Connecticut Debate Association

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King School, Fairfield Warde Highs School and Westhill High School

Resolved: The government should not fund reconstruction of private property after natural disasters.

The Future Question for Storm Victims: Can the Past Be Rebuilt?

Rhoads, Christopher, Scism, Leslie. **Wall Street Journal** Nov 17, 2012: A.1.

SEA BRIGHT, N.J. -- A week after Sandy buried this coastal town in six feet of sand, a bus took residents to view the remains. Small talk quickly turned to shock. "Dunkin' Donuts is gone," said one. "Oh my God," whispered a woman as they drove up Ocean Avenue, the main drag through town. The business district was destroyed.

Finally, 77-year-old retiree Ira Kornblut raised his fist. "We're coming back," he said, choking back tears. "We're Sea Brighters!"

As towns up and down the eastern seaboard take stock of tens of billions of dollars in damage from one of the worst storms to hit the U.S., authorities and residents speak publicly about their intent to rebuild.

"I promised to everybody that I was speaking on behalf of the country when I said we are going to be here until the rebuilding is complete, and I meant it," President Barack Obama said Thursday during a visit to New York City's battered Staten Island.

But with the federal budget deep in the red and government flood insurance still straining to recover from Hurricane Katrina, Sea Bright and other coastal towns face questions over not just how to rebuild in a way that defends lives and property against surging sea levels and more intense storms, but whether to rebuild at all.

Sandy's destructive path has united an unlikely coalition of free-market think tanks, environmentalists, business owners and insurers arguing the moral hazard of rebuilding in coastal zones that might best be returned to nature.

"It's very difficult to get beyond the sympathy factor," said Orrin Pilkey, a coastal geologist at Duke University. "But it works against us." He said he knows the issue firsthand: Hurricane Camille in 1969 damaged his parents' Mississippi home. Hurricane Katrina later obliterated it.

"We are subsidizing, even encouraging, very dangerous development," he said. "It's amoral, really, that our government continues to blindly and stupidly do this."

Repeated Southern California wildfires that leapfrog through hilly coastal enclaves, tornadoes that routinely slash through Southern and Midwestern towns, flooding rivers and hurricanes all trigger an avalanche of federal aid to help people restore homes and livelihoods.

In New Jersey, Republican Gov. Chris Christie this week acknowledged the difficulty of rebuilding but said, "We're going to be with you through every hardship, through every frustration and every step toward bringing New Jersey and its great shore back to the vitality it had the last summer and it's had my entire life."

No political leader would expect re-election after abandoning a storm-ravaged community. But with fiscal austerity and smaller government at the top of the national political agenda, some question the use of taxpayer-backed loans and other assistance to rebuild potentially dangerous communities. New Jersey, for example, is the most densely populated state in the U.S., with the bulk of its residents settled in counties along the shoreline.

"People keep saying we're going to put everything back the way it was," said Stephen Sweeney, the Democratic president of the New Jersey state senate. "No, we're not. It makes no sense to do the same thing over and over again, throwing good money after bad."

In some low-lying areas, he said, he will encourage the federal government to "write checks, level the homes and let the land return to its natural state."

New Jersey scores high among states for safe residential construction through its strict enforcement of modern building codes, according to a report card compiled earlier this year by the Insurance Institute for Business & Home Safety, an industry-funded group.

Sea Bright has implemented protective measures over the years, most notably a 15-foot-high sea wall that was built in the 1940s and runs along most of the three-mile-long town. The town has water pumps, runoff inlets and bulkheads to mitigate periodic flooding.

An estimated 1.2 million cubic yards of sand was scheduled for delivery this month to Sea Bright and neighboring Monmouth Beach, a long-planned beach improvement delayed by Sandy. The federal government pays 75% of the $19 million cost, with the rest paid from state and local funds.

None of the existing measures did much to protect the town's 1,400 mostly year-round residents against Sandy.

Sea Bright is a mixed-income community that despite being only 22 miles south of Manhattan takes pride in its small-town atmosphere. The hardware store has been on Ocean Avenue for decades. Locals chat over early morning coffee at Steve's diner. Families have gathered for generations at eight private beach clubs, with names like Driftwood and Ship Ahoy, the heart of the town's summer tourism business.

Donovan's and other bars feature local bands, including over the years New Jersey-raised rock stars Bruce Springsteen and Jon Bon Jovi.

Over the course of a few hours on Oct. 29, a 13-foot storm surge, propelled by 100-mile-per-hour winds, tore through town. Seawater filled homes, businesses and streets with a tsunami of sand that clogged drainage pipes and runoff inlets. A wave swept one resident from the front of his home and down the street. He survived.

By the next morning, the sea had receded but the sand remained. "There are no words for it," said Mayor Dina Long. She spoke while earth-moving equipment dug out the downtown. "Our businesses were wiped away."

Authorities have condemned dozens of buildings, including a men's clothing store, Sunoco station and the home of a former mayor. Donovan's was a heap of splintered boards. Seven of the eight private beach clubs are ruined, their swimming pools filled with sand. Sandy piled up dozens of boats like toys. Officials put preliminary estimates of building damage at nearly $400 million.

"We have some decisions to make," said Andy Dietz, 61 years old. Flooding tore his front door from the hinges and left it in the living room of his soaked home. Out back, the storm left the deck from a nearby restaurant, McLoone's.

One decision is whether Sea Bright can afford to rebuild itself. Of the town's 1,211 residences and dozens of businesses, a large percentage has flood insurance through the 44-year-old National Flood Insurance Program, according to government figures and local estimates.

But the program, which operates under the Federal Emergency Management Agency, pays a maximum of $250,000 per residential structure and $100,000 for contents. Robert Adler, Sea Bright's town architect, said that won't be enough for homeowners to rebuild. Payouts to businesses are capped at $500,000 for structures and $500,000 for contents.

"The biggest challenge is financial," said Mr. Adler. "Where will these people get the additional money to rebuild? We will either have an amazing renaissance or a colossal failure. There's not much room in between."

One alternative would be to build a new Sea Bright, not a replica.

In 1989, Hurricane Hugo struck the South Carolina coast near Charleston, sweeping away many of the low-lying beach bungalows on nearby islands, including Isle of Palms, a popular tourist spot. The island was rebuilt with private-sector and government flood-insurance proceeds to comply with the latest construction techniques.

The region is yet to be tested by a major storm but its makeover has shifted the mix of local housing. "We have seen a huge transition from small modest homes to the megastructures" perched on fat pilings, said Timothy Reinhold, chief engineer at the Insurance Institute for Building & Home Safety.

The federal government also could offer to buy properties in vulnerable parts of town, relocate the residents and return the cleared land to the floodplain.

In 1998, a flash flood inundated Corning, Ohio, a small town that has endured repeated flooding. FEMA bought about 30 of the town's 239 homes, demolished them and moved residents to higher ground nearby. FEMA covered 75% of the cost, with the rest coming from state and local sources.

"It was a bold course of action, not without controversy," said Chad Berginnis, the county planner at the time and now executive director of the Association of State Floodplain Managers in Madison, Wis. Some residents lost childhood homes and the town lost tax revenue. "But the mayor always came back to what was the right thing to do by her citizens."

Any wholesale relocation would be a difficult sell in beach towns. Coastal neighborhoods have drawn new residents at the rate of about 3,500 a day, a migration that has made seaside counties five times more densely populated than inland counties. Since 1970, spurred by new housing and resorts, the U.S. coastal population has swelled by nearly half, with property values in hurricane-prone regions on the Atlantic and Gulf up 42% since 2004 to $10.2 trillion, according to AIR Worldwide, a risk-modeling firm.

The migration to the sea continues despite coastal erosion from storms and natural wave action that claims roughly 1,500 homes a year, according to a government commission on ocean policy.

"In an ideal world, should you be able to live wherever you want, however you want and be rebuilt several times?" said Julie Rochman, chief executive of the Tampa, Fla.-based Insurance Institute for Business & Home Safety. "Probably not, but that's what we do in this country, and that's got to stop" unless homeowners are willing to pay insurance rates commensurate with the risks.

The FEMA flood-insurance program is already heavily indebted after borrowing nearly $18 billion from Treasury to cover claims from Katrina, as well as years of subsidizing rates for more than a fifth of its 5.6 million residential and business policyholders. With these subsidies, people pay premiums less than half the program's full-risk rate, according to government research.

Critics say discount rates mask the actual risk of coastal living and discourage spending to fortify homes against wind and water damage.

In general, homeowners are required to install stronger windows and roofs, or raise foundations onto pilings, only after storms damage their property or when they're remodeling for personal reasons. Along the New Jersey shore, many homes don't sit on pilings because they were built long before such requirements.

Historically, the federal flood insurance program has paid a disproportionately large share of claims on the same houses and businesses, so-called repetitive-loss properties. They are often older structures in vulnerable, low-lying neighborhoods. A smaller group, severe repetitive-loss properties, comprises those that have received at least four payments of more than $5,000 each, or two payments cumulatively exceeding the property's value.

Since 1978, claims by 166,368 repetitive-loss properties have cost the program more than $12 billion, according to the Congressional Research Service. Nearly $1 billion of the damage came from 12,432 properties in New Jersey. Those tallied up 42,353 claims, to rank the state third in the number of such claims behind Louisiana and Texas. Sea Bright had 412 claims from 140 properties, FEMA said, collecting $9.5 million.

Repetitive-loss properties that are currently covered by the flood program have represented about 16% of total claims payments since 1978, according to the Congressional Budget Office. Nationwide, 2,667 of the 71,000 currently insured repetitive-loss properties have filed 10 or more claims.

"This is a classic conflict between short-term political interests and long-term rational public policy," said Martin Bunzl, a philosophy professor at Rutgers University who is writing a book on the intersection of philosophy and climate policy. "We have no public policy interest in seeing houses rebuilt in low-lying areas. If the inclination is for insurance companies to say it's too risky, we should not use political leaders to undermine that decision."

This summer, Mr. Obama signed legislation boosting the rates paid by many subsidized policyholders to more closely track conventional market rates.

For Sea Bright and other communities along the New Jersey shore, some of the questions about the future may extend beyond the practical.

"The biggest challenge is to make sure that the spirit that defined a community is kept alive," said Craig Taffaro, the former president of St. Bernard Parish, La., one of the areas hardest hit by Katrina, and now the director of hazard mitigation and recovery coordination for his state government. About 65% of the parish's pre-Katrina population of 68,000 has returned, he said.

"You can have the lights on and the churches physically there," he added. "But the spirit and soul of a community has to be embodied in those buildings to fully recover."

Last week in Sea Bright, Frank Bain, 59 years old, rummaged through the hardware store on Ocean Avenue he has run with his wife, Patty, since 1994. The store's slogan: "If Bain's doesn't have it, you don't need it."

Five feet of water destroyed all his stock. He carried no flood insurance, which means he lost everything.

"What I need right now is a dollar and a dream," he said. "We'll do the best we can and the best we can for everyone. But no one can honestly say we have a plan yet, none of us."

The Politics of Disaster

Wall Street Journal, Editorial, 10 Oct 2007

Good news for readers who have dreamed of owning beachfront property in Miami: Even if you can't afford to buy the house, at least you can still pay to insure it. We're sure the current occupants will be most grateful for your generosity as they sip mojitos in South Beach.

We've been warning of the financial disaster looming off the Florida coast ever since Governor Charlie Crist socialized the state's hurricane insurance market and put Florida taxpayers on the hook for billions. Earlier this year, Mr. Crist stumped for and then signed a law making the Florida government the state's dominant insurer, but without the reserves that would be required of real insurance companies. The plan will work splendidly as long as there are no hurricanes in Florida, but the state will face a difficult challenge once the inevitable storm hits: how to pry new tax revenue out of Floridians just as they begin sifting through the rubble that used to be their homes.

Now Florida's politicians are doubling down on their mistake, by trying to make all American taxpayers subsidize insurance for Florida homeowners. Congressman Ron Klein (D., Fla.) is hoping for a floor vote this fall on his Homeowners' Defense Act and has been assured by Speaker Nancy Pelosi that this is a top priority. Governor Crist is also lobbying hard.

Mr. Klein's bill would force the U.S. Treasury to issue below-market loans to state-insurance programs, while also creating a kind of Fannie Mae of disaster reinsurance, a federally chartered organization called the "National Catastrophe Risk Consortium." Like Fannie, the consortium would carry an implicit guarantee from the federal government as it issues securities in the capital markets, distorting prices as it sells subsidized reinsurance to participating states, all the while saddling taxpayers with new risks. According to Treasury Assistant Secretary Phillip Swagel, "Taxpayers nationwide would subsidize insurance rates in high-risk areas, which would be both costly and unfair."

Transferring the risk from condo-owners in Boca to taxpayers in Syracuse does not reduce the cost of hurricane disasters. In fact, now that Congress looks ready to volunteer middle-class taxpayers nationwide as the financial backstop for lovely beachfront properties, South Florida developers will have even less incentive to use sturdy materials and set homes a reasonable distance from the waterline. We have already run this experiment with the National Flood Insurance Program, with predictable results. When people can buy insurance at below-market rates, they tend to stay in accident-prone homes.

Taxpayers might be forgiven for wondering whether they're already paying enough, given that there are no fewer than 27 federal agencies tasked with responding to emergencies, not to mention myriad state and local agencies and private groups such as the Red Cross. Even if some believe that government should be the insurer of last resort, should taxpayers pay for every resort?

Sensing that Americans might be suffering from disaster-assistance fatigue after shelling out $110 billion to the Gulf Coast after Katrina, Mr. Klein touts the loan programs in his bill as a way to avoid no-strings gifts to affected areas. But what's the most likely outcome if state insurance programs don't pay back the loans? Treasury's Mr. Swagel put it this way in testimony to the House last month: "With federal financing, it is more than likely that there will be significant pressures to forgive outstanding debt in the case of a huge catastrophe."

Beyond the cost to taxpayers, the message to the markets could be equally destructive. Insurance companies are never going to win the title of America's most beloved companies, but it should give all of us a shiver when lawmakers decide to kill an industry because they believe government can do it better. What exactly is the offense for which this segment of the property and casualty industry deserves the death penalty? Florida state Representative Dennis Ross points out that after the 2004-2005 storm seasons, private insurance companies spent $39 billion to rebuild Florida.

Are the risks of hurricanes and earthquakes just too difficult for private markets to manage? Hardly. Swiss Re, the largest underwriter of catastrophe bonds, reports that business is booming. Since natural disasters have almost no correlation with corporate bond defaults, investors are increasingly attracted to "cat" bonds as a way to reduce portfolio risk while earning competitive returns.

The insurance market is working; Florida's Governor simply didn't like the price of private hurricane coverage. Now he may succeed in getting American taxpayers to pay for it, while destroying an American industry. As Mr. Crist's predecessor Jeb Bush has wisely pointed out, government-run natural disaster insurance could be more devastating than the disasters themselves.

Catastrophe Fund Is in American Tradition

Wall Street Journal, Letters, 15 Oct 2007: A.21.

Your Oct. 10 editorial "The Politics of Disaster" ignores both reality and American history. The paramount responsibility of government is to ensure the safety and security of the people. While individuals must do all they can to provide for themselves, in the end, rebuilding and repairing lives and property in the wake of a major natural disaster or terrorist strike is and should be a collective American effort, not simply a local, regional or state matter. A national catastrophe fund is a sensible way to accomplish this goal.

Throughout the history of our great nation, the federal government has come to the aid of victims of wildfires, earthquakes, floods, droughts, tornadoes and hurricanes. The risk of falling prey to a natural disaster is not exclusive to Florida's coastal residents. As this year alone has demonstrated, every state is vulnerable, albeit in different ways.

A national catastrophe fund would establish a disciplined, structured plan for what, as a simple matter of reality, will be substantial federal assistance following a major natural disaster. One need only look to recent history to confirm the inevitability of this assistance. Rather than living in denial, the better course would be to develop a financially responsible, organized delivery system. The $110 billion price tag that followed Hurricane Katrina may well have been reduced through the prudent planning exemplified by a national catastrophe fund. And that price was paid not only by residents of the Gulf Coast states. The Great Lakes and Plains states will likely contribute $26 billion to Katrina initiatives.

While the post-Katrina display of generosity and compassion was both admirable and laudable, America deserves more than a reactive use of limited resources. Moreover, spreading risk and establishing financially responsible measures before a catastrophe strikes is both more efficient and more fiscally responsible. Additionally, accumulation of reserves through a national catastrophe fund could be accomplished in a way that reduces the cost to the individual.

Finally, establishment of a national catastrophe fund does not mean an abandonment of the insurance or reinsurance marketplace. Rather, the fund would serve as an additional layer of support for the most significant events. Further, the plan could be structured to encourage, if not require, substantial individual and state responsibility and more stringent building and development codes.

Gov. Charlie Crist

Tallahassee, Fla.

Paying for Future Catastrophes

The New York Times, November 24, 2012, By ERWANN MICHEL-KERJAN and HOWARD KUNREUTHER

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."

Lessons for U.S. From a Flood-Prone Land

The New York Times, November 14, 2012, By ANDREW HIGGINS

LELYSTAD, the Netherlands — Entrusted with ensuring that the central Netherlands never suffers a calamity like the one visited on New York by Hurricane Sandy, Willem van Dijk, guardian of the dikes in Flevoland, a Dutch province that is more than 12 feet below sea level, sends out 11 men each morning to combat a grave menace to the world's most advanced network of storm defenses.

Their mission is to kill muskrats. Using metal cages and spring traps baited with carrots, Flevoland's rodent hunters provide a low-tech but vital service in an elaborate and highly effective Dutch defensive system that includes flood-control techniques first developed in the Middle Ages and futuristic steel structures that, operated by computers, move to block storm surges when water levels rise too high.

In recent days, the Netherlands' peerless expertise and centuries of experience in battling water have been widely hailed in the United States as offering lessons for how New York and other cities might better protect people and property from flooding. Dutch engineering companies are already pitching projects to fortify Manhattan against storms, stressing that the Netherlands has experience with a coastline and cluster of river estuaries that resemble New York's, and pose similar flooding risks.

But Dutch officials and hydrology experts who have examined the contrasting systems of the two countries say that replicating Dutch successes in the United States would require a radical reshaping of the American approach to vulnerable coastal areas and disaster prevention.

The Dutch "way of thinking is completely different from the U.S.," where disaster relief generally takes precedence over disaster avoidance, said Wim Kuijken, the Dutch government's senior official for overall water control policy. "The U.S. is excellent at disaster management," but "working to avoid disaster is completely different from working after a disaster."

The Netherlands does not have hurricanes but does have ferocious storms that hurtle in from the northwest, funneled toward the Dutch coast across the North Sea. Centuries of living so close to the edge have cultivated a keen awareness of the consequences of flooding and the imperative to prevent them in a country where two-thirds of the population, including most residents of Amsterdam, Rotterdam and The Hague, live on flood-prone land, much of it below sea level.

"We know that if things go wrong, we pay for decades," said Mr. Kuijken, who holds the post of delta commissioner. As a result, he said, the Netherlands has been able to mobilize enormous resources to anticipate and minimize the risk of flooding.

For most of their history, the Dutch held back water in land that began as a large peat swamp by creating an elaborate mosaic of dikes, which, strung together today, would stretch for nearly 50,000 miles. After serious floods in 1916 and 1953, however, it was decided that constantly building, raising and reinforcing dikes was no longer feasible, particularly in densely populated areas.

This led to a series of huge dam projects to seal off flood-prone river estuaries and inlets from the sea, which shortened the coastline and sharply reduced the land area exposed to storm surges. On waterways that could not be sealed because of heavy shipping traffic, like the estuary leading to Rotterdam's port, movable barriers were erected instead.

In response to the 1953 floods, which killed more than 1,800 people, the state laid down strict rules, ordering that flood defenses be made strong enough to resist a storm so severe that, according to computer projections, it would occur only once every 10,000 years.

If a dike breaks in Flevoland, an area nearly three times the size of Manhattan and made up entirely of land reclaimed from the sea, it would take just 48 hours for the entire province to be submerged in water, Mr. Van Dijk said. He is responsible for dike maintenance in the province, which includes killing the muskrats that weaken the levees by burrowing deep into them to create nesting chambers.

"We either kill the rats or the water kills us," said Peter Glas, president of the Dutch Association of Regional Water Authorities, known as Waterschappen, or water boards in Dutch, elected local bodies that trace their roots to the 13th century and are empowered to levy taxes.

Mr. Glas said he was dismayed by images on television of darkened, waterlogged buildings in Lower Manhattan, and wondered how the area would have fared if it "had a Dutch approach to the problem." American society, he said, "is more dependent on self-protection and taking care of your own household," attitudes that make it difficult to mobilize public attention and money to prevent disasters ahead of time.

While his country has invested heavily in flood control, Mr. Kuijken, the delta commissioner, says this does not mean idly throwing around money but instead involves a careful cost-benefit calculation.

The Dutch government currently spends around $1.3 billion a year on water control, and local water boards spend hundreds of millions more to maintain dikes and canals, kill muskrats and pump water from "polderland" — former swamps, lakes and sea areas that have been ringed with levees and turned into towns and farmland.

Capital investment on large construction projects has added billions to the total bill. The Delta Works, a construction program begun after the 1953 flood, cost around $13 billion and took more than four decades to complete. The Maeslantkering, a movable storm surge barrier near Rotterdam that is twice as long as the Eiffel Tower is tall, was finished in 1997 and, testing aside, has been used only once, in November 2007.

While Flevoland's muskrat hunters were out looking for rodents this week, the heir to the Dutch throne, Prince

Willem-Alexander, joined other officials in the provincial capital, Lelystad, to open the Water Management Center. The center, a new central control unit, is studded with computers flashing real-time data about water levels, wind strength and other potential threats to levees built to hold in check the North Sea, the Rhine River and three other major waterways that flow through the Netherlands.

A day later, scores of Dutch scientists, engineers and executives in the country's flood-control industry gathered in Rotterdam to mark "hydrology day" — and to swap ideas on how they might hawk Dutch expertise to New York.

Bas Jonkman, professor of hydraulic engineering at Delft University of Technology, gave a presentation comparing flood disasters around the world — the Netherlands in 1953 to New Orleans in 2005, northern Japan after last year's tsunami and Hurricane Sandy in New York. Since 1953, Dutch defenses have mostly held firm, though a near disaster in the early 1990s led to the evacuation of 250,000 people and almost as many cows and pigs.

Because of Dutch successes, Mr. Jonkman said in an interview, "we have to go abroad to see how flood management systems respond in extreme situations." New York, he added, is particularly interesting because of its dense population and geographical similarities with the Netherlands.

The Dutch response to New York's events, he said, "would be to build big barriers," but a better, cheaper answer may lie in "local solutions like flood-proof entrances" to subway stations and parking garages. "You need to be careful not to just copy Dutch solutions," he added.

In the last century, these consisted largely of megaprojects. Flevoland is the result of a building blitz after the 1916 flood. A 20-mile-long dam sealed off the Zuiderzee, an extension of the North Sea, and turned its northern portion into a freshwater lake and the southern end into Flevoland.

Mr. Kuijken said that Dutch thinking had shifted and now puts a priority on methods "to enlarge defenses in a natural way." The state is investing in a plan called Room for Rivers, which aims to ease flooding by giving waterways space to move and even overflow. Last year, the country spent around $100 million to dump 706 million cubic feet of sand off the coast north of Rotterdam to promote the formation of protective sandbars.

For New York, Arcadis, a Dutch engineering consulting company, is proposing a movable barrier near the Verrazano-Narrows Bridge. But, said Mathijs van Ledden, who works for the Dutch company Royal HaskoningDHV, "the big challenge in the U.S. is how you get a big pot of money in place for an entire region."

Not everyone in the Netherlands shares the nation's passion for eliminating risk. Residents in Uitdam, a small town in the north, recently protested plans by the local water board to raise the height of dikes, complaining that this would destroy their view of an adjacent lake. And in Flevoland, Mr. Van Dijk said he received regular complaints from animal rights activists that killing muskrats is cruel and unnecessary.

Jacko Westerndorp, a muskrat hunter who cruises the province each day in a Ford Ranger loaded with carrots, waterproof gear and traps, has little time for such concerns: "We have to do this work. If the water comes, we all drown."

As Coasts Rebuild and U.S. Pays, Repeatedly, the Critics Ask Why

The New York Times, November 18, 2012, By JUSTIN GILLIS and FELICITY BARRINGER

DAUPHIN ISLAND, Ala. — Even in the off season, the pastel beach houses lining a skinny strip of sand here are a testament to the good life.

They are also a monument to the generosity of the federal government.

The western end of this Gulf Coast island has proved to be one of the most hazardous places in the country for waterfront property. Since 1979, nearly a dozen hurricanes and large storms have rolled in and knocked down houses, chewed up sewers and water pipes and hurled sand onto the roads.

Yet time and again, checks from Washington have allowed the town to put itself back together.

Across the nation, tens of billions of tax dollars have been spent on subsidizing coastal reconstruction in the aftermath of storms, usually with little consideration of whether it actually makes sense to keep rebuilding in disaster-prone areas. If history is any guide, a large fraction of the federal money allotted to New York, New Jersey and other states recovering from Hurricane Sandy — an amount that could exceed $30 billion — will be used the same way.

Tax money will go toward putting things back as they were, essentially duplicating the vulnerability that existed before the hurricane.

"We're Americans, damn it," said Robert S. Young, a North Carolina geologist who has studied the way communities like Dauphin Island respond to storms. “Retreat is a dirty word.”

This island community of roughly 1,300 year-round residents has become a symbol of that reflexive policy.

Like many other beachfront towns, Dauphin Island has benefited from the Stafford Act, a federal law that taps the United States Treasury for 75 percent or more of the cost of fixing storm-damaged infrastructure, like roads and utilities.

At least $80 million, adjusted for inflation, has gone into patching up this one island since 1979 — more than $60,000 for every permanent resident. That does not include payments of $72 million to homeowners from the highly subsidized federal flood insurance program.

Lately, scientists, budget-conscious lawmakers and advocacy groups across the political spectrum have argued that these subsidies waste money, put lives at risk and make no sense in an era of changing climate and rising seas.

Some of them contend that reconstruction money should be tightly coupled with requirements that coastal communities begin reducing their vulnerability in the short run and that towns along shorelines facing the largest risks make plans for withdrawal over the long term.

“The best thing that could possibly come out of Sandy is if the political establishment was willing to say, ‘Let’s have a conversation about how we do this differently the next time,’ ” said Dr. Young, a coastal geologist who directs the Program for the Study of Developed Shorelines at Western Carolina University. “We need to identify those areas — in advance — that it no longer makes sense to rebuild.”

A coalition in Washington called SmarterSafer.org, made up of environmentalists, libertarians and budget watchdogs, contends that the subsidies have essentially become a destructive, unaffordable entitlement.

“We simply can’t go on subsidizing enormous numbers of people to live in areas that are prone to huge natural disasters,” said Eli Lehrer, the president of the conservative R Street Institute, part of the coalition.

This argument might be gaining some traction. Earlier this year, Congress passed changes to the federal flood insurance program that are supposed to raise historically low premiums and reduce homeowner incentives for rebuilding in the most hazardous areas.

Less widely known about than flood insurance are the subsidies from the Stafford Act, the federal law governing the response to emergencies like hurricanes, wildfires and tornadoes. It kicks in when the president declares a federal disaster that exceeds the response capacity of state and local governments.

Experts say the law is at least as important as the flood program in motivating reconstruction after storms. In the same way flood insurance shields families from the financial consequences of rebuilding in risky areas, the Stafford Act shields local and state governments from the full implications of their decisions on land use.

Under the law, the federal government committed more than $80 billion to disaster recovery from 2004 to 2011, according to a report from the Government Accountability Office. While billions of dollars went to relieve immediate suffering, including cash payments to families left homeless by storms, nearly half of the money was spent helping state and local governments clean and restore damaged areas and rebuild infrastructure.

At times, local governments have tried to use the money to reduce their vulnerability to future disasters, but they complain that they often run into bureaucratic roadblocks with the Federal Emergency Management Agency.

For instance, after flooding from Hurricane Irene washed out many culverts in Vermont last year, many towns built bigger culverts to handle future floods. But they are still fighting with the agency over reimbursement.

W. Craig Fugate, the agency’s administrator, acknowledged in an interview that “as a nation, we have not yet figured out” how to use federal incentives to improve resiliency and discourage excessive risks.

If private property owners want to assume the risks, “that’s one thing,” he said. “But if we find that we as taxpayers are assuming that risk without benefit, then we need to rethink that.”

Dauphin Island is a case study in the way the federal subsidies have enabled repetitive risk taking. Orrin H. Pilkey, an emeritus professor at Duke University who is renowned for his research in costal zones, described the situation here as a “scandal.”

The island, four miles off the Alabama coast, was for centuries the site of a small fishing and farming village reachable only by boat. But in the 1950s, the Chamber of Commerce in nearby Mobile decided to link it to the mainland by bridge and sell lots for vacation homes.

Then Hurricane Frederic struck in 1979, ravaging the island and destroying the bridge.

President Jimmy Carter flew over to inspect the damage. Rex Rainer, the Alabama highway director at the time, recalled several years later that the president “told us to build everything back just like it was and send him the bill.”

The era of taxpayer largess toward Dauphin Island had begun. With $33 million of federal money, local leaders built a fancier, higher bridge that encouraged more development in the 1980s. Much of that construction occurred on the island's western end, a long, narrow sand bar sitting only a few feet above the Gulf of Mexico.

"You can always look back and say, 'Maybe we shouldn't have done that,' " said Mayor Jeff Collier, who noted that many of the decisions were made before he took office over a decade ago. "But we can't turn the clock back."

In the 1990s, big storms started hitting the island roughly every three years. Two back-to-back hurricanes, Ivan in 2004 and Katrina in 2005, destroyed more than 300 homes. Most have not been rebuilt, but scores have been. Some beachfront building lots are now inundated by the Gulf of Mexico.

The bulk of the town's reconstruction money has been spent on the western end. That means many of the prime beneficiaries have not been permanent residents, but rather vacation homeowners from places like New Orleans and Atlanta.

Since 1988, federal figures show, Dauphin Island property owners have paid only $9.3 million in premiums to the national flood insurance program, but they have received $72.2 million in payments for their damaged homes. Figures from a federal contractor show that the average island resident pays less than $700 a year for flood insurance, though a few do pay as much as $3,000.

On Dauphin Island and in many other beachfront communities, the federal subsidies have helped people replace small beach shacks with larger, more valuable homes. That is a main reason the nation's costs of storm recovery are roughly doubling every decade, even after adjusting for inflation.

Dauphin Island has tried to limit its risk, imposing stricter building codes that go beyond federal requirements. New houses now must be built high on pilings to survive storm surges.

Local residents argue that federal help is warranted because their erosion problems have been worsened by government dredging in the nearby Mobile Ship Channel, which some scientists agree has helped starve the Dauphin Island beaches of sand. And residents say that simply letting the island's western end wash away would leave the mainland and its marshes, rich with seafood, more exposed to storms.

People here have formed strong emotional attachments to their island. "There's a lot of wildlife and a lot of bird life, and it's just a great place to relax," said Jay Minus, a lawyer in Mobile who owns two homes on the western end. "You can sit on the porch and watch the dolphins swim past your house."

Just this summer, Hurricane Isaac dealt the island a moderate blow, leaving most homes unscathed but managing to do $3 million worth of damage to public infrastructure. On a recent day, bulldozers crawled around the island, scooping up tons of sand to replenish the beach. As in the past, the town will most likely pay only 15 percent of the repair costs.

Coastal geologists describe western Dauphin Island as a textbook example of a place that should never have been developed. Scientists say that climate change will most likely speed up the rise of sea levels in the coming decades and that many more coastal communities will face repetitive risks.

With little pressure coming from Washington or state governments, only a handful of communities have started thinking seriously about a new approach.

"We need a plan," Dr. Young said.

Given the political realities, however, it is by no means clear how to move forward. In some flood plains, public money has been used to buy out vulnerable property owners. Entire towns were moved out of the Mississippi River flood plain in the 1990s, for instance, saving money over the long haul.

Several oceanfront communities have resisted such proposals, though one, in Texas, consented to a buyout plan after being badly damaged by Hurricane Ike in 2008. The federal government, despite its willingness to spend tens of billions of dollars repairing communities after storms, has not put up the kind of buyout money that might convince more owners to walk away.

Because buyout proposals often take years to put together, several experts suggested that they be drawn up in advance with maps of properties targeted for acquisition. Then, if those homes are damaged, state or local leaders could move swiftly after a storm, offering the owners voluntary buyouts before they make up their minds to rebuild.

Mr. Collier, the mayor, has long heard the argument that a rising sea will ultimately force a retreat from Dauphin Island and similar places.

"I'm not going to say that's wrong," he said. "But somebody needs to tell me, how are we going to get there?"