

Who's to Blame for Natural Disasters?

This report never mentions population growth

by Seth Borenstein

Any
[Editor's Note: We reprint this column as an example of the constant reporting of ever more losses of life and property in earthquakes and hurricanes — reporting which never mentions the fact of population growth. As biologist Garrett Hardin has remarked: "Nobody ever dies of overpopulation."]

With natural disasters costing America about \$1 billion a week and growing more expensive and catastrophic every year, the nation should dramatically shift the way it plans for and deals with such hazards, a new federal study recommends.

And with our patterns of urban development and high-tech construction, we're only setting the stage for worse disasters, warned

Seth Borenstein writes for the Miami Herald in their Washington Bureau. This article is reprinted with permission from the May 20, 1999 edition.

the study.

Some experts disagreed with the warnings about construction.

"We are responsible for the losses we experience in natural disasters," said Colorado University Professor Dennis Mileti, lead author of the 351-page study *Disasters by Design*. "It's not God. It's not nature."

As more people move to more hazard-prone areas, "catastrophes, the really big ones, are getting larger," said Mileti, director of the Natural Hazards Research and Applications Information Center in Boulder, Colo.

Disasters are a growing problem. Seven of the nation's 10 costliest have struck in the past decade. Earthquake-shaken California, hurricane-hit Florida and just plain old dangerous Texas are most at risk, concludes the study, which was released Wednesday.

The five-year analysis was produced by 132 academic, government and private disaster experts and paid for by the National Science Foundation, the Federal Emergency Management Agency, the Environmental Protection Agency, the U.S. Forest Service and the U.S. Geological Survey.

"The extensive urbanization and high population density of Florida and California, coupled with their

high-risk potential, clearly explain their top rankings," the report said. "Texas also ranks high because of the sheer number and diversity of hazardous events that occur there as well as the state's large although more dispersed pattern of urbanization."

Despite the recent mayhem, deaths from hurricanes and other disasters are down in recent years because of better storm warnings, experts say. Overall, more than 24,000 people died from disasters between 1979 and 1994, the report said. Tornadoes account for more deaths than other disasters, Mileti said, because they are the hardest to prepare for.

The report urged a shift away from development in dangerous areas and disaster-resistant construction toward reliance on environmental planning aimed at making cities more "sustainable" during disasters.

Cities also must face the fact that there's no way to totally prevent deaths and damage from disasters, and thus should live with nature instead of trying to challenge it, the report suggests.

Some of the high-tech engineering used to prevent or cope with disasters — like building dams and using earthquake-proof construction methods — are only

postponing and increasing the damage from the inevitable, the report claimed in its most controversial section.

People can't "solve" the problem of disasters, especially by building stronger and smarter buildings, Mileti said. Such construction will only make matters worse when what he calls the inevitable "lollapalooza" of a disaster strikes, such as a four-minute earthquake in the San Francisco Bay or a very powerful hurricane through South Florida.

Mileti used the example of San Francisco rebuilding after earthquakes in the 19th and 20th centuries. Each rebuilding came with promises of earthquake-proof technology, such as adobe or brick, Mileti said. But if the 30-second Northridge earthquake of 1994 had lasted a minute or more, engineering studies indicate, many Southern California steel high-rise buildings would have fallen because they stressed so much in the shorter quake.

"That's nonsense," said Frank Koutnik, policy and planning chief for the Florida Division of Emergency Management. "You don't want to be lulled into a false sense of security because of technology, but I think building enhancements can have a tremendous loss-reduction impact."

Koutnik pointed to Sullivan's Island in South Carolina after 1989's Hurricane Hugo. Row after row of buildings were leveled, but a properly designed one on the beach barely had anything more than shingle damage.

Jane Bullock, chief of staff for FEMA, said that while most of

Mileti's report was right, her agency strongly disagrees with its conclusion on technology. People still should use the most current technology to build "stronger and safer," she said.

Modern building codes and a massive retrofit program are keeping most buildings safe in California, said Jack Boatwright, a U.S. Geological Survey geophysicist who runs project Earthquake Effect in the Silicon Valley.

People can build houses that will be safe to live in — though sustain some damage — during hurricanes, said Clemson University civil engineering Professor Peter Sparks, an expert on wind damage during storms. Most of the damage is from subpar construction, he said.

But such philosophies only encourage people to believe they can control nature, Mileti said.

"Sometimes technology lulls people into a false sense of security, whether it be in an earthquake-proof building or behind a levee," said Steve Ellis, coastal program coordinator for the environmental group Coast Alliance, which was not part of the study. "People feel like they're safe, which isn't necessarily the case. Mother Nature holds the cards."

For example, barrier islands such as Miami Beach and North Carolina's Outer Banks "are Mother Nature's punching bags," Ellis said. "We're putting ourselves in harm's way."

Florida's Koutnik said we have to be realistic: "People are going to live in these places. You are not going to prohibit people from living in these hazardous places. That is

the pipe dream."

Mileti, who just built a house on the San Andreas Fault, said he doesn't want to move people out of hazardous areas. But he said people living in such places should have their eyes open to what could befall them, and the government shouldn't pay federal flood insurance subsidies to make it easier for them to do so.

In addition, the private insurance industry isn't doing enough to make people think about risks when they build and move, said one of the study's co-authors, Howard Kunreuther, co-director of the Wharton School's Center of Risk Management and Decision Processes.

Insurance premiums, especially in places like California and Florida, are too low and don't really represent the risk the company is taking, said Kunreuther, author of a companion book to the report called *Paying the Price*.

Insurance companies should offer incentives — along with banks providing cheap financing — to help people retrofit homes to be stronger for hurricanes and earthquakes, Kunreuther said.