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Anthropological Perspectives on Climate Change and Sustainability: Implications for Policy and Action

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Introduction

Natural science disciplines ranging from climatology to oceanography and from geophysics to biogeography have been involved in research on climate change and its implications for sustainability, but over the past few decades anthropologists have examined these same issues from a rather different perspective. Even earlier, physical anthropologists and archaeologists had begun examining the role of primarily natural climate change in the bio-cultural evolution of humans in Africa and their subsequent dispersal to Eurasia, Australia, and the Americas. Climate change appears to have played a prominent role in the formation of various civilizations, the occupation or abandonment of different regions over time, and the collapse of major civilizations and indigenous societies.

This brief focuses on the recent work of socio-cultural anthropologists on anthropogenic climate change, a phenomenon that began with the Industrial Revolution and is characterized by heavy reliance on fossil fuels and emphasis on persistently enduring economic growth. Particularly after World War II, the global economy began to promote and rely on relentless consumption of manufactured products. This economic model has diffused from the first industrialized countries to the developing world through trade, foreign investment, aid and development programs, and its sustainability implications are not confined to anthropogenic climate change.

Unique theoretical perspectives within the anthropology of climate change

While Margaret Mead was a Visiting Scholar at the Fogarty International Center, she persuaded the Center to sponsor a conference that would explore ways to contribute to a healthy atmosphere. This early climate conference, entitled “The Atmosphere: Endangered and Endangering,” took place at the National Institute of Environmental Health Sciences in North Carolina in April 1975. Mead appears to have been the only anthropologist at the conference and perhaps the only social scientist as well, in a meeting largely attended by physical and natural scientists and public health experts. While Mead did not encourage fellow anthropologists to work on climate change per se, her involvement in the conference foreshadowed the beginning of the anthropology of environmental change.

During the 1990s anthropologists Steve Rayner (Rayner and Malone 1998) and Mary Douglas (Douglas et al. 1998) as well as archaeologists Carol Crumley (1994) and Brian Fagan (2000) laid the foundations for the anthropology of climate change. Since then this field of anthropology has matured into a diverse and robust effort exemplified by four perspectives: (1) the cultural ecological; (2) the cultural interpretive; (3) the critical anthropological perspective; and (4) the applied anthropology perspective.

Many anthropologists are now asking questions from a cultural ecological perspective, examining all facets of human-environment relations. As part of the Arctic Climate Impact

Assessment project, Mark Nuttall and his colleagues (Nuttall et al. 2004) examine the impact of climate change on subsistence patterns and adaptive strategies of indigenous Arctic peoples in the past and present. Ben Orlove (2005) examines climate variability in three frequently mentioned historical cases, namely the Mayan civilization of Mesoamerica, the Norse settlement of Greenland, and the U.S. Dust Bowl. Orlove (2005) and colleagues created the Initiative on Climate Adaptation Research and Understanding through the Social Sciences (ICARES). In her work on horse and cattle breeders in north-eastern Siberia, Susan Crate (2008) critiques what she regards as an excessive reliance on the concept of adaptation among policy makers as a way of avoiding serious mitigation efforts and global climate justice issues.

Most cultural interpretive or phenomenological examinations of climate change tend to focus on change perceptions on the part of diverse peoples, often through the lens of their “local knowledge.” This perspective is the predominant one, given that it flows naturally from prior work that socio-cultural anthropologists have done on small-scale societies or local communities where they tend to gather data on people’s “emic” (insider) views. While local knowledge may recognize the reality of climate change and other sustainability issues, for large segments of people, perhaps particularly the privileged, their specific cultural perceptions may also serve to downplay or even deny what is occurring, or that human activities have anything to do with it (Milton 1996). This creates a need to address culture specific change resistance (Reuter 2010).

The critical anthropology of climate change is guided by an eco-social perspective and by political ecology theory with its understanding of the politicized nature of human interaction with the environment (Baer and Singer 2009). It asks questions about the relationship of the capitalist mode of production to planetary sustainability, the role of power in the production and control (or non-control) of pollution, the unequal and unjust distribution of climate change effects, the contradictions of existing carbon mitigation and sustainability regimes and “green capitalism,” and the many social movements that have emerged in opposition to corporate environmental degradation. It argues that global capitalism has come to embody so many contradictions that it must be transcended to ensure the survival of humanity on a sustained basis. This perspective calls for an alternative world system, committed to meeting people’s basic needs, social equity and justice, democracy, environmental sustainability, and a safe climate.

In terms of applied work, anthropologists have been looking at sustainability issues at two broad and quite distinct levels, namely by participating in the formulation of environmental policies and by studying and becoming involved in the environmental movement which supports social, technological, and economic changes toward long-term sustainable practices. It is evident that more and more anthropologists will become involved as observers and engaged scholars in applied initiatives, seeking to respond to environmental change at the local, regional, national, and global level. This requires us to work as advisors in tangent with international climate regimes, national and state or provincial governments, NGOs and environmental groups, concerned communities, or climate action and sustainability movements.

Towards an integrated understanding

Anthropologists and other social scientists are not seeking to become climate scientists, agricultural scientists or ecologists. Conversely, natural scientists generally are not in a good position to develop a detailed understanding of the ways social systems operate, either at the macro- or the micro-levels, or how they contribute to climate change and various other forms of environmental damage. Efforts to examine and respond to the adverse impacts of human practice on nature and, conversely, of environmental degradation on humanity, has to be a multi-disciplinary one that entails collaboration between natural scientists and social scientists, including anthropologists, archaeologists, sociologists, political scientists, economists, and human geographers.

The reality is that natural scientists and economists continue to dominate much of the discourse on change, as is evidenced by the composition of the IPCC. Newer initiatives, such as Future Earth, established by ISSC and ICSU, already show a more balanced composition. Anthropologists and other social scientists are now playing a critical role in providing their analytical skills and insights to a larger struggle to create a world in which we learn to live in harmony with one another and the planet.

Implications for Sustainable Development Policy:

- Continual economic growth must be recognized as environmentally unsustainable
- A definitively clear-cut distinction needs to be made between “development” and “growth”
- Development should aim to provide wellbeing rather than just growth, and its success should be measured in terms of improvements in environmentally sustainable provision of adequate food, clothing, shelter, education and health care to everyone.
- In order to achieve environmental justice, which would appear to be a precondition for global cooperation on sustainability measures, there needs to be a redistribution of global resources to people in developing countries who are least responsible for environmental change, and are often also the least well equipped to adjust to it
- Sustainable human development should take into account variation in cultural values and knowledge around the world, both as an asset and as a potential impediment to sustainability programs
- Sustainable resource management and carbon pollution mitigation projects must integrate (rather than displace or marginalise) local and indigenous people and consider their needs and traditional rights

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