

Theory and Practice in Ecology

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The author sets the tone of this book early on by making a statement that, “We are constantly avoiding an elementary question. What will be the impact on our ecosystem earth of the growing population of the relatively poor and exponentially growing consumption of the relatively rich? A reminder: we do not have endlessly stretchable resources in nature. We are trying to avoid the consequence of this profligacy by being silent or positioning ourselves in some feeble hideouts” (p 6).

In the body of the book, the author has taken a clear position that knowledge of “ecology” has been a constant factor in advancing diverse societies and cultures, particularly in their management and use of natural resources for survival and livelihoods. This includes

Ecosystem Management: Towards Merging Theory and Practice by Dhruvajyoti Ghosh, *New Delhi, Nimby Books, 2014; pp 270, Rs 390 paperback.*

the knowledge of indigenous communities whom the author likes to identify as “proto-ecologists” (p 122). The book offers a push towards a meeting of the knowledge of “proto-ecologists” in the various indigenous communities and of ecologists who are generating trans-disciplinary knowledge on the natural environment within the paradigm of modern science. Indeed, the author describes the ecologists as scientists with a broader knowledge base, not limited to the traditional limits of life sciences alone. In India, the author points out, “most people, don’t know the meaning of the terms ‘ecology,’ ‘ecosystem

approach’ or ‘ecosystem management.’ These terms have been translated from English into regional languages, but not many use them. But well-known historians have recorded outstanding instances of managing forests, water resources, urban space and landscapes” (p 9).

In the first chapter of the book, “Ecosystems and Ecology: Old Theories and New Frontiers,” the meaning of ecology has been articulated in the words that “the ideological status of ecology is that of a resistance movement” (p 26). Justification for this position is taken from a report in *Nature* (31 May 2012) that documented the fact that the agro-chemical industry spent hundreds of thousands of dollars against the message of the megalethality of pesticides, as written by Rachel Carson in *Silent Spring*. In the third chapter, “Improvisation and Eligibility in Ecosystem Management,” the book addresses the complex task of describing the origin of ecology and ecosystem management. Identifying hunter-gatherer societies as the first generation

ecosystem managers, the author enlists the complexities of ecosystem management today against the background of rapid changes in the knowledge base and the organisation of human societies. The need to study ecological history is seen alongside the need of the humans of keeping the natural environment in a good ecological status.

Western and Non-Western Roots

The concluding chapter of the book is on "Reassembling the Pedagogy: Practice-Theory-Practice." Making a distinction between knowledge of ecology and that of physics or mathematics, the author finds a smaller role for such extensive theorisation in ecosystem management. Such a position at the interface of the traditional or indigenous technical knowledge (ITK) and that of modern science rooted in the European tradition is not easy to handle. With either knowledge systems, one can formulate independent strategies for ecosystem management. The process of making theory and practice of Western and non-Western roots meet, however, is a difficult one, and

creates an area that is without clarity. The meeting of theory and practice of ecosystem management from all traditions does not constitute a win-win situation. While non-Western knowledge systems can gain a few functional advantages, like traditional fishermen getting a better location of fish shoals in the ocean by the use of remote sensing data, the greater ability of the Western scientific paradigm to absorb practice and enrich theory has always gone against non-Western traditions. In addition, recent developments in ecological sciences have drawn them closer to modern physics and mathematics, for which global warming and climate change can be cited as good examples.

As environmental stress increases in future years, the ability of modern science of European roots to theorise will find more direct application than indigenous knowledge systems due to their limited theorising ability. There is little doubt, in spite of some research interest in non-Western ideas of ecology, that the world is very rapidly accepting modern science of European roots as the tool for understanding Nature. This is where, as

the title of the book mentions, the merging of theory and practice will be a meeting of unequal gains. There is a need for impartial assessment of modern scientific knowledge in ecology and of future strategies for ecosystem management from the point of information asymmetry.

The book under review is a product of deep-rooted and long-standing commitment of the author to ecology as an evolving knowledge base on the natural environment. In some places the writing gets to be emotionally coloured. Nevertheless, unlike many other writings on the subject of the environment, this book does not trigger sensationalism but draws the reader towards serious analysis of the root causes of our environmental predicament. It is a book for those who like to enhance their individual knowledge base on human futures. In addition to environmental studies, this book is also a good resource for students and researchers in history, philosophy, anthropology, sociology, political science, administration, etc.

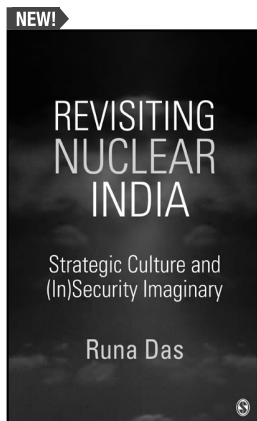
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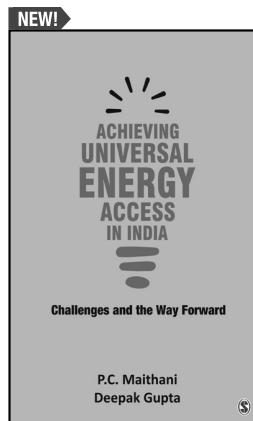
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