WORLD VIEW *A personal take on events*

UNIV. SUSSEX

Don't let disaster recovery perpetuate injustice

Poor and minority communities already bear the brunt of natural catastrophes. Rebuilding efforts must not increase disparities, warns **Benjamin K. Sovacool**.

The past 40 days have seen two major earthquakes in Mexico, three hurricanes striking the Caribbean and the southern United States, and floods across Bangladesh, India and Nepal. Rebuilding efforts will take years. If things go as usual, these could leave the worst off relatively worse off and the environment more vulnerable.

Most recovery projects do produce net benefits. But many boost social inequality and environmental damage. They create winners (commonly trumpeted) and losers (often ignored). They can also interfere with environmental policies (such as those limiting exposure to toxic chemicals) or stymie efforts at climate-change mitigation (through deforestation and rebuilding with carbon-intensive materials, for example).

Some reconstruction efforts after the 2004 Indian Ocean tsunami came under criticism for prioritizing tourist venues. Such areas were often already more vulnerable, because sand dunes and mangroves had been sacrificed for better ocean views.

Coastal-protection measures implemented after the tsunami were often counterproductive. In the Maldives, the erection of sandbars (made from dredged materials) and sea walls unintentionally reduced the flow of nutrients to coral reefs, and weakened a natural bulwark against storm swells and surges.

It was a similar story in 2011 in Vermont, after Tropical Storm Irene. Gravel dredged from riverbeds to repair roads made the roads more susceptible to future storms.

Disaster-recovery efforts can also result in the redesign of urban areas in ways that favour the wealthy. The best-known example is the 1906 earthquake that ruined much of San Francisco in California. After it, city leaders tried to move Chinatown from its central location to a more marginal neighbourhood.

A century later, in New Zealand, the Canterbury quakes of 2010 and 2011 consolidated national political power at the expense of local groups. Here, disaster recovery interfered with due process and procedural justice. Community officials and residents were excluded from decision-making processes over the status of their homes when a central-government authority was granted power to acquire and dispose of property and suspend laws and regulations.

In Louisiana, recovery efforts after Hurricane Katrina in 2005 enabled private companies to capture public housing. Homes owned or occupied predominantly by poor evacuees were declared a nuisance, marked for demolition and resold at cut-throat rates. When the federal government allocated billions of dollars to the Army Corps of Engineers to fix, upgrade and rehabilitate levees and flood walls, this served only to entrench, rather than eliminate, vulnerability among some poor communities. To hasten repairs after Katrina, environmental and air-pollution standards were relaxed: hazardous wastes were not properly stored and open burning was allowed. Clean-up efforts concentrated toxic pollution and debris in particular landfills or alongside communities of colour. Sediment left in the wake of floodwaters contained high levels of arsenic, raising its concentrations in soils at playgrounds and schools in minority neighbourhoods. Although some long-term restoration planning is worthy of praise, there is plenty to criticize. The rebuilding of canals and roads further eroded environmental buffers (such as wetlands) crucial to future storm-surge mitigation.

Disparities exist before disaster strikes; recovery plans that do not account for these inequities can easily widen or further embed them. This is a danger with Hurricane Harvey, which seems to have hit poorer and minority communities hardest. Such communities also lived nearest to the Arkema chemical plant in Crosby, Texas, which exploded after the storm. Similarly, many of the flooded Superfund sites — areas polluted with toxic chemicals and requiring long-term clean-up — are located in poor or minority communities.

WE CAN NO LONGER **ASSUME** THAT DISASTER-RECOVERY EFFORTS **SUFFICIENTLY** INVOLVE, PROTECT AND **EMPOWER** THOSE MOST IN NEED.

We can no longer simply assume that disaster-recovery efforts sufficiently involve, protect and empower those most in need. They often don't. Plans that 'look good on paper' can be extremely problematic.

So what now? One solution is to encourage greater community involvement. Promising examples include community-based afforestation efforts in Bangladesh after Cyclone Sidr in 2007, resilience-building efforts in Indonesia prioritizing the inclusion and training of women, and the creation of grass-roots women's cooperatives to address drought in Kenya.

Managers of recovery efforts should be explicitly charged with identifying community and minority groups and seeking their input. Assessments of the social and environmental impact of recovery must be more dynamic, and conducted by panels charged to take complex existing disparities into account, to collect facts and to report grievances. We need insurance schemes that spread the risks of disasters. And we need to trial 'environmental bonds' that withhold compensation from projects that damage communities or the environment. Above all, we need to put vulnerable groups and fragile ecosystems front and centre in the aftermath of disasters.

If we do not reconceive the ethics and politics of disaster-recovery efforts, we will not be able to design more effective, fair procedures and projects. How national and international policymakers act next will be crucial to building fair and sustainable communities for the people most affected by disasters. ■

Benjamin K. Sovacool *is at the Science Policy Research Unit, University of Sussex, Brighton, UK.*
e-mail: b.sovacool@sussex.ac.uk

© 2017 Macmillan Publishers Limited, part of Springer Nature. All rights reserved.