



Is Manufacturing Products for Export to the West Compromising Environmental Health in China?

The respected *New Scientist* magazine interprets new data published in *Nature* on the mortality impacts from manufacturing and international trade and concludes that more than 100,000 people die every year as a result of the noxious emissions caused by making China's exports to the United States and Western Europe. We asked an expert panel for their views on this hypothesis.

The potential for environmental regulations to weaken the competitiveness of domestic manufacturing has played a role in policy debates since the emergence of modern environmental legislation in the 1970s. These competitiveness concerns reflect the so-called "pollution haven" hypothesis that suggests that firms relocate economic activity from places with high regulatory costs to those with lower costs. There are other competitiveness factors affecting plant location as well, and these include access to skilled labor, energy, and natural resources as well as industrial policies in exporting countries that promote manufacturing.

For local pollutants, such as ozone and fine particulate air pollution, adverse competitiveness effects would result in better air quality in the United States at the expense of jobs and manufacturing output. At the same time, "In our global economy, the goods and services consumed in one region may entail production of large quantities of air pollution — and related mortality — in other regions," according to *Nature*.

"If the cost of imported products is lower because of less stringent air pollution controls in the regions where they are produced, then the consumer savings may come at the expense of lives lost elsewhere," the study authors say. "There is some evidence that the polluting industries have tended to migrate to regions with more permissive environmental regulations . . . suggesting that there may be tension between efforts to improve air quality in a given region and to attract direct foreign investment."

Study co-author Steven Davis of the University of California says the West can no longer point fingers at emerging economies for lax controls when access to cheaper goods serves as a driver of polluting behavior. By the same token, most observers would agree that Beijing in the last few years has made impressive strides in imposing new pollution legislation and implementing rules and in empowering its environmental agencies and NGOs.

We ask our expert panel, Have we substantiated the pollution-haven hypothesis? Are people in countries such as China suffering in support of western lifestyles? What can be done to mitigate the mortality and other health and environmental effects of international trade on manufacturing economies?

As always, we remind readers that the opinions of these Debaters are not necessarily those of the Environmental Law Institute or its funders.



“Drawing from a variety of policy tools, the U.S. can work with other countries to craft effective emission-reduction policies tailored to their domestic contexts.”

Joseph E. Aldy
Associate Professor of Public Policy
HARVARD KENNEDY SCHOOL OF
GOVERNMENT



“If the worry is pollution havens in the form of dirty production processes abroad, unilateral action by importing states may violate World Trade Organization law.”

Joel P. Trachtman
Professor of International Law
FLETCHER SCHOOL OF LAW AND
DIPLOMACY



“In 2014, President Xi Jinping’s administration woke up the country from its emit-first-clean-up-later slumber and declared a ‘war on pollution.’”

Jennifer L. Turner
Director, China Environment Forum
WOODROW WILSON CENTER FOR
SCHOLARS



“China will not stop polluting because western nations ask. It will only stop when the people of China protest.”

Leo W. Gerard
President
UNITED STEEL WORKERS UNION



“As it undergoes continued economic transformation, China is turning from high-polluting, low-valued-added manufacturing to ‘double win’ green technologies.”

Zhao Huiyu
Associate Professor, Environmental and Natural Resource Law
SHANGHAI JIAO TONG UNIVERSITY

China's Pollution From U.S. Exports: Takes Two to Tango

By JENNIFER L. TURNER

Hidden behind the ubiquitous “Made in China” label that most of us in the United States have on our computers, phones, and clothes is a tragic pollution crisis — the sickening and shortening of the lives of many people in the manufacturing country. On the path to becoming an economic powerhouse this major exporter has blackened its skies and contaminated its soil and water.

The Chinese government began passing pollution control legislation in the early 1980s, but economic growth was long the priority, so green laws were weak and poorly enforced. In 2014, following two winters in which Beijing was blanketed heavily in smog, President Xi Jinping’s administration woke up from an emit-first-clean-up-later slumber and declared a “war on pollution.”

China is now aggressively working to correct thirty-plus years of degradation that has come from being the world’s factory. Yet greening the exporter’s massive supply chain is also the responsibility of the international companies that manufacture products and source parts from hundreds of thousands of factories in the huge country.

We western consumers are blind to the pollution left in the wake of our chinos. China produces over half the world’s textiles, and for decades the plants dumped dye chemicals into rivers instead of recycling them. In Guangdong Province, denim-hued rivers flow out of Xintang, the jeans capital of the world.

But it takes two to tango — China produces and we consume.

The dance partners need to come together to prevent this pollution, which ultimately will mean the computers and phones you and I tap on and the pants we wear will have to become more expensive.

The Chinese government is changing the tune by requiring pollution information transparency from cities and industries and threatening real economic punishments. Cities must publish air pollution levels or risk cuts in central budget allocations. In 2017 some provincial officials in Gansu were fired for not halting the development of polluting industries in the Qilian Mountain reserve, an oasis of biodiversity surrounded by deserts in northern China. In this first-ever sacking of high-level officials for pollution the central government is sending a clear warning.

But not all officials are scared enough to stop the pollution — some rivers are still multicolored in Guangdong, and while Beijing has closed its last coal-fired power plant, new ones have opened up in the dry desert regions of western China to supply electricity to the capital and other eastern cities and factories. China leads the world in installed wind and solar power, but coal still dominates, powering textile mills and other factories. In fact, almost a quarter of China’s predominantly coal-powered electricity goes to manufacture goods that are sold around the world.

It is tough to enlighten U.S. and European consumers about the pollution and carbon footprint of their purchases, which is why it is encouraging that some corporations and NGOs are stepping up to help green supply chains in China through innovative partnerships and pressure on polluters.

The Natural Resources Defense Council’s “Clean by Design” initiative works with major western clothing manufacturers to help them train Chinese textile dying plants in

some low-cost/no-cost management and technical steps to lower water pollution and electricity use. This project is a roadmap that other western companies should use.

IPE, a Beijing-based green group, has created online pollution maps and related apps to shine a spotlight on factories and cities that violate air and water emission standards. IPE also investigates foreign companies that do not openly disclose environmental information of their suppliers. This naming and shaming has been effective, and many international companies now work with IPE and its partners to verify improvements in their sourcing of resources and parts.

Green Hunan is a Chinese NGO whose network of 500 volunteers patrol three river basins in the province where most of the screens on our iPhones are made, taking water samples as evidence of illegal dumping. These citizen-scientists have become an invaluable early warning system for the local environmental protection bureau, helping the agency quickly fine and sometimes close polluting plants. The Alibaba Foundation is funding an expansion of this model along the entire Yangtze River basin.

More creative partnerships are needed to pressure or otherwise help Chinese industries clean up their supply chains, particularly as they extend their sourcing to developing countries. An example is the toxic pollution from lithium mines in southern Africa that supply the metal for batteries for electronic devices built in China and consumed by us. So things made in China are increasingly creating pollution elsewhere, and the exotic pas-de-deux continues.

Jennifer L. Turner has been director of the China Environment Forum at the Woodrow Wilson Center for Scholars in Washington, D.C., for two decades. The center’s **Lyssa Freese** contributed to this article.