retention of traditional, local and indigenous knowledge. The development of baseline indicators for the state of retention of traditional knowledge requires further research than could be achieved in the brief studies on which the regional reports are based. Indicators should be based on sources in addition to the literature covered in the regional reports, actively engaging indigenous and local communities.

11. Establish baseline indicators to assess the success or failure of measures to promote or preserve traditional knowledge and practices. Baseline indicators regarding the success or failure of measures to promote or preserve traditional knowledge and practices could not be determined

in this brief study. It is essential to determine indicators based on sources other than the existing literature, actively engaging indigenous and local communities.

12. A table presenting population data on indigenous peoples worldwide, comparing this information with Parties' statements on the importance of traditional knowledge, and ratification of relevant international conventions, has been included in appendix 1 to the composite report. It is recommended that this work be continued, and kept up to date, as a representation of indicators of the state of retention.

13. A table listing legislative measures to protect, promote and facilitate the use of traditional knowledge, as drawn from the regional reports, is presented in appendix 2 to the composite report. It is recommended that this work be continued, and kept up to date.

D. Research ethics

14. A code of ethics governing research should be formulated, or adopted. If further research is to be conducted in this area, as is recommended in this report, it must adhere to a code of ethics formulated or adopted by the Working Group.

E. Incentive measures and capacity-building

15. Strengthen existing indigenous organisational structures. In addition to facilitating input from indigenous people at the reporting stage (recommendations 2-5), planning and intervention needs to be targeted at indigenous people as well as through nation States, particularly in the case of transboundary communities. This can be best achieved through consolidation of regional cooperative structures.

16. Best practice guidelines should be developed, to support the planning of measures and initiatives to protect, promote and facilitate the use of traditional knowledge. To improve planning and implementation of measures and initiatives towards the goals of Article 8(j), best practice guidelines should be produced and made publicly available. These could be based on the findings of the composite report, as well as upon continued research, and should include examples of good practice.

17. Specific capacity-building activities should be targeted at indigenous women and women in rural or otherwise marginal communities, and the traditional knowledge and practices that continue to be held by them. Bearing in mind the traditional role of women, particularly in family health care and traditional cultivation, and given that internal and external pressures are threatening women's status in many communities, action is needed to support both traditional practices and the women who pursue them.

F. Education

18. Where appropriate, indigenous knowledge should be integrated into formal, local or national systems of education, which are directed towards local or indigenous communities. Incorporation of indigenous and traditional knowledge into mainstream formal education can both ensure that indigenous people educated within such systems do no lose touch of their traditional knowledge and practices, and can increase familiarity with, and respect for, such knowledge among the non-indigenous public.

19. Offer appropriate education and training to indigenous and local communities that can enable sustainable development while being compatible with their traditions. Education and training programmes should be established, by or with the close involvement of local and indigenous communities, with the purpose of passing on traditional knowledge and appropriate education to members of the community.

G. Land practices

20. The Convention on Biological Diversity should actively encourage Parties to recognise the land and sea tenures of indigenous peoples and local communities. Guaranteeing rights and

access to land is fundamental to the retention of indigenous knowledge. Legal recognition and guarantees of access to lands upon which traditional knowledge is based and practised is therefore essential to the implementation of Article 8(j).

21. Actively involve local communities in the management of protected areas. Local communities must be actively involved in the management of protected areas in which they live, work or have culturally significant sites. This must go beyond "consultation", failures of which have been referred to in the composite report.

22. Incorporate restrictions of use and access to "sacred" or otherwise culturally significant sites into appropriate local or national legislation. Appropriate legislative action can strengthen and enforce traditional laws and restrictions, and preserve intact the local biodiversity in keeping with local traditions. This should be done only after full consultation with local indigenous groups.

H. Legislation

23. Legislation to protect, promote or facilitate the use of traditional knowledge must be enforced and enforceable in order to be effective. While activities to protect and encourage traditional knowledge are often most effective when locally managed, legal restrictions or guarantees in particular must be backed up by adequate enforcement, whether by governments themselves, or by delegating authority (and providing adequate resources) to local or indigenous organizations.

24. The Working Group should encourage Parties to ratify Convention 169 of the International Labour Organization. Convention 169 of the International Labour Organization is the only legally binding piece of international legislation on indigenous people's rights. It recognizes indigenous people's rights to existence as a culturally distinct population within a nation state, to retain their customs, traditions and "customary laws".

I. International-level activities

25. Undertake survey of current activities of International organisations relevant to 8j, with view to developing synergy.

26. Develop a global strategy to support the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity. The Global Strategy for Plant Conservation has provided a focus for a diverse range of activities by many organizations. A comparable strategy for Article 8j could provide a cost-effective route towards successful implementation.

27. The Working Group on Article 8(j) and Related Provisions to act as, or identify candidate to lead or coordinate, implementation of targets 9 and 13 of the Global Strategy for Plant Conservation.
