Climate Change as an “Intractable Problem”

Climate change is a global environmental challenge stemming from higher concentrations of so-called “greenhouse gases” (GHG) in the atmosphere, due primarily to the burning of fossil fuels. These gases trap outgoing radiation from the Earth that would normally escape into space, returning much of that energy back toward the earth’s surface. This “greenhouse effect” warms the planet and makes life on earth possible. As GHG concentrations increase in the atmosphere, however, most scientists are concerned about the higher levels of energy in the earth’s climate system that could lead to higher global temperatures, altered weather patterns, changes in water salinity and sea level, and other disruptive changes in the ecological and climatological systems that support human and non-human life (IPCC 2007).

Despite this concern, formal policies to reduce GHG emissions and to help society adapt to future climate change remain limited. Twenty years of U.N. negotiations have generated only a single agreement imposing relatively small limits on the GHG emissions of most developed nations, as global GHG emissions continue to increase. Action in the United States is even more limited, with no
major federal policy to date (although important programs are in place in some states and localities). Given these results, many climate policy experts are pessimistic about the state of attempts to address climate change and are struggling to articulate new approaches (e.g., Victor 2011; Hulme 2009).

**New Perspectives from Informal Institutions**

Workshop speakers touched on four ways that informal institutions can effect major social change:

1) Reinforcing existing norms that promote desired social change
2) Challenging existing norms that obstruct desired social change
3) Invoking alternative norms to create new policy opportunities
4) Creating new norms to facilitate social change.

In applying these general ideas to climate change, recommendations ranged from a focus on individual behavior and well-being, to options for greater progress on national law and policy and international governance. Although none of these recommendations was offered as a “silver bullet,” taken together they operate at multiple levels, from the individual to the nation-state, and suggest new ways of thinking about the problem that might be useful to those seeking policy change in this area.

**Recommendation #1: Reinforce Existing Descriptive Norms to Promote Desired Individual Behavior**

Although many focus on national and international policies to limit GHG emissions, some argue that efforts to address climate change would benefit from more attention to the individual. Psychologist Janet Swim of Penn State University reviewed research in social psychology on how norms affect individual decisions related to environmental conservation (see Swim et al. 2011; Schultz et al. 2007).

This work suggests that *descriptive norms*, defined as behavioral rules based on knowledge of what other people are doing around an individual, are often more effective in stimulating environmental conservation than *injunctive norms*, which attempt to persuade an individual why he or she should behave differently. In other words, telling people they are using more energy than their neighbors can be more effective in lowering their energy use than explaining why they should reduce their energy consumption (e.g., Schultz et al. 2007).

At the same time, Swim also noted the importance of even small amounts of positive and negative feedback to reinforce behavioral changes. Simply adding a “smiley” face to an electricity bill indicating a household uses below average amounts of energy, for instance, can be an effective reinforcement of that descriptive norm (see also Wilson 2011; Schultz et al. 2007).

Thus, policy efforts to reduce emissions of GHGs through government regulations on energy use or public education campaigns could be strengthened by more emphasis on descriptive norms related to individual decisions that affect GHG emissions.

**Recommendation #2: Invoke Alternative Norms via “Reframing” to Create New Policy Opportunities**

Leigh Raymond of Purdue University described how advocates can generate surprising new changes in climate change policy by “reframing” an issue in terms of an alternative norm. This process does not require generating a new norm in society, but rather re-describing an issue as being more appropriate to a different norm than the one currently justifying the status quo policy. Such reframing can make actions previously seen as impractical, inappropriate, or implausible suddenly seem obvious and compelling.

As an example, Raymond cited the case of 10 Northeastern states requiring companies to pay for their GHG emissions in a new “cap-and-trade” policy created in 2008, the Regional Greenhouse Gas Initiative (RGGI). Prior to RGGI, emissions rights were given away for free based on a norm rewarding “beneficial prior use”; i.e., those who have been using a resource deserve to own that resource when legal rights are created. According to Raymond’s research, advocates working on the design of RGGI reframed the issue in terms of a different norm: the well-established belief that companies should pay for the damage caused by their pollution. By reframing this issue in terms of this alternative “polluter pays” norm that better fit the facts of the case, RGGI advocates managed to require polluters to buy nearly all their emissions rights under the new program at auction, an unprecedented reversal of prior cap-and-trade allocation rules.

Raymond concluded that this reframing of the atmosphere in terms of a more egalitarian norm of public ownership has transformed the debate over climate policy, and should open new political options for policies forcing large emitters to pay directly for more of the costs of reducing their use of this “public” atmospheric resource (see Raymond 2010).
Recommendation #3: 
Invoke Alternative Norms via New “Identities” to Create New Policy Opportunities

Kathy Hochstetler of the University of Waterloo discussed how new national identities can lead governments to adopt different norms governing their behaviors, offering new opportunities for progress on international climate change policy. Negotiations over climate change have been stymied for years due in part to the norm of “common but differentiated” responsibilities promoted by developing nations that demands more powerful, developed countries act first to reduce their GHG emissions due to their greater historical contributions to the problem.

In the last 5 years, however, changes in the national identities of a group of the larger and more powerful developing nations known as the BASIC countries (Brazil, South Africa, India, and China) have led to movement away from the norm insisting on unilateral emissions reductions from developed nations. Instead, at least two of these nations (Brazil and South Africa) and taking on a new identity as “emerging powers,” and appear to be accepting new norms of responsibility to reduce their GHG emissions as well.

Hochstetler noted that as developing nations continue to gain influence in other areas, such as trade negotiations, their changing identities may also facilitate a greater willingness to act on GHG emissions. This could, in turn, offer new opportunities for progress on international climate negotiations. Here, the relationship of norms to “identity” is crucial—as nations or individuals change their conception of “who they are,” the norms that are most relevant to guiding their behavior change as well, potentially in ways that facilitate new policy options to address a formerly intractable problem like climate change.

Recommendation #4: 
Create New Norms of Responsibility for Climate Change to Create New Policy Opportunities

Finally, political theorist Brenna Holland of Lehigh University offered a new way of thinking about responsibility for reducing the impacts of climate change. Rather than focusing on income as a gross measure of human well-being, Holland suggests building on the work of Amartya Sen (1999) and Martha Nussbaum (2011), who conceptualize well-being in terms of a set of “capabilities,” ranging from the ability to meet basic needs to sufficient education and personal autonomy required for a “good human life.” Holland applies the capabilities idea to the climate change issue, arguing the approach forces us to think more directly about what distinctive capabilities are most at risk from climate change, rather than cruder measures of economic impact.

More originally, she suggested thinking of not only “capability thresholds” that all people deserve, but also “capability ceilings,” defined as maximum levels of well-being that merit protection from climate policymakers (Holland 2008). In this respect, the concept of a capabilities ceiling provides a useful new perspective by suggesting a norm that those who are above such a ceiling should first bear the costs of limiting and adapting to future climate change impacts.

As noted by Hochstetler, climate policy debates have become intractable over the question of “who should pay,” based on irreconcilable differences over the appropriate role of norms favoring fixed formulas based on equalizing per capita emissions, for example, as the primary metric. Holland’s proposal, by contrast, proposes a new norm requiring the strict protection of “subsistence” but not “luxury” emissions (see also Shue 1993). This provides a more flexible range of options for dividing the costs of addressing climate change than a purely per capita formula, while still protecting the subsistence emissions of the poorest communities and nations.

By providing more flexibility than a strict egalitarian norm based on equal per capita emissions and also focusing on the actual effects of climate change rather than the a simplistic proxy of national income, Holland offers a new way of thinking about the increasingly important question of who should help the most at-risk communities cope with climate change, as well as who should help with the burden of reducing emissions, both between nations and within particular nations such as those of the BASIC countries, where these capabilities vary dramatically.

Summing Up

This brief has described how informal institutions offer several important new perspectives on the politically and socially “wicked” problem of climate change.

- By focusing on social pressure through descriptive norms and individual feedback, we may be able to better address the problem at the individual level.
• By “reframing” policies and recognizing changes in national identities, we may open new political space for policy options previously considered impossible, such as charging polluters for their GHG emissions or getting large developing nations to agree to emissions targets.

• By creating a new norm of responsibility based on capabilities thresholds and ceilings, we might move the political conversation past the current international stalemate between nations espousing equal per capita emissions rights and those seeking to preserve the dramatic inequalities of the status quo.

Although none of these perspectives is likely to solve the climate problem by itself, all of them suggest the diverse ways that a focus on informal institutions and norms might advance policy discussions of this particular global challenge.

For More Information…


Visit www.purdue.edu/discoverypark/intractableproblems for:

• All four policy briefs in the Informal Institutions and Intractable Global Problems series, available both in PDF form and in an E-Pub format, allowing you to download and read the briefs on your tablets and smart phones.

• A video archive of the full proceedings of the Informal Institutions and Intractable Global Problems workshop.

• Short biographies of the speakers contributing to the workshop and cited in the policy briefs.

Nov. 2013