

DISASTER ADVANCES



Vol.1(3)

July 2008

From the Editor's Desk

Placing Climate Change within Disaster Risk Reduction

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Introduction

In late 2007, climate change received extensive international prominence with the Intergovernmental Panel on Climate Change (IPCC) and former US Vice President Al Gore being awarded the Nobel Peace Prize for their climate change work. This award, focusing exclusively on climate change, obscured the tireless research and practice of many others dedicated to linking climate change, other climate topics and related environmental concerns within the context of development, environmental management, and sustainability processes. Some of that work emerged from studies, policy and action in disaster risk reduction, which extends back for decades. Yet that work, to a large degree, has not been acknowledged by climate change science, even when approaches selected, developed, and applied are similar to previous endeavours.

That means that climate change policy and action miss out on the long experience from dealing with disasters including climate-related disasters. In many ways, climate change science and policy have been reinventing already existing knowledge, methods and conclusions. To reduce such repetition and to ensure greater connection amongst sustainability topics, this editorial proposes the framing of climate change research to connect to policy more smoothly by placing climate change work within disaster work.

Climate change's research and policy role

The development of climate change science and policy in a manner relatively divorced from past work on human adjustment to change^{6,8,10,13,18} leads to two suggestions for the current role of climate change on the research and policy agenda: climate change as a distraction and climate change as a scapegoat.

1. Climate change as a distraction: Climate change has been receiving plenty of publicity as not only a global crisis but also as perhaps the greatest global crisis which humanity has ever faced⁹. There is little doubt that climate change resulting from human activity is an immense, long-term, global disaster. Even if human greenhouse gas emissions were to stop entirely today, we would still be facing climate change's legacy for many generations into the future.

We would also be facing many other immense, long-term, global disasters. Irrespective of climate change,

coastal floods continue to kill thousands of people due to social pressures, such as gender and ethnic inequities; manipulation of living conditions and livelihoods by richer people, governments and corporations; and failure to address poverty. At current rates of fishing, "the global collapse of all taxa currently fished by the mid-21st century" is predicted with climate change being a minor contribution compared to the root cause of poor resource management, i.e. overfishing.²⁰ Many deltas are threatened by sea level rise, but climate change is suggested as being the sole culprit for the inhabitants' vulnerability to the sea, even where groundwater extraction or gas mining has led to significant subsidence or where upstream dams have diminished the sediment flux—which are the main problems in many case studies.⁵

Powerful interests behind overfishing and other resource extraction such as large-scale logging have even argued that climate change will ruin these resources, so humanity might as well exploit them now while they still exist. Without climate change, these interests would still be involved in such destructive activities and would still be ignoring the consequences, but climate change provides a welcome distraction for them to attempt to shift the focus of their actions and the consequences.

Compared to justifying the need to tackle climate change, how much science and policy effort is put into tackling the root cause of such destructive values? Climate change is one manifestation amongst many of unsustainable environmental and cultural values along with the failure to address fundamental, behavioural and attitudinal causes. It is an important manifestation, but many others exist too. Focusing on climate change distracts from those others. The same vulnerability root causes which lead to climate change induced or exacerbated flood and heat wave disasters also lead to non climate change related flood and heat wave disasters—along with earthquake disasters, volcano disasters, sanitation disasters, poverty disasters, inequity disasters and injustice disasters amongst many more.

One argument is that climate change is a healthy distraction. If climate change concerns help people to change their habits and help governments to change their policies, then is it important why these changes occur as long as the changes occur in a desired direction? Many people need to label phenomena and need something to fix on regarding change. Climate change gives them that. As long as appropriate actions are promoted, such as turning off

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unused lights and using private vehicles less often, does it matter why that behaviour is enacted?

The answer depends on the honesty to admit the root cause as being values, the honesty to admit that superficial approaches not tackling root causes can cause more harm than good and the honesty to accept that many disaster-related concerns exist aside from climate change which need to be tackled with as much vigour as climate change. Focusing on a single climate change, challenge is dishonest in failing to acknowledge other equally important concerns. If dishonesty is accepted in order to convince people and governments regarding appropriate behaviour, where does that dishonesty stop?

Climate change as a distraction means that other disasters, from over fishing to tsunamis striking vulnerable coastal settlements, are neglected and that root causes are buried.

2. Climate change as a scapegoat: Putting climate change in the spotlight means that it becomes a scapegoat for many global ills which existed long before climate change. The most prominent examples being blamed on climate change are high-profile disasters, including non-climate events. Climate change has been changing the characteristics of weather and climate phenomena, but did not cause the vulnerability to them.

The responsibility of climate change for all disasters has become so prevalent that the 26 December 2004 tsunamis around the Indian Ocean were linked to climate change by numerous commentators, prompting a rebuttal explaining that climate change did not cause the tsunami, nor many other disasters witnessed.¹⁷ Revisiting the examples of deltas from the previous section, increasingly worse floods around northern Manila Bay in the Philippines are identified as a clear example where excessive groundwater extraction causes far more subsidence than the relative rise which will be experienced from sea levels changing, but the government focuses on blaming climate change, conveniently ignoring the other factors.¹⁶

Climate change serves as a useful scapegoat for disasters at several levels. First, greenhouse gas emissions are dispersed, coming from global, mainly non-point sources, even though some countries and industries emit far more than others. It is relatively easy to accept climate change as a problem, and to blame climate change for problems witnessed, without accepting responsibility for one's own actions at an individual, institutional, or governmental level. For example, what is the carbon footprint of IPCC-related travel, especially given the detailed critiques of carbon offsets^{1,4} which might suggest that offsetting is an inadequate approach for addressing the carbon cost of travel?

Second, with climate change being identified as the cause of disasters, the responsibility for comprehensive disaster risk reduction is absolved. The prior decades of poor development in locations such as the USA, Mozambique and the Philippines which placed people in vulnerable situations and the failure to prepare for a major catastrophe in the affected locations, are swept aside because climate change provides a convenient contemporary catch-all as the cause of these disasters.

Without climate change as a distraction, the fallacy of climate change as a scapegoat is evident in that other causes must be addressed for why the disasters occurred; that is, placing people in vulnerable situations without adequate support for overcoming that vulnerability. That root cause is under the control of individuals institutions and governments and the responsibility should be directed at them rather than using climate change as a scapegoat to avoid responsibility.

Framing climate change research and policy

Interest and work in disasters long preceded interest in contemporary climate change^{8,15,20} while fields from anthropology to psychology to engineering to development have long published on humans successfully dealing with change and avoiding adverse consequences. That work incorporates most aspects relevant to addressing and dealing with the consequences of contemporary climate change. In fact, disasters covering large areas (up to global) and long time scales (decades or more) have long been on the disaster agenda, such as ice ages, desertification and climatic changes from meteorite strikes and volcanic eruptions. Contemporary climate change is simply one more to add to this well-established list.

Therefore, we propose that research and policy should accept contemporary climate change as a subset of disaster risk reduction. This premise has three points.

First, climate change is one driver of disasters amongst many. It should not be ignored but nor does it dominate other drivers. Those drivers include inequities, injustices, social oppression, discrimination, poor wealth distribution and a value system which permits exploitation of environmental resources irrespective of the consequences^{6,7,11,12,14,19}.

Secondly climate change is one "creeping environmental change" amongst many. Creeping environmental changes are incremental changes in conditions which cumulate to create a major catastrophe or crisis, apparent only after a threshold has been crossed.^{2,3} Climate change fulfils that definition and is not unique. Other creeping environmental changes not linked to climate change include soil erosion due to intensive farming, salinisation of freshwater supplies due to excessive

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drawdown and slow subsidence of land due to water pumping. In all these cases, as with climate change, human action exacerbates natural trends. As such, climate change is one long-term human-exacerbated disaster amongst many.

Thirdly, the reality is that climate change has become politically important and has reached the public consciousness around the world, not just in more affluent countries or sectors. That should provide an opportunity, not to focus on climate change, but to raise the points made in this editorial to engage interest in more comprehensive disaster risk reduction, environmental management, and sustainability processes. For example, little point exists in building a new school with natural ventilation techniques that save energy and that will function in extreme climate change scenarios, if that school will collapse in the next moderate, shallow earthquake. Similarly, if a hospital built for climate change serves only the most affluent people, then that sets back the developmental process by expanding the rich-poor gap.

By embedding climate change within disaster risk reduction while using the prominence of climate change to promote and achieve the wider agenda, a long-term perspective is ensured so that related research better serves policy and practice. That avoids being distracted by climate change and also directs attention to root causes and basic ideas, ensuring that a single issue is not highlighted and permitted to become a target or a scapegoat. We can move forward with disaster risk reduction, development and sustainability by incorporating, but not making exclusive, the single, narrow topic of climate change.

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Cover Page Photograph

"A school in Rosita Valley, Texas soon after being severely damaged by tornadoes in 2007. For vulnerability reduction and sustainability, should the focus be on climate change's effects on tornadoes, vulnerability to weather, or daily exposing children to a corporate logo that advertises unhealthy drinks"?

(Photo: Ilan Kelman)