

# Environmental Literacy in Science and Society

From Knowledge to Decisions

Roland W. Scholz



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## From Knowledge to Decisions

In an era where humans affect virtually all of the Earth's processes, questions arise about whether we have sufficient knowledge of human–environment interactions. How can we sustain the Earth's ecosystems to prevent collapses and what roles should practitioners and scientists play in this process? These are the issues central to the concept of environmental literacy.

This unique book provides a comprehensive review and analysis of environmental literacy within the context of environmental science and sustainable development. Approaching the topic from multiple perspectives, it explores the development of human understanding of the environment and human–environment interactions in the fields of biology, psychology, sociology, economics, and industrial ecology.

The discussion emphasizes the importance of knowledge integration and transdisciplinary processes as key strategies for understanding complex human–environment systems (HES). In addition, the author defines the HES framework as a template for investigating and transforming sustainably coupled HES in the 21st century.

**Roland W. Scholz** chairs the Natural and Social Science Interface in the Department of Environmental Sciences at the ETH (Swiss Federal Institute of Technology), Zurich. A mathematician, psychologist and decision theorist by training, he is particularly interested in environmental systems analysis, human–environment interactions, environmental decisions, and risk assessment. He has led numerous large-scale transdisciplinary processes to foster sustainable transitions of urban and regional systems.

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From Knowledge to Decisions

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**Some chapters are coauthored by Claudia R. Binder, Fridolin Brand, Justus Gallati, Daniel J. Lang, Quang Bao Le, Roman Seidl, Timo Smieszek and Michael Stauffacher**

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