

PROGRESS TOWARDS AN IMPROVED INTERNATIONAL AND NATIONAL LEGAL STRATEGY FOR SUSTAINABLE USE OF SOIL: PARTNERSHIP BETWEEN THE SOIL SCIENCE COMMUNITY AND THE WORLD CONSERVATION UNION

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Abstract

Discussions between the soil science community and the Environmental Law Program (ELP) of the IUCN (The World Conservation Union) over the need for ongoing cooperation and investigations into the international and national legislative needs for soil began in earnest in 1999. In October 2000 the 2nd IUCN World Conservation Congress (WCC) at Amman, Jordan, passed the ‘Soil Resolution’, calling on the IUCN ELP to prepare guidelines for national legislation and policy to assist States to manage their specific soil degradation problems and to investigate the format for an international instrument for the sustainable use of soil. The WCC specified that attention be given to the ecological needs of soil and their ecological functions for the conservation of biodiversity and the maintenance of human life. Through its members, Commissions and Secretariat, the IUCN plays a significant role in bringing the knowledge about biodiversity, ecosystems and species into the mainstream of decision-making in our societies. This paper discusses the background to the Amman Soil Resolution since October 2000 toward the development of a new international instrument for soil and the development of various legal and institutional frameworks for national soil legislation. It overviews a series of important stages and events in the investigation of the WCC’s request, key publications on legal and institutional arrangements for sustainable soil and aspects of communication.

The IUCN and the International Union of Soil Sciences, the World Association of Soil and Water Conservation and the European Soil Bureau work in partnership to improve the international and national legal strategy for soil.

Additional Keywords: International soil law; national soil law; soil degradation; sustainable use of soil.

Introduction

Various international environmental strategies and instruments introduced between the early 1970’s and early 1990’s make reference to the need for humans to take better care of their soil and to control soil degradation. Despite this awareness, and the continual increase in severity of soil degradation, this period witnessed the introduction of many new strategies and global treaties that were concerned with a variety of environmental issues other than soil (Hannam and Boer, 2002). The IUCN plays a significant role in bringing the knowledge about biodiversity, ecosystems and species into the mainstream of decision-making in our societies. Following the United Nations Conference on Environment and Development in 1992 interest grew within the international soil science community to pursue better national and international legal frameworks for soil. Moreover, at the 1998 Congress of the International Union of Soil Sciences a working group was formed to investigate the possibilities for a global soil convention. Around this time the soil science community in Western Europe began to debate the benefits of a global legislative strategy for soil and the proposal for an international “Convention on the Sustainable Use of Soil” was developed - the “Tutzing Proposal” (Held *et al.*, 1998). A major turning point occurred at the 2nd International Conference on Land Degradation in Thailand in January 1999 where a resolution was passed ‘seeking the introduction of an international soil conservation instrument’. The resolution was conveyed to the Steering Committee of the IUCN Commission on Environmental Law (CEL) in March 1999 and the CEL resolved to undertake an examination of the legal aspects of soil conservation.

The Tutzing Proposal

The principal objective of the Tutzing Proposal is the sustainable use of soils by all States in order to preserve soil functions. The proposal became a major turning point in raising awareness to improve the legislative position for soils. It was widely disseminated in Europe as a significant global action to reduce soil degradation and to improve general environmental amenity. The Tutzing Proposal became a prominent discussion item at various international and regional soil conferences and symposia between 1999 and 2003.

The IUCN Environmental Law Program

The Tutzing group approached the IUCN Environmental Law Centre (ELC) in September 1999 to explain the background to their Proposal and to seek support for a convention for soil. On this basis, the Tutzing publication, “Preserving Soils for Life, Proposed Convention on Sustainable Use of Soils”, was forwarded to the newly formed ELP Specialist Group for Sustainable Soil (SGSS) for examination regarding its suitability as a premise for an international environmental law instrument on soil. With the benefit of the Tutzing Proposal and other investigations, the ELP prepared a draft resolution to submit to the IUCN WCC in Amman, Jordan in October 2000 (See Hannam and Boer, 2002, p4 for full text of Amman Soil Resolution). With the passage of the resolution, the mandate of the SGSS was expanded – “calling on the ELP to prepare guidelines for national legislation and policy to assist States to manage their specific soil degradation problems and to investigate the format for an international instrument for the sustainable use of soil”. Specifically, the WCC requested “that attention be given to the ecological needs of soil and their ecological functions for the conservation of biodiversity and the maintenance of human life”. In recognition of the need for soil science to be a focal point of the SGSS work, an External Soil Scientists Expert Group was formed in 2001 to provide expert advice and guidance to the SGSS. This move forged an excellent partnership between the environmental law and soil science communities.

Principal activities

The principal activities set down to implement the Amman Resolution included to:

- explore the adequacy of existing legislative and policy material in relevant jurisdictions regarding management of soil and land degradation and the sustainable management of soil;
- develop the specific elements that may be used to formulate environmental law and policy to manage soil and land degradation, and prepare outlines of suitable legislation that may be adopted by respective nations and jurisdictions;
- prepare guidelines and explanatory material to accompany the principles of legislation and policy, and possibly “model” legislation, to assist States in developing legislation to manage their specific soil degradation and land degradation problems;
- advise the ELP on the most appropriate form that a convention for the sustainable use of soils should take, taking into account the capability and suitability of existing conventions (eg. Biological Diversity Convention; Convention to Combat Desertification) to adequately provide for the ecologically sustainable use of soils; and
- communicate the work of the SGSS as widely as possible.

An ecosystem-Based approach

The IUCN recognises that an ecosystem-based approach is an appropriate strategy for the integrated management of land, water and all living resources and it promotes conservation and sustainable use in an equitable way (Hannam and Boer, 2002). Moreover, the Convention on Biological Diversity (CBD) urges governments and relevant bodies to apply the ecosystem approach in their environmental law reform. The ELP has adopted the principles of ecosystem management from the CBD as a basis to approach the development of the international and national framework for soil. In doing so, it recognises that the well-being of human society, perhaps its survival, may depend on a conscious effort to slow down the rate of modification of biological aspects of soils. This means developing legal mechanisms that enable an ecosystem-based approach to be applied in all aspects of soil protection and management. The ELP is aware that such a process is likely to have a different outcome from a process that relies merely on the application of the conventional, scientific and objective principles of ecology to protect soil. This is because the ecosystem approach studies the relationship between soil, as living ecological communities, and the environment (see Sheals, 1969) and an effective legal system for soil would therefore depend on the selection of appropriate ecological concepts and a legal structure with the appropriate elements to implement these concepts.

Communication

The ELP has prepared a comprehensive information and communication program to promote and disseminate its findings. The principal actions include:

1. Preparing publications to meet the specific requirements of the Amman Resolution. To date, the key publications are:
 - Legal and Institutional Frameworks for Sustainable Soils (Hannam and Boer, 2002).
 - Guide to Drafting Soil Legislation (Hannam and Boer, 2004).
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2. Preparing other legislative materials for publication in:
 - International environmental law and scientific journals (eg. article on “*Legal Aspects of Sustainable Soils: International and National*” in Review of European and International Environmental Law; and article on “*International and National Aspects of a Legal and Institutional Framework to Manage Soil Carbon Sequestration*” in the Journal of Climatic Change)
 - International books (eg. Hurni and Meyer, 2002; Torba, Soil and Society; Lahmar *et al.*, 2003).

3. Delivering presentations and reports:
 - International environmental law conferences (eg, the IUCN ELP, Pre-World Summit 2002, Environmental Law Foundations for Sustainable Development, August 2002, Pietermaritzburg, South Africa; Committee for the Review of the Implementation of the Convention to Combat Desertification, UN, Rome 2002).
 - The International Soil Conservation Organisation Conferences (May 1999, USA; October 2000, Argentina; May 2002, China; see El-Swaify *et al.*, 1999).
 - The International Conferences on Land Degradation (October 2001, Brazil; September 2004, Spain).
 - Specialist soil science meetings (eg, Council meeting of the International Union of Soil Sciences, April 2000, Thailand; Soils Conference for New Independent States, Central Asia and Mongolia, August 2000, Czech Republic; International Conference on Food Security and Soils, April 2001, Tutzing Germany; 17th World Congress of Soil Sciences, August 2002, Thailand; International Conference on Natural and Socio-Economic Effects of Erosion Control in Mountainous Regions, December 2002, Serbia /Yugoslavia.).

The Amman Soil Resolution and the Objectives of other International Environmental Strategies

The IUCN and the soil science community recognise that there are important links between the implementation of the Amman Soil Resolution and the achievement of the soil objectives of various international environmental strategies.

UNEP Montevideo Program III

The ELP soil program can assist with achieving the “Soil” Objective (Objective 12) of the UNEP Montevideo Program (UNEP 2001). The Montevideo Program includes the development of international agreements and guidelines, principles and standards, as well as the development of the capacity to formulate and implement the objectives. Many aspects of the Montevideo Program support a general initiative for soil legislation reform that will directly benefit from the implementation of the Amman Resolution, including actions to:

- Improve the effectiveness of environmental law on soils.
- Improve the conservation and management of soil.
- Forge better links between environmental law on soils and other fields of environmental law.

The plan of implementation of the World Summit on Environment and Development 2002

The World Summit on Environment and Development (WSED) held in Johannesburg in September 2002 reaffirmed sustainable development as a central element of the international agenda and gave new impetus to global action to fight poverty and protect the environment (WSED, 2002a). Governments agreed on a number of commitments and targets to implement sustainable development objectives. Of particular importance to the objectives of the IUCN ELP Soils program is the recognition by the WSED to protect land as a major strategy against poverty eradication, reduce the loss of fertile soil and to increase effective water usage. The WSED *Plan of Implementation* (WSED, 2002b) calls for the development of integrated land management plans, improving land productivity and adoption of policies and laws that provide for land and water use rights and promote security of tenure. The publications prepared by the ELP program can be used by individual countries and regional groups to prepare strategic legislative materials for soil protection.

A World Soils Agenda

In recognition of the need for many changes in the way society views and uses the soil, the International Union of Soil Sciences (IUSS), through its specialist working group on "International Actions for the Sustainable Use of Soils" (WGIASUS), prepared the World Soils Agenda (Hurni and Meyer, 2002). This document outlines three major Tasks for soils – improving soil science, policy making and implementation. There was regular collaboration between members of the ELP SGSS and the WGIASUS during the preparation of the World Soils Agenda. A

significant aspect of the publication is the section on “potential legislative tools to attain more sustainable use of soils”. The ELP SGSS maintains that the key Agenda of the three Tasks should be considered in the review and framing of soil legislation (Hannam and Boer, 2004). The ELP also suggests that States apply the nine Agenda in the context of their specific legislative needs for the sustainable use of soils, including:

- Science, monitoring and evaluation (assess trends in soil degradation; define impact indicators and monitoring tools; develop principles, technologies, approaches and enabling frameworks for sustainable land management).
- Policy guidance (identify an international, multi-disciplinary network for soil issues; establish an intergovernmental panel on soils; provide guidance to develop and implement national soils policies).
- Implementation (promote initiatives for sustainable land management; ensure inclusion of soil-related issues in development programmes; provide guidance for national and local action).

Implementation of the Convention to Combat Desertification (CCD)

The Committee for the Review of the Implementation of the Convention (CRIC, 2002) is a process for the regular review of the implementation of the CCD. It was formed in recognition of experience gained at the national, regional and international levels on desertification and land degradation management, and to facilitate the exchange of information on desertification management measures. The objective of the CRIC is to draw conclusions and to propose recommendations on further steps to implement the CCD. This process has already established that national legislation is generally inadequate to manage and control desertification and, on this basis, it has furnished a variety of recommendations to improve the capability of national legislative and institutional systems (see paras 124-128, CRIC, 2002). The ELP and the CRIC have recognised that this process has direct benefits for the sustainable use of soil and supports the objective for an ecosystem-based legislative approach as advocated by the ELP soils program. Encouragingly, following this first CRIC meeting, a number of countries have shown interest in reviewing the capability of their national legislative systems to meet their obligations under the CCD to land degradation control.

National Soil Law

One of the major outcomes of the implementation of the Amman Soil Resolution has been the investigation by the ELP into national soil legislation (see Hannam and Boer, 2002, Section 4). It indicates that legislation has been used for about the past 60 years in many countries in a piecemeal fashion to control soil degradation and that most countries approach this activity in a fragmented manner. Many types of legal mechanisms are used in the legislation but would need to be applied in more inventive ways to effectively manage the soil in an ecosystem context. It has also been shown that there are a variety of ways available to States to approach the design of an effective legal and institutional system for soil management. Strategies for the development of legal and institutional arrangements for sustainable soil can be based on either a regulatory or non-regulatory approach. The preference in approach will vary between States according to their environmental, sociological and economic characteristics. Various examples of these frameworks are outlined in the publications - *Legal and Institutional Frameworks for Sustainable Soils* (Hannam and Boer, 2002) and the *Guide to Drafting Soil Legislation* (Hannam and Boer, 2004).

International Soil Law

It has been determined that the current international environmental law regime is inadequate to cater for the principal international environmental law needs for soil (Hannam and Boer, 2002). The existing instruments are insufficient as a framework for soil as they fall well short of including anywhere near a sufficient range of legal elements that are needed to protect and manage soil in a sustainable way. Of primary concern is the failure of the existing system to properly consider the ecological functions of soil. The ELP has been investigating the advantages and disadvantages of the two principal framework structures that an international environmental law instrument for soil may take, ie. either a legally binding instrument, or a non-legally binding instrument (United Nations, 1999). To date, the options that have presented include:

- a specific treaty for soil with all of the essential legal elements for soil;
- a Framework treaty which identifies the soil elements in existing treaties and links them through a separate binding instrument which would contain additional, specific legal rules for soil;
- a protocol to an existing treaty that creates specific rules for soil;
- an international soil charter; and
- a declaration for soil.

At this stage, the ELP is continuing to explore the different aspects of international law for soil, including discussions with various groups within the IUCN, a number of international environmental law and conservation institutions and the soil science community.

Soil Legislation Reform

Since the passing of the Amman Soil Resolution in October 2000 there has been a number of significant regional and national level soil legislation reform activities.

Regional level

A principal area of interest of the ELP has been encouraging the development of regional legislative strategies for sustainable soil legislation (see Hannam and Boer, 2002, Section VII - Recommendation 4). In this regard, three regions have shown interest in investigating the development of legal frameworks and regional instruments, including - the New Independent States, in Central Asian Countries and in Mongolia (Lahmar *et al.*, 2000); Central and South America (ICLD, 2001); and the Balkan region (Balkan, 2002). In each regional case there has been a call for guidelines to design national legislation to manage soil problems that are common to the region and have significant transboundary effects (eg, soil salinity, sedimentation).

National level

At the national level, some countries have greatly expanded their efforts in recent years to better understand their soil degradation problems and prepare national strategies to improve its control. The People's Republic of China (PRC) is probably the foremost in this regard and has carried an extensive investigation into its national approach to soil conservation and its legislation. An important aspect of this work is the range of options derived to approach the legislative reform (SMEC, 2003).

Conclusions

The IUCN ELP in partnership with the soil science community has embarked upon a comprehensive program to implement the IUCN WCC's requirements under the Amman Soil Resolution. To date many positive steps have been undertaken to develop guidelines for drafting national soil legislation and prepare realistic options for the further development of an international instrument for soil. The legal aspects of soil degradation have in the past been generally neglected at the international level and, in many of the world's regions, at the domestic level. However, the failure to recognize soil degradation as a major international issue in the context of the conservation of biological diversity is gradually being addressed through the ELP Sustainable Soils program.

Moreover, progress on the implementation of the 2000 Amman Soil Resolution will be discussed at the 3rd IUCN World Conservation Congress in November 2003, Bangkok, Thailand. In particular, the highlights, challenges and future direction of the Sustainable Soils program will be presented, especially in regard to the IUCN's program in the next inter-sessional period. The continuing support of the soil science community is vital to the success of the Soils Program and to generate and maintain adequate legal frameworks for sustainable soils.

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