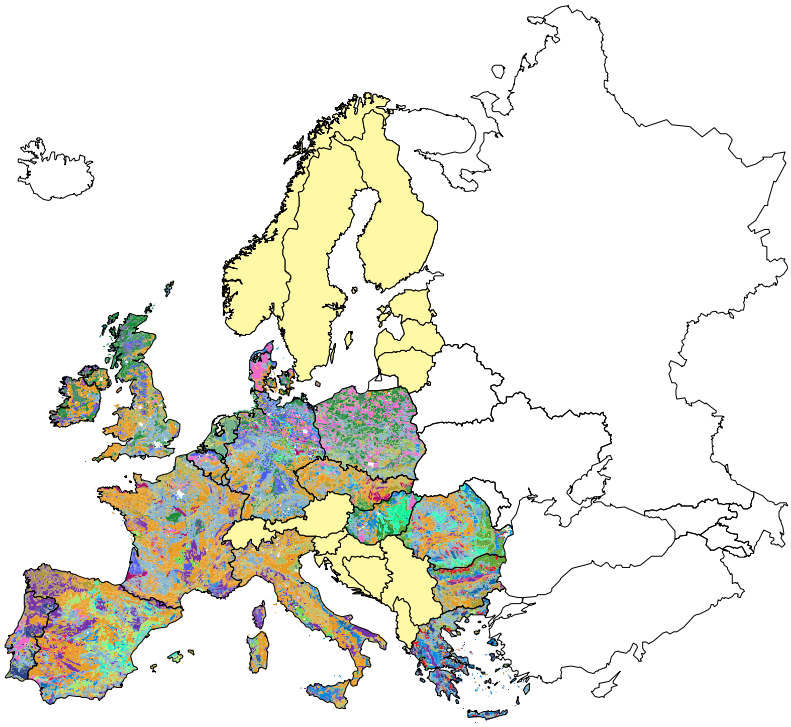
Land Information Systems

Developments for planning the sustainable use of land resources

by
H.J. Heineke, W. Eckelmann, A.J. Thomasson,
R.J.A. Jones, L. Montanarella, B. Buckley
(eds.)



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COVER MAPS: EXTRACTS FROM THE EUROPEAN SOIL DATABASE

Foreword

With an increasingly affluent population demanding more from our environment to support everyday life, it is becoming more and more urgent to plan and introduce sustainable practices of land use. The expanded European Union now constitutes the third most populous political grouping in the world and, in economic terms, is comparable with the United States of America and Japan. This level of development has only been achieved through the high intensity of agricultural and industrial activity, which, in global terms, is taking place in a relatively small area. Many of the resulting environmental problems, traditionally confined to Europe, are now beginning to appear in less populated areas of the world, as similar activities there intensify. In this respect we can look upon Europe as a laboratory for seeking solutions to the problems of production, pollution, and protection of land resources.

This background together with the explosive developments in Information Technology during the past decade stimulated the newly-constituted European Soil Bureau – ESB – based at the Joint Research Centre, Ispra (I), to propose this international workshop on land information systems and the part these play in planning the sustainable use of land. It was held from 20-22nd November 1996, at the Bundesanstalt für Geowissenschaften und Rohstoffe – BGR – (Federal Institute for Geosciences and Natural Resources), Hannover, Lower Saxony (D).

The meeting was organised by a team drawn from the BGR, the Niedersächsisches Landesamt für Bodenforschung – NLfB (Geological Survey of Lower Saxony), and the Soil Survey and Land Research Centre – SSLRC – Cranfield University, Silsoe (UK). The ESB provided EU funds to support the running of the meeting.

The Proceedings are divided into 8 sections covering: *The European Perspective* on the compilation, management, distribution and application of soil- and land-related databases; *Summary and Recommendations*; *The National Perspective* in Europe, with contributions from all over the continent; *Techniques and Technologies* on the application of new methodologies; *Environmental Applications* using information systems for solving practical problems in the management of land; *Land Evaluation* on traditional uses of soil and land data for land suitability; *Poster presentations*; and a *Database Dictionary* for the Soil Geographical Database of Europe.

This volume – *Research Report No.4* – constitutes the fourth in a series produced by the European Soil Bureau and its predecessor, the Soils Information Focal Point. It makes a significant contribution to the development of a Soil and Land Information System for Europe, which is urgently required for the protection of the continent's environment and for the sustainable development of its land resources.

R.J.A. Jones

EDITORS' NOTE

We would like to thank all the contributors for their ready responses to our queries and their tolerance of our idiosyncrasies. Their friendly co-operation has made an otherwise onerous task a pleasure.

We would also like to thank all those people in NLfB and BGR who contributed to making the meeting in Hannover so productive and fruitful.

Hans J. Heineke – Wolf Eckelmann – Arthur Thomasson – Bob Jones
Luca Montanarella – Barbara Buckley

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