

The US-China EcoPartnership: How subnational organizations can help solve global environmental challenges

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The US and China--the world's two largest economies--share many global leadership firsts; they are top producers and consumers of agricultural products, energy, and material goods. The two nations also share a less illustrious achievement as the leading emitters of CO₂, contributing to global climate change, with potential broad economic and environment consequences.

The two modern major powers have embraced a future based on science, technology and innovation; however, vastly different cultural, political, and demographic legacies pose distinct challenges. China's recent focus on economic development and infrastructure investment has transformed its society: hundreds of millions have been urbanized and risen out of poverty, high-speed railways cross the country, and the number of annual patent applications lead the world. By 2030, household income is expected to triple. This meteoric growth has put a tremendous strain on the country's resources, including food, energy, freshwater, with regionally negative environmental consequences. In many regions of China these stressors threaten the future provisional services of their ecosystems and the health of its people. Likewise, the US faces equally daunting challenges including shifting demographics leaving many major urban centers lacking resources for maintenance and renewal; changes in weather patterns causing significant drought and flood-related stress to agricultural and urban landscapes, and nutrient-laden coastal dead zones.

While each country faces unique challenges much knowledge can and should be shared in order to resolve regional and global challenges arising from the interaction of economic development, environmental degradation, energy demand, and climate change. The trick is to lower barriers to communication, build trust, and develop partnerships. Working together, we can apply technological, intellectual, and economic resources that enhance resilience and help solve specific challenges concerning our natural and built resources.

In the coming decades there will be an ever-increasing role for subnational organizations that include local government, academic, business and nonprofit leaders to address environmental challenges in the context of sustainable

development goals. The US-China EcoPartnerships program was established at the 2008 US-China Strategic Economic Dialogue through Presidential initiatives in the US-China Ten Year Framework for Cooperation on Energy and the Environment. This program is administered by the US Department of State and the China's National Development and Reform Commission. Each side shepherds subnational partnerships in the areas of policy, technological exchange, and best management practices for the benefit of clean air, clean water, clean and efficient transportation, clean, efficient and secure electricity, energy use efficiency, and protection of vulnerable ecosystems. Thirty EcoPartnerships have now been established with memberships spanning academia, private enterprise, NGOs, and states, counties, and cities. The EcoPartnership program represents, with ever-increasing potential, a multi-sectoral public-private partnership to achieve positive outcomes in economic, social, and environmental sustainability. As stated by the US EcoPartnership secretariat, the mission of the EcoPartnerships initiative is to elevate successful sub-national cooperation models to international prominence, and by doing so, to spur broad replication by their peers in the US and China.

In awarding the second cadre of EcoPartners (May 2011) Secretary of State Hillary Rodham Clinton said: "Both of our countries have companies that are developing new and exciting technologies, universities that are doing groundbreaking research, and local governments that have unique perspectives on the community environmental issues they face which can have a global impact. This EcoPartnership program was founded to bring these groups together to share best practices, foster innovation, and encourage sustainable development." Acting as a binational problem-solving team working within the largest and rapidly developing economies, we, the EcoPartnership, could provide critical service and global impact in the near future through individual and networked partnerships, with private and public strengths in sectors such as energy, food, urbanization, climate resilience, and environmental remediation.

To learn more about the EcoPartnership Program, please visit <https://ecopartnerships.lbl.gov>



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The Purdue-led U.S.-China Ecopartnership for Environmental Sustainability, established by the U.S. Department of State and China's National Development and Reform Commission to address ecological environmental challenges, is creating a culture of innovation and commercialization through joint research and collaborations.

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