

Viewing China through the smog

YOUR ENVIRONMENT

By Lisa Lillelund

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A recent trip to China helped me get a better understanding of the situation there with respect to pollution and to the efforts the Chinese are making to try to reduce it.

The conferences I attended included the Joint U.S.-China Cooperation on Clean Energy Forum (www.juccce.com) in Beijing and the U.S.-China Green Tech Summit (www.bayareacouncil.org) in Shanghai.

Speakers at these conferences included government officials and corporate leaders from the United States and China.

While in China, I became aware of heavy pollution on my second day in Beijing as the temperatures dropped from 55 to 40 degrees, building heats were turned on, and a layer of smog descended on the city.

In Shanghai, the locals informed me that I lucked out with the rare conditions of blue sky and clear views of the moon at night.

Many myths and misconceptions exist about China and its contribution of greenhouse gases and air pollution into the atmosphere. It is true that China is now reaching the annual U.S. total carbon dioxide emissions levels and is taking our place as the number one polluter in the world.

However, what is important to take into consideration is that China has 1.3 billion people who are polluting around the same amount of carbon dioxide emissions as the American population of only 302 million.

China's current population is almost four times greater than the United States.

Burning fossil fuels like oil, coal, and gas for power, heat and transportation produce carbon dioxide. CO₂ is one of the biggest contributors to greenhouse gas emissions, which contribute to global warming.

Myth: The Chinese pollute more than Americans.

Reality: Today, on an average per-person basis, the Chinese only pollute about 1/5 as much as Americans. Data from the U.N. shows that in 2003 on a per-capita basis Americans emitted 19.8 metric tons of carbon dioxide emissions per person while the Chinese emitted 3.2 tons per person. The world average in 2003 was 3.7 tons.

Myth: Since the Chinese will be putting more pollution in the air due to their increasing population, the Chinese should take more responsibility than the U.S. to reduce pollution.

Reality: While China may be emitting more each year, it will take many decades for China to surpass the U.S. in total cumulative emissions over time. For example, according to the Energy Information Administration, U.S. historical and projected emissions over the period from 1920 – 2025 are nearly twice as much as those from China.

Cumulative historical emissions and not just annual emissions are important to consider because CO₂ stays in the atmosphere for over 100 years. For this reason, emissions from decades ago are just as important as emissions today.

Myth: The Chinese are not doing as much as the U.S. to reduce emissions from cars.

Reality: The much-hyped, new fuel-efficiency standard in the U.S. of 35 mpg in 2020 is already in effect in China and was effect in Japan and Europe six years ago. The Chinese have also included in their planning to greatly increase the amount of electric cars on the roads in China. The electric bicycle market is booming with over 10 million electric bicycles produced in 2005 alone. Cities such as Beijing are adopting bicycle-rental programs open to all residents.

Myth: Since the Chinese are building new coal plants, about one per week, they are focusing more on coal and investing less in renewable energy.

Reality: The strategic importance of renewable energy was affirmed in China when the Chinese government enacted the Renewable Energy Law beginning in Jan. 1, 2006. The law calls for 10 percent of energy to come from renewable sources such as wind, solar, hydro, biomass and biofuels by 2010 and 15 percent by 2020. Currently China gets 7.5 percent of its energy from renewable energy sources. China is investing heavily in wind power as well as solar and hydro.

Myth: China's total population is growing at astounding rates exceeding the United States.

Reality: In percentage rates the growth of the Chinese population is less than the growth of the American population, but the actual numbers of new people that will live in China are so large it is hard for me to comprehend. From 2005 – 2025, the Chinese population growth is expected to be around 10 percent while the U.S. is estimated at around 18 percent according the U.N. 2006 Revision Population Database.

This translates into an incredibly large number of people, around 132 million new residents, in China by 2025. This will require several new cities to be built with thousands of new skyscrapers. As you can imagine, the growth will add greatly to the annual carbon dioxide emissions.

To limit population growth, the Chinese government has enforced what is to me a very harsh policy, the one-child policy, which limits families to having only one child.

While I see many social disadvantages to this policy, I can appreciate the difficulties for a government to be able to plan and care for this large increase in population.

During the conferences I was impressed by the seriousness and commitment of many Chinese and Americans to work hard to reduce energy consumption from fossil fuels.

Certainly national security and a reduction in dependence on foreign oil are strong motivators, but I hope that concerns for the well being of the earth's people, animals and plants by reducing pollution to have cleaner air and water will become — or perhaps already are — the major motivators.

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