

Development in the time of climate change: An issue for ethics

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Introduction

Climate change represents very significant impacts for the natural environment, as well as for the economy, health and security of many human communities. The recent report of the Global Humanitarian Forum, *Climate Change – the Anatomy of a Silent Crisis* (2009), clearly shows that poverty and extreme vulnerability to climate change are very closely associated. Even the rise of only one degree Celsius in average global temperatures can provoke famines, mass migrations and threats to public health in various parts of the globe.

The global effects of climate change are especially harmful to the less well-off sectors of the world population, which, however, have contributed much less to global warming than the better-off sectors. In order to obtain action that will take into account those who are most vulnerable to climate change, several factors need to be considered with care. Here we will limit ourselves to the introduction of three topics that will require more in-depth study.

We begin with a brief assessment of the role of communication and public education strategies designed to raise awareness and engage the broad participation of citizens in responses to climate change. Next, we take note of the interplay of poverty and climate change from the perspective of environmental justice and international governance. After this, we propose that development merely be thought of as a matter of economic growth, supplemented by consideration through values such as well-being and equity, but also in terms of human security. Our conclusion is that, in the time of climate change, the increasing vulnerability of marginalised sectors of the world population requires that development be addressed in a new way.

Scientific consensus on climate change and public perception

The latest report of the IPCC states that “Warming of the climate system is unequivocal” and that most of the warming over the past half-century is “*very likely* due to the observed increase in anthropogenic [greenhouse gas] concentrations” (IPCC, 2007a, 1, 4). A range of potentially damaging impacts of climate change are anticipated, some of which may be abrupt and irreversible, with potentially severe impacts on human and natural systems (IPCC, 2007b).

Social science research on how members of the public from diverse cultural backgrounds and scientific literacy levels are likely to use information and reach decisions about science should be incorporated in academic and political debates on climate change, in order to inform effective public engagement and communication.

Any science communication efforts need to be based on a systematic empirical understanding of an intended audience's existing values, knowledge, and attitudes, their interpersonal and social contexts, and their preferred media sources and communication channels (Nisbet and Scheufele, 2009).

While the basic science of global warming is relatively simple, the specific processes and positive or negative impacts involve considerable uncertainty. The causes and likely impacts of climate change for many people currently alive and in the distant future are highly complex. This poses a major communication challenge. Public perception studies show that people worldwide are concerned about climate change.

Communities on the climate frontlines already see the change and suffer its consequences. But awareness about the impacts of climate change is low, particularly among the poorest people in developing countries, where ninety-nine percent of all casualties occur, although only one percent of global emissions is attributable to some 50 of the least developed nations.

In industrialized countries, a large majority of the public feels that climate change is indeed occurring, but significant proportions of citizens in both Britain and America still do not believe that this is due to human activity, as opposed to 84% of scientists surveyed in a recent poll. A third of the general public feels that there is lack of scientific consensus on this issue, and less than half feel that it is a very serious problem (Pew Research Center, 2009). A previous survey by the Pew Research Center for the People & the Press (Pew Research Center, 2008) conducted April 23-27 among 1,502 adults, found that many people say that rising global temperatures are either mostly caused by natural environmental patterns (18%), that they do not know the cause of warming (6%), or that no solid evidence of warming exists (21%). As Nisbet and Kotcher point out,

“[S]olving the public opinion challenge on climate change means defining or framing the complexities of the issue in a way that connects to the specific core values of various publics, but it also means reaching these audiences with the carefully crafted message. This is not an easy task. The great paradox of today's media world is that the American public has greater access to quality information about climate change than at any time in history, yet public concern remains low and citizens remain demobilized” (Nisbet, Kotcher 2009:329).

Following Prior (2005), Nisbet and Kotcher suggest that citizens select media content based on ideology, partisanship, and also based on their preference, or lack thereof, for public affairs and science-related information. Keller and Berry (2003) point out difficulties to reach fragmented audiences and, above all, audiences that are increasingly distrustful of both news and advertising. It explains why citizens instead prefer recommendations from friends, family, coworkers, and peers.

According to Nisbet and Kotcher, activating concern and catalyzing behavior change across key segments of the public depends on establishing the right perceptual context:

“[T]he communication challenge is to shift climate change from the mental box of “uncertain science,” an “unfair economic burden,” or a “Pandora's box” of disaster toward a new cognitive reference point that connects to something the specific intended audience already values or understands. As recent examples, several campaigns recast climate change as an opportunity to grow the economy through the development of clean-energy technology or the creation of “green-collar jobs;” other campaigns redefine climate change as a matter of public health or moral and religious duty. Campaign organizers need to draw on focus groups, in-depth interviews, experiments, and surveys to identify and test different frames across population segments or relative to a targeted specialized audience” (Nisbet, Kotcher 2009:338).

Many concepts, measures, and strategies can be applied to improve the efficacy of opinion-leader campaigns on climate change, in order to catalyze wider political engagement on the issue and to promote sustainable consumer choices and behaviors. But public perception studies show that climate change is still considered a distant threat that might affect our future, although the effects of pollution driven by economic growth in some parts of the rich world are now driving millions of people into poverty elsewhere. So, important questions of distributive justice and environmental equity arise, affecting also future generations interests.

Environmental justice and democratic governance

Poor people lack of capacity to make their voices heard in international fora, but climate change is an all encompassing threat, affecting directly the environment, the economy, health and safety. Many communities face multiple stresses with serious social, political and security implications. New climate policy must empower vulnerable communities and help to harmonize basic democratic values (*e.g.*, participation, deliberation) with the challenges raised by global warming. The world's poorest communities who suffer most from climate change are least responsible for greenhouse gas emissions. Therefore, the global framework needed to address climate change must be based on the principles of fairness and equity.

At the international level, climate policy is now moving rapidly towards agreeing on an emissions pathway, and distributing responsibilities between countries. A new framework is needed, in which each country takes on its own responsibilities and targets, based on a shared understanding of the risks and the need for action and collaboration on climate change (Hepburn, Stern 2008:259). The concepts of democracy and justice, commonly theorized in a national context, do not play similar roles when applied to trans-national contexts of problems (Lidskog, Elander 2009). Issues such as long-range air pollution, resource depletion caused by international systems of production, and humanity's dependence on a shared biosphere, are good examples of environmental trans-boundary problems that demand concerted political action. Although these issues have been dealt with through negotiations between nation-states, in the case of climate change, doubts have been raised about whether this handling is suitable:

“Poor nation-states fear that international agreements will limit their attempt for economic growth whereas economic powerful nation-states refuse to make substantial reduction of their GHG emission if developing countries do not make a similar sacrifice. Thus, climate change involves fundamental aspects of global justice, which create policy gridlocks for climate change policies.

[...]The challenge of defining and developing structures for political action beyond the nation-state –capable of dealing with larger issues of global inequalities and environmental justice– is one that is far from being successfully met.” (Lidskog, Elander 2009:2-3).

Some authors question if representative democracy in the territorially bounded organization of the nation-state can effectively handle trans-boundary, complex and controversial issues (Held, Koenig-Archibugi 2005). If the political system fails to develop a capacity to handle the climate issue in a democratic way, scientific and technocratic dictates could supersede its role to respond to this challenge. Lidskog and Elander (2009) consider that addressing climate change in a way that meets acceptable criteria of democracy requires a broad understanding of the potentials and limitations offered by the emerging multi-level governance system. They identify four challenges that ecology poses to democracy: justice between different regions of the world, justice between generations, the value of non-human species, and assessment of the role of

scientific knowledge and expertise in decision making. Finally, they argue that three fundamental democratic mechanisms, namely representation, participation and deliberation, must be heeded when considering how to respond to climate change, giving due respect to the basic values of democracy.

The current lack of coherence among the various environmental justice constructs can only perpetuate the atmosphere of endless chaotic theorisation with no positive effect on the evolution of a consensus. According to Ikeme, the environmental justice construct has distributive and procedural dimensions, can be rationalised by both deontological and consequentialist arguments, and can be compartmentalised from preventive, corrective and retributive perspectives (Ikeme, 2003). Ikeme identifies three major environmental justice and equity issues facing the climate change debate: distribution of impacts; distribution of responsibility; and distribution of costs and benefits. But North and the South act on different conceptions of equity and environmental justice in confronting this issue: the South has focused on equality, distributive injustice and corrective justice for historical emissions, while the North focuses mainly on the most economically efficient path for minimising climate impact and delivering global ecological health and stability. As a result, the North and the South broadly subscribe to opposing burden sharing formulas. These incomplete and, in many instances, competing conceptions of environmental justice mark the dividing line in the North–South climate politics (Ikeme, 2003:200).

The South seeks increased participation in the climate change response process arguing that fairness or equitability of an outcome rests on the legitimacy of the process by which it is determined. According to Rawls (1972), a fair bargaining would always produce a fair result, but it requires broad-based participation. The procedural justice requirement of equity asserts that the distribution of costs and benefits of the atmospheric resources can only be equitable if it results from a process that is agreed upon by all parties. However, to date, climate negotiations have been less about protecting the global environment than about protecting national interests.

The overriding Northern conception of environmental justice has been largely consequentialist, geared towards ensuring the most economically efficient path for minimising climate impact (Neumayer, 2000) and emphasising the rightness or effectiveness of the outcome rather than the justness of the steps towards it. Welfare principles dominate Northern conception of environmental justice. The Northern condition for environmental justice in the climate protection point to costs and benefits sharing, minimising overall costs while maximising total welfare across the globe. The strategy would thus focus on reducing emissions where it is most cost effective and where the greatest opportunity for emission reduction obtains.

However, both the consequentialist and deontological moral positions adopted by the North and South reach the same conclusion: greater burdens for climate protection should be borne by the North, and North–South transfer of resources should be used to facilitate climate protection and adaptation in the South. This is far away from Rawls's position, who assumes that peoples from different cultures do not possess the (non-political) cultural common ground to “construct” a just cosmopolitan order. Explicitly motivated by questions of development in the Global South, Martha Nussbaum, Amartya Sen and Seyla Benhabib have recently attempted to construct a universalistic philosophy of “human capabilities” that we could consider the middle ground between Rawls and the cosmopolitanism of Pogge, Singer and Beitz (Doyle, 2006:119).

Development and human security

Human security

A few years ago the International Human Dimensions Programme (IHDP) designated Global Environmental Change and Human Security (GECHS) as a core project. Though an evolving concept, in this context human security is primarily understood as “the freedom to take actions that promote wellbeing in response to changing environmental conditions.” (GECHS 2009a) More specifically, “human security is a state that is achieved when and where individuals and communities have the *options* necessary to *end, mitigate or adapt to threats* to their human, environmental and social rights; have the *capacity* and *freedom* to exercise these options; and *actively participate* in pursuing these options.” (emphasis added, GECHS 2009b) Human security, in other words, entails not only an *end state*, described in terms of an increase in wellbeing and a decrease in certain threats, but also *a particular way of achieving this end state*, in terms of the capacity for active participation in this process on the part of individuals and communities.

As such, the definition of human security is explicitly normative in a double sense, since it does not only draw attention to the end state to be achieved, but also to the importance of the capacity to act on one’s own behalf. The capacity to direct one’s own life according to one’s own choices is widely considered as one of the key elements that give human life intrinsic value (Kant 1785/2002). Hence, insofar as climate change is a threat, not only to health, life and livelihood, but also to the ability of vulnerable populations to actively respond to these matters according to their own choices, it implies a double, ethical imperative for action. When this concept is applied to development in times of climate change, it has some important consequences.

First, it shifts attention from the ‘classical’ goals of development, such as bringing less industrialised nations closer to the standard of living of fully industrialised nations. The key focus, required by the notion of human security, is to bring about conditions so that vulnerable populations may *overcome* in a satisfactory way the *threats that arise from global environmental change*. Second, it demands that the conditions to be pursued be such that vulnerable populations may *themselves* be actively involved in mastering the threats to their lives, livelihoods and general wellbeing.

Development and ‘maldevelopment’

As Vandana Shiva has conclusively argued, much development in the post-colonial world really is ‘maldevelopment’, based on conceptions of progress and poverty that are modelled on European and North American patterns (REFERENCE). As such, these extraneous models of development often increase vulnerability of the least secure populations, even if it allows minorities to acquire standards of living comparable to those in the developed world. Despite critiques such as Shiva’s, development schemes that weaken the least well off continue to be applied, often under pressure from an international banking system that demands repayment of accumulated interest and debt from debtor countries.

The latest symptom of misguided approaches to development may be seen in the collaboration of governments from the developing world with countries from the more industrialised and oil-rich world, such as South Korea and Saudi Arabia, as well as with large, multinational corporations, in the acquisition of immense areas of land for future cash crops to be sold on the world market. A third of the Congo Brazzaville territory, for example, has been leased to white South African farmers for the duration of 90 years (Peinado Alcaraz 2009, Berger 2009). Similarly, in Madagascar the Indian company

Varun has gained control over 232,000 hectares of agricultural land (Tany/Madagascar Tribune 2009), while the South Korean corporation Daewoo expects to obtain rights to 1,3 million hectares if its contract is deemed acceptable by the Parliament of that country (Coalition Paysanne 2009). It is reported that the International Food Policy Research Institute, which is a think-tank based in Washington D.C., estimates “that since 2006, 15-20 million hectares of land in poor countries had been sold or were under negotiations for sale to foreign buyers.” (Kovalyova 2009). These large-scale acquisitions of control over land is a trend that has received its most recent impetus after the world food price crisis in 2007-08, and can be expected to become more pronounced as world population grows, oil prices start climbing again, and ‘emerging’ countries such as China and India continue to increase in meat consumption.¹

The Food and Agriculture Organization (FAO), moreover, though cautious, still advocates further mechanisation of the agricultural sector, on the assumption that this process will contribute to the satisfaction of the demand for food of a growing global population, even while it acknowledges that mechanisation has been an important source of rural un- and under-employment. The result in the past has been that increasingly large numbers of rural people have been reduced to poverty and forced to migrate into urban centres where they swell the ranks of the needy. Even while it may be granted that growing populations will require growth in total quantity of foodstuffs, too little thought is still devoted to the question how displaced rural populations are to afford the food that is produced by supposedly more efficient production methods.

An emphasis on human security in the time of climate change, however, requires that development models be thought through afresh so that the capacity of individuals and communities for securing their lives, livelihoods and wellbeing not be hindered by development schemes focused on goals that serve the non-vital interests of populations in generally better-off countries, or the interests of financial gain of large corporations at their expense. A case in point, which illustrates a particularly harsh result of such misguided development schemes, comes from the African Sahel.

Analysis of the devastating Sahel famine of the 1970s confirms an unfortunate conjunction of misguided notions of development, founded on the goals of rapid economic growth, and a failure in understanding decadal variability of climatic patterns (Heyd and Brooks 2008). The development scheme applied in the area involved the introduction of commercial agriculture and the consequent displacement and marginalisation of pastoralists. These processes undermined traditional ways of coping with drought periods with the effect that, after several unusually wet years, large numbers of people and animals became vulnerable, and eventually succumbed, to the impact of the severe 1972-73 drought that followed.

Human security demands that the capacity for agency of individuals and communities be safeguarded. This implies that models for development of the less industrialised world be reconsidered. Instead of focusing on abstractions of economics, such as total amount of food produced within a country and what it can earn in cash on the world markets, the focus should be on total number of people who are resilient to threats to wellbeing, such as brought about by climate change, and on their capacity to take an active part in procuring their own safety in terms of adaptation and coping.

¹ Supposedly the United Nations is planning to regulate such massive transfers of agricultural lands, but this is not due to happen at least for the next two years. The purchase of farmlands in developing countries is said to have slowed down during the present economic crisis (Kovalyova 2009), but can be expected to pick up speed as soon as money becomes available again.

Obviously such a shift in foci for development means that there be a shift in agents that should be supported. Rather than supporting those elements of global society that appear to be most efficient in the production of food, through capital-intensive inputs designed to fetch the best returns on the global market, the emphasis would be on those elements that can be most relevant to local self-sufficiency and more contributory to autonomous management of local resources. Since agricultural production in most countries is a community affair that requires the cooperation and agreement of community members, support likely should therefore generally be pitched at the community level. Vandana Shiva herself has given a powerful example in how this can be done through her support of the Navdanya network of seed keepers and organic food producers spread across villages in India (Navdanya 2009)

Conclusion

We conclude that development in the context of climate change requires attention to at least three factors: Clear communication strategies of scientific findings designed to engage populations in action, attention to environmental justice in relation to international governance, and a shift in focus from development for economic growth to development for human security.

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