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## Coping with Climate Change by Learning from the Commons

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Global warming is unequivocal and is largely caused by human action. Substantial disruption to coupled human and natural systems is underway, producing serious threats to people and ecosystems around the globe. There is wide agreement that if we move beyond a guardrail of about 3.6° F (2° C) of global average warming, we enter a zone of "dangerous interference" with the climate. Yet so far not a single nation has acted successfully to slow growth in its greenhouse gas emissions, nor is there a strong global agreement to do so in the future. The further we move past the guardrail, the greater the risks to ourselves, future generations, and the planet itself.

The lack of progress is both discouraging and predictable. It is discouraging because it means our risks continue to increase. It is predictable if one assumes that everyone acts with narrow self-interest so that the climate faces a global tragedy of the commons.

We know we face grave risks. But we cannot be sure exactly how climate change will unfold, especially at the local and regional level. And we cannot be sure what policies will be adopted nor how they will be implemented. We cannot be sure what new technologies will become available to reduce our emissions. Yet taking no action in the face of uncertainty is surely not just imprudent but foolhardy. What exactly should we do to reduce risks? How can we overcome the tragedy of the global commons?

Elinor Ostrom has pioneered our understanding of complex coupled human and natural systems, showing that commons are not inevitable tragedies but can be dramas with happy outcomes.<sup>1</sup> Rather than despairing at the current lack of progress in reducing emissions, she provides a scientific rationale for moving forward. Like the music of Thelonious Monk, she attunes our ear to hear, in what seems a cacophony of partial policies, an underlying harmony around which we can develop infinitely rich variations. She reminds us that we do not know how to solve the problem of reducing greenhouse gas emissions but that the diversity of policy experiments already underway and those that can be undertaken provide the basis for learning what works, why, and in what contexts.<sup>2</sup> They allow us to move forward by reducing emissions even as we learn how to craft better policy and develop more trust in each other.

Drawing on literature about the commons, Ostrom offers several principles for designing policy: all reductions in greenhouse gas emissions are beneficial, there is no single solution, seemingly small actions can have significant consequences, programs must be sensitive to context, trust is a critical resource, all policies have multiple effects, real policies work at more than one level, and we learn by doing.

Of course, the problem of climate change differs in some regards from other commons dilemmas. We will have to not only apply our current scientific understanding of commons governance but also expand our understandings. There are at least two issues that deserve special consideration

*There is an organized effort to promote inaction.* Despite a global scientific consensus, for more than a decade the climate change denial movement has deployed a variety of tactics to argue that scientific uncertainty is so great that no

action on climate change is warranted.<sup>3,4</sup> While there are often disputes about the state of knowledge in commons governance, we know relatively little about the effects of such a highly organized and well-mobilized effort to deny that a problem exists. Ostrom's emphasis on diverse actions at multiple scales of governance, and especially on actions that have multiple streams of benefits, points to a way that may help sidestep the efforts of this movement.

*Effective policy design should start with realistic views of human behavior, not with "off the shelf" economic or engineering models.* Ostrom describes the limits of the standard model of self-interested behavior. It follows that we need a more realistic approach to policy design. The clearest example of the need to start with an understanding of behavior is in household energy efficiency. It is well known that increased energy efficiency would be economically advantageous to households and businesses. The "energy efficiency gap" is best explained by the nuances of changing behavior—issues of trust, hassle, information access, and social norms—so effective policy has to begin with those factors and then build in engineering and economic analyses.<sup>5</sup>

These are just two of the many challenges we face. But Ostrom points us toward meeting the challenges of climate change, not with universal solutions, but rather by learning from each improvisation by a diversity of players.

## References

1. Ostrom, E et al. *The Drama of the Commons*. (National Academy Press, Washington DC, 2002).
2. Henry, AD. The challenge of learning for sustainability: A prolegomenon to theory. *Human Ecology Review* 16, 131–140 (2009).
3. McCright, AM & Dunlap, RE. Defeating Kyoto: The conservative movement's impact on U.S. climate change policy. *Social Problems* 50, 348–373 (2003).
4. McCright, AM & Dunlap, RE. "Anti-reflexivity: The American conservative movement's success in undermining climate science and policy." *Theory, Culture and Society* 27, 1–34 (2010).
5. Stern, PC, Dietz, T, Gardner, GT, Gilligan, JM & Vandenbergh, MP. *Designing Effective Carbon Emissions Reduction Programs*. (Department of Sociology, Michigan State University, East Lansing, 2010).

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