Editorial

The Evaluation of Disasters

Michael Scriven

In the last few years, we have seen some mighty catastrophes on the face of the earth, some wrought by human hands directly and others from great national disasters. Of the latter, the losses from the great tsunami of the Indian Ocean make the others look minor, but to many communities they were a whole world lost. These included huge earthquakes, floods, and wildfires worldwide, and in the U. S. most recently, the hurricanes Katrina and Rita. Where humans were the direct causes, the acts of warmongers and terrorists alike, not too easily distinguished in their impact on the innocent, have altered not just cities but countries forever, and for the worse—usually in the name of improvement. And. Lurking in the wings, are worse possibilities still, widely thought by experts to be inevitable: for example, new epidemics, perhaps as bird flu crosses the species boundary en masse, and mimics or surpasses previous flu epidemics that have killed millions before, perhaps tens or hundreds of millions next time around (because the fast transportation of people, foodstuffs, and other goods make us all neighbors). We are all well aware that global warming, meteor impacts, and black market hydrogen bombs pose great risks of even greater disaster. We must ask, what has

evaluation contributed to aiding humankind cope with these events, and what could it contribute that it has not so far provided?

It's clear that these events pose new challenges for most evaluators, since the usual work of the program evaluator covers only parts of great disasters. We know how to evaluate the relief programs, the health services, the educational makeshift arrangements. But evaluation of the conditions that led to, or exacerbated the impact of these events; evaluation of the developments from them that are aimed to reduce the impact of their inevitable successors: these are a different kind of beast. These call for multidisciplinary effort of considerable novelty, and this journal will try to serve its mission of keeping its readers abreast of efforts to develop good methods and tools for doing this kind of evaluation. Meanwhile, there are a few interesting developments that may inspire us to develop improved models for this new task. Perhaps the time has come to develop what might be called the Failure Case Method?

To take one example of developments that are a possibly relevant to disaster evaluation, there are many of us who feel that one of the most interesting emerging trends in evaluation in recent years has been the emphasis on a systems approach, and surely that is one emphasis that disaster evaluation requires, when we start looking evaluatively at the precursor conditions in preparedness studies. Relatedly, one must view epidemiology, a fast-developing science in its own right, as a model worth considering for its focus on finding and fixing causes of trouble, past and future. The same is true of ecobiology, another of the recent additions to the scientific Pantheon. Television has made us increasingly aware of a third player that values the systems approach—forensic pathology, portrayed on the tube as a science far more sophisticated than its actual embodiment in real labs, where DNA matching is still taking a matter of weeks not hours. And engineering has

contributed a similar discipline in the form of applied research work of the investigation of the accident investigations of the National Transportation Advisory Board. In all of these cases, as with natural disasters and terrorist strikes, one great methodological lesson stands out: they are all primary cause-hunting sciences and none of them has ever felt unable to go to work even though they've never seen a randomly controlled experiment. So, to pick up a theme that recurs briefly in this issue, there are some important issues in evaluation methodology where we may be able to learn something from a study of the existing disaster-hunting and disaster-prevention disciplines. Our nearest approach to date, and a worthy one it is, though low-profile so far, is evaluation of peace-maintenance efforts, with a small appearance at AEA last year.

But perhaps the most important element in disaster evaluation that is familiar to most evaluators is the 'blame game,' the search for responsibility. It's an integral part of aircraft and rail crash investigations, and it poses no insuperable barrier to reliable conclusions there, or in its courts. We must take it in our stride, though of course it helps to arm oneself with the basic tools of ethical and legal analysis. For the bottom line in all of this is simple enough: a good proportion of the disastrous events themselves, and a larger proportion of their terrible consequences, are avoidable by human action. If we take on disaster evaluation and don't step up to do the ethical analysis, and do it rigorously, the job won't be completely done. Evaluators need to grow into this new aspect of a new task as they have so often grown before. It may be the greatest challenge we'll ever face.