

Review: Clearer Skies Over China: Reconciling Air Quality, Climate and Economic Goals

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Nielsen, Chris P. and Ho, Mun S. (Eds.) *Clearer Skies Over China: Reconciling Air Quality, Climate and Economic Goals*. Cambridge, MA: MIT Press, 2013. 433 pp. ISBN: 9870262019880. US \$50, hardcover. Alkaline paper.

This important book presents the results from a project bringing together scholars from various institutions across the disciplines in China and the United States. They examine local and global air pollution in China. The book might feel quite impenetrable at first; however, this book is worth reading once the inner logic of its organization is understood.

The book opens with a useful review of what is currently known about the balance China has struck between the protection of air quality while maintaining economic growth to benefit a billion lower-income Chinese, finely achieving its goal to rebut any black-and-white perceptions of China. This chapter will also be useful for anyone trying to make some sense of Chinese emission and air pollution data. Chapters 2 and 3 summarize the research presented in the rest of the chapters in the book. Often an outline like this would guarantee a very repetitive reading experience, but in this book it makes perfect sense. As the reader learns to read the book, it makes the following technical chapters easier to read and absorb.

The most inspirational part of the book is a comparison of China's recent sulfur emission controls implemented during the 2005—2010 Five-Year plan and a hypothetical carbon tax over the same period. These sulfur controls were highly successful at reducing SO₂ emissions while having also beneficial effects on GDP and health chiefly from the opportunity to replace many inefficient power plants with more efficient ones. Achieving the same SO₂ goal using a carbon tax instead would have substantially reduced the carbon dioxide emissions compared to a base case, while also reducing particulate matter and nitrogen oxides emission more than targeting only SO₂. It would have large benefits to agricultural productivity mainly due to decreased ozone exposures, increasing the total production level of wheat, rice and maize with over 2.6 million tons. Its negligible negative effect increased consumption while simultaneously saving over 172,000 lives and increasing grain production by over 12 million tons.

The book is recommended for scholars and policymakers interested in dealing with air pollution in developing countries as well as in developed countries. Everybody who uses China as an excuse for inaction on climate change, as it shows clearly that China is doing its best (or at least more than many more economically advanced countries are doing), should read this book. By showing the possibilities and benefits of a low-carbon economy while still improving living standards, it provides a fine model for other developing countries to follow. The large benefits of putting a price on

carbon, the reviewer hopes, it will encourage Chinese authorities to continue with its ambitious emission trading system, providing an example for developing countries as well as richer countries to follow.

The authors conclude:

“...[r]egardless of international support, our results suggest that it would be in China’s own domestic national interest to price carbon in order to encourage such energy transition. The reduction in health damages due to improved air quality alone would justify the costs...”(p. 369).

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