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China-India Smog Rivalry a Sign of Global Menace

By Angel Hsu & Jason Schwartz | March 26, 2014

Air pollution kills around 7 million people every year, accounting for one in eight deaths worldwide, according to a [report](#) from the World Health Organization (WHO) released March 25. Thankfully, the problem is getting more media attention.

Images of Beijing's "[Airpocalypse](#)" were a staple of news coverage in 2013, and when pollution levels soared in New Delhi earlier this year a [journalistic frenzy](#) ensued, with dozens of articles asking whether China or India had the smoggiest capital city (see infographic at bottom). It's reassuring to see New Delhi's pollution finally getting noticed since Beijing has tended to grab most of the headlines. Beyond diplomatic one-upmanship, however, the rivalry is trivial.

According to the 2014 edition of our [Environmental Performance Index \(EPI\)](#), a biennial ranking of countries produced by Yale and Columbia universities, India and China [both tie for dead last](#) in terms of populations affected by poor air quality. Nearly the entire population of both countries is exposed to harmful particulate matter less than 2.5 micrometers in diameter, known as PM_{2.5}, which can penetrate human lung and blood tissue and contribute to lung disease and premature death.

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LEFT: Smog obscures the Forbidden City in Beijing in September 2005. Credit: Brian Jeffery Beggerly/Flickr.
RIGHT: Smog hangs over Connaught Place in New Delhi in November 2006. Credit: Ville Miettinen/Flickr.

But with dangerous air pollution in other parts of the world, narrow attention on just China, India or China-versus-India is problematic. It contributes to diplomatic noise while distracting useful investigations into a global problem that is killing a lot of people – and not just in the developing world. Earlier this month, severe air pollution in Paris [prompted](#) officials to temporarily impose a partial driving ban and provide free public transportation.

The 2014 EPI reveals that 1.78 billion people are currently exposed to PM_{2.5} levels 250 percent higher than that threshold deemed “safe” by the WHO. More shockingly, 3.87 billion people worldwide – almost half of the global population – live in areas that exceed this threshold. Trends over the last decade show the problem is quickly getting worse. Industry and the transport sector, which are the primary sources of air pollution, have grown particularly fast in emerging economies like China, India and Brazil. The regulation and monitoring of emissions has simply not kept pace.

Our research points to some of the major obstacles to improving these negative trends. First, an international consensus on air pollution reduction targets does not exist. If we are to cooperate on improving the quality of our air and the lives of all who breathe it, we need to commit to prioritizing clean air. Although scientists and public health advocates might agree on what thresholds for safe air quality levels look like, enacting policies and targets to achieve them is much more complicated. The sources of air pollution are distributed across a dizzying variety of sectors, from industry and energy production to waste management and household cooking. Tackling air pollution as a unified issue and achieving even conservative targets has proven difficult.

Access to clean drinking water, on the other hand, has seen remarkable improvements over the last decade. The Millennium Development Goals (MDGs), 8 global goals ranging from poverty alleviation to HIV/AIDs reduction, set upon halving the global population lacking access to clean water by 2015. Achieving this goal was relatively clear-cut because the causes of unsafe drinking water, primarily lack of sanitation, are easier to target than air pollution’s myriad causes. International institutions worked in concert with clear targets in hand. Analogous targets for clean air do not exist.

The second obstacle to improving air quality is poor monitoring on the part of governments and authorities. This may be due to the expense of monitoring or, disturbingly, policymakers’ fear of exposing air pollution realities. Policymakers must stop seeing air monitoring as an expense or a luxury of wealthy nations, and deaths of vulnerable populations as collateral damage of economic growth.

Despite all of the media attention, national air quality measurement capabilities remain weak in most countries. Problematic in and of itself, this gap makes country-to-country comparison of air quality very difficult. An accurate comparison between any two cities is virtually impossible because it would require data from consistently calibrated ground stations. Beijing reports data on fine particulate matter (PM_{2.5}) concentration on an hourly basis over a publicly accessible platform. New Delhi’s reporting is nowhere near as consistent or transparent.

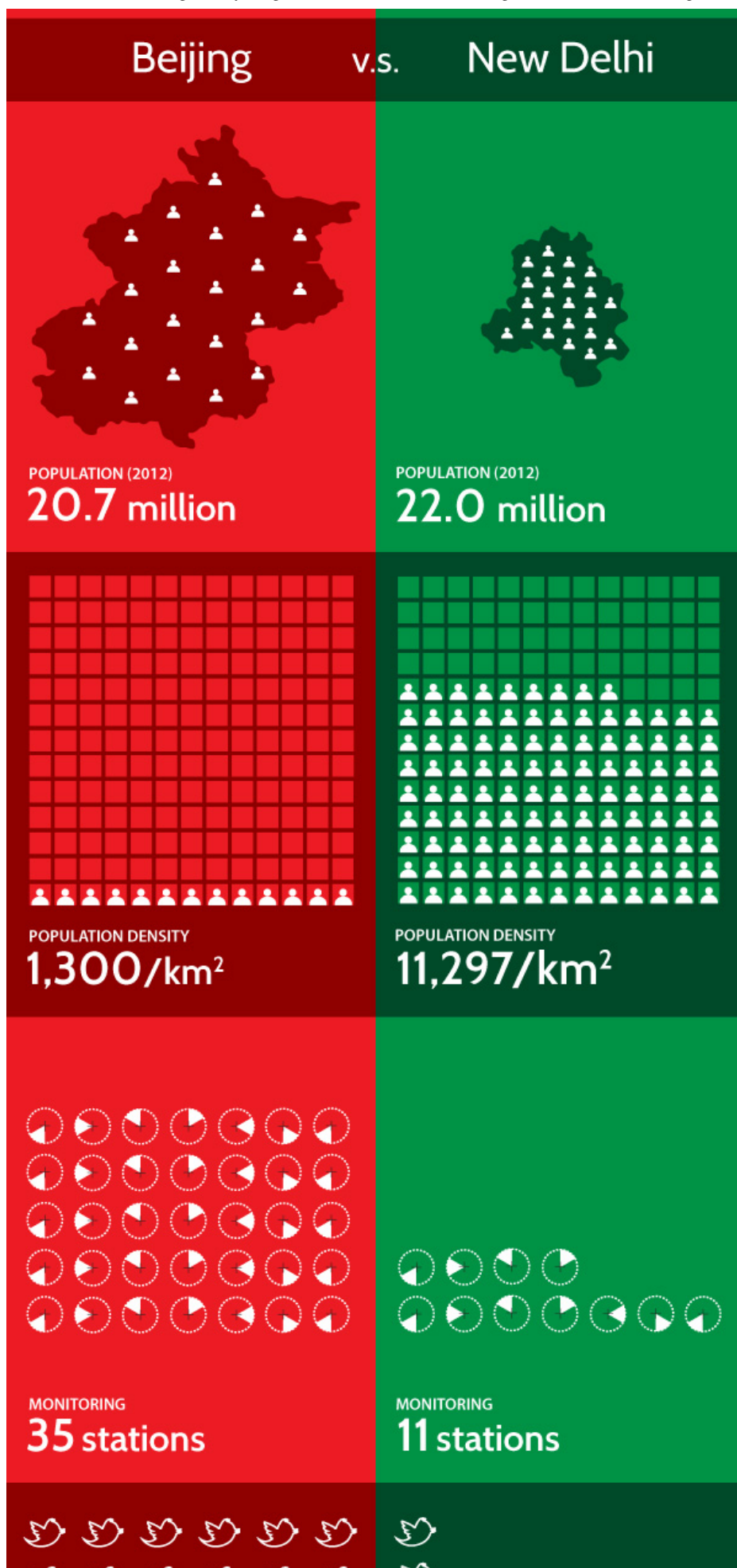
New Delhi may or may not have dirtier air than Beijing, but it is clearly behind in how it makes air quality information available to its citizens (see the accompanying infographic). Without this transparency or commitment air quality in India and other countries that face similar information disparities will continue to worsen.

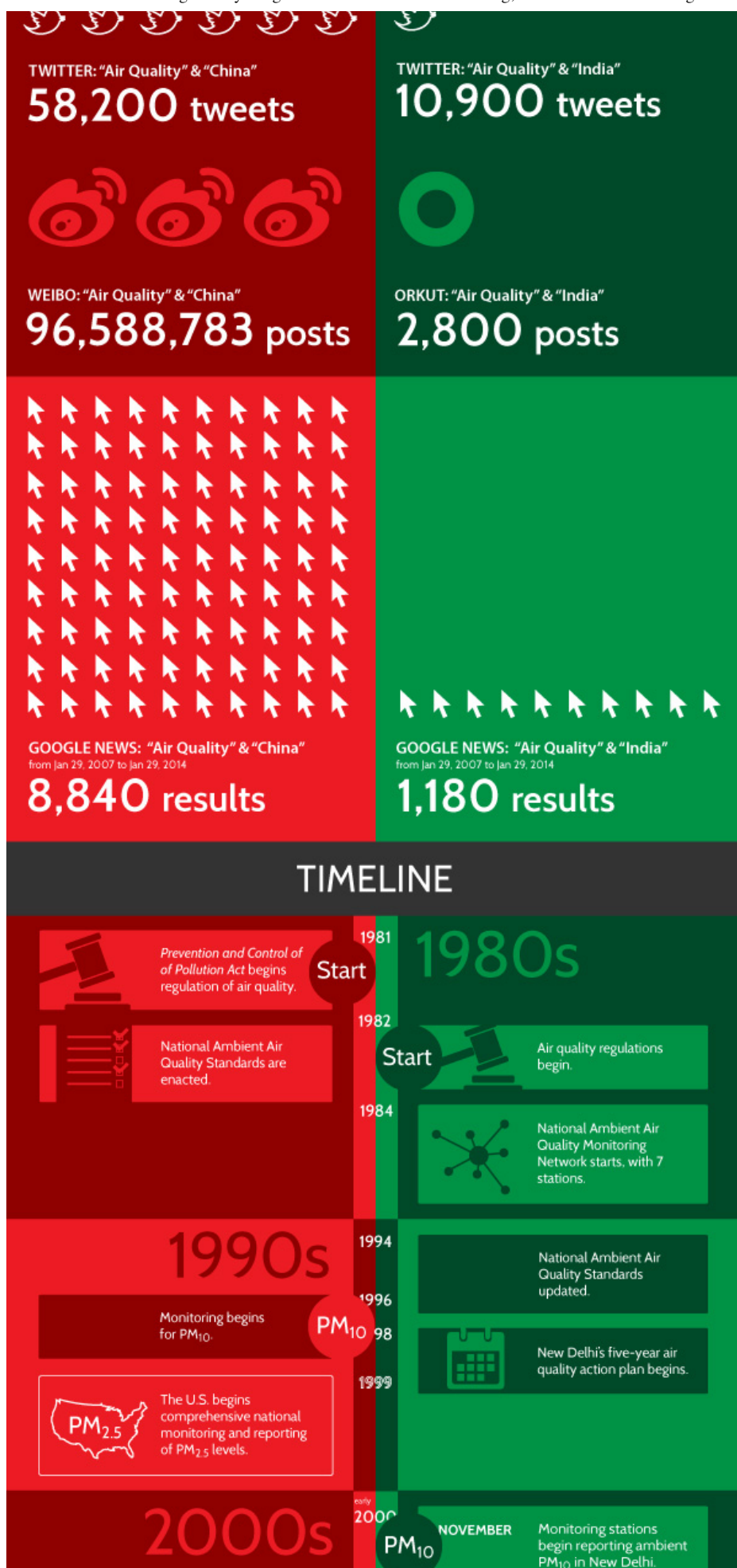
Improving public health and the vitality of the environment will require decision makers to get serious about monitoring and reporting standards. We hope that one outcome of all this debate over air quality in China versus India will be increased public pressure for governments to follow China in providing more accessible, transparent and complete data on air quality. While taking China’s lead on transparency may seem ironic, it is no joke that Beijing has made substantial efforts to improve the air quality information it has provided its citizens in recent years (see accompanying infographic). India has simply fallen behind the curve.

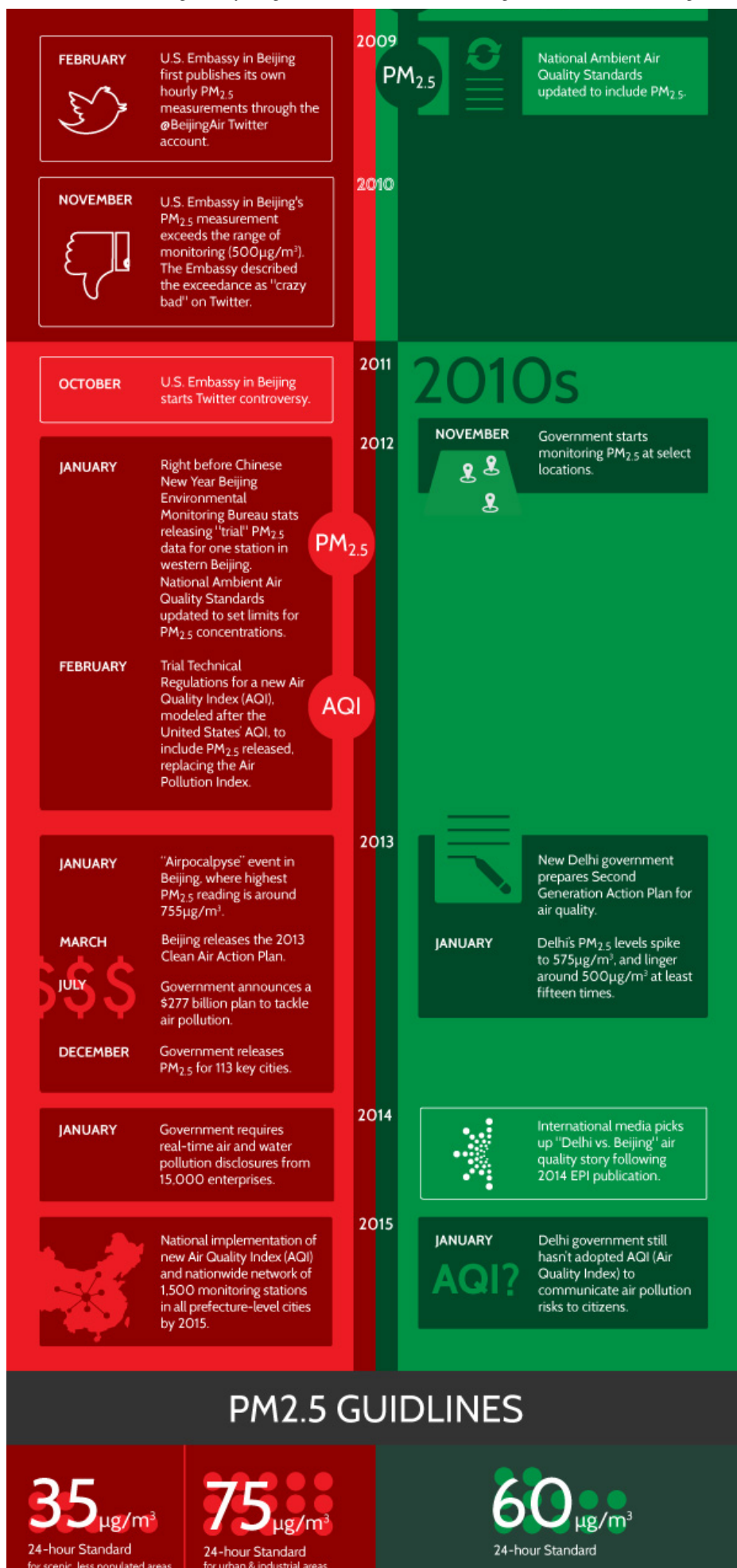
This paucity of public information is really the crux of the debate we should be having. All people should have access to information about the quality of the air they breathe. Only then can we definitively say how cities in the world compare.

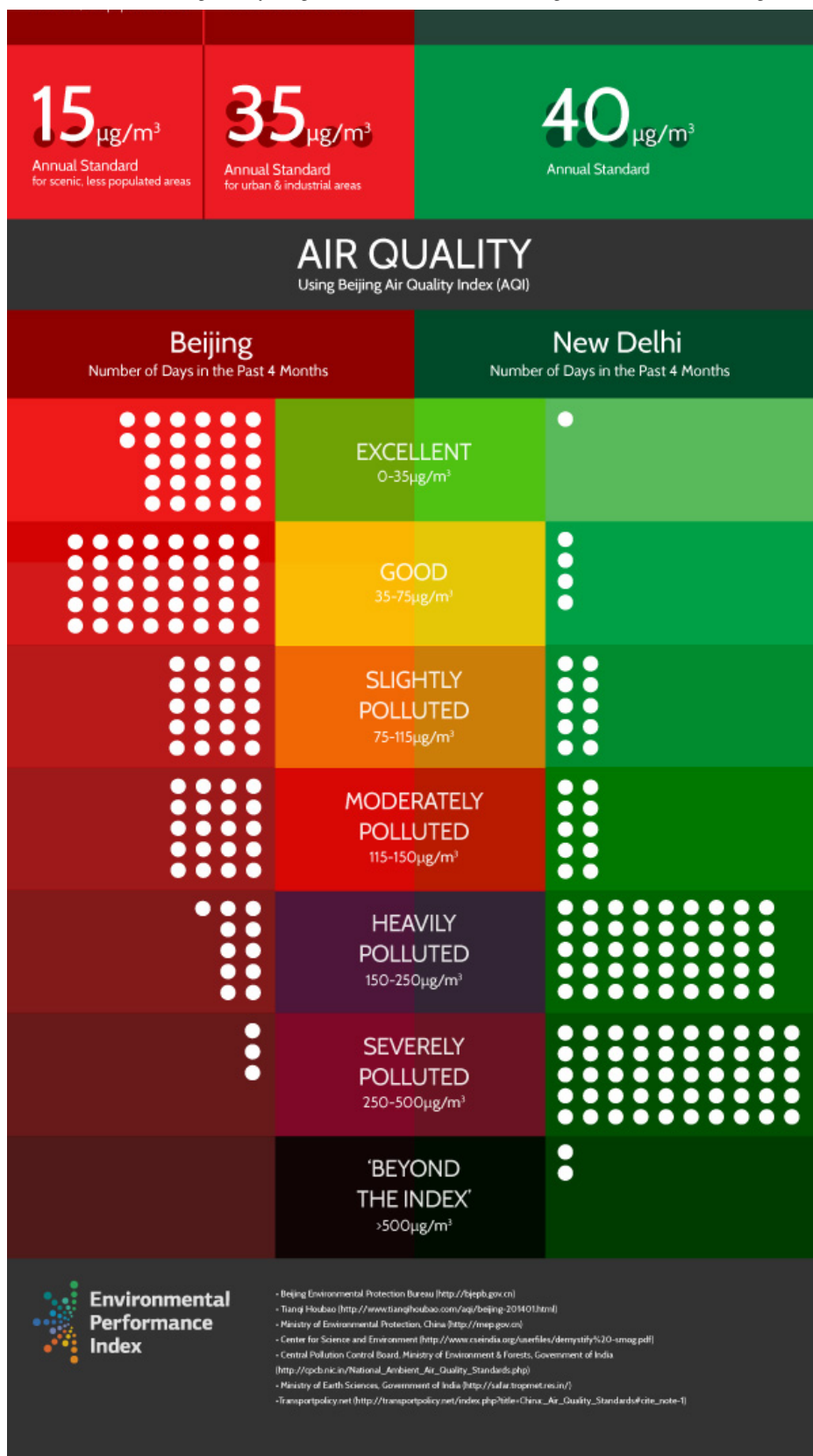
Yinan Song, a senior at Yale University, designed the following infographic with input from Omar Malik and William Miao, both Research Associates at the Yale Center for Environmental Law and Policy.











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