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## Global Forces in Social Science Approaches to Natural Resource Management

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During the last few decades, social scientists have contributed enormously to understanding how environmental and natural resource management issues have become increasingly global phenomena (Stern, Young & Druckman, 1992), and alternately, that the global environment itself has much to offer the social sciences (Redclift & Benton, 1994). The global dimensions of environment and society are central chapters in today's textbooks and courses (e.g., Bell 1998; Harper, 2001; Humphrey, Lewis & Buttel, 2002). This is occurring as biophysical scientists realize that their work may help society achieve some end or objective, but determining the objective is largely a social decision, and one made more difficult as the scope for whose views are to be included becomes wider and more diverse. This chapter is a preliminary synthesis of natural resource sociology studies, and one that draws heavily from political ecologically-inspired geographers, anthropologists, and sociologists. After a brief discussion of the complexities involved in defining global forces (including globalization), the chapter discusses four topics that illustrate our engagement with global forces, and how they have changed over the last decade or so. It ends with suggestions for future research.

### Social Science and Global Forces

A recent editorial in *Conservation Biology* acknowledged the importance of understanding social forces in environmental transitions, especially as they increasingly recognize the broad disconnect between their biological knowledge and conservation success on the ground (Mascia et al., 2003). However, these authors also acknowledge that the idea that conservation is as much about people and human behavior as it is about species or ecosystems is still insufficiently recognized in some conservation circles.

The complexity of these issues is heightened when their global context is considered. Environmental social

scientist Fred Buttel (2002) argues that, with some important exceptions, the two key sub-fields of *environmental sociology* and *natural resource sociology* have not had a particularly distinguished record of dealing with global perspectives. Buttel suggests this may be due to the vague and imprecise notions of globalization and global forces themselves, and especially the lack of clear exemplars for incorporating global forces into the conceptualization of research problems. He suggests that the units or scale of analyses have been insufficient to develop a global sociology of resources and environment. The *sociology of natural resources* tends to stress local and regional units of analysis and has not dealt systematically with late 20th world economic and political integration, while the principal unit of analysis in *sociology of environment* has tended to be a homogeneous nation-state. Even when globalization is mentioned in the latter case, there is limited theorization. It has tended to be viewed as outside or exogenous to societies or as extensions of societal-level dynamics such as capitalism, interacting with an undifferentiated and un-ecological environment, such as in Schnaiberg's (1980) otherwise important theory of the "treadmill of production."

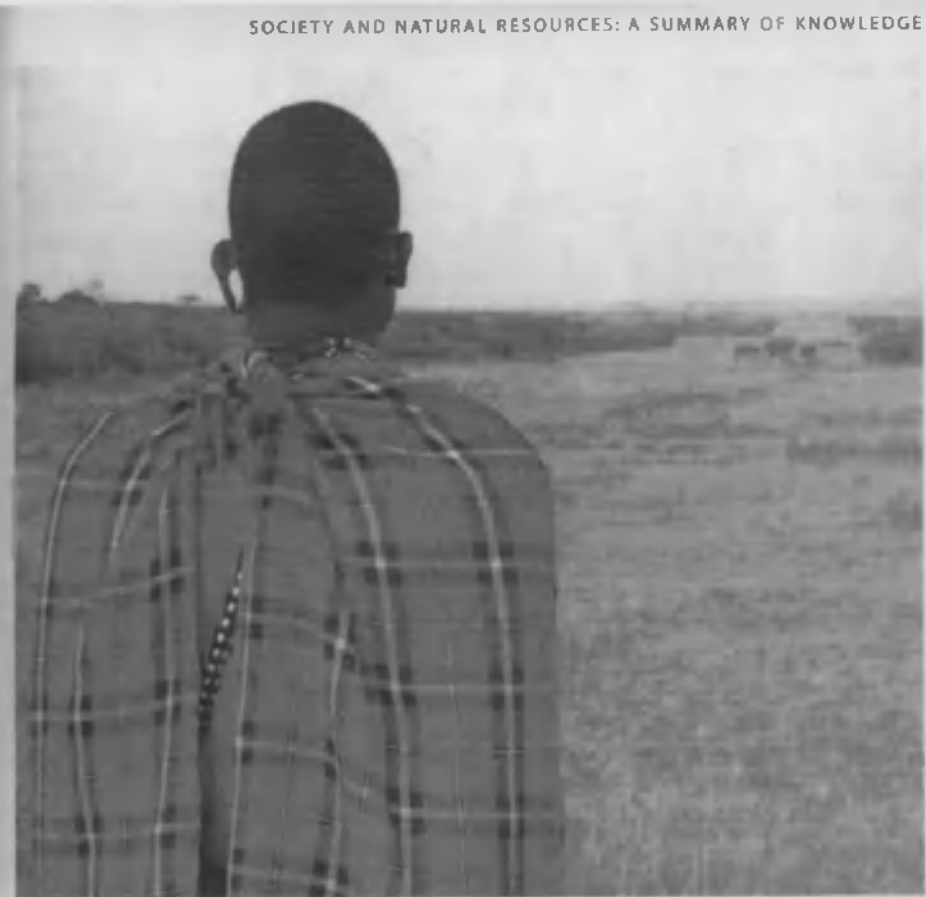
Trans-disciplinary perspectives that take seriously the *politics* and *ecology* in political ecology can help us bridge internal disciplinary differences, and better understand global forces (Belsky, 2002). Political ecology with its explicit attention to seeking out chains of explanations across multiple spatial and temporal scales, and to historical processes such as colonialism and economic development, is particularly attendant to embracing global forces.

### Understanding Global Forces and Globalization

What do *global forces* and *globalization* mean? There is not one global perspective that provides an over-riding and widely agreed upon definition of globalization: what it is, how important is it, what drives it, its effects, or how best to study it. Each of the social sciences holds a different perspective on globalization.

Controversies within and across disciplines range from fundamental issues regarding globalization's definition, importance, scope, timing and politics. Globalization is commonly defined as the integration of economic forces on a world scale, emphasizing in particular deregulation or "freeing" of trade markets. It is also often described as being shaped by technological change (especially information and communications technologies) reconfiguration of states, regionalization, and as an uneven process across the world (Pieterse, 2004).

Sociologists have been highly involved in articulating a vision of globalization, and especially in setting out an agenda for asking and responding to such concerns as who or what directs this process and who benefits or loses from it (Sklair, 1994). McMichael (2000) defines the globalization project as "an emerging vision of the world and its resources as a globally organized and managed free trade/free enterprise economy pursued by a largely unaccountable political and economic elite" (p. 354). While McMichael and social scientists informed by a political economy perspective emphasize an historical and largely structural understanding of global economic forces and institutions, and especially the inequities they have fostered between the North and South, other sociologists emphasize the non-economic aspects of globalization. For example, Ritzer (2004) defines globalization as "the worldwide diffusion of practices, expansion of relations across continents,



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organization of social life on a global scale, and growth of a shared global consciousness" (p. 72). Pieterse (2004) provides a definition that takes into consideration the multiple and contested notions of globalization:

Globalization is an objective, empirical process of increasing economic and political connectivity, a subjective process unfolding in consciousness as the collective awareness of growing global interconnectedness, and a host of specific globalizing projects that seek to shape global conditions (pp. 16-17).

Among the many issues raised by trying to define globalization and its implications are the relations between the local and the global, and their influence on nation-states and citizens. While some suggest globalization is an extremely influential force that overshadows the local and inevitably leads to homogenization, others focus on the historically specific and hybrid ways global and local forces interact. With regard to global forces and the nation-state, McMichael (2000) suggests states are being pulled not only from *below* in terms of demands from civil society, but also from *above* by transnational (or even supranational) connections. Detachment from nation-states and national identities is leading people, information, ideas and organizations to find meaning and meeting space in a more global, transnational space, no doubt

facilitated by the Internet and other forms of electronic communication.

In this view, the state is viewed as losing its reason to exist; it is either too small to deal with macro-global processes, or too big to be relevant to regional or local concerns (McMichael, 2000). Others are not as quick to bury the nation-state as a key unit of action and analysis. Burawoy et al. (2000) emphasize that transnational connections are not autonomous or "arbitrary patterns crossing in the sky" but are importantly "shaped by the strong magnetic field of nation states... Taxation, welfare, labor markets, regional centers of economic agglomeration, natural resources, education, political regimes, and ideologies—all mark out national grids for the transnational" (pp. 34-35).

A more fundamental question regarding global forces is whether they are really happening and if so, are they any different than in earlier times? Burawoy et al. (2000) outlined three competing views on this question. First, there are the *skeptics* who, referring to the period between 1870 and 1914, maintain that world trade, capital mobility, labor migration and monetary regulation were as open then as any time since. While there has been further internationalization of money, capital markets, foreign direct investment, and trade within supranational economic blocs (e.g., European Union, North American Free Trade Agreement, or NAFTA), they argue these are not new forms of globalization. They also point out that contrary to a popular idea, most production in bigger national economies is for domestic consumption. Furthermore, nation-states are not powerless to regulate economic activities. Indeed some of the success of the newly industrializing Asian countries is due to state regulation of national economies (McMichael, 2000).

A second group, the *radicals*, supports the notion of globalization. They believe that globalization does mark something new, different and more widespread than anything that has come before. They draw support for their view in large part from the global spread of ideology, and especially capitalist ideology, as proof that globalization is indeed a reality. Within this group, globalization is the culmination of modernity and late capitalism. Interrogating globalization requires a confrontation with essentially the spread of neoliberal capitalism which, in this view, has literally become the global standard.

A third group, the *perspectivalists*, suggests that the above view reflects merely one perspective, and largely an American perspective. This group contends that the concept of globalization is a creation of U.S. policy makers, financial planners and their allies. To the charge that globalization reflects the global spread of neoliberal capitalism, they would argue it reflects instead a relatively thin, ungrounded account that is more of a projection of their socio-political location and privilege, and a strategy to defend the status quo. Perspectivalists suggest that it is highly questionable whether there is one monolithic position across the U.S. with regard to globalization as neoliberal capitalism, that neoliberalism itself is a homogenous or coherent policy (economically, politically or culturally), or that the U.S. remains an imperial power. The last point has been dramatically brought home in the wake of the Enron corporate accounting scandal; the contentious World Trade Organization (WTO) meeting in Cancun, Mexico in 2003 where negotiations collapsed amid divisions between 1) the United States, European Union, and Japan and 2) the group of 23 (G-23), led by Brazil, South Africa, India and China; and most tragically in light of the September 11th terrorist events.

## Major Themes

There are significant differences in how social scientists in the 1960s and early 1970s understood global forces in environmental change with how we examine them today. Many of the topics have changed as well. We can see some of these differences as well as possibilities for improving our understanding of global forces in environmental change in the future through tracing four broad topics.

### *Trans-border and Global Forms of Environmental Problems*

Attention to and understanding global climate change, as well as environmental disasters such as in Chernobyl and Bhopal, are visible markers of an increasingly global environment, as well as the growing political divisions of how we go about understanding and dealing with it. Social scientists have served on panels to identify human causes of global environmental change (Stern, Young & Druckman, 1992). Similarly, environmental social scientists have helped to identify the multitude of factors contributing to episodes such as Chernobyl and Bhopal. This includes consideration beyond place-based technical malfunctions, and questions about the meaning of development, progress, identity, and the arrogance of western science (Rajan, 2002). We are offering particularly important insights on the political and ideological underpinnings of how climate change and other scientific data are generated and strategically interpreted and utilized by and for different interests (Buttel, Hawkins & Power, 1990; Buttel & Taylor, 1994).

The social causes and consequences of both northern temperate and southern tropical forest change is another arena of transborder environmental change that social scientists are addressing. As wide expanses of forests are converted to alternate uses (often industrial and/or agricultural), or as they burn up (as with fires in Southeast Asia), national, regional and global concern has risen to the extent that there is now a serious question regarding their long-term existence. Social scientists have given close attention to both the material and discursive dimensions of such efforts at varying levels, and how ideas about forest and forest change influence policy makers and managers (Leach & Fairhead, 2000). Literally hundreds of studies produced over the years highlight a wide array of ongoing forest struggles, conflicts, and movements involving forest dwellers, users, state and other elites, transnational timber companies, and forest conservationists from near and afar. They also indicate a long list of academic debates: issues concerning the "nature" of forests and forest change; notions of forest access, control and rights; environmental accounting, accountability and sustainability; gender, class and race aspects; discourse on local and indigenous knowledge; resource-extraction development, and; governance institutions and strategies (Doornbos, Saith & White, 2000). A particularly important sub-topic concerns understanding the variable ways common-pool resources have been understood (and misunderstood) and the methodological questions these differences suggest (Agrawal, 2001).

### *"Greening" of Multilateral Institutions and Development*

In recent years there has been a new emphasis on nature-society relations, and attempts to legislate environmental dangers through inter-state agreements and multilateral organizations. A striking trend over the last decade has been the

"greening" – and with limited success – of multilateral institutions such as the World Bank (e.g., the Global Environmental Facility), WTO, and regional associations and agreements such as the European Union and NAFTA (Watts, 2000).

Attention to development and environmental sustainability, and especially the role of states and multilateral institutions in rethinking and managing the relationship between the two, assumed center stage with publication of the Brundtland Report (1987). This report was influential in identifying connections between environmental crises and global inequality (and especially to dependency and poverty created through colonial and post-colonial terms of trade), and the value of linking today's conditions with those in future generations. The report's call to address sustainable development awoke many global institutions to the much-discussed subject of *sustainability*.

Sociologists have provided many contributions to this discussion. Of particular importance are studies that critiqued global institutions for appropriating the concept. While acknowledging that (finally) they were paying attention to the relationship between income and environmental degradation, global institutions have been criticized for using it as a means to justify continued conventional development (and capital accumulation) and avoid addressing political and economic structural change (Redclift, 1987). Not only has this debate provided additional evidence for critiquing (modernization-style) development, but it has raised questions regarding whether there is a certain level of material well-being that nations must achieve to support environmentalism (Brechtin & Kempton, 1994). Environmental sociologists continue to examine the material and ideational dimensions of connections between different approaches to economic development and sustainability, and from many different angles: production, consumption, rationality, risk, modernity, feminist, etc. (Redclift & Benton 1994). From a managerial perspective, this has led to an explosion of works claiming the compatibility of capitalist capital accumulation with modernization (Mol, 1997), and support for green technologies, industries and practices such as eco-tourism and eco-labeling. These claims are currently some of the most hotly debated topics, and are likely to remain so in coming decades.

#### *Restructuring of Global Capitalism and Expansion of Transnational Corporate Capitalism*

Attention to global forces has become particularly important over the last decade given global economic restructuring, especially in the wake of the Soviet Union collapse and the experiences of newly industrializing countries in Asia and Latin America. Environmental and natural resource social scientists have played important roles in specifying the variable conditions of global economic restructuring and their implications for environmental and social change. Many address the implications of changes mandated by International Monetary Fund structural adjustment programs (e.g., deregulation, privatization, export-led development, natural resource extraction) on local economies and resources, often specifying particularly harsh consequences for marginal environments, ethnicities, classes and genders (Redclift & Woodgate, 1997).

Lastly, the development of a growing global political ecology has been

important for documenting the actions of transnational corporations as they maximize profits by exploiting cheap sources of labor and natural resources, and take advantage of increasingly easy movement of capital, labor, technology, and commodities. Perhaps one of the most striking contributions of environmental and resource social scientists to revealing connections between transnational corporations and what happens on the ground and in our bodies is work on the global food economy. Many studies (e.g., McMichael, 1998) chart the rise of agribusinesses, abetted by use of institutional and multilateral mechanisms such as the General Agreement on Tariffs and Trade (i.e., GATT) and WTO policies, that monopolize control of world agriculture and food flows. Such works have specified the implications of the food and agricultural corporate giants on land degradation, petrochemical dependency, petro-violence, malnutrition and hunger, and corrosion of traditional agro-ecosystems and local food systems (Odman & Watts, 1997). The rise of bio-technologies and what many have seen as the hegemonic control of (northern) agribusiness over both the image and material products of genetically modified organisms through WTO-sponsored intellectual property rights, is perhaps one of the most widely contested and researched topics over the last decade. This debate indicates how far environmental and resource social scientists have come in critically engaging global forces (Humphrey, Lewis & Buttel, 2002).

#### *Transnational Environmental and Environmental-Social Justice Advocacy Movements and Networks*

The fourth topic refers to the rise of new social movements that strive to link environmental conservation with a range of fair trade, sustainable production, and human rights, or what is framed as *environmental justice*. Much of the attention of environmental and resource social scientists over the last decade has changed focus from large-scale environmental organizations and campaigns to local and community efforts. These efforts are strongly influenced by attention to local livelihood, property rights, and local participation. For example, environmental and resource social scientists have played key roles in articulating, debating and influencing resource management philosophies and programs that build on and assess models of participatory conservation and development. In theory, these offer alternatives to conventional scientific expert-driven development and conservation in such arenas as forestry, fisheries and grassland management. Many have gone on to influence community based movements in the U.S. such as community-based ecosystem management (Johnson, 2001) and community forestry (Baker & Kusel, 2003). In trying to understand these community-based movements, social scientists have drawn on understandings of rural life, social stratification, property systems, livelihood strategies, local knowledge, and governance. Of great importance are studies that identify obstacles at local to global levels that hinder local management, such as when participatory mechanisms serve to contain dissent (Few, 2001).

Debates over the meaning and practices of global biodiversity conservation provide a particularly acute lens for seeing the controversies and politics of what can happen when approaches and concepts developed in one part of the world are transferred to others. Brechtin and West's (1991) co-edited volume, *Resident People and National Parks*, was an important milestone in articulating the limitations of the

largely American exclusionary model of conservation (i.e., strict preservation in which historical human uses are prohibited) and defending the development of alternative models of locally-designed, participatory models of conservation.

Western and Wright's (1994) co-edited volume *Natural Communities* followed soon thereafter with descriptions of case studies and analyses learned from experiments in community-based conservation programs. Works by Peluso (1993), Neumann (1998), Agrawal and Gibson (1999) and ecological anthropologists such as Brosius, Tsing and Zerner (1998) have pushed forward our theoretical understandings of the concepts and on-the-ground efforts that make claims about *nature, society, community* and *conservation*. Rather than de-centering the value of community conservation (and global biodiversity conservation more generally) as some have charged, these efforts have significantly propelled our scholarship and its practical application in advance of international biodiversity with social justice for the next century.

### Future Issues: Theoretical and Managerial Considerations

The above review merely hints at the range of topics and debates social scientists around the world are engaging in as they seek to make sense of and suggest ways to study increasingly globalized people and environments. There are many who remain sympathetic to the plight of marginalized peoples who have lost access and control over natural resources in the name of biodiversity conservation. Further, there remain huge theoretical, methodological and strategic differences regarding how each makes sense of these debates and objectives. A deeper question goes to the gulf among environmental and resource social scientists regarding the extent to which we think managerial strategies themselves are useful without deeper socio-political change. Another division revolves around the ability of actors from the North and South to be able to put aside historical experiences and inequities to forge partnerships and coalitions as equals. Developing such global collaboration is hampered by the views of citizens, institutions and governments in the North that treat tropical forests as "global heritages," a stance that is highly resisted among residents of the South who see it as hypocritical and imperialistic.

These differences will no doubt persist. The important challenges are how we can be more reflexive about our own (social) location and locality, and foster dialogue and meaningful partnerships among people in our own disciplines, as well as with biophysical scientists, movement activists, professional resource managers and historic resource users and managers. In thinking about how to understand and identify global forces in ways that can link theory to practice, we have much to learn from the notion of grounding globalization and to lessons from political ecology that take seriously politics, culture and ecology.

Burawoy et al. (2000) refer to *grounding globalization* "...as the process of capturing and extending observations out from micro processes to macro forces such as global forces" (p. 29). They utilize the extended case method to do so. It begins with an event or case for situational observations, but then branches out to social processes in the broader geographical and historical field (similar to the regional political ecology approach of "bottoms up"). The advantage of the extended method is explicit attention to using the case to discover extra-local

influences which are not just approached as something specific to each case study, but as subjects of investigation and theorizing in their own right.

Taking seriously the *grounding globalization* approach would also assist us in another future challenge, and that is how to identify and work towards conservation practices that are more effective and socially just, and to do so through collaborative action. Multiparty collaborations can be an extremely valuable tool for environmental and resource sociologists given that conservation goals and procedures are socially contentious. Consequently, working closely with other scientists and stakeholders becomes critical to anticipate and actually implement multiple solutions. Doing so through a grounded globalization approach offers some hope to transcend "analysis paralysis," especially given the often numbing experience of having to confront powerful global institutions and forces.

Engaging a wide array of scholars and practitioners from within, but also outside, the two subfields of environmental and resource sociology can help tremendously in thinking through these issues. Ecological anthropologists and legal scholars Brosius, Tsing and Zerner (1998) have provided some of the most trenchant and insightful statements on why and how conservation practitioners can understand not only our human impact on the physical and biotic environment, but why and how we must pay close attention to the politics of language and knowledge claims. Attention to ideas in their political-historical context is extremely important, even though the authors are aware that their analyses have been perceived by some as unhelpful criticism. On the contrary, their work demonstrates the incomparable value of critical analyses that reveal the cultural politics underlying research questions, concepts and strategic practices.

### Conclusion

In addition to providing an overview of topics, this chapter has suggested some challenges ahead of us and some promising trends for meeting them. With regard to the latter, we need to pay close and critical attention to both the *material* political-economic (e.g., restructured capitalism, altered nation-states, inequitable access to and control over resources) and *symbolic* (e.g., discourse, values, culture) dimensions of human and nature relationships, and especially the interactions between them.



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We should embrace the complexity of seeking chains of explanations as they wind around nested scales of analysis and most importantly, situating our analyses within particular peoples, places and practices. And lastly, we ought to ground our intellectual discoveries and theories further by constantly seeking collaboration with other social and biophysical scientists, private and government-agency resource managers, and citizens at-large to engage multiple perspectives on nature/society interactions, and work towards improving conservation and natural resource management practices that can be both ecologically effective and socially just.

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# 7

## Cultural Diversity and Natural Resource Management

Myron F. Floyd

A substantial body of research on the relationship between race, ethnicity, culture and natural resources has developed in recent decades. This development is due in large part to the growth, increasing visibility and political activism of racial and ethnic minority groups in the United States. It also reflects the increasing degree to which natural resource management takes place within multi-cultural contexts, and the limited social science understanding of natural resource use and values among ethnic minority and indigenous populations (Schelhaus, 2002).

The International Symposia on Society and Resource Management (ISSRM) has emerged as a major forum for disseminating findings from empirical and conceptual studies of cultural diversity. This chapter reviews research on cultural diversity presented at ISSRM since 1986. It presents findings from the symposia with the goal of identifying the major themes emerging from published abstracts, as well as findings which later appeared in peer-reviewed journals. The chapter concludes with a series of future issues and challenges.

The chapter is developed around four major themes: 1) extractive and subsistence use, 2) recreation use and settings, 3) environmental beliefs and worldviews, and 4) environmental justice. These themes overlap as the lines of separation are somewhat arbitrary. Nevertheless, they exemplify various ways ethnic minority and indigenous populations interact with natural resources and interface with natural resource management.

### Extractive and Subsistence Resource Use

Several studies demonstrated that extractive and subsistence resource use is influenced by ethnicity and culture. Values and beliefs associated with ethnicity and cultural traditions have been linked to what types of resources are harvested (Anderson, Blahna & Chavez, 2000; Richards & Creasy, 1996), social organization of resource use (Endter-Wada & Levine, 1996), application