

COMMENTARY

## *China is exporting infrastructure and pollution*



*A Chinese man wears a protective mask as he stands near the CCTV building in fog and pollution during rush hour in Beijing's central business district on Feb. 13, 2020. (Getty Images)*

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**By Don Paul**

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China's Belt and Road Initiative, known as BRI, is generally considered the biggest set of infrastructure projects in world history. While much of China's own BRI has been underway for some time, the Chinese government has been undertaking selling their infrastructure construction to many nations unable to undertake such

massive projects on their own. Yale Climate Connections notes China's lack of transparency makes it difficult to get a handle on the full extent of BRI. Studies estimate between 1 and 8 trillion dollars are being spent by about 125-140 nations as of last summer.

China is making progress in reducing the growth of carbon emissions domestically prescribed by the Paris Accord, and is undertaking efforts to slash acute toxic pollution from coal-fired plants. Their domestic reductions have been fueled both by the need to lessen large scale pollution-related mortality (some of the worst in the world), and by the money to be made by become the world's leading manufacturer of solar energy components. China's large cities are now fueled by a higher percentage of solar energy than any other nation's cities.

In addition to selling its advanced solar technologies abroad, China is taking its older polluting technologies on the road through BRI, which far more than counterbalances its domestic progress on a global scale. As stated in a Yale Climate Connections article, "China is doing more good things but it's not doing fewer bad things," says Elizabeth Losos, senior fellow at Duke University's Nicholas Institute for Environmental Policy Solutions. She was the lead author on the study "Reducing Environmental Risks from Belt and Road Initiative Investments in Transportation Infrastructure," done in conjunction with the World Bank. "The bad things are still greatly outweighing the good things."

There can be no debating the desirability of infrastructure development from the standpoint of the nations involved. For example, 33% of Pakistan's population still has no electricity. BRI offers such nations the opportunity to leapfrog ahead in modernizing roadways, railroads, ports and increasing power generation. But the methods employed by China literally involve exporting of technologies no longer considered desirable domestically to the purchasing nations abroad. Cambodia actually received a disassembled Chinese coal-fired utility plant. The sum total of carbon dioxide emissions from the plant will still have the same global impact, but China will be spared the acute pollution from mercury, sulfur dioxide and other toxins in the vicinity of the plant.

The lure for developing nations is found in China's willingness to finance the loans for these projects which are seen as too risky for most of the world's financial institutions.

China argues countries like Vietnam, whose economy is skyrocketing upward, would probably have built coal-fired plants anyway; China is speeding up the process to better suit the rate of economic growth there and in many other Pacific rim nations.

Boston University's Global Development Policy Center surveyed a large segment of energy projects under BRI and found 75% involved more fossil fuel combustion, with coal far in the lead and oil and natural gas trailing. Renewables in BRI are barely a factor, unlike China's newer domestic projects.

Rail expansion would be a net emissions plus if newer high-speed rail technologies were employed. But there is already evidence China is exporting older, emissions-increasing railway propulsion systems to these projects.

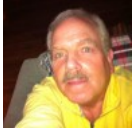
In these huge projects, what's in plain sight is cement. The main ingredient in the manufacture of concrete is cement, and the amount of concrete needed for these infrastructure projects is astronomical. Making concrete is very energy intensive, and much of that energy will be supplied by coal-fired plants.

BRI has also been linked to aquifer depletion. Population growth and economic expansion has led to pumping of vast quantities of water from these aquifers, even to the extent where the Mekong River is suffering dropping water levels in the midst of a largely moist, tropical climate.

This is nowhere near an all-inclusive list of the negative impacts from BRI. However, there are at least hints China's disdain for bad press may leave openings for China to offer more transparency in the particulars of the BRI projects. There are some studies suggesting there is still much profit to be made for China if they began to include more of their domestic guidelines in these exports. The inclusion, after all, would still be based on Chinese technologies. Cooperation is also needed on the part of host nations to seek these more efficient technologies in their infrastructure projects, along with more incentives from financial and insurance institutions involved in the expenditures.

There is no getting away from BRI. Developing nations will inevitably undertake large expansion of their infrastructure out of necessity. Most of the projects are still at earlier stages by which more efficient and less polluting designs and technologies can still come to fit into the picture. It remains to be seen whether external pressure and economic incentives can persuade China to do more

internationally as they have done domestically. Since the rate of China's economic growth is going to slow, as has been the case with all great, developed economies, BRI will remain a vital bulwark component not only for the developing nations but for China's economic stability and growth.



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