

ISSS Sub-Commission F Land Evaluation Congress: Geo-Information for Sustainable Land Management (SLM)

17 to 21 August 1997, ITC, Enschede, The Netherlands

The congress dealt with the role of geographic information, particularly soil information, to support sustainable land management (SLM). There were a total of 125 keynote addresses and oral and poster presentations. They focused on concepts; user needs; SLM possibilities; a land use system approach to SLM; biophysical and socio-economic sustainability of land use systems; the integration of biophysical and socio-economic analyses; and applications at regional, national, project and farm levels. Attention was also paid to the need for a geo-information infrastructure, *ie*, a policy framework to ensure that geo-information can be absorbed and can make a cost-effective impact at all levels of planning, decision making and land management, while ensuring the integrity of the underlying data and the quality of the information. The potential role of remote sensing and geographic information systems was highlighted.

After the conference, a one-day field excursion was made to study Dutch approaches to various scales of sustainable land management in Pleistocene sandy areas and on reclaimed lacustrine sediments.

Key questions for debate, submitted to the participants by the chairman of Sub-Commission F at the opening of the conference, included:

- How can the perceived needs of land users be incorporated in the formulation of sustainability criteria?
- Where do top-down and bottom-up land use planning processes meet?
- How can the physical and economic processes pertinent to sustainable land management, the levels of spatial and temporal resolution, and the corresponding data to characterize these processes be identified?
- How can bridges be built between the scientific disciplinary models of natural phenomena and the practical integral land use planning models for management and decision support?
- How can the biophysical carrying capacity of the land be matched with socio-economic sustainability?
- How can we cover the last mile of the information highway to the farmers in developing countries, who are hesitant to adopt recommendations derived from externally defined systems of land evaluation, preferring instead their own criteria and knowledge systems?
- How can we overcome institutional and administrative problems such as standardization, legislation and quality control, which are creating major bottlenecks in the progress of information and communication technology?

- Is geo-information currently adequate for sustainable land management? How can it be collected in a cost-effective and timely manner with remote sensing?

In 16 keynote addresses, as well as many oral and poster presentations, these questions were analyzed, providing a valuable multidisciplinary insight into the complex challenges facing scientists, especially in the developing countries, who want to focus their research on the transition to more sustainable land management practices in rural areas. In organizing this congress, the ISSS Sub-Commission F was able to bring together a wide variety of relevant scientific disciplines and, in so doing, many ITC alumni from developing countries.

The congress demonstrated the usefulness of systems approaches (including geo-information systems and remote sensing techniques) in enhancing the impact of soil and other geoscientific research on planning, designing and monitoring sustainable land use practices.

Among the 190 participants from 50 countries were representatives from the World Bank, FAO, IBSRAM, ISNAR, universities and research institutes. They contributed papers on criteria and indicators for sustainable land management and on new approaches to land evaluation and land use planning. About half the participants work in developing countries, and they provided valuable contributions based on their practical experience. Forty-two participants from developing countries were sponsored by the Netherlands government, ITC and the private sector.

The congress was hosted by ITC to commemorate the inauguration of its new building in Enschede.

The proceedings are published on CD-ROM as part of the special 1997-3/4 issue of the ITC Journal. Free copies of the CD-ROM, which includes 16 recent FAO publications pertinent to SLM and various other relevant publications, will also be available from FAO (AGLS) and during the ISSS World Conference in Montpellier, France, at the ITC/ISRIC booth. The CD-ROM includes the 700 names and addresses of colleagues who participated or have shown interest in the conference and are therefore the "backbone" of ISSS Sub-Commission F (Land Evaluation) activities in the coming years. All papers can be consulted on the Internet: <http://www.itc.nl/ha2/suslup>.

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