

Climate Change and Human Rights

WOLFGANG SACHS

ABSTRACT *Wolfgang Sachs asks who are the winners, and who the losers in climate change? He makes the case that cuts in fossil fuel use are imperative not only to protect the atmosphere but also to protect human rights.*

KEYWORDS *public health; globalization; vulnerability; fossil fuels; adaptation; human rights*

Introduction

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) produces both huge benefits and huge burdens. As to the first, access to fuel combustion conveys economic power; therefore, 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 regard is about equality among nations. As to the second, however, making the dumping ground overflow gives rise to numerous climate threats, possibly to such a degree that fundamental rights might be violated. Climate equity in this respect is about human rights.

Dangerous to whom?

As is well known, the 1992 United Nations Framework Convention on Climate Change calls for the stabilization of greenhouse gas concentrations at levels that ‘would prevent dangerous anthropogenic interference with the climate system’ (Sachs and Santarius, 2007). However, what increase in global mean temperatures is tolerable? Up to this date, climate negotiations have refrained from defining what may constitute dangerous anthropogenic interference with the climate system (Hare, 2003). What kind of threat qualifies as ‘dangerous’? Twenty centimeters of sea level rise or 1 meter? One degree rise in medium global temperature or three degrees? And in what time frame, in 20 years or in 80 years?

These questions are technical in appearance, but highly political in reality. What lurk 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 go. For the bitter effects of climate change will intensify global poverty and deepen social divisions; they affect the poor more than the rich. In particular the countries of the South, especially rural groups who directly depend upon nature, will come to feel the destabilizing effects of global warming much more abruptly than the industrial countries and urban populations. Therefore, any decision on 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 is acceptable for whom? 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 natural assets that underpin human existence – water, food, and health.

With regard to water, it is important to note that currently 30 countries with a combined total population of over 500 million are considered water-scarce, a condition which by the year 2025 is likely to affect some 50 countries with a combined population of about three billion (Shah *et al.*, 2006). 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 with corresponding consequences for plants, animals, and people. Several hundred million to a few billion people are expected to suffer a water supply reduction of 10 percent or more by the year 2050 for climate change projections corresponding to a 1 percent per year increase in CO₂ 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 that 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, grain yields are likely to decline by 10 percent 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/rainfed 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 1.5–2°C above pre-industrial levels (Hare, 2003). In fragile rural areas, such a change will aggravate the fate of people that derive their livelihood from direct access to forest, grasslands, and watercourses. While global production appears to remain stable, differences between temperate and tropical regions in crop production are likely to grow stronger through time, leading to a significant polarization 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

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secure shelter, climate change is bound to have a range of *health* effects (McMichael *et al.*, 2003). On the first level, a shortage of freshwater caused by climate change will increase risks of water-borne diseases, just as shortage of food will increase the risk of malnutrition. On the second level, climate change, via both 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 vector-borne infectious diseases. With global warming, it is expected that there will be an increase in the geographic range of potential transmission of malaria and dengue – two vector borne infections, each of which currently affects 40–50 percent of the world population. 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 five million incidents of disease each year from additional 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 pre-industrial levels 20–30 percent of all higher plants and animals will be threatened to go extinct, more than one million people living in delta areas will, under conservative estimates, be threatened by flooding and will have to dislocate; that water stress is likely to increase for one billion people more every 30 years between 2020 and 2080. (IPCC, 2007)

Human rights

334 There has been injustice in the world ever since Cain killed his brother Abel. Similarly, the expul-

sion of people from their land, the assault on their physical well-being, and the withdrawal of their means of subsistence have always been standard instruments in the repressive exercise of power. But only since the middle of the 20th century have such ways of holding others cheap been thought to involve contempt for human rights. In today's world there exists the international consensus that instances of humiliation and impoverishment have to be measured against the norm to guarantee the fundamental rights of every human person. By birthright, people are considered bearers of rights for protecting 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 (Donnelly, 2003). Especially in an age of globalization, it is increasingly the discourse of human rights that sets 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 recognize 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). Under the influence of this formulation – which echoes Article 25 of the Universal Declaration of Human Rights – the debate on development has changed its colour in the subsequent decades; overcoming hunger, illness, and misery is not seen any longer as a matter of charity or solidarity, but as a matter of human rights. The need-centred approach in development has thus been largely replaced by a rights-centred approach.

Rights-based climate policy

The bitter consequences resulting from climate change – in particular several decades from now – will spread across the globe, albeit in varying

degrees. Countries – and regions within countries – are disproportionately affected for basically two reasons: higher impacts and higher vulnerability. As indicated above, adverse impacts of climate change are likely to be more concentrated in areas of Africa, South America, and Asia. Impact profiles differ according to 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 under fragile conditions, economically and healthwise. 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, for example, may be much more severe than the impact of a similar hurricane in Florida. 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 over 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 add to an already structurally precarious livelihood situation; it is the compounded effect of economic insecurity and climate stress for large numbers of people that centres around the question of how much climate change should be allowed into a human rights issue.

However, climate-related human rights are matched only by imperfect, not by 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, also climate effects cannot be attributed to a culprit with name and address. Who exactly should be held responsi-

ble for hunger and widespread illness? However, the absence of culprits or judges does not nullify rights. A strictly legal conception, which maintains that there are no rights unless they are justiciable, misses out on the universalist nature of human rights entitlements.

Furthermore, climate rights call for extra-territorial responsibility. Climate perturbations most clearly surpass the jurisdiction of single states, they are in fact a striking example for 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 reach geographically to other countries as well. As the Special Rapporteur to the Human Rights Commission on the Right to Food has recently stated: 'Governments must recognize 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 conditions for an unmutated life. Under human rights law, governments are supposed to carry out a triple task with regard to the rights to food, health, and housing (Steiner and Alston, 1996): they have the duty to respect, protect, and fulfill them. It would follow to apply the same hierarchy of obligations 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 of countries or corporations through international cooperation, and it has, thirdly, 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 on part of 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 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 acquire an additional urgency. As to mitigation, human rights considerations need to enter into the definition of what constitutes dangerous climate change. 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 that a target that avoids systematic threats to human rights would need to keep the global mean temperature increase below 2°C above pre-industrial levels. It is obvious that such a target calls for mitigation commitments far beyond the Kyoto Protocol.

Finally, human rights considerations also call for vigorous measures to facilitate adaptation to unavoidable climate change. Inasmuch as mitigation is insufficient, the polluter-pays principle requires that high-emitting nations prevent right violation and offer compensation for damages caused. Measures may range from upgrading health care, 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 here 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. For climate protection is not simply about crops and coral reefs, but fundamentally about human rights.

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