

Three eras of climate change

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Climate change as a global challenge has evolved through a series of stages in the last few decades. We are now on the brink of a new era which will see the terms of the debate shift once again. The different eras are characterised by the scientific evidence, public perceptions, responses and engagement of different groups to address the problem. In the first era, from the late 1980s to 2000, climate change was seen as an “environmental” problem to do with prevention of future impacts on the planet’s climate systems over the next fifty to hundred years, through reductions in emissions of greenhouse gases, known as “mitigation”. The second era can be said to have started around the turn of the millennium, with the recognition that there will be some unavoidable impacts from climate change in the near term (over the next decade or two). These impacts must be coped with through “adaptation”, as well as mitigation, to prevent much more severe and possibly catastrophic impacts in the longer term. It has become clear that many of the impacts of climate change in the near term are likely to fall on the poorest countries and communities. The third era, which we are just about to enter, will see the issue change from tackling an environmental or development problem to a question of “global justice”. It will engage with a much wider array of citizens from around the world than previous eras.

First Climate Change Era

The first era can be dated from the preparation and publication of the first assessment report of the Intergovernmental Panel on Climate Change (IPCC), set up in 1988, which alerted the world to the problem of the runaway greenhouse effect. This was predicted to occur sometime in the 21st century, if emissions of man-made greenhouse gases continued unabated at current rates. The IPCC assessment was based on computer models of the earth’s atmosphere and the physics of heat entrapment by a number of gases, principally carbon dioxide, from burning

of fossil fuels like coal, petroleum and natural gas. This led to the governments of the world agreeing the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 at the Rio Earth Summit, whereby all signatory countries accepted the problem and agreed to take measures to reduce their emissions. They also recognised that the rich countries (listed by name in the annex of the UNFCCC and hence known as “Annex I countries”) were the countries principally responsible for past emissions and would take action first.

In 1995 the IPCC published its second assessment report which highlighted the fact that despite pledges to reduce emissions of greenhouse gases, they were continuing to rise and would result in severe impacts if nothing was done to cut them. This in turn led to the negotiation of the Kyoto Protocol of the UNFCCC, which was agreed at the third conference of parties (COP3) to the Convention in Kyoto, Japan in 1997. This committed signatory countries to targets for reducing emissions by an agreed amount by the end of the first commitment period in 2012, after which the targets would become more stringent. Developing countries did not have to accept any targets for emission reductions in the first commitment period, but would make commitments after 2012.

During this era, the issue was seen principally as an environmental problem to do with the global atmosphere, and the people involved were scientists and national environmental policy makers. The solution was also seen in terms of prevention of impacts that would occur in the distant future.

Second Era

The start of this era can be traced to 2001 with the publication of the IPCC's third assessment report which, for the first time, alerted the world to the unavoidable impacts of human induced climate change in the near term (the next decade or two). The report thus raised the need to cope with impacts through "adaptation". It also pointed out that impacts would not be uniform across the globe, but that poor countries and poor communities in all countries would be vulnerable and would need assistance to adapt.

In policy terms this led to the Marrakech Accords agreed at the seventh conference of parties (COP7) held in Marrakech, Morocco in November 2001, where a number of new funds were created to help poor countries to adapt. These included the least developed countries (LDC) fund as well as the special climate change fund (SCCF). It also highlighted the connection between adaptation to the impacts of climate change and development on the ground, especially in the water, agriculture, disaster preparedness and coastal management sectors.

At this time the perception of the problem shifted to include the need to see climate change not just as an environmental issue but also as a growing threat to development. Thus, a wider range of people became engaged with the issue, including the NGO, and development community, with solutions sought not only in mitigation but also in necessary adaptation.

Third Era

While the characterisation of the previous two eras, as described above, will be widely accepted by many, the third era is more contested. This era took off with the publication of the Stern Review in late 2006 (carried out for the UK Treasury), and the IPCC's fourth assessment report, due out in April 2007. Both reports demonstrate that climate change is already happening. While it may not be possible to attribute a single climatic event, such as Hurricane Katrina which struck New Orleans in 2005, to human induced climate change, the accumulation of evidence of major climate-related occurrences is a very strong signal that human-induced climate change is already happening. Examples include glacial ice melt in Greenland, heat waves in Europe, droughts in Africa, floods in Asia and hurricanes in the Caribbean. The costs of adopting low carbon technology are now recognised as insignificant in comparison to the risks of massive and catastrophic changes if we do nothing.

A shift is happening in the way climate change is perceived, from just an environmental issue, or even an environment and development issue, to one of global justice - or more correctly global injustice. One group of people (namely rich people everywhere, but mostly in rich countries) have caused the problem, and another group of people (namely poor people especially in poor countries) will suffer most of the adverse consequences, in the near term.

Thus, the issue goes beyond mitigation alone, though this is urgent to prevent even greater and more catastrophic problems in fifty years time. And it goes beyond adaptation, such as helping people prepare for the unavoidable impacts in the next few decades. A major challenge now is to find ways to compensate people for the damage that has already been done.

This new characterisation of the climate change problem binds every single person on the planet together, as each human has a "carbon footprint" which is contributing to the problem, although the size of individual footprints varies by many orders of magnitude. Everyone has a responsibility to reduce their emissions commensurate with their footprint, while seeking to offset what cannot be reduced. The germ of the solution to climate change must grow from each individual taking responsibility not only to reduce their own individual impacts but also to urge leaders to choose policies and actions which will enable a stable and just planet.

