

Interpreting Environmentalism and Sustainability in China and India

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China and India, Himalayan neighbours and two of the most populated countries of the world, are at the crossroads of defining their development trajectories at a time when challenges are many and emerge from various directions. On the one hand, growth needs are listed as supreme, with critical driving forces of urbanisation and increasing consumption ruling the roost. On the other hand, the concerns of environmental destruction as a result of mindless, unbridled growth loom large as they impinge on the future prospects of economic development. For China, urbanisation and increasing the levels of domestic consumption are drawn by design, being part of the ongoing Thirteenth Five Year Plan, while for India, urbanisation and rising levels of consumption are more organic and driven by market forces.

The “growth-fundamentalism” of both economies has brought about an inextricable externality, which has often been ignored in the policy discourse: the negative impacts on the ecosystem, its structure and functions, and consequently the services provided by them. Over the last two decades, China has battled the outcomes of a strategy based purely on economic growth, with ecological destruction having an impact on both the growth and the quality of life. The problem

Environmental Sustainability from the Himalayas to the Oceans: Struggles and Innovations in China and India edited by Shikui Dong, Jayanta Bandyopadhyay and Sanjay Chaturvedi, Switzerland: Springer International Publishing, 2017; pp 270, €150 (hardcover).

is no less for India, though the acknowledgement of the same in the policy circles is low. Decline in air quality, deforestation, killing of rivers and aquatic biodiversity through large constructions, and decline and degradation of the coastal ecosystem have been ubiquitous (Damin 2018). In the process, ecological distribution conflicts and social movements have arisen, probably a bit more vociferously in India through civil society voices, though they hardly had much impact in creating a change in paradigm thinking in Indian policymaking. In China, however, environmentalism has been more policy-driven, more so lately with extensive research taking place at the Chinese Academy of Sciences and the various provincial academies to create knowledge in a space that was earlier a void. The book under review needs to be read and construed against this background.

I was reminded of a very interesting article, titled “China, India, and the Environment,” by Kamal Bawa and colleagues published in *Science* in 2010 that proposed,

The [Chinese and Indian] academies [of Sciences] could exercise strong leadership in highlighting environmental issues, initiating joint actions, and fostering scientific exchanges.

As if to validate the above statement, the volume under review is the culmination of scientific exchanges and collaborative efforts by Chinese and Indian scholars. It marks one of the seminal attempts to report on critical issues of environmentalism in its various hues in the context of the two “Himalayan twins.”

Quite evidently, the book under review is the product of a highly engaged dialogue, first initiated in 2010, between the three editors, who have also written chapters in the book, Shikui Dong, Jayanta Bandyopadhyay, and Sanjay Chaturvedi. All three were part of the India China Institute Fellowship Programme called “Social Innovation for Sustainable Environments.” The India China Institute housed in the New School, New York, therefore, deserves to be congratulated for being the platform for the creation of an unprecedented intellectual discourse on environmental sustainability in China and India. The uniqueness of the volume lies not in mere reporting of Chinese and Indian cases by respective scholars of the Himalayan twins, thereby providing a comparison between the nations in their approaches to environmentalism, but in offering a comparative objective analysis from the perspective of authors from each nationality.

Shifting Paradigms

There are two important themes in the volume. The first one is related to the struggles for existence of treaties, while

the other is related to the innovations that create paradigm changes. In his magnum opus, *The Structure of Scientific Revolutions*, T S Kuhn (1962) wrote that “the successive transition from one paradigm to another via revolution is the usual developmental pattern of mature science” (p 12). Paradigms shift due to a combination of factors: accumulation of critical anomalies in the existing treatise or knowledge base; emergence of a new thinking that explains relevant anomalies in existing paradigms; and emergence of a new paradigm that encompasses older relevant information and creates new pathways to resolve apparently complex concerns. Though Kuhn mentioned that new paradigms tend to emerge most dramatically in physical sciences as it happened in the 19th and the 20th centuries, the transdisciplinary knowledge base of social and natural sciences of the 21st century cannot really be called a major exception to this premise.

This is indicated in the introductory chapter of the volume that adequately highlights how “growth fundamentalism” promoted by the neoclassical economic thinking has compounded the environmental problems, thereby affecting human well-being. The paradigm movements from neoclassical “growth fundamentalism,” to Herman Daly’s “steady-state” economy, to the ongoing “de-growth” movement have not been free from scholastic antagonism emerging from cognitive dissonance. This movement of paradigms that have dominated human thinking about economic development is marked by “struggles” and “innovations,” and, at times, struggles for innovation.

Chapters 2 and 3—very ably written by two foremost thinkers of China and India, that is, Shikui Dong and Jayanta Bandyopadhyay, respectively—present very useful historical accounts of the situational contexts, threats, problems and challenges of environmental governance through the lens of “struggles” and “innovations.” In Chapter 3, Bandyopadhyay presents details of “struggle” and “innovation” through community-based resistance to forest felling by external contractors in the present-day Indian state of Uttarakhand, and the introduction of public interest litigation by the Supreme Court, respectively.

However, the introduction of the National Green Tribunal in 2010 has received a relatively brief mention, though more details were required on this given its tremendous importance in the existing public discourse in India.

In Chapter 4 the professional command of Bandyopadhyay on Himalayan studies becomes apparent, as he presents a comparison of the governance challenges for the two most important rivers, the Yellow and the Ganges. Such a comparison is probably made for the first time in global river governance literature. The chapter describes how river science has been perceived in the two countries, thereby resulting in differential visions of governance. In that sense, this chapter is a unique eye-opener on how knowledge and uncritical adherence to a paradigm affects governance. This can be witnessed in the discussion on environmental flows. While in India the notion has been reduced to a certain percentage of the total flow, China has defined “environmental flows” holistically with the intention of restoring the health of their rivers. The definition of “environmental flows” as a numerical percentage of the total flow, as is delineated in India for purposes of policy convenience, fails to not only conform to the original definition of the notion, but also stand scientific scrutiny.

Local Networks

Chapter 5 presents a masterly treatment of scientific enquiry, revealing the importance of the Himalayan grasslands in terms of their ecosystem services provided to both upstream and downstream areas, and the environmental problems associated with grassland degradation in the Himalayan region. Shikui Dong, the author of this chapter, reports that the local pastoralists in the Himalayan region have developed adaptive strategies through social innovations to combat the challenges brought about by global warming and climate change.

Chapter 6 is more futuristic. The authors, namely Dong, Nakul Chettri, and Eklabya Sharma, talk of institutional innovation in the form of developing regional institutions, in close collaboration with national governments of countries in the Himalayan region, for an

integrated approach to institutionalise transboundary biodiversity conservation.

Nidhi Srinivas, in Chapter 7, in a masterly touch, weaves the various cases together to come up in support of his hypothesis of local networks, including the non-governmental organisations working in tandem with state governments to mobilise local people. This offers a very interesting solution to incentivise local people to work for collective needs of the social-ecological systems.

Chapter 8 by Sanjay Chaturvedi is the cornerstone of this volume. Utilising the case studies of the Indian Sundarbans Delta in the Bay of Bengal and Zhangjiangkou Mangrove Forestry Reserve in Fujian province of China, the chapter reveals how communities located on sites characterised by multiple marginalities perceive and approach the impacts of environmental unsustainability and incremental climate change in both material-physical and ideational-representational terms. Chaturvedi brings a deep theoretical understanding of power relations, scale, and spatial dimensions, and, for the first time in the discourse, highlights the roles of micro-geopolitics and the broader concern of social justice as embedded in the struggles and innovations. Chapter 9 titled “Designing Mega Delta Interactions” by Victoria Marshall presents a futuristic vision about how we want our urban futures to look like.

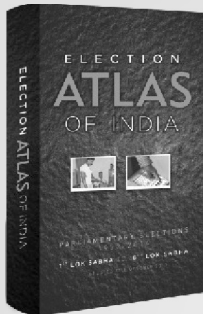
In the concluding chapter, the editors recount the debate related to “growth-fundamentalism” as opposed to sustainability that they introduced in their introduction. And here lies their call for an alternate definition of development that clearly questions the myopic philosophy limited to economic growth. As they authoritatively conclude,

Yet another timely reminder to the two most populous, fastest growing economies with enviable human capital in a globalising world that “Rise” comes with enormous responsibility of planetary scale, especially in the era of climate change and growing scarcities of two of the five basic elements of life: clean air and clean water.

While each chapter stands on its own, the flow of the volume could have been improved. This would have been a tough job given the disparate nature of topics and the wide variety of authors; yet, the

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volume could have been divided into sections. There remained the scope for classifying the second and third chapters under a section titled “Historical Evolution of Environmental Struggles and Innovations,” Chapters 4, 5, 7 and 8 under “Present Status of Environmental Struggles and Innovations,” and Chapters 6 and 9 as “Opportunities for Innovations in the Face of Struggles.”

Transdisciplinary Knowledge

There is no doubt that this is a multidisciplinary volume that addresses some of the critical challenges of environment and development in one of the most complex geographies of the world. When it comes to research in such a transdisciplinary interface, as has been proposed in this volume, it is expected that gaps that exist in compartmentalised disciplinary thinking will be addressed. This volume aptly does so. At one level, the volume acknowledges that environmentalism as explicable by struggles and innovations has emerged out of developmental thinking led by “growth-fundamentalism,” as has been

prevalent in the emerging economies of the world, especially China and India. At another level, the volume also brings in a statement on the possible symbiotic relation between the two apparently contending notions of biodiversity conservation and human development through evolution of appropriate institutional frameworks for environmental governance.

Environmental governance, therefore, is not a concern that can be viewed through the lens of a single discipline like reductionist engineering or neoclassical economics. It requires an amalgamation of a host of disciplines, and interdisciplinary thinking from a motley group of specialists from various social, natural, and physical sciences, like the authors of this volume. Therefore, this book is for all disciplines, as also for the common man and policymakers. There are takeaways for academicians of various disciplines. For physical and natural scientists, the volume provides the opportunity to understand and appreciate the social realities and changes brought about by flawed and correct designs. For the social scientists,

it helps understand the nature and role of engineering and natural sciences to analyse social drivers of struggles and innovations that have characterised the history of environmentalism in the two nations. For the economists, it redefines and recasts developmental philosophy from narrow, myopic “growth-fundamentalism” to a more ecologically informed, socially responsible developmental philosophy upholding the very important concern of distributive justice.

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