Germany and China take the lead

The foundation of the 2015 Paris climate agreement was to a large extent based on cooperation between the United States and China on clean energy and emissions reductions. With the United States now planning to withdraw from the agreement, who will replace them? Ahead of the United Nations climate conference in Bonn that begins next week, the spotlight is on Germany to fill the vacancy. Indeed, there is a strong common ground upon which Germany and China can collaborate to show the world a positive picture of a low-carbon transition. If they work together on renewable energy, a sustainable transport system, and effective policies, these two nations could change the course of the global low-carbon pathway.

A decade ago, Germany and the European Union (EU) invested heavily in wind and solar energy. This changed the course for renewable energy globally, bringing wind and solar to the mainstream in the power sector. Today, it is China working hard to promote new technologies and put much effort into its energy transition. The political environment in China is now much more supportive for developing low-carbon pathways based on renewable energy. The newly installed capacity of solar- and wind-power generation in China has been increasing annually and currently accounts for more than 40% of the global total. Germany, once at the forefront of the energy transition (“Energiewende”), is now in danger of being left behind.

The transport sector offers excellent opportunities for cooperation in decarbonization. Germany has promised emission cuts of about 40 percent in the sector by 2030. However, Germany’s transport emissions are slightly higher now than in 1990, and electric-powered vehicles have been slow to emerge. Meanwhile, China has instituted a quota for electric cars and is considering a ban on combustion engine cars. This puts pressure on Germany to develop electric cars for the Chinese market. China is leading in battery manufacturing and is also developing hydrogen fuel cell technology for vehicles or airplanes—an area ripe for cooperation. Even more crucial are alternative mobility concepts; mutual learning about smart cities, including bike sharing (a strength in China), or about the public transport system (a strength in Germany) offer further opportunities.

But the low-carbon transition is about more than technology. Policy instruments, such as carbon pricing, renewable energy support schemes, and energy efficiency measures, would not only steer investments in the right direction but also change consumer behavior. Both countries, together with the EU, have rich experience in climate policies, and cooperation is already established to exchange emissions trading experiences. To enforce mutual learning, joint research on systematic ex-post evaluation of these policies would help both countries better understand the opportunities and obstacles for specific measures. This requires data on emissions to be transparently collected and reported. A joint initiative to collect data and develop indicators that could help researchers across the world assess which instruments have worked, and which could work in other countries, would be a promising avenue.

Germany will fail to reach its 2020 emission reduction target by a substantial margin if coal power is not phased out. China, on the other hand, is expected to see its emissions peak earlier than anticipated and is seeking soft power in the field of climate change. Some disputes between the two countries are obvious—for example, on trade issues and competition in the same markets. On the whole, however, stronger Sino-German cooperation on the low-carbon transition might not only help Germany’s Energiewende but also be a crucial next step for international climate policy when the two take further leadership in multilateral fora such as the G20 process.

“With the United States... planning to withdraw... who will replace them?”

—Brigitte Knopf and Jiang Kejun

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