Pollution's Circle Game

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Only 20 years ago, Linfen, China, a city in Shanxi province, went by the nickname the "floral city." It was a nod to the region's clear spring water, lush greenery and abundant agriculture. This was before the factories and the coal mines moved in, churning out goods and electricity and a thick blanket of industrial smog. These days, Linfen is more likely to be referred to as one of the most polluted cities in the world, and researchers estimate that a day spent breathing its air is akin to a day spent smoking three packs of cigarettes.

Some 6,700 miles east of Linfen is Los Angeles, a city also known for its smog, where some residents, despite decades of improvements in the air quality, still struggle to breathe freely. Nationwide, however, the news is better: for all its environmental woes, the U.S. has made serious headway in fighting poor air quality. The Environmental Protection Agency reports that pollutants in the air have decreased for three straight decades.

The paradox here is that while this has been great for local environments – Eastern Seaboard and rust belt cities have the best air they've had in more than a century – the consumer-driven global economy is a zero-sum game, which means the U.S. Hasn't eliminated pollution; it's merely outsourced it to China.

And now some of that foul air is coming back.

In recent years, a handful of scientific studies have argued that pollution and dust from China travel across the Pacific, making landfall on the California coast. Media coverage of this has stirred up fears in the U.S. that China is a fire hose of pollution spraying the West Coast.

In fact, as much as a quarter of the West Coast's sulfate pollution can be tied to China. Sulfates have been linked to an increase in illnesses like asthma and other lung disorders.

Those are some grim statistics, but U.S. citizens shouldn't be so quick to castigate China. Evidence increasingly suggests that the U.S. is partly to blame for the uptick in Chinese pollution - and, as a result, the poor air quality in Chinese cities.

Current estimates say that between one quarter and one third of China's emissions are due specifically to the manufacture of goods for other countries.

In other words, China generates pollution while manufacturing goods for the U.S., and ships some of that pollution back along with cell phones, game consoles and computers.

These practices are driven by environmental policies that place the burden of reducing emissions on the producer - the so-called "polluter pays" principle. "We enact environmental legislation which, in reducing the pollution content of goods, increases their price," said Anthony Wexler, who studies land, air, and water resources at the University of California, Davis. "Manufacturers respond by moving industries to nations like China and Mexico where they can more easily pollute."

When news of Linfen's pollution problems garnered national attention, China reacted by relocating factories and shuttering the most polluting coal-power plants. In recent decades, the U.S. has done the same thing, on a much larger scale: Since the 1990s, sulfate emissions in the States have decreased by 60 percent. But the truth is that the manufacturing isn't gone; it's simply moved overseas.

In demanding products from China, the U.S. indirectly contributes to China's pollution problem - and to our own. The emissions wafting across to the West Coast may as well be stamped "returned to sender."