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Climate change and human rights

Wolfgang Sachs

Tulun and Takuu, two tiny islands off the coast of Papua New Guinea, are close to being swallowed up by the Pacific Ocean – victims of global climate change. The government has sent emergency food supplies to the islands, as the inhabitants have had to live on fish and coconut since salt water flooded their fields. Many fear that a distinctive culture will vanish if the people of Tulun and Takuu are forced to give up their native land.

Who are the winners and who the losers in climate change? Burning fossil fuels (as well as forests) has both huge benefits and huge costs. As to the first, access to fuel provides economic power. Thus, we see in the negotiations for a post-Kyoto agreement nations scrambling for allowances to use the atmosphere as a dumping-ground for greenhouse gases. Climate equity in this context is about equality among nations. As to the second, however, causing the dumping ground to overflow gives rise to numerous climate threats, possibly to such a degree that fundamental rights might be violated. Climate equity in this context is about human rights.

Dangerous to whom?

The 1992 United Nations Framework Convention on Climate Change calls for the sta-



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bilisation of greenhouse gas concentrations at levels that 'would prevent dangerous anthropogenic interference with the climate system' (Article 2). But what increase in global mean temperatures is tolerable? Climate negotiations have largely refrained from defining what may constitute dangerous anthropogenic interference with the climate system (Hare 2003). What kind of threat qualifies as 'dangerous'? If the sea level rises by 20 centimetres? By one metre? A one degree rise in average global temperature, or three degrees? And in what timeframe: in 20 years, or in 80 years?

These questions appear to be technical, but in reality are highly political. What lurks behind them are basic decisions regarding the coexistence of people and nations on earth. Because different impacts are associated with different levels of temperature rise, who will be affected, how and to what extent largely depends on how far global warming is allowed to proceed. The dire effects of climate change will intensify global poverty and deepen social polarisation, since they affect the poor more than the rich. Particularly the countries of the South, especially rural communities that depend directly on nature, will come to feel the destabilising effects of global warming much more abruptly than overdeveloped countries and urban populations. Therefore, any decision about what is to be considered a dangerous level of impact is clearly a political and ethical issue. It basically implies two valuations: what kind of danger is acceptable, and what kind of danger to whom is acceptable? It is the response to the latter question that determines the degree of environmental injustice involved in climate politics.

Impacts

When the earth's atmosphere grows warmer, nature becomes unstable. It is no longer possible to rely on rainfall, groundwater levels, temperature, wind or seasons – all factors that, since time immemorial, have made biotopes hospitable for plants, animals and humans. The most important impacts are likely to affect the natural assets that underpin human existence – water, food and health.

With regard to *water*, it is important to note that 30 countries with a combined population of over 500 million are currently considered to be affected by water scarcity, a condition that by the year 2025 is likely to affect some 50 countries with a combined population of about 3 billion. The hydrological cycle is expected to intensify, which essentially means more droughts and floods and more variable and extreme rainfall. Generation-old patterns of rainfall may be shifting, severely impacting plants, animals and people. Several hundred million to a few billion people are expected to suffer a reduction in their water supply of 10 per cent or more by the year 2050 in climate change projections corresponding to a 1 per cent per year increase in CO_2 emissions. Regions where water stress is likely to increase due to climate change include Central and Southern Africa, Central and Southern America and the watersheds around the Mediterranean, while South and East Asia are likely to see an increase in water resources (Arnell 2004). Finally, too much of the wrong water can be dangerous as well. Rising sea levels obviously increase the risk of coastal flooding, which could displace large numbers of people. Some of the most vulnerable regions

are the Nile delta in Egypt, the Ganges-Brahmaputra delta in Bangladesh and many small islands, such as the Maldives, the Marshall Islands and Tuvalu.

Furthermore, climate change will leave its imprint on the conditions for *food* production across the globe. In temperate zones, small increases in temperature might boost yields for some cereals, while larger changes are likely to decrease yields. In most tropical and subtropical regions, potential yields are projected to diminish with most increases in temperature. For instance, damage to the world's major crops begins when daytime temperatures climb above 30°C during flowering. For rice, wheat and maize, yields are likely to decline by 10 per cent for every 1°C increase over 30°C (Halweil 2005). If, in addition, there is also a large decrease in rainfall in subtropical and tropical dryland/rain-fed systems, crop yields would be even more adversely affected. In tropical agricultural areas, yields of some crops are expected to decrease even with minimal increases in temperature (IPCC 2001). Moreover, it is expected that the income of poor farmers will decline with a warming of 1.5°C–2°C above preindustrial levels (Hare 2003). In fragile rural areas, such a change will aggravate the circumstances of people who derive their livelihood from direct access to forest, grasslands and watercourses. While global production appears to remain stable, differences in crop production between temperate and tropical regions are likely to grow over time, leading to a significant polarisation of effects, with substantial increases in the risk of hunger among the poorer nations, especially under scenarios of greater inequality (Parry et al. 2004). Declines in food production will most likely hit regions where many people are already undernourished, notably Africa.

Finally, as public health depends to a large extent on safe drinking water, sufficient food and secure shelter, climate change is bound to have a range of *health* effects. On the first level, a shortage of freshwater caused by climate change will increase the risk of waterborne diseases, just as food shortages will increase the risk of malnutrition. On a second level, climate change, by way of a shift in background climate conditions and changes in regional climatic variability, will affect the spatial and seasonal patterns of the potential transmission of various infectious diseases. With global warming, the geographic range of potential transmission of malaria and dengue is likely to increase. A rise in temperatures, for example, would result in an increased prevalence of malaria in higher altitudes and latitudes. The human-induced warming that the world is now experiencing is already causing 150,000 deaths and 5 million instances of disease each year from increased malaria and diarrhoea, mostly in the poorest nations (Patz et al. 2005), though actual disease occurrence is strongly influenced by local conditions. On the third level, climate change will be accompanied by an increase in heat waves, often exacerbated by increased humidity and urban air pollution, which would cause an increase in heat-related deaths and episodes of illness, particularly among the elderly and the sick.

Summing up these possible effects of global warming on sea levels, water availability and the incidence of malaria, it has been estimated that with an increase of global mean temperature of 2–3 degrees above preindustrial levels, 20–30 per cent of all higher plants and

animals will be threatened with extinction; more than 100 million people living in delta areas will, under conservative estimates, be threatened with flooding and will have to move; and water stress is likely to increase for 1 billion more people every 30 years between 2020 and 2080 (IPCC 2007).

Human rights

There has been injustice in the world since time immemorial. Similarly, the expulsion of people from their land, the assault on their physical wellbeing and the withdrawal of their means of subsistence have been standard instruments in the repressive exercise of power. But only since the middle of the 20th century have such ways of degrading others been thought to involve contempt for human rights. In today's world, there is an international consensus that instances of humiliation and impoverishment have to be measured against the norm of guaranteeing the fundamental rights of every human person. By birthright, people are considered bearers of rights that protect their dignity, regardless of their nationality or cultural affiliation. These rights are equal, that is, everyone enjoys the same rights; they are inalienable, that is, they cannot be forfeited; and they are universal, that is, every human being is a holder of fundamental rights. Especially in an age of globalisation, it is increasingly the discourse of human rights that defines the terms of reference for disputes over power and its victims.

When human beings do not have the basic capability to support themselves with dignity, their human rights are under threat. The International Covenant on Economic, Social and Cultural Rights declares that 'the State Parties to the present covenant recognise the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing...' (Article 11) and 'the right to the highest standard of mental and physical health' (Article 12). Influenced by this formulation, which echoes Article 25 of the Universal Declaration of Human Rights, the debate on development has changed tack in the past decades: overcoming hunger, illness and misery is no longer seen as a matter of charity or solidarity, but as a matter of human rights. The needs-based approach in development has been more and more replaced by a rights-based approach.

Rights-based climate policy

The dire consequences resulting from climate change – in particular, several decades from now – will spread across the globe, albeit in varying degree. Countries – and regions within countries – are disproportionately affected for basically two reasons: higher impacts and higher vulnerability. As indicated above, the adverse impacts of climate change are likely to be more concentrated in areas of Africa, South America and Asia than in the global North. Impact profiles differ according to the kind of impact and geography, but water stress and flooding, declining agricultural productivity and weakening ecosystem services, crop pests and human diseases are more likely to occur in subtropical and tropical countries, in coastal areas and in arid and semi-arid agricultural areas. Higher vulnerability, however, derives from the fact that in many places at risk a great number of people already live in fragile conditions, economically and with regard to their health. The ability to prepare

for and to cope with threats varies widely according to income and living conditions. The impact of a hurricane in Orissa, India, for example, may be much more severe than the impact of a similar hurricane in Florida, USA. The poor generally tend to have much lower coping capacities: they are more exposed to disasters, drought, desertification and slow economic decline.

Climate perturbations are likely to be superimposed on economic insecurity. As people already living at the edge see themselves pushed into disaster, climate effects may trigger an infringement upon economic and social human rights. This is not to say that climate-related threats (hurricanes or heat waves, for instance) to human physical integrity under conditions of greater affluence may not constitute a human rights violation as well, but impacts in poorer regions often exacerbate an already structurally precarious livelihood situation. It is the compounded effect of economic insecurity and climate stress for large numbers of people that is at the centre of the question of how much climate change should be allowed as a human rights issue.

However, climate-related human rights are matched by only imperfect, not perfect, duties. Just as a violation of the right to food, health or shelter can often not be traced back to the action of a clearly identifiable duty-bearer, so can climate effects not be attributed to a culprit with a name and address. Who exactly should be held responsible for hunger and widespread illness? But the absence of culprits or judges does not nullify rights. A strictly legal conception, which maintains that there are no rights unless they can be enforced in a court of justice, misses out on the universalist nature of human rights entitlements.

Furthermore, climate rights call for extraterritorial responsibility. Climate disturbances obviously exceed the jurisdiction of individual states: they are, in fact, a striking example of the transnational character of threats in a highly interdependent world. Under such circumstances, the human rights obligations of states and non-state actors cannot simply stop at territorial borders. Rather, they must reach into other countries as well. As the special rapporteur to the Human Rights Commission on the Right to Food has recently stated: 'Governments must recognise their extraterritorial obligations towards the right to food. They should refrain from implementing any policies or programs that might have negative effects on the right to food of people living outside their territories' (UNCHR 2005). When the right to food is threatened by climate change, the principle of extraterritorial obligations becomes even more relevant, given that rich countries are largely responsible for climate perturbations in poorer countries. Just as climate effects reach to the ends of the earth, the geographical scope of responsibility has become global as well.

However, this responsibility is in the first place a negative one: it implies avoiding harmful action rather than intervening to provide the conditions for a life without privation. Under human rights law, governments are supposed to carry out a triple task with regard to the rights to food, health and housing: they have the duty to respect, protect and fulfil them. It would follow that the same hierarchy of obligations applies to climate rights: the right to live in freedom

from human-induced climate perturbations has first to be respected by avoiding harmful emissions nationally; it has, secondly, to be protected against third-party emissions by countries or corporations through international cooperation; and, thirdly, it has to be fulfilled by upgrading people's capability to cope with climate change through adaptation measures, such as dam building, resettlement or land redistribution.

Mitigation and adaptation

In 2005, the Inuit Circumpolar Conference filed a legal petition to the Inter-American Commission of Human Rights demanding that the US limit its emissions. This move by the people living in the Arctic represents the first legal case brought against a high-emitting nation in defence of economic, social and cultural human rights (Watt-Cloutier 2004). Many indicators suggest that global warming is threatening the ability of the Inuit to survive as a hunting-based culture.

From a human rights point of view, the classical policy responses to dangerous climate change, mitigation and adaptation, ought to be pursued with additional urgency. As to mitigation, human rights considerations need to enter into the definition of what constitutes dangerous climate change and recent moves in the UN Human Rights Council point in this direction. They direct attention to the most vulnerable sections of the world population, suggesting a frame of evaluation that is consistent with the basic law that governs world society. A survey of possible impacts (Exeter Conference 2005) suggests a target that avoids systematic threats to human rights would need to keep the global mean temperature increase below 2°C above preindustrial levels. It is obvious that such a target calls for mitigation commitments far beyond the Kyoto Protocol.
Finally, human rights considerations also imply vigorous measures to facilitate adaptation to unavoidable climate change. Inasmuch as mitigation is insufficient, the polluter-pays principle requires that high-emitting nations prevent rights violations and offer compensation for damages caused. Measures may range from upgrading healthcare, to investments in construction, to the building of dams. Recent calculations suggest that US$ 10-40 billion annually will be required to finance such adaptation measures. And, of course, the polluter-pays principle requires that high-emitting nations offer compensation for damages caused.

Compensatory payments are necessary, but they leave the causes of pollution untouched. Cuts in fossil fuel use are imperative not only to protect the atmosphere but also to protect human rights. Since the Bill of Rights was won during England's 'Glorious Revolution', freedom from physical harm has been the core of the basic legal canon that states have an obligation to guarantee. Yet millions of people are in the process of losing this core of civil rights – food, shelter and an infection-free environment. Only this time, the threat of physical harm comes not from the state but from the cumulative long-range effects of energy consumption in the prosperous parts of the world. The need for low-emission economies in the South and the North is therefore far more than a question of an appeal to morality: it is a core demand of cosmopolitan politics. Climate protection is not simply about crops and coral reefs – it is, fundamentally, about human rights.

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