



The Social, Institutional and Human Context: A Missing Chapter of the IPCC Fourth Assessment Report?

Karen O’Brien

Department of Sociology and Human Geography
University of Oslo, Norway
karen.obrien@sosgeo.uio.no

The recently-published IPCC Fourth Assessment Report represents a milestone in climate change history. Building on previous reports published in 1990, 1995 and 2001, the three volumes of the Fourth Assessment draw attention to both the certainty and severity of climate change and associated impacts, and to the necessity for both adaptation and mitigation as responses to climate change. The three working groups of the IPCC have assessed the science of climate change, reviewed impacts, vulnerability, and adaptation, and considered current and potential policy responses towards reducing greenhouse gas emissions. In a year marked by droughts, floods, wildfires, and some record-breaking extreme events, the IPCC reports have also helped to situate current weather extremes within the context of long-term changes linked to increased atmospheric concentrations of greenhouse gases. They show that many sectors and regions are vulnerable to negative impacts of climate change, and that sustainable development may be threatened by climate change. The IPCC, as a recipient of the 2007 Nobel Peace Prize, has successfully raised climate change as an issue of peace and security.

What the IPCC reports have not done, however, is to thoroughly assess the implications of climate change within a wider social, institutional, and human context. Numerous questions that are currently being addressed by researchers in the social sciences and humanities draw attention to both subjective and objective dimensions of climate change that can be used to assess the “so what?” of climate change – in other words, why climate change matters, and what is really at stake. For example, how does climate change influence the capacity of individuals and communities to respond to multiple and interacting stressors? Whose security is most threatened by climate change and why? Does migration represent a successful adaptation to climate change, or a failure to adapt? What types of adaptation are sustainable, and what types contribute to the vulnerability of others and of future generations? How does climate change influence the diversity of needs and values that contribute to human security? What are the cultural implications of climate change, and how does this influence worldviews and belief systems? Whose values count in contemporary responses (or lack of responses) to climate change, and how can value conflicts be resolved?

The wider social, institutional and human context for climate change falls into what can be considered the “missing chapter” of the IPCC Fourth Assessment Report.¹ Successful responses to climate change depend to a large extent on recognizing and addressing the dynamic social, institutional, and human context in which climate change is taking place. The missing chapter would point out that climate change is more than an environmental problem—it is a social problem, a development problem, and an ethical problem that is closely linked to the notion of human security. Thus climate change impacts do not result from changing climate parameters alone, but instead impacts are intensified, reduced, or eliminated by the context within which the changes take place. The missing chapter would thus make it clear that responses to climate change must extend beyond “climate policies” to address the social, economic and political context in which climate change is occurring.

Some of the key themes that might be included within this “missing chapter” are considered below. These themes can serve as a basis for an improved understanding of the relationship between climate change extremes and disasters, and for developing strategies for reducing associated risks and social vulnerability through adaptation and disaster risk reduction. They are well-documented in the literatures that are linked to climate change and disaster risk, and in a growing body of literature from the social sciences and humanities. Some of this literature has been summarized in a recent report coordinated by the Global Environmental Change and Human Security (GECHS) project, which supports the need to integrate adaptation and disaster risk reduction strategies in response to climate change.²

The social context

We live in a world of almost seven billion people, many of whom live in a context of insecurity: a world where food insecurity, water insecurity, health insecurity, economic insecurity and physical insecurity are commonplace. It is within this context that most individuals, communities, and groups will experience climate change. Consequently, the possible effects of climate change cannot be understood independently of the larger social, economic, political, technological, cultural and environmental changes that are continuously influencing this context. Hazards and extreme events themselves can transform the context for long-term economic and social development, which may in turn increase social vulnerability and reduce the capacity to respond to climate change. The cumulative effects of events such as hurricanes, floods, or droughts not only damage or destroy material assets and human lives, but they also influence the capacity of individuals to recover their sense of security and well-being.

As recognized in the Fourth Assessment Report, climate change is one among many processes that create shocks and stresses for individuals and communities. Both the climate change and disaster risk reduction communities are aware that impacts and vulnerability are determined not by the magnitude of the shock or stressor alone, but by interactions with other processes. For example, three years of consecutive drought may be much more significant for individuals or communities whose livelihoods are threatened by import competition than for individuals who

¹ The social, institutional and human context were discussed in numerous chapters of WG-II, but as pointed out in Chapter 7 on Industry, Settlements and Society, “many of the components ... are so heterogeneous that each could be the subject of a separate chapter” (Wilbanks and Romero-Lancao et al. 2007, page 5).

² O'Brien et al. 2008. Disaster Risk Reduction, Climate Change Adaptation and Human Security. A commissioned report for the Norwegian Ministry of Foreign Affairs. GECHS Report 2008:3.

have diversified their livelihood options. In some cases, a small change or a single extreme event may push people into a situation of insecurity and deteriorating well-being, while in other cases, individuals may be able to maintain security in the face of rapid or major change.

What is “missing” from many assessments of climate change is a critical review of how and why the social context is changing as a result of interactions among ongoing and emerging processes, in many cases creating the context for disaster. The missing chapter would cover the issues that are making many people more vulnerable to change, and the ways that disasters in turn affect the social context and influence processes such as peace-building, democratization and development. The missing chapter would assess how and why society is becoming more less resilient or more resilient to change over time, and the ways that decreasing resiliency might be reversed as societies look for sustainable and equitable ways to reduce the human, social, economic and environmental losses from extreme events. Understanding the social context involves going beyond the creation of socio-economic scenarios for the future, and instead includes an assessment and analysis of how broader changes influence social vulnerability and the capacity to respond to shocks and stressors.

Institutional Context

Recent newspaper headlines have drawn attention to the significance of the global financial crisis, which is having severe impacts on social welfare and human well-being through its impacts on production, jobs, investments, and development and humanitarian aid. Institutions, which include sets of rules, decision-making procedures, and programs, are changing rapidly in response to the unraveling of a large and complex financial system. This not only contributes to uncertainty about the future, but it also influences the capacity to respond to climate change. The institutional context affects climate change adaptation and mitigation efforts, and influences disaster risk reduction strategies.

The IPCC Fourth Assessment Report highlights the importance of institutions and institutional capacity as a means of reducing vulnerability and increasing adaptive capacity. Institutional constraints to adaptation are discussed, including the difficulties in mainstreaming adaptation into development planning. Economic development, changes to ecosystem services, urbanization, migration, macro-economic policies, and many transformations linked to globalization processes are recognized to influence the institutional context for responding to climate change and extreme events. Institutional capacity is considered a prerequisite for responding to climate change.

What is missing from the Fourth Assessment Report, however, is an assessment of the dynamic institutional context in both developed and developing countries, including new linkages (financial, technological, informational, etc.) that are connecting vulnerability across distant places and groups, and in some cases transferring vulnerability to future generations. The financial crisis has illustrated many of these institutional dynamics, and it reveals how complex institutional arrangements have contributed to a loss of resilience within and across diverse social-ecological systems. The “missing chapter” would address the changing institutional context for dealing with risk, vulnerability, uncertainty, and compensation issues. For example, it might assess the role of social contracts in a changing climate, including how the notion of rights and responsibilities between states and citizens is changing as risks and responsibilities become

increasingly global. It would consider the role that governments, corporations, civil society (and researchers) play in developing new social or environmental contracts that take into account the rights of and responsibilities to both distant others, and to future generations. The missing chapter would assess both the stability and dynamics of the institutional context, and consider the types of changes that might facilitate responses to climate change that enhance human security.

Human Context

Climate change will affect not only human lives and material needs, but also experiences and relationships that may be valued differentially by individuals, communities, or cultures, both in the present and future. Climate change is not simply an environmental problem that can be discussed and ranked relative to other social and economic priorities – it is a human security issue that is closely linked to many other issues, including to human development. Climate-related disasters, for example, can have long-lasting development effects as experienced through post-traumatic stress disorder and the consequences of long-term deprivation of basic needs and rights. Understanding the human context in which climate change is experienced and created is essential to any efforts to reduce vulnerability and mitigate the long-term consequences of climate change.

The IPCC Fourth Assessment Report draws attention to the impacts of climate change on different regions, ecosystems, and sectors, and considers the factors that contribute to vulnerability and influence adaptation. It considers differential vulnerability and unequal outcomes, and discusses the barriers and limits to adaptation. The chapter on “Assessment of Adaptation Practices, Options, Constraints and Capacity” recognizes that these barriers and limits are not only material, but also subjective, linked to risk perception, cognition and human values. Nonetheless, there is little attention within the report to the subjective dimensions of climate change, including how religion, spirituality, culture, values, worldviews and belief systems influence the perceived outcomes of climate change, and responses to climate change.

What is missing from the Fourth Assessment is a deeper assessment of the implications of climate change for human security – i.e., for the capacity of individuals and communities to respond to threats to their social, environmental, and human rights. The “missing chapter” would draw attention to how climate change may affect the subjective dimensions of individuals and collective experiences, including the relationships with species, ecosystems, cultural icons, and so on, that people value. Many of the subjective and ethical dimensions of climate change have been studied, yet they have not been integrated with understandings of climate change impacts and adaptations that reflect objective changes to systems, or within analyses of the politics and power that promote some interests and responses over others.

James Lovelock’s recent book on Gaia presents some dismal projections for the next century, including a massive extinction of species and the death of millions of people due to anthropogenic climate change.³ While this vision may contribute to ongoing debates about the significance of climate change and the urgency in responding to it effectively in the coming decade, it also raises some important questions about the human context in which climate change is experienced. In particular, it draws attention to the ways that climate change challenges some

³ James Lovelock 2009. *The Vanishing Face of Gaia*. Penguin UK, United Kingdom.

firmly entrenched belief systems and understandings of human-environment relationships. The idea that humans can influence a complex climate system – and that humans can create a different future climate by consciously responding to climate change – is in many ways a radical departure from traditional, hierarchical worldviews that attribute changes to external forces, and a challenge to modern worldviews that emphasize a dichotomy between humans and nature and the idea that nature can be effectively controlled through technology and management alone. The normative and ethical aspects of climate change in relation to values and worldviews underlie some of the more objective understandings of the behaviors and systems that will both affect and be affected by climate change.

The Missing Chapter: A Human Security Perspective on Climate Change

Over the past two decades, human security has developed as an important international discourse that draws attention to the well-being of individuals and communities in the face of multiple threats. Human security can be considered a variable condition whereby individuals and communities have the capacity to manage threats to their needs, rights and values.⁴ More specifically, it involves having the options necessary to end, mitigate or adapt to threats to human, environmental and social rights; having the capacity and freedom to exercise these options; and actively participating in pursuing these options.⁵ It is a lens of analysis through which processes and their outcomes can be assessed and evaluated from the perspective of individuals and what matters to them. A human security approach to climate change is not directly about whether and how national security or state security will be influenced by conflicts or migration resulting from climate change. Instead, it is related to how individuals and communities may experience and influence the outcomes of climate change, which in some cases may lead to negative actions or responses (including violent conflict and migration) that very often affect the security of and well-being of others.

The IPCC Report draws attention to climate change as a serious environmental problem that will affect humanity in unprecedented ways if it is not addressed. There is an implicit understanding that everyone's security is at stake, yet there is also recognition of differential vulnerability and adaptive capacity, and the report reiterates earlier conclusions that the poor are most likely to be negatively affected by climate change. Human security is mentioned in the Fourth Assessment Report in the context of Africa, but for the most part the report focuses on differential societal consequences, rather than on the implications for individuals and communities. It is clear from the report that climate change will have uneven impacts, but it does not approach issues of power, politics, interests, values, and worldviews. The missing chapter of the IPCC Report would draw attention to the wider social, institutional, and human context, which are substantiated in numerous and often-overlapping literatures on environmental change, livelihoods, development and human security.

⁴ J. Barnett, R.A. Matthew and K. O'Brien (2008) In H.G. Brauch et al. (eds), *Reconceptualizing Security in the 21st Century*, Berlin: Springer.

⁵ GECHS (1999) *Global Environmental Change and Human Security Science Plan*: Bonn: IHDP

Buoyed by the climate change science presented in the Fourth Assessment Report, global leaders are increasingly recognizing climate change as an important environmental issue that is best addressed through climate policies that include some combination of mitigation and adaptation. The potential consequences of climate change rank it as the number one environmental issue of this century. However, climate change is not merely an environmental issue, but rather a human security issue that needs to be addressed from multiple yet integrated perspectives, including with an emphasis to the wider social, institutional, and human context. As such, discussions about post-2012 agreements and strategies to avoid dangerous climate change need to be broadened to address a more fundamental question, namely “How can we respond to climate change and extreme events in a manner that enhances human security in an unequal but increasingly interconnected world?”