

responsibility to provide assistance to persons affected by natural disasters and to protect their human rights.

CONCLUDING THOUGHTS

Perhaps the most fundamental responsibility of states is to protect the lives of those living in their territories. When governments are unwilling or unable to protect people from the effects of natural disasters—or at least to minimize the risks and damages of natural hazards—this is a human rights violation and governments need to be held accountable for their actions, as has been done in some court cases. Disaster risk reduction and prevention of displacement are human rights issues. Ensuring the impartial distribution of aid after a disaster is not only a basic humanitarian principle but also a basic human right. Developing and implementing equitable recovery/reconstruction programs is not only sound development practice but also a human rights issue.

The fact that the intersections between human rights law and disasters are receiving increased attention from international lawyers, humanitarian and development practitioners, civil society groups, and governments is encouraging. But much more needs to be done, particularly at the national level, to ensure that national laws and policies on disaster management (prevention, response, and recovery) incorporate a human rights perspective.

Human rights law has much to offer to policymakers and to communities affected by the threat of disasters. Given the fact that global warming, exacerbated by population settlement patterns, is likely to produce disasters affecting ever-greater number of people, it is time for human rights lawyers to offer their expertise to governments at all levels, to communities, and to regional and international organizations struggling to prepare for the disasters of tomorrow.

WILL INTERNATIONAL LAW SAVE US FROM CLIMATE DISASTERS?

*By Michael B. Gerrard**

I am going to address the role of international law in dealing with disasters that can be caused or worsened by climate change.

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992 with the objective of preventing dangerous anthropogenic interference with the climate system. Thus, one of its chief purposes is to prevent the sort of natural disasters that could be caused or worsened by climate change. The principal instrument to achieve this objective was the Kyoto Protocol of 1997, which aimed to reduce global emissions of greenhouse gases (GHGs) by 2008–2012 to 5% below their 1990 levels. The Kyoto Protocol has failed; emissions are instead about 40% higher than 1990 levels.

The parties to the UNFCCC convened in Copenhagen in December 2009 in the hopes of achieving a new legally binding agreement to succeed the Kyoto Protocol. This also failed. Instead, the parties made voluntary pledges. The parties also adopted a goal of keeping global average temperatures within 2° C above pre-industrial conditions. Even at this level, very serious consequences occur, such as the likely submersion of the low-lying island nations, loss of much of the polar ice cap, significant sea level rise, and prolonged droughts in parts

* Andrew Sabin Professor of Professional Practice and Director, Center for Climate Change Law, Columbia Law School.

of the world. The pledges made after Copenhagen add up to emissions reductions that are insufficient to stay within the 2° C goal.

At the UNFCCC meeting in Durban, South Africa in 2011, the parties agreed that at their meeting in Paris in 2015, a new agreement would be reached and that its implementation would begin in 2020. Thus we have already lost more than a decade since Copenhagen, and there is considerable doubt as to whether a satisfactory agreement will in fact be reached in 2015.

Meanwhile, a continuation of growth in global GHG emissions under current trends would likely lead to a global temperature increase of more than 4° C by the end of the century. Such a level would be utterly catastrophic. If all the voluntary pledges made in Copenhagen are met, the temperature increase would probably be around 3° C. In order to stay within 2° C, a rapid transformation of the global energy system away from fossil fuels is mandatory. This must include China; the growth of global GHG emissions is dominated by rapidly increasing coal use in China, and unless that coal use levels off and declines, there is essentially no hope of staying anywhere close to 2° C.

In March 2014 the Intergovernmental Panel on Climate Change released the report of Working Group II—“Impacts, Adaptation, and Vulnerability”—of its Fifth Assessment. This report concluded that:

- Climate change is already shrinking the glaciers and the Arctic ice cap, shifting the ranges of species, reducing crop yields, especially wheat and maize, and contributing to extreme events such as heat waves, droughts, floods, cyclones, and wildfires.
- All this will get much worse.
- The poorest people are the most vulnerable.

The following are some of the most salient conclusions of this IPCC report:

All aspects of food security are potentially affected by climate change, including food access, utilization, and price stability (high confidence). Redistribution of marine fisheries catch potential towards higher latitudes poses risk of reduced supplies, income, and employment in tropical countries, with potential implications for food security (medium confidence). Global temperature increases of ~4°C or more above late-20th-century levels, combined with increasing food demand, would pose large risks to food security globally and regionally (high confidence).¹

Climate change can indirectly increase risks of violent conflicts in the form of civil war and inter-group violence by amplifying well-documented drivers of these conflicts such as poverty and economic shocks (medium confidence). Multiple lines of evidence relate climate variability to these forms of conflict.²

Throughout the 21st century, climate-change impacts are projected to slow down economic growth, make poverty reduction more difficult, further erode food security, and prolong existing and create new poverty traps, the latter particularly in urban areas and emerging hotspots of hunger (medium confidence).³

The prospects of keeping within 2° C are now slim. Current GHG trends are slightly worse than the worst case shown in the IPCC report, which is heading toward an increase of 4° C or more.

¹ Intergovernmental Panel on Climate Change, *Climate Change 2014: Impacts, Adaptation, and Vulnerability*, at 18 (Mar. 31, 2014), <https://www.ipcc.ch/report/ar5/wg2/>.

² *Id.* at 20.

³ *Id.* at 21.

All this has led to increasing attention on the importance of adaptation. This is acknowledged in the various decisions of the UNFCCC's conferences of the parties. One element is that the least-developed countries come up with their own plans for adaptation, and the expenditures needed to carry out these plans then become eligible for financial assistance under the UNFCCC process.

In Copenhagen, the developed countries pledged to provide a total of \$30 billion in the period of 2010–2012, called “fast start finance,” to assist the developing countries in climate mitigation (reducing GHG emissions) and adaptation (preparing for and coping with the effects of climate change). This was accomplished. The developed countries also pledged to “mobilize” \$100 billion/year beginning in 2020 for these purposes. Mechanisms are being established to handle this money, but its actual sources have not been identified. Given the portion of the world's GHG emissions that comes from the United States, tens of billions of dollars of this sum would be expected to come from this country. The United States now spends on the order of \$23 billion/year on humanitarian assistance and international development. The hostility of much of the U.S. electorate towards foreign assistance makes it very unlikely that the government will, say, double the amount of money it provides for such purposes—the sort of commitment that might be expected of this country. Some pledges toward the \$100 billion have come from Europe, but assembling the full amount appears unlikely.

It is universally accepted that much, or most, of this \$100 billion would need to come from the private sector. The private sector will invest in projects that lead to a sufficient income stream to pay back the investment and provide a return. Renewable energy projects may do this, while few adaptation projects do. Thus the private-sector money is likely to be heavily oriented to mitigation rather than adaptation.

Moreover, it is now apparent that \$100 billion/year is not nearly enough to provide the climate change mitigation and adaptation that will be needed by the developing countries.

One of the most significant effects of the failure to meet the 2° C objective will be an increased likelihood and magnitude of mass migration. In different parts of the world, this may be caused by sea level rise; drought; loss of water supplies from glacial melt; and other phenomena. The state with the greatest vulnerability for the largest number of people is probably Bangladesh. The Nile Delta and Mekong Delta regions are also extremely vulnerable. Large parts of sub-Saharan Africa are extremely vulnerable to drought. In all, it is possible that by the middle or latter parts of this century, hundreds of millions or even billions of people will be displaced from their homes and looking for new places to live.

International law has not even begun to plan for this horrible prospect. We need to be planning now for receiving sites for these massive numbers of people who will no longer be able to survive where they have lived for generations.

Principles of equity would suggest that the countries that have historically had the largest per capita emissions of GHGs, and with large land areas, would each take in a portion of the world's climate-displaced people. That primarily means the United States, Canada, Australia, and Russia. Of course, not one of these countries has expressed any interest in doing so; today, the most common response in many places would be not open arms and new communities, but barbed wire and machine guns. Much of the focus recently has been on internal displacement, in the hope and expectation that most of the displaced people can move within their countries, but it is not at all clear that this is physically possible in Bangladesh, for instance, given its already extremely high population density.

Work needs to begin on finding places for these people to go. Complicating the situation is the fact that most of the habitable areas in the world are already inhabited; it is not as if we can find large swaths of habitable land with no occupants and recreate a displaced nation. There is one very prominent example in modern history where a displaced and oppressed people were relocated to an area that already had an existing population, and whatever else one says, it has not gone smoothly.

Hopefully, the world community would not tolerate the prospect of nightly news images of wave after wave of boats carrying people fleeing flooded areas, and being turned away at every shore; but preparations need to be made far in advance

The topic of this panel is: “Can international law save us from natural disasters?” My response is that international law is completely failing to save us from the natural disasters that will be caused or worsened by climate change. Finding the will to reduce GHG emissions enough to avoid the nightmare scenarios spelled out by the IPCC, and finding the funds to cope with the climate change disasters that will happen, are mostly a matter of domestic politics, and the domestic politics of most of the key nations are not amenable to meeting these tasks.

International law has not begun to grapple with the consequences of that failure. The current trends of increasing GHG emissions, if they continue, will completely overwhelm our systems of disaster relief and humanitarian assistance. I realize that this is a very gloomy prospect, but I believe that it fairly represents the latest scientific thinking, and I hope that it will serve as a call for all of us to wake up to this grave threat.

REMARKS BY INGRID NIFOSI-SUTTON*

The question of whether international law can save us from natural disasters is intriguing and, perhaps more importantly, very relevant in light of the highly destructive natural disasters that have struck different regions and countries of the world since 2004. I will approach our provocative question by offering some thoughts to prove my main conclusion that while, quite obviously, international law cannot help us avoid natural disasters *tout court*, international law can do three very useful things for us when it comes to tackling these emergencies. First, international law can contribute to a better understanding of the role that states and the international community must play when managing natural disasters; second, international law can improve a state’s performance for the purposes of reducing the adverse effects of natural disasters and responding to them; and finally, international law can bring about the enforcement of the human rights of victims of natural disasters.

In order to prove my first thesis that international law can contribute to a better understanding of the role that states and the international community must play when managing natural disasters, I will stress that international law incorporates multiple regulatory frameworks of norms detailing how governments and international organizations have to tackle natural disasters. Some of these frameworks are contained in international treaties adopted under the auspices of regional organizations, for instance, the 2005 ASEAN Agreement on Disaster Management and Emergency Response. Other frameworks are set forth in international conventions detailing cooperation among states and among states and international organizations that address very specific aspects and dimensions of disaster management. Examples of these conventions include the 2000 Framework Convention on Civil Defence Assistance

* Adjunct Professor of International Law, American University, Washington College of Law.