Photograph by Yukai Du

BEIJING — In 2010, I moved onto the 11th floor of a new Beijing apartment complex, lured into paying tens of thousands of extra renminbi by the promise of rare, unobstructed views. But over the past two years, Beijing’s worsening smog has wrapped my apartment in a permanent haze. I envy the people living on the lower floors of what’s called the Horizon Apartment Complex — at least they still see the trees and pedestrians outside. All I see is a gloomy, unhealthy fog. When the smog has been at its worst in recent weeks, no one in my family dared to venture outside.

Unfettered views of the horizon were possible five years ago because the complex is in a neighborhood on the edge of Beijing near an airport flight path, a swath of protected areas of farmland and villages where the government strictly controls land from being sold to developers. Residents are attracted to these parts by traditional rural scenes — fields, tree-lined roads, flowers and birds.

The cheap housing in villages like this one on the capital’s outskirts has attracted high numbers of migrant workers who have come to the city from all parts of China to work in factories. As a result, once-spacious courtyard homes are now divided into smaller cramped houses or sheds that are rented out cheaply to poor migrant workers. The city’s outlying villages are big and growing.

I often see smoke rising up from these neighborhoods. At a distance, it can look as though the whole neighborhood is on fire. Only as I get closer can I make out the columns of smoke billowing from individual homes.

Last month, as Beijing was going through one of its worst ever spells of pollution, the government issued a report ranking domestic coal burning — for household cooking, heating stoves and water boilers — as the primary source of the city’s pollution. But the report was only an official reminder of what we Beijingers have known for a long time.

As far back as 2000, in an attempt to reduce coal pollution, the government unveiled a plan to replace coal-fired boilers and cooking stoves with electric heating by subsidizing the conversion to electric appliances and electricity rates. Yet 16 years on, only some 310,000 homes in central Beijing have clean heat. This is a small number considering the central district covers an area that’s less than 5 percent of Beijing’s total area and accounts for just a tenth of Beijing’s total population.

Without government subsidies, the mostly poorer residents living in Beijing’s outskirts cannot afford to convert to electric appliances. For those who can scrape together enough money to buy an electric stove or heater, high electric bills are another deterrent.
Why does the government fail to act? One problem is skewed incentives. A main source of government and private wealth is the state’s sale of village land to real estate developers. With Beijing’s rapid population growth — from around 11 million in 2000 to 21.5 million in 2014 — and soaring housing prices, government officials have a financial incentive to move peasants and migrants from these townships in order to sell the land.

Razing villages to make room for expensive high-rise apartments will temporarily stop migrants from using coal, of course, but they end up just moving to other peripheral villages, where they use more coal. The government is reluctant to invest in these outlying villages because they’re going to be demolished anyway. In addition, improved infrastructure could spur villagers to demand higher compensation for relocation when the time comes to sell the land for new development.

Thus, the problem is the result of an interplay of the real estate market, greedy officials and the rapid urbanization of cities like Beijing.

As a temporary measure to improve air quality, the government has encouraged residents to switch from cheap, untreated smoky coal to smokeless coal with lower sulfate emissions. But smokeless coal is still coal. And many continue to use untreated coal, which scientists say discharges 10 times more pollutants than electric power plants.

China has made impressive strides in cutting coal emissions, with coal consumption down more than 5 percent in 2015, compared with a close to 3 percent decrease in 2014. Still, we are shunning coal at a much slower rate than many other developing nations. Not only do we still consume an annual four billion tons of coal, accounting for half the world total, our national target to limit the use of coal to no more than 65 percent of total energy consumption by 2017 also falls short when you consider that the world average already stands at just 40 percent.

In Beijing, replacing coal-fired boilers with electric heating systems has been proven an effective way of tackling air pollution in the city center. In November, the government expanded the program to an additional 74,000 households in a few select suburban counties. But it’s far from enough. It only makes sense to roll out the same benefits to all people living in the villages on Beijing’s periphery, so that they too can enjoy the advantages of electric heating — and so the whole city can breathe better air.

When the plan to subsidize electric appliances and electricity rates was first introduced 16 years ago, China was a poorer nation with shortages of electricity. Today we have surplus electricity, surplus construction materials and plentiful labor due to slower economic growth. Meanwhile, the price of coal has declined sharply over the past two years and yet the government has not reduced the price of electricity. If our government could only let market forces determine electricity rates, and stop prioritizing the demolition of Beijing’s rural villages, and instead oversee their rapid shift to electric heating, we could achieve both stable growth and a cleaner environment at the same time.

In the early phase of the Communist revolution, Mao Zedong advocated starting his ideological crusade in the villages before moving into the cities. That might be a lesson for the nation’s current leaders: Start a Green Revolution in the villages.

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