

Radix Year Two  
by Ilan Kelman

Another Radix year has passed. More disasters, more tragedy, more learning, and more interaction. But more solutions? The answer to that question, regretfully, is not the resounding yes which it should be.

On learning and interaction, the year has been intensive for me. During 2002, I attended five international conferences/meetings in four countries and a smattering of national conferences/meetings in the U.K. They were all stimulating, thought-provoking, wide-ranging, and generally interdisciplinary. Attendees included philosophers, engineers, human geographers, physical geographers, meteorologists, anthropologists, and disasters, development, and environmental management practitioners amongst many other disciplines.

Despite the named focus of each meeting often being related to the “natural” aspect of our field, staying with only that theme was usually not possible. September 11, armed conflict, underdevelopment, inequity, national security, human rights, the rich-poor gap, states’ constitutions, greenhouse gas emissions, local empowerment, water and soil (mis)management, gender issues, utilitarianism, and diplomacy amongst many other non-“natural” themes sprinkled the discussions. They had to.

Even the conferences which were heavily focused on the physical sciences tended to give far more than token representation to the social sciences. They also witnessed strong statements about the human elements of disaster. Equations, computer models, and quantitative analyses dominated the discussions, but clear messages were expounded by some presenters that research and application are about reducing disasters and saving lives.

The message may have been stated, but I am not convinced that its implications were fully understood. In Toronto, a flood engineer suggested that river flooding is a natural disaster whereas dam break is not. I asked “If we build in a river floodplain and the houses get flooded, is the disaster really natural?”. He seemed stunned by the query but was saved by another participant who confidently asserted “yes”. Decades of evidence and millennia of cumulative research time crushed by a single word.

Another anecdote comes from France. I was surprised to see that a computer model of rockfalls considered neither the shape of the block nor the potential for blocks to break into pieces while falling. I enquired. The response was that the model works, so it must be correct. I replied that correlation does not imply causation. When a clear reason for potential non-causation appears, then the correlation must be questioned. The response was that the model works very well all the time. Discussion was cut off, so I did not get the chance to mention epicycles of the planets and the Sun revolving around the Earth. A model may appear to work perfectly from a particular frame of reference, yet still eclipse vital and fundamental aspects evident from only other frames of reference. If we stay on our own planet, we may never notice and we may never need to notice. But when we reach for the stars, as we should in research, our belief in epicycles will prove fatal.

I have often been accused of coming from another planet, yet remaining solely in our own little world neglects the wonders elsewhere. A PhD student in Cambridge, England described her research to me. She is examining flooding in Thailand, focusing on the hydrology of a specific river catchment, but she claimed to be interested in “long term social benefits”. When pressed about the specific developmental inputs and outputs, she retreated into the sadly familiar “I’m a physical scientist, not a human geographer”. As well, she had never heard of the Asian Disaster Preparedness Center in Bangkok and showed no interest in contacting them.

Crossing disciplinary boundaries and seeking to understand the reasons behind the observed are not just for our own betterment, but for our field's benefit. That is why Radix forces disasters to be examined in the context of development, sustainability, human rights, and human needs, amongst other subjects. The probabilistic distributions of quantitative flow rates and wind speeds are important, but so is changing people's behaviour to create communities able to cope with normal environmental events, even if "normal" refers to an environmental event which happens once every dozen generations.

As part of the injustices we continually see, the people who live in the vulnerable communities are often not those responsible for creating and perpetuating the vulnerabilities. Radix researchers have illustrated how subpopulations are marginalised, the afflicted are ignored, and resources are deliberately misdirected or misused, even when environmental conditions are a significant input into a disaster event. Motivations are not necessarily Machiavellian. They may include apathy, ignorance, greed, disinterest, fear, hate, misapprehensions, corruption, poor prioritisation, lack of governance, or any of the multitude of sins we encounter daily. Which could perhaps be appraised as "passive Machiavellian".

A disaster towards the end of Radix Year Two illustrates the issues. On 28 December 2002, the islands of Tikopia and Anuta of the Solomon Islands suffered one of the most severe tropical cyclones ever recorded in the area. Tikopia and Anuta are accessible only by boat and are isolated and remote even by small island standards. After the tropical cyclone passed, no communication could be established with the islands.

Rather than governments taking the initiative to discover what had happened to their own people or neighbours, it took a Western (Kiwi) journalist to hire a Cessna in Vanuatu. On 1 January 2003, he broke the story of complete devastation, a contaminated water supply, and a few survivors improvising shelter. Movement towards relief operations occurred only then, but further delays resulted from the Solomon Islands government's lack of money to pay for ships, crews, and supplies. Australia and New Zealand donated money, but with concerns about corruption since previous aid to the Solomon Islands had been squandered.

This story is familiar. From one perspective, the affected islands should be building sustainable communities so that they can survive extreme events without external assistance. Some people state that these islanders are entirely self-sufficient and are used to rebuilding after a severe tropical cyclone. On the other hand, it is common sense and basic respect to check that they are okay, particularly when it is unclear if sustainability endeavours have been supported or successful in the past.

We happily bomb a country regardless of the human, environmental, and financial costs, yet we cannot be bothered to parachute in one radio or one person with one radio to check that 2,000-4,000 people are alive after experiencing a massive storm. As always, the people who experience the environmental event also suffer, before and after the environmental event, the human decisions and actions which ultimately produce the disaster.

Hazards may differ, vulnerabilities may differ, risks may differ, and disasters may differ. Our interests, resources, abilities, and successes may differ. But remarkable similarities manifest in numerous aspects and themes, theoretical and practical, of disaster events and related issues. Without recognising these similarities, we miss lessons and we cannot understand how to tackle the disaster problem. When we fail to do so, we copy the same mistakes which have created the mess in which we currently. We thereby fail the communities and globe which we serve.

Some of those failures in Radix Year Two:

- The Solomons tropical cyclone. And human lethargy and ineptitude.
- The Bali bomb atrocity. And continued inhumane treatment of asylum seekers by the Western countries which had the most citizens murdered in Bali.
- The earthquakes in Afghanistan. And the world unwilling to put as much money into developing the country as they put into waging war in the country for more than two decades. We are willing to fight a war over the long-term but unwilling to help the country over the long-term.
- Floods in central Europe. And the political consequences for Germany's election. Plus environmentalists claiming that the floods were caused by climate change when (a) a specific event cannot yet be proved or disproved to have been caused by climate change and (b) so much more could be done immediately to mitigate flood effects irrespective of climate change.
- The Moscow theatre hostage crisis. And continued human rights violations in Chechnya.
- Drought across southern Africa. With famine caused by politics and mismanagement. Plus exacerbation of the acute famine disaster in order to prevent the chronic disaster of local crops becoming contaminated by genetically modified grain which the U.S.A. insisted should be accepted as food aid.
- The eruption of Mount Nyiragongo near Goma, DRC. Yet most direct fatalities resulted from an explosion caused by people stealing fuel while the lava flowed around them.

From the disasters and the pain, we gain plenty research material, ideas, collaboration, and publications. We also propose many solutions, which are generally common sense and already well-known in our field. Implementation of these solutions seems to be the hardest barrier to overcome.