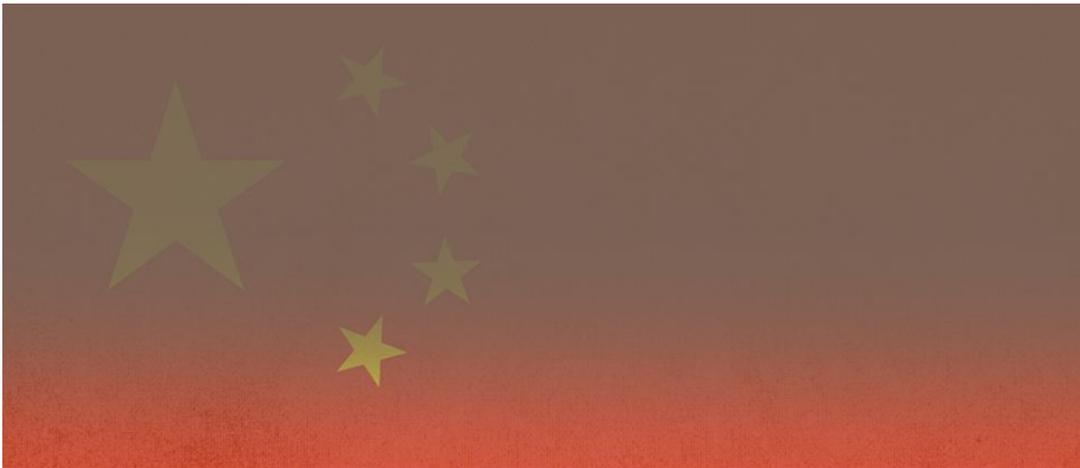


SUSTAINABILITY

Living in Smog: The Social and Economic Impact of Severe Air Pollution in China

by Kelsey Chong



Three decades of rapid development and urbanization have lifted China out of poverty, but at a substantial economic cost. What are the consequences for residents of China's largest cities?

✔ **INSIGHT** | NOTE 07 Dec 2016

As a Chinese major, one of my biggest aspirations in college was to one day visit China and experience the culture firsthand. When I received the opportunity to study in Beijing during my sophomore year, I was ecstatic that my dream to study abroad in East Asia was finally coming true.

My father, however, was far from happy. Upon hearing the word “Beijing”, his eyes filled with dread. “Beijing just issued its first red alert, and the city is engulfed in toxic smog. You don’t know what that will do to your health!”

Brushing off my father’s opposition as over-protective parenting, I eagerly applied for my visa and anticipated my exciting summer abroad. My Chinese classes had equipped me with survival phrases, cultural knowledge, and the names of must-try local dishes – I thought I was ready for anything.

Little did I know, no class could have prepared me to spend a summer in the life-threatening pollution of China’s capital.

The Cost of Success

In 1978, China was one of the poorest countries in the world, at only one-fortieth of the real per capita GDP level of the United States. In just three decades of intensive urbanization and industrialization, China has not only climbed out of widespread poverty, but also transformed into the world’s largest producer of consumer goods and the second largest economy. Despite still being a developing country, China has already surpassed the United States in a number of fields, such as supercomputing, transportation, and nuclear power.

However, this unprecedented rate of development was not without a price: as the economy skyrocketed, so did levels of extreme environmental degradation. China is the world’s most populated nation at approximately 1.4 billion people. In order to achieve rapid growth on such an enormous scale, the country heavily relies on energy-intensive industry and urbanization. Unfortunately, about two-thirds of this energy is fueled by coal – the dirtiest of all fossil fuels, and the greatest contributor to global warming. Reaching a peak of about four billion tons burned in 2014, China burns more coal than the United States, Europe, and Japan combined.

Toxic emissions from coal have flooded China’s air with harmful pollutants, creating a thick, gray shroud of smog that engulfs entire cities. The heavy air pollution brings hundreds of thousands of deaths each year, causing serious illnesses like cancer along with respiratory and cardiovascular diseases. These health issues then further result in

economic consequences such as high medical costs, lower productivity due to increase in missed working days, and the deterrence of foreign businesses and tourists. In addition, air pollution also causes acid rain that disperses toxic chemicals into water and soil: severely limiting available drinking water, killing forests and wildlife, and harming overall crop productivity.

Societal Repercussions

In December 2015, China faced some of the worst smog in history as skyscrapers vanished into thick clouds of haze, and visibility in some areas dropped to 200 meters. With public safety at stake, Beijing issued its first-ever red alert: a city-wide warning to close schools, suspend construction and factory work, and force vehicles off the roads due to extreme air pollution levels deemed unsafe for exposure.

Schools and businesses across the nation have already started to implement special policies to adapt to the severe conditions. Following the 2015 red alert, many campuses are now adopting a “stop class, but don’t stop learning” (停课不停学) approach to ensure students’ education is not hindered by frequent school shut downs. Campus-run websites, social media, and live broadcasting are some of the new methods schools are using to teach students from home. Some companies are also giving time off, shortening work hours, and allowing employees to apply for work at home leave on days with especially heavy smog.

A Part of Everyday Life

Although air-quality improved significantly by up to 17.9 percent in the months leading up to the summer of 2016, my days studying in the national capital were still hazy with pollution. Some days the smog would be chokingly thick, other days it would be so light I could barely feel it. But whether smog thick or thin, sky rain or shine – an unmistakable, thick layer of gray always blanketed everything in sight.

Finally realizing the gravity of my father’s warnings, I began to do everything I could to avoid outdoor air exposure. Whenever I went out, I would always wear a protective facemask. Even in the lightest of smog, I would always keep my windows tightly shut. Instead of running outside, I would only exercise indoors. When air-quality dropped to unsafe levels, I would avoid going outside entirely.

While many of my American peers also adopted similar habits, I was shocked to find that most locals never wore facemasks, even on the smoggiest of days. Even when air-quality was hazardously low, I would often observe groups of carefree Chinese students outside my window happily jogging around campus or playing sports with friends.

Beijing resident Margaret Zhu explains: “It’s like gambling... Every day you wake up and look up at the sky and see how it goes.” Zou Yi, another Beijing local, similarly adds: “When you’ve been living here for such a long time, you’re not afraid of it any more.”

For foreigners like me, living in extreme smog was only a short summer experience that would end after a few months. But for Chinese, severe air pollution has become an inescapable part of everyday life.



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