CLIMATE CHANGE RESEARCH

This month AN *focuses on climate change research and policy, particularly how anthropologists contribute and might further contribute to them as they become increasingly visible in public discourse. Myanna Lahsen, the guest editor of this In Focus series, discusses what an anthropology of the trouble of Risk Society would look like and the challenges and opportunities in developing such a body of work. Timothy J Finan argues how anthropologists can best contribute to the discussion of climate change. Kathleen Galvin reflects on her experiences in participating in interdisciplinary research conferences on global environmental change, and Don Nelson observes how the climate change research must expand to address the realities of the subject.*

Anthropology and the Trouble of Risk Society

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Scientific academies and leaders around the world stress that addressing socioenvironmental problems in the 21st century requires collaborative, interdisciplinary, innovative and applications-conscious research. Along the same lines, a 1994 survey of anthropology departments by the AAA predicted the following trends to shape the discipline over the course of the next quarter century: 1) enhanced emphasis on processes of global change; 2) greater interdisciplinarity; and 3) greater faculty involvement in programs in the areas of sustainable development, world ecology, environmental studies, comparative global perspectives, global interdependence and internationalization. These new trends remain weak in anthropology, however, as confirmed by this special issue on climate change research.


Myanna Lahsen

International Relations

The central message of all the contributions is that the discipline has a lot to offer and needs to get involved. Anthropology is ideally suited to identify, analyze and address human dynamics at the core of this global environmental problem. Now is an opportune time. The International Human Dimensions Programme on Global Environmental Change (IHDP—an international, interdisciplinary science program advancing and coordinating research on the human dimensions of global environmental change) is, like the field of global environmental politics as a whole, dominated by international relations (IR).

However, there is growing recognition of the shortcomings of long-standing IR frameworks, wherefore "earth system governance" is proposed as a new focus within the IHDP and as a cross-cutting theme in all global environmental change programs under the earth system science partnership umbrella. It integrates expansion beyond long-standing tendencies in IR by examining governance "beyond the state" and beyond static, formal political institutions, as noted by F Biermann in *Global Environmental Change*.

This leads IR scholars into new territory, including the important impact of transnationally connected activist groups, values and beliefs, among other things. Anthropologists have more experience in this area but are, in turn, limited by long-standing tendencies to focus on grassroots groups and local populations, commonly leaving the State and other macro dimensions as unexplored backdrops. The two fields could work toward each other, in a scale sense, exploring the dynamics between and beyond the scales on which they each have fixated. Both fields would benefit from this, as would the impact of their work.

Stretching Beyond the Local

There is a dearth of analyses of societies' present and potential ways of responding to climate impacts. How to adapt requires "bottom-up" analysis of vulnerabilities to climate change at local levels. Anthropology can make important contributions in this area, as discussed by the other contributors to this special issue. That is also the area in which anthropology makes almost all of its contributions in the climate area, however, and limiting the field's contributions to that means overlooking other important human dimensions of climate change.

To address new environmental dilemmas of the 21st century in a fuller way, the field needs to integrate more studies of what I call "the trouble of Risk Society," broadly defined. *Risk Society* is German sociologist Ulrich Beck's term for societies increasingly structured by preoccupation about largely future-set environmental threats and other insecurities created by modernization itself, and the word "trouble" signals the call of the late US ecological anthropologist Roy Rappaport in the 1990s for an "anthropology of trouble," a policy-oriented anthropology focused on complex, contemporary societal problems and structural disorders.

The strength of tradition in anthropology—continued identification of the field with the experiences of so-called local, vulnerable and marginalized populations—partly explains anthropology's relative absence from the "table" of global environmental change research. An anthropology of the trouble of Risk Society requires that the field self-identifies less exclusively with these groups, stretching beyond these long-standing preferences to attend to a fuller range of the human dimensions of global environmental problems. The poor are more vulnerable to extreme weather and other climate impacts, wherefore attention to vulnerable groups remains important, as does indigenous critique—indeed, indigenous groups in the Arctic are experiencing the adverse impacts of unusual climate changes already. But the field marginalizes itself and limits its contributions if it ends there.

Fears, Imaginations and Trust

To break out of this self-imposed limitation and address climate change in a fuller way, anthropology needs to focus relatively more on fears and imaginations. Anthropologists have remained marginal in global environmental change partly because they have engaged little with these anticipatory dimensions of climate change; they have tended to wait to get involved until populations were feeling and expressing the impacts in a physical sense. Environmental disasters like Chernobyl, Bhopal and Katrina have already marked communities in physical, tangible ways, and climate change marks some communities, but we do not yet live with the full range of its feared impacts. Uncertainty persists about this daunting, complex and uncertain environmental risk. Because an important part of its manifestations are uncertain and distant in space and time, imaginations and fears become key, including scientific imaginations.

COMMENTARY

Another issue on which to focus analytical attention in studies of Risk Society is trust. Trust becomes a structuring factor in a context of uncertain, oftentimes future-set environmental threats. Whether or not we trust experts—and which experts in particular we choose to believe—structures how we think and act, and the policies we support. Distrust is a prominent political response to systemic dimensions of the politicized environment. And who can study these dimensions better than anthropologists? There are a lot of studies to be done on whether and how Risk Society is taking roots in developed and less developed countries alike. However, because of the dominance of sociology in this area, few such studies focus on less developed countries.

The Role of Elites

One possible place to focus studies of the more conceptual dimensions of global environmental change is on controversies over environmental knowledge, including "upstream," at the sites at which scientific knowledge is produced and adjudicated. Anthropology's contributions

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in this area are needed. As recently noted by the founding director of the UK Tyndall Centre for Climate Change Research in a March 14, 2007, *Guardian* article, analyses of climate science controversy still tend to ignore that what is involved, at the root, are debates about wider social values—what kind of society do we want, and how should we act and organize to get it? Should we rely on experts, private enterprise or technology to save us? Whose views and knowledge counts?

Preferring study of marginal populations in less developed regions, anthropologists have not dedicated themselves to illuminating societal understanding of this part of the human dimensions of climate change. Study of global environmental problems can help push the field beyond this and other self-imposed limitations. Complex and multiscalar in nature, these problems beg inquiry beyond the local and the marginal, leading anthropologists from the government halls of decision making to scientific labs to company board rooms to campaigning activists and to other segments of citizens. Decision makers, technical experts and other elites can not be treated as part of a distant, unexplored backdrop.

Interdisciplinary Experimentation

My graduate training at Rice University with Michael M J Fischer, George Marcus and others gave me considerable freedom to develop my interests independent of prevailing disciplinary pressures, driving me toward interdisciplinarity. Interdisciplinary experimentation comes with challenges, as I vividly learned when I applied for a grant from the NSF anthropology section to support my dissertation fieldwork on US climate science politics. The reviews, and the rejection, were formative. They illustrated that my interests and concerns transcended the confines of the discipline, the prevailing literature, interests and framings of which, at best, was only marginally related and, at worst, irrelevant and dull!

That strengthened my inclination toward interdisciplinary research integrating anthropological methods with science, environmental and policy studies. I often found engagement with literature from these other areas much more relevant to my research interests and concerns. Fortunately, that also gave me access to funding from sources such as the EPA, the science studies wing of the NSF and, later, as a postdoctoral student, in federal science labs and the Harvard University J F Kennedy School of Government.

In these arenas, I interacted with social and natural scientists and decision makers, which shaped my work as I responded to expectations that it produce insights of use outside the narrow confines of my field and, even, outside of academia. I sought to do so while still engaging questions such as how to reconceptualize power and social formations in a science- and media-saturated world. Indeed, in synch with a broader transformation in modes of knowledge production in the 21st century, distinctions between theory and application are blurred, unproductive and unnecessary in anthropologies of the trouble of Risk Society. To maximize interest and understanding of our work in other disciplines, however, some adaptation can be necessary, especially restrained and strategic use of ethnographic details and long-winded storytelling; although anthropologists value and expect the latter from each other, more succinct ways of communicating are often more effective across disciplines.

Collaboration with Policymakers

The current growth of the anthropology of science leaves me optimistic that the field will develop its contributions to the human dimensions of global environmental change, and that an anthropology of Risk Society will develop. This is also apparent in the growing number of panels devoted to climate change at the AAA and 4S meetings. My hope is that this growth also will lead to an anthropology of the *trouble* of Risk Society, which is to say, one with important policy dimensions.

Adding policy dimensions can lead to exciting collaboration with policymakers and scientists. There is lots of work to be done because anthropologists are trained to see sociocultural and political dynamics others overlook. We can make political interventions by providing new ways of understanding cultural and political dynamics—and we can have significant practical impact going "to the top," especially if coauthoring work with important knowledge brokers. In my case, these engagements have also helped me into nontraditional jobs allowing me to impact science and environmental policy directions both in the area of climate change and in science policy bearing on the environmental sustainability of the Amazon region.

The trick is not to be co-opted in the process, and that is why a platform in—or a return to—academia is important: it can provide more time and independence for critical thinking and creativity that otherwise might be restrained. The question is whether anthropology departments will prove flexible and willing to hire anthropologists who, heeding the calls for collaborative, interdisciplinary, innovative and applications-conscious research, have chosen to diverge to varying degrees from long-standing trends and venerated disciplinary traditions and live up to the 15-year-old projections for the field by the departments surveyed by the AAA.

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Is "Official" Anthropology Ready for Climate Change?

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Global society stands witness to a major environmental transformation now thoroughly documented and supported by incontrovertible evidence. The recently released report by the Intergovernmental Panel on Climate Change ([IPCC] 2007) establishes the scientific foundation for global warming and projects the magnitude of the consequences and their regional distribution around the world. There is now little doubt that human populations will face significant modification in their environment and that these changes will dramatically alter the vulnerability of livelihoods, if not their very viability.

Timothy J Finan

Re-Embrace Conceptual Tools

Anthropology, from its very inception, built an analytical and theoretical tradition in the study of human-environment interactions. From the early evolutionists through Steward, Rappaport, Vayda, Wolf, McCay and others, environmental anthropology and political ecology have provided the conceptual tools to examine the complex interplay of culture, society, power and environment. It would seem that anthropology is well equipped and ready to assume a leadership role in assessing the preparedness of human communities to adapt to climate change, projecting the kinds of institutional adjustments that will be necessary to protect and promote livelihoods. Alas, however, such is not the case. In fact, the social science of climate change, as a whole, has lagged far behind the natural science. And with some important exceptions, anthropology has been especially absent at the climate change table.