



Contents lists available at ScienceDirect

# Journal of Environmental Economics and Management

journal homepage: [www.elsevier.com/locate/jeem](http://www.elsevier.com/locate/jeem)

## Environmental economics in developing countries: An introduction to the special issue

B. Kelsey Jack<sup>\*</sup>*Department of Economics, Tufts University, Medford Massachusetts 02155 USA*

### Why a special issue on environmental economics in developing countries?

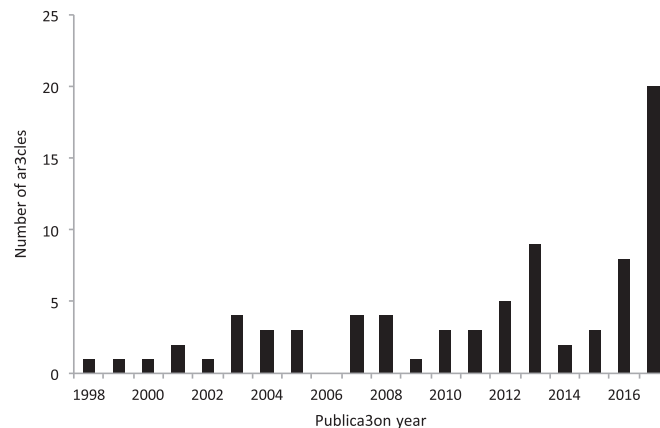
Pollution problems in developing country cities have made headlines around the world in recent years. In early 2017, over 30 cities in China were on “red alert,” resulting in closed schools and factories and restrictions on driving (Nielson and Ho, 2017). In one northern city, levels were 100 times the World Health Organization’s safe air quality standard (Qiu and Woo, 2016). These levels of pollution are not limited to China: in November of 2016, Delhi stole the title of world’s most polluted city, with air pollution measures that exceeded standard measurement (Griffiths, 2016). In late 2016, the WHO released data indicating that 80 percent of urban residents around the world face air quality that does not meet minimum quality thresholds (World Health Organization, 2016). Not surprisingly, these numbers are driven by developing country cities; air quality has remained steady or even improved in North America and Europe.

These numbers point to an environmental crisis underway in the developing world. High levels of air pollution imply immediate and direct health consequences for exposed populations (Cohen et al., 2017), and may also limit human capital accumulation for the millions of children exposed to poor air quality. In the United States, where the evidence base is relatively strong and pollution levels relatively low, pre-natal and neonatal pollution exposure has been linked to worse schooling and labor market outcomes (e.g., Isen et al. 2017; Currie and Neidell, 2005). The direct health effects may be compounded by school closures that affect learning, or by worse performance on tests that affect labor market opportunities (Ebenstein et al., 2016). Productivity may also be affected: recent evidence suggests impacts both on labor supply (Hanna and Oliva, 2015) and worker output (Graf Zivin and Neidell, 2012).

The situation is unlikely to get better. Most of the headline-grabbing pollution in the developing world is a byproduct of economic activity. It is no coincidence that the countries with the highest levels of urban air pollution are also the fastest growing. Yet the relationship between pollution and health or productivity remains poorly understood, particularly at the levels of pollution recorded recently in developing world cities. Air pollution is not the only environmental issue that poses apparent tradeoffs between economic growth and environmental quality. Climate change, for example, raises related challenges: the parts of the world likely to suffer the most under a warming planet are those least able to afford adaptation. For these countries, economic growth offers not only welfare gains from higher levels of consumption, but also more income available to invest in adaptation technologies. While they are also the fastest growing emitters, if emissions are tied to economic growth, then mitigation may – perversely – result in more local damages from climate change if it means that adaptation remains unaffordable.

Better understanding of the magnitudes and mechanisms associated with the tradeoffs between economic growth and environmental quality has emerged as a key challenge for the developing world. Increasingly, environmental and development economists who used to ignore each other are collaborating on research at the intersection between the fields. Environmental economists realize that the environmental problems of the developing world may be much more “first order” than those in the US and Europe, where environmental economics has historically made its home. And development

<sup>\*</sup> Corresponding author: Tel: +1 617 627 3138.  
E-mail address: [Kelsey.Jack@tufts.edu](mailto:Kelsey.Jack@tufts.edu)



**Fig. 1.** Number of articles published in JEEM per year. Notes: Article count for each year of the past decade is based on a search of JEEM's archives for the following keywords: developing country, development, poverty, China, India, Brazil. International or comparative papers without a particular focus on developing countries were omitted. The 2017 count includes this special issue.

economists realize that environmental quality is an important input to economic growth that cannot be ignored. These trends show up in Fig. 1, which shows the number of published articles on developing countries in the *Journal of Environmental Economics and Management* over the past decade. Numerous other recent publications highlight the growing importance of research at the intersection of environmental and development economics, including the long-standing journal *Environment and Development Economics*, which recently celebrated its 20th year of publication, a 2010 symposium in the *Review of Environmental Economics and Policy* on environmental quality and economic development, and a recent review article in the *Journal of Economic Literature* (Greenstone and Jack, 2015).

In introducing this special issue of the *Journal of Environmental Economics and Management* on environmental economics in developing countries, I ask how environmental economics looks different when applied in a development context. In other words, should we think of the field differently when studying Delhi versus Detroit? If so, what are some key differences to keep in mind? I use the term “developing country” loosely, referring in some cases to all countries outside of richest handful, which have traditionally been the focus of environmental economists, and in other cases to some combination of least developed countries and emerging economies. In spite of the implicit contrast between the rich and the less-rich countries, many of the issues I highlight for developing countries could also be applied to particular populations or policies in the developed world too.

In the remainder of the article, I consider that environmental economics may be different in a developing country context due to differences in (1) the relevant policies and environmental problems, (2) data sources and feasible methodologies, and (3) the findings and causal mechanisms. A common theme runs throughout: environmental economics must be mindful of the institutional context when transitioning to the developing world. Both environmental and development economics can be thought of as fields built around market failures. A core example is property rights. Incomplete property rights are at the heart of environmental economics. Yet in developing country settings, incomplete property rights often characterize even rival and excludable transactions. Difficulties enforcing contracts undermines markets from land to credit, and affects environmental economics in numerous ways. For example, methods at the heart of traditional environmental economics, such as hedonic property valuation, will no longer reveal preferences if property markets are incomplete. Research findings may also be impacted. For example, higher levels of exposure may lead to larger health effects even at the same ambient level of pollution if missing credit markets undermine investment in self-protection from pollution. In addition, policy design and implementation may be susceptible to rent seeking or elite capture, undermining their effectiveness.

The articles featured in this special issue shed light on these issues with careful, primarily empirical investigations of issues and policies in developing countries ranging from Barbados to Uganda. The authors hail from sixteen different countries, though the developing world continues to be underrepresented in spite of the geographic focus of the research. Together, their contributions highlight the strengths of environmental economics research in developing countries, an area of research I expect will continue to grow in coming years.

### Is environmental economics different in a development context?

A growing body of work helps to answer the question of how environmental economics is different in a developing country setting. I discuss the articles in this special issue – along with a handful of other published articles – in light of three key differences: (1) what is studied, (2) how it is studied, and (3) what is found. Papers are discussed in the sub-section where they best highlight these differences.

Download English Version:

<https://daneshyari.com/en/article/7361497>

Download Persian Version:

<https://daneshyari.com/article/7361497>

[Daneshyari.com](https://daneshyari.com)