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Can Market-Based Programs Help Emerging Economies Reduce Carbon Emissions to Fight Global Warming?

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Emerging market economies – in nations ranging from China, India, and Brazil to Malaysia and Mexico – are increasingly significant players in today's dynamic global economy. Not only are many of these economies growing rapidly, they are increasingly relevant in a variety of domains, including international efforts to address climate change.

Experts point out that developing countries must participate actively if there is to be any truly effective solution to global warming. Emissions levels from the developing world are expected to reach 51 percent of all global emissions by 2020. Although emerging economies are contributing to climate dangers, they also have great potential for reducing global emissions levels. According to the Organization of Economic Cooperation and Development, emissions-reducing projects in the developing world could account for more than half of the total reductions mandated in the Kyoto Protocol of the United Nations. A variety of international climate policies are designed to encourage reductions in these countries – especially through market mechanisms.

A key example under the Kyoto Protocol is the "Clean Development Mechanism," through which firms or industrialized nations can earn tradable credits toward meeting their own emissions targets, by investing in projects like wind power or industrial efficiency programs that reduce emissions in developing countries. The idea is to use international market signals to encourage cleaner and more sustainable forms of development in emerging economies.

Now that the Clean Development Mechanism has been in place for nearly a decade, is it working? Surprisingly little is understood about how such market-focused policies actually play out in the developing world, and my research takes first steps toward filling this void in knowledge. By tracking Clean Development Mechanism projects and emissions in dozens of emerging economies, I have learned that the outcomes are extremely varied. Conventional explanations presume that, as countries grow economically, they address environmental problems more effectively. But growth cannot explain the variations I find across emerging market economies. Instead, a number of factors are important, including the types of economic institutions and governing arrangements established in various countries. A well-established literature in political science called "varieties of capitalism" offers insights into what is going on.

National Institutions Shape "Varieties of Capitalism"

When the Clean Development Mechanism was first devised, its sponsors assumed that developing nations with more open, less regulated markets – countries such as Mexico, Malaysia, and South Africa – would be the ones to use the program most avidly and host the most emissions reducing projects. But, in fact, projects have proliferated more readily in nations such as China and Brazil with more tightly regulated economies. It

appears that the variation in outcomes we find among the emerging market economies are due, at least in part, to the type of institutions various countries have – especially institutions governing their financial systems and labor markets.

Such arrangements supply the rules of the game for how a country's market economy performs in many areas – ranging from wage distributions to environmental trends. In their work focused on advanced-industrial economies, political scientists Peter Hall and David Soskice were the first to point out why and how institution matter. Although scholarly debates continue, two main "varieties of capitalism" have been clarified so far:

- In *liberal market economies*, such as the United States, investment is generally sourced from stock markets, whose private investors want quick pay-offs. Corporate governance features unregulated and flexible labor markets, so that workers with general skills can be moved quickly into and out of profitable projects. At their best, liberal market economies can be highly innovative, efficient, and flexible, using high returns to attract new capital and generate many jobs. But with so much focus on short-term profits, firms are not likely to undertake projects that benefit workers or society over longer time spans.

- *Coordinated market economies* such as Germany and Japan rely on banks, debt finance, and more stable institutional shareholdings, which makes them less vulnerable to short-term stock market fluctuations and demands. Firms and other institutional leaders in these economies provide on-the-job training and apprenticeships as well as good benefits for employees who, like artisans, are likely to remain attached to the firms for many years. Furthermore, because corporate governance often includes banks, institutional investors, and employee representatives, firms may be more willing to pursue projects that appeal to this broad range of stakeholders and spread costs over many years.

Implications for Policies Aimed at Emerging Economies

We can extend "varieties of capitalism" theory to help explain environmentally relevant investments and accomplishments in emerging market economies. As my research shows, firms investing in countries like China and Brazil with more coordinated institutional arrangements regulating economic life tend to be more concerned about their reputation and more likely to include environmental issues in business plans. Clean Development projects have proliferated more readily in countries fitting the coordinated capitalism model, whereas developing countries in the liberal mold, such as India, Malaysia, and Mexico, are more likely to be held hostage by needs to generate short-term profits and dividends for private investors. Environmental harms tend to get neglected in the process, and green projects with longer term pay-offs are less attractive.

In sum, even though "market based" carbon reduction policies often sound like easy ways to spur progress in the course of normal economic transactions, in practice these policies are challenging to carry through – and, as much research shows, may produce unexpected and highly varied outcomes in the developing world. Especially when policies aim to encourage attention to long-term societal harms, successful implementation may depend on the variety of governing institutions in place in different market economies. Efforts to address climate change must understand how varied capitalist economies operate and adapt reforms to those realities.

Read more in Tabitha M. Benney, *Making Environmental Markets Work: The Varieties of Capitalism in Emerging Economies* (Routledge, 2014).