

Book Review

Energy, Environment and Globalization: Recent Trend, Opportunities and Challenges in India

Anshuman Gupta, Narendra N Dalei
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Reviewed by Dr Vatsala Sharma, Associate Fellow, TERI

Energy, environment, and globalization are terms that need to be used together due to their interconnected nature. Globalization leads to economic progress, resulting in more use of energy resources, especially fossil fuels, thus increasing pollution. Local/ national policies are effective in dealing with local pollution; however, global pollution requires global agreements like Kyoto and Paris Agreements. The overarching idea behind global environmental agreements is to limit global temperature from rising beyond a safe level. But there are apprehensions that these agreements can be difficult to administer especially when it is necessary to keep international climate agreements under the ambit of the WTO. Moreover, developing countries fear that such arrangements can be used by developed countries as a kind of non-tariff barrier to trade and this book extensively discusses such issues.

Before dwelling on the nitty-gritty of the book, its background needs to be laid out. The book is divided into three parts: the first part discusses the trends, opportunities, and challenges of energy; the second part discusses environment; and the third part is on globalization.

Section one of the book discusses energy trends, opportunities, and challenges. Chapter 2 talks about trends and future projects in crude oil consumption, production, and imports in India. The chapter ends by concluding that crude oil consumption, production, and imports will rise till 2030 under the BAU scenario for India. Given India's NDC commitment, the authors suggest aggressive policy interventions, strong commitment, technology transfer, and funding by developing countries. Chapter 3 assesses the performance of thermal power plants under strong and weak disposability of bad output and summarizes that there is a win-win situation under weak disposability of bad output conditions. Chapter 4 studies the pattern of urbanization and its relation to energy use and sustainability, in the Indian context. It says that India's urbanization model is neither energy efficient nor sustainable. Chapter 5 discusses the opportunity of enhancing the availability of gas as a clean source of energy, while Chapter 6 gives insights into rural electrification in India. Chapter 7 draws the conclusion that there is a statistically positive and significant relationship between energy use and human development in the BRICS nation.

The second part of the book deals with environmental trends, opportunities, and challenges. Chapter 8 through regression analysis reveals that there is an inelastic relationship between rice production and actual rainfall. It emphasizes that deteriorating local weather conditions will have a negative impact on agricultural produce. Chapter 9

discusses the ways and methodologies necessary for the economic valuation of the benefits of mangrove forests. Chapter 10 studies the rapid urbanization of the city of Dehradun and the resulting environmental issues. Chapter 11 uses the empirical study to investigate resettlement and rehabilitation (R&R) issues of the Talcher coalfield region and Mahanadi Coal Ltd and concludes that resettles are unsatisfied with the resettlement benefits provided. Chapter 12 tries to estimate the recreational value of Dachigam National Park and tourists' willingness to pay for better park management. Chapter 13 discusses the approach towards environmental accounting and the attitude towards local communities. Chapter 14 identifies critical factors for green initiatives in supply chain management and proposes a decision framework using the analytic hierarchy process framework that facilitates managers and researchers in understanding important factors for the effective implementation of green supply chain practices.

The third part of the book deals with globalization trends, opportunities, and challenges. Chapter 15 describes the changed designs of India's new Bilateral Investment Treaties (BIT). Chapter 16 examines Indian export dynamics using the autoregressive distributed lag cointegration method and finds that Indian export is both price and income elastic. Chapter 17 describes the various initiatives taken by Indian government to strengthen Micro, Small and Medium enterprises. Chapter 18 is a study on the empirical determinants of FDI in infrastructure in India and concluded that governance, exchange rate, macroeconomic stability, and market size have a significant impact on FDI flow in infrastructure in India.

The publication of the book is well-timed. It has touched upon some very important aspects of energy requirement in India given the country's 2030 commitments, socio-economic evaluation of mangroves and ecotourism sites in India, issues of Just Transition, and Indian exports being price and income elastic among others.

The authors of the book have given a very beautiful description of the interaction between Energy, Environment and Globalization, especially in the contemporary context in Chapter 1. They have talked about the inverted U-Shaped Kuznets curve that describes the relationship between income and environment. They further highlighted that globalization has a positive impact on income and income's impact on the environment is dependent on the level of economic development of the country. However, globalization leads to more emissions till a certain level of economic growth is achieved. Many countries, in order to be more prosperous, may have relaxed environmental regulations and specialized in the production of substandard products. Globalized firms take the advantage of these relaxed environmental standards to cut their production cost and shift their production/a part of their production to countries with low environmental standards. This is known as the pollution haven hypothesis.

In contemporary times, where there is an increased focus on the environmental impacts of economic activities, there are discussions about taxing carbon emissions on imports, especially by the European Union called Carbon Border Adjustment Mechanism (CBAM).

Given the fact that WTO promotes global trade, there is a conflict between such environmental conservation measures and WTO rules. It is often argued by developing countries that Article 20 is being misused by developed countries to curb free trade.

Albeit the book could have touched upon and included some studies on the impact of environmental regulation on international trade, the legality of such measures, and possible changes in international trade dynamics due to environmental measures such as CBAM among others. Chapter 1 did touch upon these issues but was not reflected in the following chapters. If this aspect could have been added, then there would have been some really good value addition in the particular context of India.

Earthly Order: How Natural Laws Define Human Life

Saleem H Ali (Oxford University Press, 2022)

Kartikey Sharma, Research Associate, Resource Efficiency & Governance, Centre for Resource Efficiency & Governance, TERI
The principles of climate change and sustainable development require intricate understandings of the world order that essentially comprises three parameters: a) natural order, b) economic and social order, and c) political order. While the natural order broadens our understanding of the planetary boundaries and its resources, the economic and social understanding help in the efficient allocation and supply of those resources. The political order devises regulations to make sure that the said resources are equitably distributed among communities. In an ideal world a harmonious amalgamation of these three orders can help humanity reach the upper echelons of sustainability.

Divided into three parts, the previously described three orders in the books serve as an accessible guide on how we can achieve sustainable development and shows how science can inform responses to planetary crises. The author begins the book by trying to explain how the natural world, as chaotic as it is, displays patterns and uniformity when studied deeply. He states how natural selection is a part of the evolutionary process and even non-living things display evolutionary characteristics as they are moulded into different items of usage over the course of their life.

The first part of the book, 'The Natural Order', goes on to explain the different scientific phenomena that govern the natural functionality of the physical world, elaborating on topics ranging from the discovery of molecules to quantum mechanics. As the author goes on to explain the myriad connections of all scientific principles with the ecology and different elements that make it up, there are two constants within

his narrative: circularity and natural boundaries. The section explains how the bounded order of the natural world is an essential aspect of environmentalism, and while there are finite resources in existence on earth, the notion of circularity has the capability of making them infinite in nature. The section essentially builds upon the different trajectories that come out of different natural processes are a reflection of how we can manage order out of natural resource constraints.

The second part of the book is titled Economic and Social Order. In this section, the author explains the origins of ecological economics and largely questions the existing norms of economic thinking. Elaborating on principles such as weak and strong sustainability, sustainable economic order, and shared economy, the author proposes that it is imperative we consider ecological security as the lens through which we approach economic regulation. As ultimately resources are always predicated in ecological systems, such an approach would require regulating the scale of consumption in developing countries while creating incentives for constructive consumption and trade in developing countries. The chapter also eloquently explains the concept of exergy – the effectively useful, available energy to undertake work helpful in refining the economic equilibrium analysis to better accommodate sustainability conditions. A key feature of recycling and circular economy is minimizing the system-wide impacts of consumer demand. As part of the exergetic hierarchy, the notion is to reuse, remanufacture, and then recycle.

The third part of the book deals with the 'political order' and its relevance in a globalized world. At the very beginning of the book the author remarks that besides living things, even non-living things have an evolutionary characteristic attached to them. However, the political order does not display that same principle. The section further elaborates that while all forms of systems, sectors, and commodities have accommodated themselves within the globalized world, the political order has been unable to do that. This misalignment

of network and connections has allowed corporations to build tax havens and misdirected the legislators on matters of environmentalism and sustainability. Environmental governance necessitates making connections across intrinsic ecological networks that are endowed by nature but often negatively influenced by human intervention. Here the author advocates for a systems-oriented approach to politics, where the key notion is to make as many connections as possible between individuals and societies. A politically vacuum 'world order' is completely undesirable, and people must strive towards an earthly order that embraces the inevitability of natural constraints for sustainable human societies.

Designed to help readers understand the timelines of all narratives that have existed with

respect to sustainability, earthly order uncovers new perspectives and ideas from multiple disciplines around the world: economics, politics, natural and human sciences, cultural studies, providing both factual background and envisioning solutions for the great challenges of humanity. The book is far from a theoretical exercise. It makes a brilliant attempt to corroborate principles and theories with bold solutions that not only inform the readers, but also inspire them. Given the complexity of the issue, i.e. environmental sustainability, the author makes a cogent effort to build bridges across different disciplines, presenting a pragmatic and comprehensive outlook on the relationships that exist between human beings and nature alike.