

to be commended for his concluding discussion of policy implications (pp. 294–7), which ensures policy-makers will find this book as valuable as academics will.

*Matthew Wright*

## **Energy, environment and global health**

**China's environmental challenges.** By Judith Shapiro. Cambridge: Polity. 2012. 200pp. Index. Pb.: £14.99. ISBN 978 0 74566 091 2. Available as e-book.

**Green innovation in China: China's wind power industry and the global transition to a low-carbon economy.** By Joanna I. Lewis. New York: Columbia University Press. 2013. 224pp. Index. £27.50. ISBN 978 0 23115 330 0.

**The governance of energy in China: transition to a low-carbon economy.** By Philip Andrews-Speed. Basingstoke: Palgrave. 2012. 280pp. Index. £57.50. ISBN 978 0 23028 224 7. Available as e-book.

The fate of the global environment has often been linked to the future of China. China is the world's largest CO<sub>2</sub> emitter in absolute terms and it is also the world's largest coal consumer. At the same time, the country has the world's largest wind energy market and it is heavily investing in renewable energy. Nevertheless, the share of renewable energy in total energy consumption is decreasing, instead of increasing, because of the rapid growth of China's fossil fuel capacity (Feng Wang, Haitao Yin and Shoude Li, 'China's renewable energy policy: commitments and challenges', *Energy Policy* 38: 4). Climate change and fossil fuel resource depletion are only two of China's environmental challenges. Scarce domestic natural resources such as water, land, minerals and energy as well as air quality are under pressure from the world's largest population, high GDP growth, progressing industrialization, rapid urbanization and a growing middle class with an increasingly affluent lifestyle. The study of how China will react to its environmental challenges is very timely and important.

Judith Shapiro's *China's environmental challenges* is a well-written book with an astonishingly captivating authorial voice. The monograph aims to link China's impact on the environment on a global scale with China's domestic political pressures, struggles, history and culture. Shapiro searches for the domestic roots of its transnational impact on the environment. The book draws upon Shapiro's long experience of China's environmental problems and brims with expertise. For example, it discusses critically the challenge of the central government to implement its progressive environmental policies and energy policies on a national level. Another interesting discussion is on the links between global consumerism and China's rising demand for natural resources.

The book shares some characteristics with Jonathan Watts's *When a billion Chinese jump* (Faber and Faber, 2010). Both are written in a fascinating style, which is entertaining, a bit polemical and sometimes even sweeping in its arguments. The use of theories and concepts is occasionally overshadowed by a broad picture approach that sometimes lacks focus. Key environmental challenges such as climate change and sustainability are discussed very briefly and then taken for granted, but they are never theorized or conceptualized in more detail. The same goes for the five 'analytical core concepts' of globalization, governance, national identity, civil society and environmental justice, which are not fleshed out in a detailed way. The book issues criticisms towards Stalinism and capitalism but fails to provide analysis of their systemic flaws in relationship to the environment.

Nevertheless, the occasional lack of theoretical and conceptual frameworks does not diminish the value of the book as it remains a fascinating, thoughtful and topical introduction for anyone interested in China's environmental issues. Its strength and weakness is its ability to paint a broad picture of China's environmental crisis, covering large theoretical and thematic grounds which are accessible to a wide audience.

Joanna Lewis's *Green innovation in China* provides an excellent overview of the Chinese wind power industry and the country's efforts to become a global forerunner in the low-carbon economy. The Chinese wind energy industry has experienced rapid growth in recent years and today it is a global leader in terms of investments, production and installed capacity. It is rivalling many of the more established wind energy industries in Europe and the United States (Frauke Urban, Johan Nordensvärd and Yuan Zhou, 'Key actors and their motives for wind energy innovation in China', *Innovation and Development* 2: 1, 2012). Against this backdrop, the monograph offers a detailed account of China's domestic wind energy policy regime, its history and the global positioning of its growing industry. Lewis's book is based on a decade of primary research in the fields of China's renewable energy, climate and innovation policies. The book is written in a detailed and knowledgeable style. It elaborates on interesting case-studies of transfer of wind energy technology from Denmark, Germany and the United States to China, thereby explaining the roots of China's booming wind energy industry. Lewis further provides fascinating in-depth analysis of competition and cooperation in the wind energy industry between China as an emerging player and the established global players in Europe and the United States.

While Lewis discusses the issue of technology transfer in various forms in much detail, the issue of 'indigenous innovation' is under-represented in the book. Many wind energy firms operating in China acquired their technology, expertise, knowledge and networks from overseas wind firms in Europe and the United States, most importantly from Germany, for example through mergers, acquisitions, licensing and joint ventures. The issue of Chinese indigenous innovation in the wind energy sector is highly debated in academic and industry circles. It is questionable how much original innovation is coming from China in the wind energy industry as innovation is often based on either adaptation of existing technologies or so-called 'imitative innovation' (Y. Dai, Y. Zhou, D. Xia, M. Ding and L. Xue, 'Technology trajectory of Chinese wind power industry', Tsinghua University, Beijing, 2013). This issue could have been discussed more critically in Lewis's book. In addition, the concept of innovation could have been defined more clearly. Yet the monograph is essential reading for everyone interested in the Chinese wind energy industry, providing a compelling and well-researched overview, including the industry's history and prospects for its future.

Philip Andrews-Speed's *The governance of energy in China*, well written and timely, addresses key issues of China's energy governance from a theoretical and conceptual perspective. Andrews-Speed uses the conceptual frameworks of transition management, new institutional economics and historical institutionalism to elaborate China's energy policies and its transition to a low-carbon economy. The approach of the book is embedded in the discussion on socio-technical regimes, regime transition and technological change.

The book provides a competent and knowledgeable discussion of these topics; however, its structure could have been more intuitive. The conceptual framework and definitions for governance and other key terms are elaborated for the first time only in chapter five. The overall structure of the book could have been explained better and the flow of ideas between the chapters could be clearer. The work could have profited from some illustrative empirical case-studies to elaborate how the concepts of transition management, new

institutional economics and historical institutionalism can be applied to energy governance. Instead, it relies mainly on secondary literature. Nevertheless, the monograph is an important addition to the literature on China's transition to a low-carbon economy. The book makes the point that the adaptive capacity of institutions of energy governance needs to be increased to enable a transition to a low-carbon economy in China.

All three books are valuable additions to the growing body of literature on China's environmental challenges, with specific reference to its energy and climate dilemmas. Shapiro's book is entertaining, Lewis's monograph is research-intensive and Andrews-Speed's publication is largely conceptual. By using different approaches, each of these publications attempts to provide answers to how China is responding to its pressing environmental challenges, most notably the dilemmas of climate change and fossil fuel depletion, and how a transition from its polluting high-carbon economy to a green low-carbon economy can be possible. These books argue that the future of our global environment—and particularly our global climate—is in the hands of China; the authors nevertheless seem hopeful that China should be able to tackle its environmental challenges and move towards a greener, more environmentally friendly economy.

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**Global health and International Relations. By Colin McInnes and Kelley Lee.** Cambridge: Polity. 2012. 205pp. Index. Pb.: £16.99. ISBN 978 0 74564 946 7. Available as e-book.

Global health has become a regular topic on the agenda of gatherings of powerful actors such as the G8 and World Economic Forum. It has also increasingly been a focus for philanthropy and an area of interest for medical research and teaching. Since the late twentieth century, in a world characterized by increasing interconnectedness, there have been changes to both the distribution and spread of diseases and the institutions governing health across borders. It is in this context that the term 'global health' has emerged. A striking feature of the politics of global health is that related key concepts—such as global health diplomacy and global health governance—have often remained ill-defined. This is a lacuna which has been addressed by Colin McInnes and Kelley Lee's exploration of the intersections between International Relations and health.

Both are multidisciplinary fields which have often met because of their shared areas of interest in global health and because of their indeterminate and common discursive boundaries. In their book, they adopt a social constructivist approach which emphasizes states' identities, the roles of non-state actors and norms in the international system.

Existing accounts of the trend of this growing terrain shared by health and International Relations have tended to concentrate on the role of 'real world' developments in global health. McInnes and Lee offer a different explanation for the links between these two disciplines on global health, namely, that they are socially constructed in a manner which mirrors different individuals' and communities' thinking, interests and relative power. In this sense, they make the case for the connections between the two being political, rather than based on an assessment of objectively observable facts.

If global health governance is seen as 'a series of rules, norms and principles' accepted by key policy actors (p. 101), the authors reason, it must also be shaped by their ideas and interests. In order to 'de-politicize health' (p. 115), biomedical, quantitative and economic forms of evidence have been prioritized in decision-making on resource allocation.