HURRICANE SANDY could cost the nation a staggering $50 billion, about a third of the cost of Hurricane Katrina — to date the most costly disaster in United States history.

But Hurricane Sandy was not an isolated event. Indeed, the incidence of extreme events is far more frequent. Twenty of the 30 most expensive insured catastrophes worldwide from 1970 to 2011 have occurred since 2001 — and 13 of them were in the United States. Aside from the 9/11 terrorist attacks, all were natural disasters. The increase is most likely because of the location in high-risk areas of more people, and more valuable properties, along with a changing climate.

What’s next? And who will pay?

Schools, hospitals, roads, bridges, utilities and transportation services are primarily rebuilt with federal funds through the Stafford Act, with 25 percent picked up by state and local governments.

For families and businesses, insurance plays an important role in assisting financial recovery. However many people, including those in high-risk areas, don’t have coverage, either put off by its cost or by the belief that the next disaster “will not happen to me.” Ninety percent of Californians, for example, are without earthquake coverage.

Because of the quickening pace of disaster, those who want insurance or are required to buy it now face much higher costs in risky areas. Premiums for homeowners’ insurance (which covers wind damage) doubled in Florida between 2002 and 2007, tripling in some areas after the 2004-5 hurricane seasons, if insurance was available at all.

Many insurers have raised their premiums because of increased risk estimates, higher cost of reinsurance (insurers transfer part of their risk to international reinsurers), the requirement by regulators and rating agencies that insurers hold more capital in order to reduce the likelihood of insolvency, and the need to provide shareholders with an attractive return.
In response to this insurance crisis, several states developed state-run wind insurance pools intended to serve as insurers of last resort. These institutions typically offer hurricane coverage for residences in high-risk areas at a much lower premium than coverage provided by the private market. Today, the largest wind pool, Citizens, covers nearly $500 billion of assets and has the biggest market share of all homeowner insurers in Florida.

Alabama, Louisiana, Mississippi, North Carolina, South Carolina and Texas also have such wind pools, although they’re much smaller.

These hybrid mechanisms are obviously popular: homeowners pay less than if they purchased private insurance, builders have an easier time selling properties in hazard-prone areas since insurance premiums are kept artificially low, and elected officials look good, having “solved” the problem.

The untold story, however, is that all insurance policyholders in the state will be forced to pay if the pool does not have enough funding to honor its claims, which is most likely when the next large-scale disaster hits.

Those who live in nonrisky areas are subsidizing the choices of others. Take residential flood insurance. Most insurers refuse to cover the risk, so the National Flood Insurance Program, run by the Federal Emergency Management Agency, was established in 1968 with subsidized rates for those then living in flood-prone areas.

Today, the program covers 5.6 million policyholders, who are paying an average of $55 per month. About one million of them are still getting flood insurance for less than half price because the house was built before the flood hazard maps were established.

So it is unsurprising that the program had to borrow $18 billion from the United States Treasury to pay for its claims after the historic 2005 and 2008 hurricane seasons, an amount it has yet to pay back. It will have to borrow even more after Hurricane Sandy.

But even with a subsidized premium, many people drop coverage. (Banks might require it, but apparently if they do, they are not always enforcing that provision.) Our research shows that half of all policyholders cancel their flood coverage after only three or four years. Why? Because they paid premiums without getting anything in return and are likely to think “Bad investment!” But insurance is a safety net, not a bet.

Uninsured disaster victims have to rely on family, friends or donations; apply for limited federal individual assistance grants; or take on low-interest disaster loans, if they qualify.
Although the number of presidential disaster declarations prompting federal relief is at a record high (99 declarations last year alone), the truth is that most of that money goes to affected states to rebuild their public assets, not to individual victims. The status quo is unacceptable: our already fragile economy cannot afford more of those huge losses from extreme events. A more coherent strategy can encourage personal responsibility and proper protection.

First, premiums should reflect risk. This makes transparent the magnitude of the hazards one faces and could limit new construction in high-risk areas. Residents would be encouraged to reduce risk by getting discounts for, say, elevating a house or strengthening the roof.

Second, we should address equity and affordability. If premiums are risk-based, those who live in hazard-prone areas and cannot afford insurance will require assistance. We propose establishing a federal disaster insurance means-tested voucher program similar to the food stamp program.

We also propose having multiyear disaster insurance contracts with rates locked in so that customers won’t capriciously abandon their contracts after a couple of years without a disaster. Currently contracts are for a single year. The multiyear contracts would be attached directly to the property, not the individual, and could be complemented by a home improvement loan for financing loss-reduction measures.

A presidential commission tasked with redesigning our national disaster financing strategy could quantify risk in dollar terms and make it very clear who was responsible for what — whether private or public risk was involved.

Let’s act while attention is still focused on avoiding the consequences of another Hurricane Sandy.

*Erwann Michel-Kerjan* and *Howard Kunreuther* teach at the Wharton School of the University of Pennsylvania and are co-authors of “At War with the Weather.”