



**Forest Research Institute  
Center of Excellence PROFOREST  
for Protection of Forest Resources  
in Central Europe**



# **PROTECTION OF SOIL AND WATER RESOURCES IN FORESTRY AREAS**

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This publication has been carried out with the financial support of the Commission of the European Communities, specific RTD programme "Quality of Life and Management of Living Resources, Key Action 1-Health Food and Environment, QLK1-CT-2002-30315 / PROFOREST: Protection of forest resources in Central Europe. It does not necessarily reflect its views and in no way anticipates the Commission's future policy in this area



Warsaw 2005

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ISBN 83-87647-38-1

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## PREFACE

The types and state of the forests depends in large measure on two environmental factors: soil and water. However the forest play water-protective and soil-protective functions but in spite of that water and soil resources can be rapidly degraded by climatic changes and antropogenic activities. Therefore the subject of the papers presented in this monograph is efforts to limit these degradation processes in forestry areas.

These papers were prepared for the international conference organized in the frame of the activities of the PROFOREST Centre of Excellence at the Forest Research Institute in Warsaw (European Union Project No. QLK1-CT-2002-30315) as the Work Package WP 6.2. The main aims of the project are to develop the network of international cooperation, integrative activity and education for the development of the forest sciences in protection of forest resources.

Conference entitled „Protection of soil and water resources in forestry areas” was held in the Cracow on 8-12.09.2004. Participants of the conference were attended also the seminar entitled „Protection and sustainable development of mountain watersheds” which was the part of the XXIV Session of Working Party on the Management of Mountain Watershed European Forestry Commissions FAO.

Presentations during the both meetings which are published in this volume were concerned on the following problems:

- water erosion and soil conservation in forest,
- wetlands protection and water conservation in forest areas,
- forest and water management in mountain areas,
- integrated watershed management: state and perspectives.

The aim of the discussion was to look for future solution in aspect of issues of globalization, economic policies, transport and overuse of natural resources which all are create by today’s and future generation. Over-exploitation of land, water and energy resources were pointed as reasons of soil and water relationship degradation in forestry areas. The examples of successful control of debris flow and bedload disasters by implementation of technical measures as well as by forest management were presented by participants. The participants underlined that land and water protection requires the integrated management in scale of the whole watershed with consideration of upstream and downstream problems. The meetings gave an opportunity for the exchange of research results and views of experts represented hydrology, ecology and forest sciences.

Editors