

About the Book

The book aims to address evaluation of environmental impacts and services identified in headwaters of different eco-zones the world. This volume contains 24 papers selected from contributors to recent meetings of the European forestry commission working party on the management of mountain watersheds, which is managed by FAO (food and agriculture organization of the united nations). The working party –its biennial sessions and inter-session activities- focuses on the continuous exchange of knowledge and experience between professional in Europe and other regions of the world confronted with similar issues.

The contributions have been updated and peer-reviewed, and the interdisciplinary team of authors includes experts from the specialized areas of geography, hydrology, chemistry, biology, forestry, ecology and socio-economy. The participatory management of headwater catchments in Europe, Africa, America and Asia have been the central theme of the articles divided into four sessions: 1. Headwater environment and natural resources, 2. Enhancing environmental services in headwaters, 3. Environmental services in the changing world, and 4. New challenges for environmental education and active citizenship. The practical applications, shown in the book, deal with the multi-resources concept.

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Part I: Headwater environment and natural resources

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- 2. Technical and ecological methods to control the water cycle in mountain watersheds*
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- 4. Ecosystem services in headwater of the boreal environment*
- 5. Climate change impacts on water resources in a snow-dominated watershed of northern Japan*
- 6. Ecohydrological-based forest management in semi-arid climate*
- 7. Ecosystem services in African headwaters*

Part II: Enhancing environmental services in headwaters

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- 9. Headwater management constraints within the kinneret ecosystem services*
- 10. Mitigation of natural hazards in mountain watershed of Japan*
- 11. Environmental management in the headwater catchments of kilki river, Nagaland, north east India*
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