

After Copenhagen: Climate Action Goes Local

A large consensus has formed that developing countries, China and India in particular, hamstrung the Copenhagen Climate Conference. While these countries may have refused to submit to certain emissions targets, this does not mean they are not making vast strides in attempting to avert climate change, according to President & CEO of the Bay Area Council Economics Institute R. Sean Randolph. China, for instance, is the largest producer of solar panels, has provided huge subsidies for clean energy, and already has higher fuel efficiency standards than the US. India is the world's largest producer of windmills and converted all its public transport to run on natural gas in New Delhi, the capital. So the argument that nothing is being done to avert climate change doesn't hold water. Rather, it is perhaps not being done fast enough. Indeed, without global targets and agreements it may not be possible to abate global warming. But local initiatives seem to be the most workable solution for now. – YaleGlobal

Developing economies are some of the world leaders in clean technology

R. Sean Randolph

29 January 2010



Green fields: India hosts world's largest producer of windmills; now the wait is to bring power to the people

SAN FRANCISCO: The failure in Copenhagen to agree on either fixed targets for greenhouse gas emissions or a rigorous system for monitoring was a setback in the global warming battle. Controversy over the extent of human responsibility didn't help, but resistance by large emerging economies was the stumbling block. But this shouldn't deter communities and businesses from pressing on with the actions needed to reduce CO₂ emissions.

The fact is, progress is being made in both industrial and emerging economies including China and India. Businesses are embracing new technologies and practices. And sub-national governments are increasingly stepping up to the plate with or without national government support. Global negotiations will remain important, but for the near term at least, the real action will shift to the national and sub-national levels. That's not such a bad thing, since this is where technologies actually get adopted and where behavioral changes occur.

Despite their refusal to commit to global targets, both China and India are encouraging energy efficiency and the adoption of renewable energy technology. In Copenhagen, China offered to reduce its greenhouse gas intensity (greenhouse gas emissions per unit of GDP) by 40-45 percent over 2005 levels by 2020; India said it would reduce its carbon intensity by 20-25 percent in the same period. Pledges on this order may be inadequate, but should be recognized as significant commitments.

These policy changes are backed by an emerging body of regulation, and implementation. What country hosts the world's largest producer of windmills (answer: India). What country is the world's largest producer of solar panels (answer: China). What major city has converted all its busses and taxis to compressed natural gas (answer: New Delhi).

China embraced energy reform in 2005, with the goal of a 20 percent reduction in energy intensity by 2010. In 2006, its 1,000 top energy-consuming industrial companies were required to achieve significant energy savings by 2010. China's 2007 Medium and Long-term Plan for Renewable Energy Development added the further goal of doubling production of renewable energy from 8 percent in 2006 to 15 percent by 2020, close to the 20 percent goal set by the European Union.

More recently, alternative energy has figured prominently in China's economic stimulus program. Last year, 13 cities received subsidies to convert public transport to clean energy vehicles, and plans call for 500,000 as all-electric battery vehicles or plug-in hybrids by 2011. Beijing's city government recently purchased 800 hybrid busses. When local and provincial government incentives are taken into account, China is on a path to become one of the world's leading producers of electrical vehicles, batteries and fuel cells. China's vehicle fuel efficiency standards (36 mpg for passenger vehicles) are already higher than those in the United States, which only targets 35.5 mpg by 2016.

Wind and solar are also getting attention. China is the world's fifth largest wind producer, and accounts for nearly a quarter of the world's newly-installed capacity. Its total wind capacity more than doubled from 2006 to 2007, will almost double again (to 10 Gigawatts) this year, and will accelerate by 2020. Solar production is targeted to increase to 10 GW by 2020. China currently accounts for more than half of the global market for solar water heaters, and is making strides in the production of energy-efficient home appliances, backed by stiffened standards. In construction, codes are being introduced that reduce energy consumption in new buildings by 50 percent.

The bottom line is that China is making the policy decisions and investments required to become a leading global market for and producer of renewable energy. Not all the pieces are in place, but it has shown the capacity to move quickly and invest heavily. One sign is a shift in criteria by which local officials are evaluated: promotion now depends not just on meeting production or investment goals, but energy and environmental goals as well.

Though behind China, India is also developing a green focus. Its 11th Five Year Plan (2007-2012) requires that at least 10 percent of electricity production come from renewables. Its Bureau of Energy Efficiency is strengthening standards for new buildings and appliances. The Ministry of New and Renewable Energy is subsidizing solar deployment, targeting the goal set by the National Action Plan on Climate Change's of deploying 1,000 Megawatts of solar grid power and 1,000 MW of photovoltaic production annually by 2017. Research on biofuels and other alternatives is growing, and wind is also expanding, building on a 7,600 MW generation base that is already the world's fourth largest (after Germany, Spain and the US).

Where does that leave us post-Copenhagen? First, it would be a mistake to confuse China and India's resistance to binding targets with an absence of action to address global warming. Their primary drivers relate to economics and security – the need to reduce rising imports of oil and gas – but there is also by a growing recognition of the consequences of global warming, including glacial melting that may seriously impact future water supplies. It appears that China is also trying to carve out a piece of an important future industry in clean technology.

This has implications for the US and its partners. First, they need to get over Copenhagen and get on with the business of increasing energy efficiency, deploying renewables, and accelerating the shift from fossil fuels. This makes good strategic and economic sense, and will move the world toward the goals articulated in Copenhagen, even in the absence of a treaty.

Global negotiations will remain important, but for the near term at least, the real action will shift to the national and sub-national levels.

China's vehicle fuel efficiency standards (36 mpg for passenger vehicles) are already higher than those in the United States, which only targets 35.5 mpg by 2016.

It would be a mistake to confuse China and India's resistance to binding targets with an absence of action to address global warming.

While national leadership remains important, particularly in technology research, much of this will happen at the sub-national level. This is important, as the UNDP estimates that sub-national governments influence 50-80 percent of global greenhouse gas emissions. In the US, California has been a pioneer. It has decoupled from national energy trends by reducing its per capita consumption to levels below 15 years ago, even as its economy has grown. This compares to a 50 percent increase for the US as a whole. Aggressive targets (33 percent by 2020) have been set for the power that utilities produce from renewable power; all new homes are required to offer solar power; fuel standards have been enacted; and steps are underway to cut greenhouse emissions to 1990 levels by 2020. In North America, thirteen states and provinces have formed the Western Climate Initiative, following California's lead.

The private sector is also stepping up, as businesses work to increase their energy efficiency.

Much of this activity is at the city level. In Northern California, large cities such as San Jose and San Francisco and smaller cities such as Berkeley are converting streets to energy efficient LED lighting implementing energy retrofits, and creating finance schemes to accelerate residents' installation of solar power. Some are requiring that all major new commercial buildings be LEED certified. The private sector is also stepping up, as businesses work to increase their energy efficiency, and venture and other investors are placing bets on everything from utility-scale solar to low-carbon building materials, biofuels, smart-grid meters, and electric vehicles.

Without global targets and standards, all this may not be enough to head off climate change. But action is needed and is happening in businesses and sub-national communities around the world. The challenge is to scale these efforts up. While national governments need to keep talking globally, those closest to the action can and must act locally.

R. Sean Randolph is President & CEO of the Bay Area Council Economic Institute.

Rights: Copyright © 2010 Yale Center for the Study of Globalization