



Working group on the economics of sustainable land management

The land is our life-support system. We all depend on it for food, water, fuel, raw materials, the foundations for our buildings and infrastructure, and space for living in – even the half of humankind that lives in towns and cities. In rural areas worldwide, three quarters of the people depend directly on the land; in many developing countries, a big share of GDP still comes from agriculture, livestock, fisheries, forestry, mining and quarrying - more than 20 per cent in most of Africa.

Over the last quarter century, land degradation (LD) is evident as soil erosion, salinity, acidification, loss of soil organic matter, overgrazed rangeland, depleted forests, and loss of biodiversity, and has blighted more than a quarter of the land area. Every continent and every region is affected but the economic and social impact is most severe in marginal lands in countries with developing or emerging economies. Land degradation impairs living conditions, the economic progress of developing economies and jeopardizes food and water security. There is concern that deteriorating conditions of the natural resource base will accelerate economic migration from poor countries to those that are better endowed.

The worth of land has always been assessed in terms of simple production and extractive uses; most ecosystem services are unaccounted, un-priced and, therefore, outside the domain of the market. At the policy level, the main barrier to market-based approaches to sustainable land use is a lack of well-grounded research on the economics of land degradation.

Thus there is an urgent need for a rigorous evidence-based scientific valuation of the natural capital, the assessment of the current and future cost of unsustainable use of land resources and the economic, but also social and political benefits of sustainable land management (SLM). These valuations can contribute to better decision making to enhance livelihoods by reducing the vulnerability of people dependent on the use and management of natural resources.

To this end a Working Group on the Economics of Sustainable Land Management has been established within DesertNet International and a session on the economics of SLM was held at the July International conference on *'Dryland ecosystem functioning and resilience: integrating biophysical assessment with socio-economic issues'*¹ with financial support from GIZ.

The scientific outcomes from the presentations and discussions at the meeting indicated a

¹ The Conference was jointly organised by the European Science Foundation (ESF), Desertnet International (DNI) and NRD - University of Sassari.

research need for:

- the harmonization of approaches/methods on the economic valuation of LD/SLM that recognise that bio-physical and economic conditions are not the same across different regions.
- more regional and country-level case studies linked to capacity building.
- a global synthesis and major report for policy-makers on the economics of LD/SLM.

These findings are in line with the recommendations made by the 1st scientific conference of the UNCCD held at COP-9 in Buenos Aires, Argentina in 2009.

A proposed study will apply a Total Economic Value approach with a more systematic approach to the assessment of the global costs of land degradation/benefits of SLM. Land-based ecosystem services contribute to economic welfare by both income generation and prevention of damages that inflict costs to society - both should be accounted for in policy appraisal; it is important that *non-use value* is also accounted for. *Direct methods of valuation* determine the physical effects of land degradation on economic activities and appraise the monetary value of the damaged ecological function. *Indirect methods* assign a monetary value to the physical damage; they are not based on the actual behaviour of economic agents but it is assumed that environmental quality is a production factor affecting the prices of the products.

This multi-disciplinary approach, which will be applied by DNI, will combine economic valuation with an equally rigorous assessment of the science of biophysical processes of land, experience of management in the field, and a pragmatic appreciation of policy options.

Efforts need to be made to link the proposed DNI study to other on-going activities such as the GIZ/UNCCD study of the Economics of Desertification, Land Degradation and Drought and to submit the results for consideration at the 2nd scientific-style conference of the UNCCD.

For further details please contact:

Dr. Richard Thomas
United Nations University
Institute for Water, Environment and Health
175 Longwood Rd South, Suite 204
Hamilton, Ontario L8P 0A1,
Canada
E-mail: rthomas@inweh.unu.edu