On 16 July 2004, a school fire in Tamil Nadu killed over 93 children, with some 105 who were in the building at the time surviving. Several officials have been charged with falsifying records related to the school’s construction. This event highlighted the lack of safety standards in many schools in India, including the absence of basic fire safety precautions and fire-fighting equipment.

In disaster-risk reduction, school tragedies have particular poignancy, but they nonetheless often mask more general, endemic and unnecessary vulnerabilities that to some extent plague all countries. The Tamil Nadu fire was simply the worst in a long series of mass casualty fires across India; at least six other fires in the past five years each killed more than two dozen people. And while the world was lamenting the abhorrent toll from the school fire, hundreds were dying in floods around India. How many were children? How many schools were inundated? How did flood-risk reduction in affected areas compare to fire-risk reduction in schools? Two weeks after the school fire in India, more than 400 died in a fire at a Paraguayan shopping centre. Such catastrophes are not confined to less affluent countries. On 20 August 2003, 100 persons died in a Rhode Island nightclub fire in the United States. And many more disasters other than fires also occur.

In examining disaster events and risk issues around the world, a pattern emerges of risk reduction often being sidelined until a disaster happens. Then demands are made about why nothing was done before it occurred. Not all case studies are so gloomy though; impressive successes can also be identified. A century ago, death tolls in the United States from Atlantic hurricanes listed thousands, whereas recent years have witnessed dozens per event. Such numbers are still high considering the resources that the United States puts into hurricane-related monitoring and awareness programmes, which nonetheless represent a significant improvement over time.

However, successes are not limited to more affluent countries. Belize and Cuba have also learned from past hurricane disasters to implement evacuation systems, which have saved hundreds of lives in recent years. Unfortunately, success stories and good practices do not preclude a future major disaster. In particular, success often leads to complacency, until another disaster happens. This attitude of thinking and acting only when it is too late needs to be reversed. The standard “disaster
management cycle alternating between pre-disaster activities, including mitigation and preparedness, and post-disaster activities like response and recovery, is more of a "disaster management rut".

To break out of this debilitating pattern and embark on a pathway that makes communities safer from disasters over the long term, disaster-risk reduction must not be considered as related to only extreme, low-probability events. Similarly, single or one-off actions rarely work because the tasks cannot be done once and then forgotten, nor can they be separated into their own isolated realm, activities or deliverables. Instead, disaster-risk reduction must be part of day-to-day practice and livelihoods, as a process, an attitude, a paradigm, a value and a culture. Thus, risk reduction would become the norm within the continuing development and sustainability processes. These words are easy to write and they articulate a useful principle, but making them work in practice is more challenging.

Action is frequently most effective when implemented locally so that local conditions are understood, and objections or concerns can be dealt with more immediately and directly, assuming that appropriate mechanisms exist to effect the desired action. Individuals can then be motivated to change their behaviour, to spread the message and unofficially monitor, evaluate and enforce desired policies and actions.

Disaster-risk reduction, sustainability and development cannot be forced on or "done" for others; people must accept those processes and undertake them themselves.

Local small-scale and decentralized efforts, however, might need wider and higher-level support to inform them of preferred policies and actions, to supply necessary resources and provide an external evaluator or monitor which could add credence and impetus to the local efforts. Such support would provide opportunities for national governments to be involved. National agendas, guidance and operational support for linking disaster-risk reduction, development and sustainability would provide strategic direction and promote consistency, thereby helping to avert local decisions that fail to account for impacts beyond the local area, or which could otherwise conflict with the longer-term and wider objectives.

In some cases, especially in small countries, little difference might exist between national and local authorities. In such cases, multinational or international institutions would assist in providing strategic direction, guidance and external support. More global approaches are also necessary for certain threats. Monitoring near-Earth objects (asteroids or comets that might strike the planet) or geological events leading to extensive tsunami requires global cooperation, as does pooling information on global changes, such as climate change and ozone depletion. International intervention is also often demanded for conflict and transboundary creeping environmental changes among other situations. For disaster-risk reduction, "think globally, act locally" must be matched with "think locally, act globally", plus thinking and acting in between levels.

Furthermore, working simultaneously at all levels provides useful checks and balances. Corruption, apathy, greed, disinterest and other offences—along with ignorance—can be countered somewhat through various perspectives and different levels of monitoring. One powerful tool involving and connecting these levels is children's education, from the day-to-day local operations of hiring teachers and purchasing textbooks to the longer-term strategic guidance of the second UN Millennium Development Goal (MDG)—achieve universal primary education—which hopefully incorporates disaster-risk reduction, development and sustainability processes. Convincing children about the necessity to know how to think and act before a disaster event engrains such a concept in their normal thought patterns, values, decisions and day-to-day actions throughout their lives and careers. They can be shown how simple, effective, economical, relevant and fun it can be to make their communities safer and more sustainable.
New structural sea defences for low-lying Tonga: a sustainable disaster-risk reduction, or a stopgap measure until a major event destroys them?

Children would take such lessons back to their parents, thereby informing beyond the classroom, and hopefully as they enter the workforce, policies, behaviour and actions related to thinking and acting before an event would follow. One example is in Fiji. The (national) stage show "Tadra Kahani" is developed by 6-to 19-year-olds and their (local) teachers by taking one (international) MDG and dramatizing or choreographing what it means to them. This approach reaches, in order, educators, youth, the youth’s families, their wider community, the nation and visitors (local, national and international). This method should be used for other disaster-risk reduction, development and sustainability issues, particularly linking those processes. Thus, the children and others translate the ideas into their own language, not only using local dialects and colloquialisms but also through an appropriate medium. Some people read publications and surf the web; others have strong oral traditions, not by watching a laptop presentation in a meeting room, but by sitting in a circle, eating, gossiping and listening to a lengthy and elaborate story or legend. Others use art, including music and dance, or engage in politics and community issues in only specific instances and venues. "Translation" means getting information and ideas to the people on their terms in their own way, as Tadra Kahani does.

In many cases, these messages will be retained and continually acted upon if immediate and personal gains are seen. A payback period that must wait for an extreme event to occur is too long. Day-to-day survival is the paramount concern for much of the world’s population, so extreme events are rarely considered. Decision makers—which on a day-to-day basis refers to everyone—reasonably expect a policy or action to provide benefits, regardless of extreme events. Thus, recommended actions must positively and tangibly impact day-to-day living, such as through choices, improved water, shelter, food, education and livelihoods. If that could be achieved initially, then opportunities would emerge for measures that might not yield immediate payback, yet are as essential for linking disaster-risk reduction, development and sustainability. Step by step, a culture of disaster-risk reduction would be built as part of building a culture of sustainability.

Biography

Ilan Kelman is Deputy Director of the Cambridge University Centre for Risk in the Built Environment, in the United Kingdom, where he is involved in applied research related to vulnerability, risks and disasters in the context of sustainability and development. His main interest, however, is the vulnerability and resilience of small islands (http://www.arct.cam.ac.uk/curbe).