

Report ISPRS Working Group VII/2 Workshop on "Environmental Modelling Using Remote Sensing and GIS for Sustainable Development" at IIRS (NRSA), Dehradun, India on 11 March 1999

By Dr S.K. Subramanian, Hyderabad, India

The workshop was sponsored by the Indian Institute of Remote Sensing (NRSA), Dehradun, India & ITC International Institute for Aerospace Survey and Earth Sciences, The Netherlands

Background

Modelling techniques are indispensable for analysing large spatial data in a GIS environment. With ever growing population and the depleting natural resources, there is an urgent need to develop models which are appropriate to local conditions, taking into account the options which are needed to satisfy different strata of people who are collectively responsible for the environmental degradation which is a great concern in the present day scenario. Even though many methods and techniques are being evolved in focussing and analysing this problem, little efforts have been made in the area of quantitative estimates in measuring the environmental degradation. It is necessary to maintain the fragile balance between productivity events and conservation practices through identification and monitoring of problem areas and to propose sustainable alternate land use practices for the human welfare. Derivative mapping and simulation modelling truly add new dimension to the data base by combining existing data with knowledge of relation and process. Finally this leads to decision making in specifying how to act upon the outcomes of the modelling in developing the rural areas on a sustainable basis. The Workshop was conducted to focus on the above aspects. There were 69 participants including those from 9 countries from Asia-pacific region.

Substantial Outcomes

Under the National Natural Resources Management System (NNRMS) of Department of Space, Government of India, a national project "Integrated Mission for Sustainable Development (IMSD)" is being undertaken in India with large scale utilisation of Remote Sensing & GIS. The case studies and the results obtained from this programme and also the application of various natural resources related field survey formed a good example for the participants from the developing countries for providing action plans to bring marginally degraded lands to improved productivity in the rural backward areas. The course participants appreciated the work being done in India in the field of application of Remote Sensing & GIS especially involving modelling techniques. Many participants appreciated the methodology adopted in obtaining the natural resources information under IMSD and the way this information is planned to be made available under the Natural Resources Information System (NRIS) programme.

The proceedings of this workshop will shortly appear as one of the volumes of ISPRS Archives from RICS BOOKS, Survey Court, Westwood Way, Coventry CV4 8JE, United Kingdom, FAX: +44 171 334 3851.