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GLOBAL MINISTERIAL ENVIRONMENT FORUM

POLICY ISSUES: STATE OF THE ENVIRONMENT

UNEP'S POLICY ON LAND AND SOIL

Report of the Executive Director

The present paper is a preliminary working document only and is intended to report on the current progress of UNEP's land and soil policy, as referred to in document UNEP/GC.21/2, section C.

Summary

The objective of the present policy review is to evaluate UNEP's role in the field of environmental land and soil policy.

Land/soil-related issues are increasingly becoming a critical factor in sustainable economic and ecological development. Unlike environmental issues such as biodiversity, climate change, water or forests, which have received adequate attention, land/soil still continues to be a secondary topic. Despite progress on issues related to drylands (e.g. within the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa), the full scope of land/soil-related environmental issues has not yet been addressed and promoted.

Five major areas of immediate interest for UNEP's land use policy are identified:

(a) Re-arrangement of the political perception of land/soil-related issues, especially addressing the complex nature of involved processes in land use, economy and policy mirroring UNEP's functional approach;

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(b) Coordination of the widespread and overlapping activities for land- and water-related issues in Africa within the United Nations System-wide Special Initiative on Africa (UNSIA);

(c) Evaluation of the environmental potential and implications of the land/soil sector within the process of the United Nations Framework Convention on Climate Change (UNFCCC), as related to land use, land use change and forestry, flexible mechanisms and adaptation;

(d) Complementary development of UNEP's land and water policy;

(e) Evaluation of the mutual impact of land use management and global trade and economics.

The promotion of linkages and synergies among multilateral environmental agreements in regard to sustainable land resource management is an overriding principle of UNEP's policy on land and soil proposed in the present report.

I. SCOPE AND CONTEXT

1. The terms "land" and "soil" are often used interchangeably (e.g. land degradation or soil degradation). Consequently, this results in some confusion concerning the relationship between both terms and their proper use.

2. According to Agenda 21, 1/ chapter 10, "Land is normally defined as a physical entity in terms of its topography and spatial nature; a broader integrative view also includes natural resources: the soils, minerals, water and biota that the land comprises". The latter definition is sometimes also referred to as land resources. 2/ Soils (pedosphere) can be defined as the matrix of mineral and partly organic origin, forming the physical and chemical base for plant growth, water retention, soil fauna, etc.

3. From the above definitions, it already becomes clear that soils are (an essential) part of land, but that the terms are not equally interchangeable. Considering the close relationship between both terms, however, it is not surprising that definitions for soil and land match to a certain degree. Soil degradation inevitably causes land degradation while, on the other hand, land degradation, e.g. through change in the biota, does not necessarily result in soil degradation. Sustainable land use is almost always related to sustainable soil management. Therefore, "land use" paraphrases "soil management".

4. On the occasion of the eighth session of the Commission on Sustainable Development, the Secretary-General, in his report on integrated planning and management of land resources, stated that land related issues "are likely to be the most important factor of global change in terrestrial ecosystems over the next few decades" 3/. In the millennium report, soil degradation is addressed in its own section ("Defending the soil"), stating that "nearly 2 billion hectares of land – an area about the combined size of Canada and the United States – is affected by human-induced degradation of soils, putting the livelihoods of nearly 1 billion people at risk. [...] Each year an additional 20 million hectares of agricultural land becomes too degraded for crop production, or is lost to urban sprawl". 4/

5. Land resource management, sustainable land use, soil conservation – land degradation, desertification, soil contamination: those key words about land and soil are reflected in all major statements, reports and action plans concerned with environmental policy and sustainable development. But despite all activities

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1/ Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, A/CONF.151/26/Rev.1 (Vol.I and Vol. I/Corr.1, Vol. II, Vol. III and Vol. III/Corr.1) (United Nations publication, Sales No. E.93.I.8 and corrigenda), Vol. I, Resolution Adopted by the Conference, resolution 1, annex II.

2/ See also: Negotiating a Sustainable Future for Land; Structural and Institutional Guidelines for Land Resources Management in the Twenty-first Century (UNEP/Food and Agriculture Organization of the United Nations 1977).

3/ E/CN.17/2000/6, section II, paragraph 5.

4/ We, the Peoples: the role of the United Nations in the Twenty-first Century, A/54/2000, paras. 283-284.

and words, the subject of sustainable land use has not yet received as much international policy attention as climate change, biodiversity, forests or water. There has been an increase in the focus on important aspects of land degradation, such as desertification. However, attention is restricted to drylands areas, which do not account fully for the global phenomenon of land and soil degradation.

6. Technical and scientific guidelines and solutions to land-related issues are manifold. In fact a technical solution is available for most, if not all, problems. Even so, there is always a need for more efficient and economic ways, further up-scaling and new approaches. However, sustainable land use is not restricted to the availability of tools and techniques, but is directly linked to the universal problems of development, such as poverty, population growth, legal and ownership rights, food insecurity and degradation of natural resources. So, while there is apparently less need for UNEP to devote resources for developing new tools and techniques, there is extended demand to develop strategies for integrating the various technical, scientific, economic and political levels.

7. The challenge for UNEP's land use policy is thus to overcome fragmented concepts and institutionalization. Specifically, this requires (a) translating technical conceptions into practical policy programmes; and (b) enhancing cooperation among relevant national agencies on a national and subregional level. Land use policy is therefore about multilateral, transboundary information management and policy coordination.

II. UNEP'S HISTORY OF LAND-USE POLICY

8. Since the United Nations Conference on Desertification in 1977, UNEP's land-related activities have focused mainly on desertification problems in drylands. Since arid and semi-arid zones - the traditional focus of UNEP – are most immediately threatened with degradation, soil erosion and eventual desertification, UNEP has focused attention on these particularly fragile ecosystems. UNEP's contribution to the Convention to Combat Desertification process was, and will continue to be, substantial, in the form of GEF projects, scientific, technical and financial inputs and partnerships. However, once the Convention enters into force, with an operational secretariat and with the Office to Combat Desertification and Drought (UNSO) of the United Nations Development Programme expanding its geographical scope into other areas outside the Sudano-Sahelian region, the role of UNEP in desertification control gradually changed.

9. UNEP devoted more than 90 per cent of the former Land Subprogramme activities to desertification-related issues. In addition, UNEP initiated the World Soils Policy, which was endorsed by the Governing Council on 31 May 1982 5/. In cooperation with FAO, UNEP also contributed to the World Soil Charter and assisted countries in developing national soils policies. On the international level, those instruments have contributed to raising the profile of soil conservation as a major international environmental issue. However, those initiatives did not result in a broader political response.

10. In the 1980's, the UNEP Task Force on Soil and Water developed the World Soils Policy relating to the International Development Strategy, the World Conservation Strategy, and the United Nations Plan of Action to Combat Desertification. Under the plan of action for the implementation of the World Soils Policy, in 1986, UNEP co-initiated and supported the World Soils and Terrain Digital Database (SOTER) project and its various regional pilot projects. In 1987, UNEP, in cooperation with International Soil Reference and Information Centre (ISRIC), also started the GLASOD project (Global Assessment of Soil Degradation), in order to gain fast and reliable data on the global status of human-induced soil degradation. That information resulted, inter alia, in the publication of the UNEP desertification atlas and contributed to the United Nations Conference on Environment and Development and to Agenda 21.

11. Also during the 1980's, UNEP started to examine the integration of climate change impact and of issues related to land management. UNEP also initiated early programmes for soil protection within the framework of programmes for fragile ecosystems (mountain ecosystems, marginal lands, saline soils, etc.)

5/ Governing Council decision 10/14, of 31 May 1982.

12. UNEP's mandate – as formulated at the United Nations Conference on the Human Environment (Stockholm) and revised in the Nairobi Declaration 6/ – defines the organization as the global environmental body to assess damage and advance environmental policies. The mandate covers the complete environmental spectrum: rural and urban; industry and agriculture; arid, semi-arid, tropical, subtropical, temperate and boreal climate zones. UNEP's mandate consequently prepares for a broadening of its land use policy. However, it is also realized that UNEP has to focus on key issues and is not capable of addressing the whole range of environmental topics related to land use. Strategic partnerships are thus mandatory.

13. The functional integration of UNEP's work and the new organizational structure of the organization are a departure from traditional practice. It does not directly highlight major environmental issues in a sectoral manner such as land degradation, freshwater, biodiversity or forests. Instead, it analyses policy sources of environmental problems. The implications for UNEP are clear. There is a need to forge integrated approaches that recognize and consolidate ecological, social and economic conditions and goals. There is also a stronger recognition of the need to take into account the economic imperatives, social dimensions and environmental aspects of issues such as desertification. The functional integration of UNEP's agenda crosscuts administrative boundaries.

14. Consequently, UNEP has embarked on a review and analysis of sustainable land-use, including soil management. In the unfolding review process, particular attention is being accorded to the interconnections and interlinkages amongst the respective UNEP policy elements relating to land, water, climate, biodiversity, industry, chemicals and technology, as well as to legal, economic and other instruments.

III. OUTLINE FOR UNEP'S MEDIUM-TERM POLICY ON LAND AND SOIL

A. Re-arranging the perspective: The syndrome approach

15. UNEP's land use policy over the last decade was dominated by its function as Task Manager in the area of Combating Desertification and Drought (Agenda 21, chapter 12). In this context, UNEP served and continues to serve as a centre of excellence and various achievements have been made. However, a future UNEP policy on land has to address the current status of land in regard to its complex functions and interrelations.

16. In 1994, the German Advisory Council on Global Climate Change made an attempt to develop a regionally based "syndrome" concept and to apply it *inter alia*, to global problems of human-induced land/soil degradation. The term "syndrome" was chosen to indicate the "clinical profile" of degradation processes. The advantage of this approach is that the complex nature of processes involved in land use, economy and policy are well addressed and put into context. By doing so, traditionally sectored concepts can be re-arranged towards a more functional, combining approach. UNEP's integrated functional approach mirrors this concept.

17. The "syndromes" are labelled according to selected geographical hot-spots or striking phenomena accompanying the syndrome. The classification distinguishes the main driving forces. The important aspect of the syndromes is their cross-cutting character, referring to environmental degradation and development issues.

18. Major syndromes and their key characterization are as follows:

- Changes in the traditional use of land (Rural Exodus Syndrome)
- Soil contamination through industrial waste (Contaminated Land Syndrome)
- Mismanagement of large-scale agricultural projects (Aral Sea Syndrome)

6/ Governing Council decision 19/1 of 7 February 1997.

- Overexploitation of marginal land/rural poverty (Sahel Syndrome)
- Degradation through mechanized farming (Dust Bowl Syndrome)
- Degradation through tourism (Mass Tourism Syndrome)
- Over-exploitation of natural ecosystems (Over-exploitation Syndrome)
- Long-range transport of nutrients and pollutants (Smokestack Syndrome)
- Uncontrolled urban sprawl (Urban Sprawl Syndrome)
- Degradation through mining and prospecting (Katanga Syndrome)
- Degradation due to military impacts (Scorched Earth Syndrome)

19. The detection of soil degradation and, consequently, land degradation as part of the above-mentioned syndromes requires complex assessment methods. The soil buffer capacity – that is, the capability to filter and absorb contaminants such as acids and heavy metals up to a critical point – contributes to the difficulty in assessing the extent of soil degradation. "Soil's resilience has been, and still is, perhaps soil's worst enemy". 7/ It is in this context that soil degradation is perceived as a "time-bomb". Once the soil's chemical balance is beyond a certain critical level, it cannot be easily restored, if at all.

20. UNEP's land use and soil policy thus aims to integrate the various aspects and consequences of land and soil degradation. It is anticipated that a broadening of the concept of land and soil degradation will enable enhanced global awareness of and responsibility for the topic, as perceived in UNEP's mandate.

Suggested action

- Adapt the "syndrome" approach, in order to re-arrange the perspective and the perception of land use and land/soil degradation.
- Address the complex nature of land-use issues as they relate to political, economic, scientific and social institutions.
- Give new impetus to international environmental discussions as they relate to land use and soil conservation issues.
- Implement publicity-projects to increase awareness and mobilization (e.g. as a continuum of UNEP's recent joint publication with the European Environment Agency on soil degradation and sustainable development in Europe).
- Introduce more topics related to land degradation to feed into UNEP's Global Environment Outlook (GEO) process.
- Given the increased need for improved scientific knowledge on the complexity of land degradation, it is advised that methods be elaborated to raise awareness and to promote coordinated action at the local, national and regional levels, and that an Intergovernmental Panel on Land and Soil be established, as suggested by the German Advisory Council on Global Change.

7/ Down to earth: Soil degradation and sustainable development in Europe (UNEP/European Environment Agency, Environmental Issue Series No. 16, page 7).

B. Land and Water Initiative for Africa

21. UNEP has determined that Land and water are critical resources and they are the basis of survival for the majority of Africa's population. Increasing demands on land and water, coupled with an increasing rate of degradation, make land and water management as much an environmental issue as it is a social issue.

22. The United Nations System-wide Special Initiative for Africa (UNSIA) and, subsequently, the Global Environment Facility (GEF) Land and Water Initiative for Africa mark (a) the importance of international support for Africa to overcome poverty and instability; (b) the importance of establishing and securing sustainable natural resource management; and (c) the complex linkage between land- and water-related issues.

23. UNEP, within its mandate, has a widely untapped potential to initiate programmes/projects, in cooperation with other United Nations agencies, to create catalytic and innovative support for sustainable land and water management in Africa. Based on a 1999 UNEP review of existing land and water programmes in Africa, it is recognized that the variety of programmes of United Nations or other agencies are generally thematic or sectoral, mainly stand-alone, do not sufficiently integrate land and water issues and lack coordination at the subregional and regional levels. UNEP – possibly in cooperation with other United Nations agencies – can (a) develop the potential for transboundary coordination of scattered land and water programmes/projects; (b) evaluate the state of the art in science, economy, legislation and policy; and (c) establish the conditions for their implementation.

24. The GEF Operational Programmes No.9 (Integrated Land and Water Multiple Focal Area) and No. 12 (Integrated Ecosystem Management), endorsed recently, enable funding of such land- and water-related programmes. Additional windows for further support for issues related to land and soil degradation might be anticipated. Further resources will be available under the already initiated and UNEP-supported GEF Land and Water Initiative for Africa.

Suggested action

- Carry out analysis of the state of the art of science, economy and policy in regard to land use management, as well as assessment and analysis of the legal, political and economic framework to implement technical solutions.

- Give emphasis to the replicability of available technical solutions in the context of regional up-scaling.

- Develop a "Land Cluster", in cooperation with GEF, the United Nations Development Programme (UNDP) and the World Bank. The "Land Cluster" will have to be complementary to the existing UNSIA Water Cluster and will define gaps and required action in the regional land and water policy.

- Build capacity for strengthening the institutions and national action programmes required for different multilateral environmental agreements, specifically for African countries, as part of the currently initiated UNEP project.

C. Land use policy in relation to climate change

25. Climate change is considered to be one of the major global environmental challenges. Despite remaining uncertainties, most scientific experts commonly agree that human-induced climate change is inevitable. The main questions, therefore, refer to the magnitude, the rate and the regional patterns of climate change. From existing studies and models, it appears clear that climate change will adversely affect socio-economic and ecological sectors, such as water resources, agriculture, forestry, coral reefs, human settlements and human health. 8/

8/ See IPCC Special Report on Land Use, Land-Use Change and Forestry (UNEP/WMO).

26. The vulnerability of systems to adverse climate change impacts depends on various factors. The most vulnerable sectors are those with the greatest sensitivity and the least adaptability. Both the magnitude and the rate of climate change will impact on ecosystems. Efficient adaptation depends on available capacities and technologies, institutional organization, available financial resources and information flow. In general, it can be concluded that developing countries are more vulnerable to climate change than developed countries. 9/

27. The implications of climate change for agriculture, forests and other natural systems are varied. Up to a certain point (a maximum of 2°C global surface temperature increase), no overall global change in agricultural productivity is anticipated. However, this will clearly vary between latitudes. While agricultural productivity may even rise in the mid and high latitudes, it is expected to decrease in tropical and subtropical regions. For drylands in Africa and Latin America, where non-irrigated agriculture prevails, yields are expected to decrease by as much as 30 per cent during the next century. 10/ This exposes these regions and their poor people to a high level of socio-economic and environmental risks. Climate change is also expected to impact on global water resources and biological systems, such as forests. Thus, it might further aggravate existing environmental constraints on sustainable land resource management.

28. Adaptation measures will include the assessment of vulnerability and capacity-building, especially in countries and regions most likely to be affected. The sixth Conference of the Parties to the Climate Change Convention discussed intensively the necessity to give priority to adaptation measures to address, inter alia, land degradation and restoration of ecosystems in the most vulnerable and least developed countries.

29. Land use also provides approaches to mitigate climate change by enhancing biological of carbon dioxide sinks. These sinks, as defined in Article 3, paragraphs 3 and 4 of the Kyoto Protocol, include activities such as afforestation and reforestation and additional activities related to agricultural soils, land-use change and forest management. The IPCC Special Report on Land Use, Land Use Change and Forestry states that "the restoration and prevention of degradation of ecosystems, especially of soils, provides an immediate and significant opportunity for meeting Kyoto goals". 11/ However, sinks prove to be one of the most contentious issues in the current climate change negotiations. Political compromises from the Parties to the Climate Change Convention and practical technical solutions are still awaited.

30. Depending on whatever land use, land use change and forestry projects become eligible under a ratified Kyoto Protocol, it will be necessary to develop environmental criteria to ensure the environmental integrity of any such projects. To further enhance synergies, such projects would also need to be in conformity with the objectives of major multilateral environmental agreements.

Suggested action

- Assess the vulnerability of land and soil resources in relation to climate change and develop effective adaptation measures, especially in the most vulnerable and least developed countries.

- Enforce environmental standards for land use, land use change and forestry projects and enhance existing synergies among major environmental issues related to, and influenced by, climate change.

- Create a forum for political and technical advice on climate change impacts and consequences for the development of land use policy in a regional or transboundary context (e.g. by setting up an African land and climate forum).

9/ Ibid.

10/ Ibid, paragraph 31.

11/ Ibid, paragraph 31.

D. A complementary UNEP land and water policy

31. The UNEP water policy, as recently re-defined in the UNEP water policy and strategy paper,12/ has strong links to land-related issues. Land and water are multisectoral and multi-disciplinary areas that overlap to a broad extent and are in fact, mutually influencing. As in other fields of environmental policy, a synergetic policy on land and water issues is mandatory for the successful management of these natural resources.

32. The UNEP water policy highlights three major management tasks for global water resources: (a) revitalization of UNEP's policy on regional seas; (b) further implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities; and (c) development of regional freshwater management programmes. UNEP's policy also stresses the impact of land-related activities on global marine and freshwater pollution. An estimated 80 per cent of the environmental problems of marine waters derive from land-based activities. The impact of unsustainable land use management techniques on the global freshwater resources is, so far, largely unaccounted.

33. Soil contamination through municipal, industrial and agricultural waste and runoff causes primary damage to soil and eventually damages coastal marine ecosystems. Water erosion and sedimentation, alkalization/salinization, fossil groundwater irrigation, loss of productive wetland and flood plains, and water contamination through fertilizers and pesticides are further key words that highlight the interrelation between land and water management.

34. Large-scale land use management techniques have a significant impact on water resources (e.g. agro-industrial irrigation schemes) while, in return, water scarcity has a dominant impact on land use schemes. The anticipated global changes in climatic and hydrological patterns will further aggravate this interlinkage. So far, only a few countries have the organizational set-up to combine land use and water management plans effectively.

35. Some 50 per cent of the Earth's total land surface consists of transboundary water basins. Some 260 rivers are shared by two or more countries. The subregional character of water, and thus land management-related problems, calls for extended transboundary management, assessment and monitoring of land and water resources. The challenges in proving specific causalities between land use activities and water body pollution and the application of the "polluter pays" principle need transboundary cooperation and policy development.

36. UNEP's land use policy is to be developed complementary to UNEP's water policy. It must give equal support to the management activities concerning the Global Programme of Action, the Regional Seas Programme, and the Freshwater Programme.

Suggested action (in addition to action suggested for an UNSIA strategy)

- Assess land-based activities in cooperation with the UNEP Global Programme of Action and the Freshwater Programme.

- Provide input and support for the Global Programme of Action concerning sections (a) analysis for action; (b) mobilizing action at the national, regional and global levels; and (c) evaluation and further development of the Global Programme of Action.

- Harmonize and standardize national and transboundary land use and water management policies.

E. Land use policy and economics

37. UNEP realizes the strong direct and indirect links between trade and economy and environmental issues. UNEP thus advocates the importance of economic instruments in ensuring environmental

12/ UNEP/GCSS.VI/6/Add.1.

agreements at the national level. The internalization of environmental costs is one instrument that has the potential to promote more sustainable use of land and soil resources. The "polluter pays"principle is another such instrument. Market globalization and growing world trade make it more important then ever to apply such instruments to stop the increasing environmental degradation.

38. The link between economy and environment is mutual. The degradation of natural systems involves direct and indirect costs while, on the other hand, national, regional and international economic rules and trade patterns impose significant changes for local land resource management. However, traditionally economy-orientated discussions on trade and environment have focused disproportionately on tensions related to "trade distortions" contained in environmental treaties.

39. One of the more prominent examples of the impacts of land degradation on national or regional economies can be seen in the consequence of soil loss for the agricultural gross domestic product. In South Asia, the annual cost of soil degradation is estimated at about US $10 billion, equivalent to 7 per cent of the agricultural gross domestic product. In Africa, soil erosion may have caused a yield reduction of between 2 and 40 per cent, with a mean loss of 8 per cent for the continent, increasing to 16 per cent by 2020 if accelerated erosion continues unabated. 13/ Other examples include industrial and agro-business practices, which cause long-lasting or irreversible damage to soils (see e.g. Contaminated Land and Dust Bowl-Syndrome) and result in high social and environmental costs on-site and off-site. An estimated US $40 billion annual loss of income due to land degradation gives an indication of its economic relevance.

40. The off-site costs and long-term implications of land degradation are often more severe than the direct costs of forgone income might lead one to expect. Land degradation hampers general development. Decreasing agricultural productivity and increasing population pressure threaten food security, intensify pressure for over-exploitation of natural resources, such as water and forests, and thus lead to further degradation of natural systems. National commitments to then subsidize basic foodstuffs, agrochemicals and water in order to cope with the consequences of land degradation further detract from investment in substantive development measures. Off-site costs also include features such as increasing land scarcity, siltation, and water contamination.

41. Trade liberalization holds advantages and disadvantages for the promotion of sustainable land use. Open markets and enforced competition can result in even further declining prices for agricultural commodities and increasing investment in unsustainable land use techniques.

42. The increasing integration of national markets in the global economy leads, in many countries, to enhanced dependency on the production of cash crops. Supportive legislation often favours the production of cash crops on marginal lands. The increasing demand for cash crops leads to unsustainable, short-term intensification of land use techniques and dismisses practices such as fallow periods and crop rotation.

Suggested action

- Further analyse the correlation between sustainable land use development and global and regional economic and trade patterns.

- Highlight the sectoral separation between economics and environmental issues in areas such as land resource management.

- Contribute to the implementation of environmental standards in the World Trade Organization's (WTO) policy of trade liberalization by exploring the possibilities of positive and pro-active commitments between trade and sustainable land resource management.

13/ Sara J. Scherr (1999). Soil Degradation: A Threat to Developing-Country Food Security by 2020. Food, Agriculture, and the Environment Discussion Paper 27. Washington, DC, International Food Policy Research Institute.

- Assess the chances and consequences for a policy on internalization of environmental costs regarding, for example, land/soil contamination by the industrial, municipal and agro-business sectors, and the fertilizer and water sectors.

IV. OUTLINE FOR UNEP'S LONG-TERM POLICY ON LAND AND SOIL

National legally binding agreements on soil/land conservation

43. Soils, the Earth's skin, are threatened by rapid degradation. The consequences of accelerating soil degradation are similar to the threats of global warming and loss of biodiversity. However, so far there is little awareness of both the problem and the consequences of soil degradation. The direct link between soil degradation and central questions of sustainable development such as poverty, population growth, food security and resource degradation is widely discussed, but there is almost no consequential follow-up.

44. The 1981 World Soil Charter of FAO, the European Soil Charter of the Council of Europe, and Agenda 21, chapters 10 to 14 address the necessity for responsible use of soils. These recommendations create concern and awareness, but cannot substitute for nationally binding rules on the sustainable use of soils.

45. The UNCCD is designed to protect soils in drylands. However, the global and complex character of land/soil degradation calls for the extension of the subject and its application to policies in regions that go beyond drylands and desertification. An extended global awareness of the land degradation that is also occurring outside drylands is expected to serve the better understanding, enhanced responsibility and eventually improved financing the development and implementation of global land use and soil protection policies.

46. The report on soil protection prepared by UNEP and the European Environment Agency observers that many European countries have adopted national legislation, policies or guidelines to ameliorate or prevent soils from further degradation but, in general, those measures are primarily aimed at combating pollution in other areas, affecting soils only indirectly, or are developed within sectoral policies and offer only secondary protection for soils.

47. To move from secondary to primary soil protection on clearly defined scales is, therefore, a major aim of UNEP's long-term policy.

48. UNEP is to support legally binding soil conservation instruments on a national or clearly defined transboundary level. Political-technical solutions, which are tailored to specific conditions in nations or regions, are more likely to lead to the successful implementation of sustainable land and soil management.

Suggested action

- Assess existing legal instruments for national or subregional soil protection.
- Develop complimentary instruments that are fitting for specific national and regional levels and have linkages to existing environmental legislation.
- Standardize or harmonize the land/soil cluster in the evaluation and reporting for national action plans under the existing conventions and multilateral environmental agreements (see also above).
- Further coordinate overlapping United Nations activities and mandates (e.g. those of the World Bank, GEF, UNEP, United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Centre for Human Settlements (Habitat), UNDP, UNSO, FAO) as related to soil conservation and sustainable land use policy.
