From flood safety to risk management

The rise and demise of engineers in the Netherlands and the United States?

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6. The evolution of US flood governance: Overcoming uncertainty and value conflict

Abstract

The previous chapter demonstrated that hurricane Katrina revealed some unforeseen distributive impacts of the US spatial planning policy because these impacts had remained under the radar of FEMA's operational expertise, which had become dominant in US flood governance since the 1980s. This chapter examines the policymaking process after Katrina: a process in which policy reforms to "restore" the insurance program adopted in 2012 were partly repealed in 2014 because the first reform package produced sky-high insurance premiums no one had anticipated. This chapter examines the role of experts in the policymaking process leading up to the 2012 NFIP reforms: What experts were involved in this policymaking process, and how have these experts influenced the policy discourse on floods, and through this the distributive aspects of 2012 reform package? The chapter concludes that a rational understanding of the problem emerged in this policymaking process, because of which the distributive consequences of reform measures were insufficiently recognized. However, rather than explaining the development of this policy frame from expert involvement per se, this chapter concludes that the rational orientation emerged out of the interaction between experts and US policymakers in a specific context where uncertainty and value conflict hampered policy action. The rational problem orientation helped bridge this uncertainty and value conflict by replacing the focus on an "idealized" and future-oriented functioning of the insurance program.

6.1 Introduction

As described in the previous chapter, in the US, floods are governed through a spatial planning approach that was institutionalized in the second half of the 20th century. Practically embodied in a federal insurance scheme against flood damage, the National Flood Insurance Program (NFIP) uses risk-based pricing to discourage spatial developments in flood-prone areas. As the previous chapter also demonstrated, the goal of sending effective price signals for rational floodplain management has always been traded off against the federal government's duty to ensure access to reasonably priced flood insurance as well as against its goal to facilitate economic growth in local communities, many of which are located in vulnerable locations near rivers and coasts. From the start, the federal government subsidized the insurance premiums of people living in high-risk areas and financially supported risk reduction and damage mitigation measures in local communities. Costs and responsibilities in this policy domain have thus always been shared between the federal and the regional and local levels.

In response to the tremendous havoc caused by hurricane Katrina in 2005, the insurance program was reformed in 2012. These "Biggert-Waters" reforms phased out federal subsidies on insurance premiums. This produced extraordinary premium increases that came as a surprise, not only to the owners of subsidized properties but also to policymakers. In 2014, a new reform package was adopted to put a stop to the rate increases. This pendulum policy shift raises the question: How have experts influenced the policymaking process leading up to the Biggert-Waters reforms, in particular the distributive aspects of this policymaking process?

In order to answer this question, this chapter traces back the role of experts in the policymaking process underlying the Biggert-Waters reforms in 2012. In this chapter the framing perspective serves as the primary framework for the analysis.

The next section first shortly recaps the framing perspective used in this thesis, and describes why this perspective is relevant and how it is used to analyze the effects of expert-influence on distributive decision-making in this chapter. Section 6.3 provides a short recap of the NFIP. Section 6.4 reconstructs the policymaking process on NFIP reform after Katrina. The findings are discussed in section 6.5 by means of conclusion.

6.2 A framing perspective on expert-influence

In a framing perspective, the policymaking process is conceived of as a discursive struggle between different actor-groups who try to generate support for their policy ideals by presenting them in a logical and coherent story about a policy problem that "sounds right" or "rings true" (Rein and Schön 1993). These stories are also referred to as "policy frames". By highlighting certain causes of the problem and linking these causes to policy solutions, policy frames help policy actors come to terms with new policy situations. However, their scope is necessarily restrictive. As one perspective of the problem starts to dominate the policymaking process, alternative interpretations are excluded (Maussen 2009).

All policy frames are "layered" in the sense that value orientations always underlie rational explanations of a policy problem (Fischer 1995: 111). From a democratic perspective, framing can be problematic; alternative values and interests may be blocked from the policymaking process under the influence of a strong policy frame that sets limits around how a situation can be interpreted by policy actors. A framing analysis typically deconstructs the discursive tactics used by different actor-groups to reveal the political agency behind generally accepted policy discourses (Gamson and Modigliani 1989, Hajer 1995, Benford and Snow 2000, Verloo 2005, Maussen 2009).

These traditional framing accounts have been criticized. The main critique is that these accounts consider the policymaking process too much of a disconnected

process in which stable actor-groups with unchanging views and interests compete for discursive hegemony. It has been argued that framing always takes place in a larger social, political and cultural context where existing policy discourses and political ideologies not only hugely impact the policy frames that are produced by actor-groups but also the extent to which these policy frames are accepted by other policy actors (Entman 1993, Steinberg 1998). In addition, it has been argued that framing is also very locally embedded in "situated" policy contexts, where policy actors try to provide meaning to a new policy situation they encounter (Dewulf et al. 2004). Rather than understanding the framing process as a strategic battle between competing actor-groups, framing also entails collective sense-making directly in response to new policy situations that emerge in the policy field (Dewulf et al. 2009). As policy actors start to express their views about this policy situation, they collectively shape the common interpretation of the policy problem (Dewulf and Bouwen 2012, Van Hulst and Dvora 2016). From this perspective, policy frames are emerging "co-constructions of meaning" around a specific policy situation (Dewulf et al. 2009: 160).

This chapter sets out to analyze the effects of expert-influence on distributive decision-making in the policymaking process on NFIP reform. Framing provides a well suited analytical framework for this analysis. Whereas a traditional framing analysis would focus on the strategic agency behind uses of expert-knowledge in the process of reforming the NFIP, a more contextualized understanding of framing put forward in recent framing accounts allows analyzing these dynamics in their broader socio-political and locally-embedded policy context. By examining the discursive interactions between experts and policymakers in the policymaking process of the 2012 reforms of the US flood insurance program, it can be analyzed how experts influenced the perception of the problem as well as the solution found to address this problem, with a particular focus on the distributive aspects underlying these policy reforms.

The data used for the analysis consists of Congressional records of relevant House and Senate meetings, as well as of committee action (i.e., legislative and oversight hearings in the form of written reports and online broadcasts, committee legislative mark-up sessions, and committee reports to Congress) of the committees with jurisdictive responsibilities over the NFIP. In this case, the House Committee on Financial Services and the Senate Committee on Banking, Housing, and Urban Affairs are most relevant. The covered time period ranges from August 2005 up to the adoption of the second NFIP reform package in April 2014. Where appropriate, additional material has been incorporated. The findings have been checked and fine-tuned through in-depth interviews with key stakeholders involved in the policy discussions (see table 1 in chapter 1 of this thesis).

6.3 The National Flood Insurance Program (NFIP)

When the first colonizers arrived on the US's soil, they settled on the country's most strategically located areas along the Mississippi River. However, life and work in the Mississippi delta was continuously threatened by large-scale flooding disasters. From the beginning of the 20th century onward, important parts of the river were engineered and levees were built to control the Mississippi River. These flood control projects emerged as a local state affair. Over the first couple of decades of the 20th century, the national benefits of these local flood control projects were increasingly recognized, and the federal government started to co-fund local levee projects (Arnold 1988). Alongside this expanding federal role in flood protection, the costs of flood damage were also increasingly borne by the federal government. Under these guarantees for protection and damage compensation, more people were drawn to riverine and coastal areas. The levee systems protecting these areas did not always hold; every time a levee failed, the impacts were larger because there were more people and value at risk to flooding.

The NFIP was adopted in 1968 as a means to curtail the growing federal involvement in flood governance. Based on the work of an influential group of social geographers affiliated with the Chicago school of behavioral sciences, the insurance program aimed to encourage rational floodplain management choices in which the costs of flood protection and damage compensation would be weighed off against the benefits of living in a floodplain (White 1945: 34). Emphasizing that although "[f]loods are the acts of God, flood damages are the results of the acts of men", these geographers recommended the use of price incentives that, by reflecting the costs of living in a floodplain, would encourage local-level actors to take these costs into account in their planning and building choices (HUD 1996: 14). The premiums of the NFIP provided these price signals. By linking the price of insurance to local flood risks, the insurance program would encourage people to make a rational trade-off between the costs and benefits of living in a floodplain.

Local communities have a central role in the program. Flood insurance is only offered in communities that enforce floodplain management ordinances that restrict building activities in their "100-year" risk zones, a regulatory standard denoting areas prone to floods that have a statistical chance of recurring once every hundred years (Arnell 1988). These areas are identified by the Federal Emergency Management Agency (FEMA) and correlate to insurance premiums in Flood Insurance Rate Maps (FIRMs) produced by this agency. Insurance premiums are calculated based on the flood risk of the area (for which a zoning scheme is used that, for example, distinguishes between coastal zones prone to hurricane-driven floods and riverine areas) and the flood risk of the property itself, which is determined based on building characteristics such as the elevation of the ground-level floor and the type of materials used in its construction. Insurance is mandated in 100-year risk zones for properties financed through federally backed lenders; outside of these areas, flood insurance is voluntary. Through a so-called

"Community Rating System", FEMA offers premium discounts to communities that have enacted stricter land-use restrictions in 100-year areas.

When the program was enacted in 1968, the goal to send out effective price signals for rational floodplain development in the form of risk-based insurance premiums was traded off against the general duty of the federal government to help US citizens cope with the impacts of floods. Besides, it was deemed unfair to place all the costs of flood protection and damage compensation on the shoulders of citizens living in coastal and riverine areas, because these areas were of vital importance to the national economy. For these reasons, it was decided to subsidize the premiums of existing properties in 100-year areas by discounting their rates and to "grandfather in" properties remapped into a 100-year area because of changing flood risks by allowing them to continue to pay their "old" rates. New developments in these areas were required to pay a full-risk rate. The federal government also financially supported local damage mitigation measures (e.g., the use of water-resistant building materials or communities' buy-outs of repetitive loss structures) as well. The adoption of the insurance program did not mean no levees were built in the US. Rather, levees were included as a "damage mitigation" option available to local communities to lower the insurance premiums of their residents, which could be financially supported by the federal government.

In the 1980s, FEMA was directed to make the program "self-supportive", which meant that mean annual premium revenues should be able to cover the costs in the "average loss year". This average loss year was calculated as the annual average of all claims filed in the history of the program (i.e., since 1968). FEMA was authorized to independently adjust rates, but Congress did set a 10% cap on annual rate increases FEMA was allowed to charge to ensure the affordability of flood insurance. Despite this restriction, FEMA managed to uphold a self-supportive status from 1986 to 2005.

6.4 A reconstruction of the policymaking process on NFIP reform after Katrina

The damage caused by hurricane Katrina in 2005 was unprecedented. Insurance costs exceeded the losses ever suffered from a single insured catastrophic event, and NFIP payouts exceeded the total sum of damage claims filed in the history of the program (Michel-Kerjan et al. 2012: 645). While NFIP coverage was fairly low in the affected states—in New Orleans, coverage ranged from 7.3% to 57.7% (idem.: 645)—the NFIP still needed to borrow the exceptional amount of $17 billion from the federal treasury to pay out all claims (Michel-Kerjan 2010: 166). On top of that loan, Congress appropriated an extraordinary amount of $88 billion for disaster relief (Michel-Kerjan et al. 2012: 646).

The NFIP, by statute, includes a sunset provision that puts an expiration date on every reauthorization of the program. While the program was just reauthorized in 2004 and the next reauthorization was only due in 2008, the event of Katrina instigated a series of policy discussions on the functioning of the insurance program. This section reconstructs these Congressional policy discussions by distinguishing different stages in this process.

6.4.1 Different value orientations

In the beginning, the NFIP's $17 billion debt instigated a lot of debate. It was mostly representatives from coastal states who immediately called for cancelling this debt; if FEMA would be required to repay, premiums would rise substantially and become unaffordable. This would threaten the American dream of homeownership, especially for "low-income folks who have managed against the odds to own their own home", as Congressman Green from the Gulf Coast state of Texas claimed (153 Cong. Rec. H4606-H4607, 2007). Speaking to his colleagues in Congress, he argued that "[w]hen we reauthorize the NFIP again in 2008, we will need to address this [affordability] issue, because we do not want the Flood

Insurance Reform Act to become the Low-Income Home-owner Eviction Act" (idem.).

However, waving FEMA's debt directly conflicted with the belief system of fiscally conservative groups in Congress, who argued that debt forgiveness would go against the original intention of the insurance program. According to Republican Senator Coburn from the inland state of Oklahoma, the "whole purpose behind this bill in the first place […] was to lessen the cost of the American taxpayer in terms of disasters" (154 Cong. Rec. S3947, 2008). These conservatives emphasized the moral hazard created by federal disaster relief; if people know they are going to be compensated for their losses, all incentives to take damage mitigation measures are lost. As Senator Coburn pointed out, "[t]he one thing we have not done is we have not asked people in this country, who are in flood-prone areas, to actually be responsible" (idem.). Fiscal conservatives generally called for the elimination of subsidized rates from the program to better address the individual responsibility of floodplain occupants.

For Great Lake states, however, Katrina challenged the whole distributive logic underlying the insurance program. Great Lake states argued that they were disproportionately charged for Katrina losses because they too have flood-prone areas where people are required to buy flood insurance even though they rarely claim damage because floods are less frequent and less damaging there than in coastal states. As a Michigan representative posed, "[e]ssentially, Michigan and other States in the Great Lakes Basin are being forced to subsidize those in other States who are prone to severe weather events. If that's what we are going to do, we should just call it what it is and have a national catastrophic fund as opposed to this national flood insurance fund. In other words, let everybody pay" (156 Cong. Rec. H4689, 2010).

As the policy discussions on the functioning of the NFIP after Katrina started out in Congress, they were characterized by different value orientations on the

distributive principles underlying the insurance program. Representatives from hurricane-prone states stressed the need for affordable flood insurance, fiscally conservative groups highlighted the importance of addressing the individual responsibility of floodplain occupants, and Great Lake state representatives challenged the cost-sharing mechanism underlying the insurance scheme.

6.4.2 Technical definitions of the problem

Congress organized several committee hearings to come to a better understanding of the problems facing the insurance program after Katrina. In these meetings, different experts were asked to share their views on the nature of the problem and the way in which they thought these problems could best be addressed.

One of the first experts Congress called on to testify was the NFIP's program director at FEMA. The director pointed out that the NFIP was never set up to cover catastrophic events like Katrina. Premiums were based on average historical losses and Katrina surpassed any event ever witnessed in the history of the NFIP. In addition, the program worked with "subsidized" rates that were not backed by any form of federal funding; these were simply subsumed as "discounted" rates in the general program budget (FEMA 2005: 3). In the director's understanding, the idea always was that in the event of a catastrophic flood, "the Federal treasury would be the means by which that difference would be made up" (Subcommittee on Housing and Community Opportunity 2005: 32). However, the program director also repeatedly underscored that the NFIP does more than simply distribute the costs of flood damage. He pointed out that the program provides important damage mitigation incentives that prevent economic losses from floods (FEMA 2006: 6).

The Association of State Floodplain Managers (ASFPM), an organization of local floodplain professionals involved in the NFIP's mapping actions, also highlighted the program's damage mitigation potential (Subcommittee on Housing and

Community Opportunity 2007: 30-39). Together with FEMA, this organization continuously stressed that storms are getting bigger and more areas will be at risk to flooding. Levees do not provide sufficient protection against these growing risks, as Katrina demonstrated. However, under NFIP standards, levee-protected areas were exempted from a mandatory purchase requirement. FEMA and the ASFPM called on Congress to extend the NFIP's mandatory purchase requirement from 100-year to 500-year and to levee-protected areas and to strengthen the building and zoning requirements in these areas, for, as FEMA stated, "it doesn't make sense to spend tax dollars to rebuild to outdated standards only to face similar damage when the next storm comes" (Subcommittee on Oversight and Investigations 2007: 17).

The financial industry placed the causes of the problem elsewhere. Just after Katrina, many victims dragged their insurance companies to court, involving the industry in complex judicial trials over the question of who should pay for the damage of an event caused by a combination of technical levee failure, a hurricane, and floods (Manard et al. 2006). Members of the financial industry linked this situation to the structural underfunding of the NFIP, whose historically-oriented rate-setting structure and use of discounted rates prevented the program from building up a sufficient source of revenue to cover all flood-related damage claims.[23] Arguing that that insurance "should operate under the assumption that Hurricane Katrina and indeed the entire 2004/2005 hurricane seasons were not aberrations", members of the financial industry recommended turning the program into a market-based scheme with an "actuarial" (i.e., risk-based) pricing structure (Subcommittee on Oversight and Investigations 2007: 111). This implied that subsidized rates would be eliminated and the program

[23] Interview National Association of Mutual Insurance Companies, May 13, 2014 (skype interview).

would move faster toward risk-based rates by raising the 10% cap set on annual rate increases.

Proposals to extend the NFIP's mandatory purchase requirement and to implement a risk-based pricing structure raised concerns in the real estate sector. Real estate agents warned Congress members that not everyone would be able to pay a higher insurance premium and that relocating to another area to avoid paying a higher insurance premium would not always be an option. When the NFIP's purchase requirement would be extended, families living in 100-year or 500-year areas may find it difficult to sell their homes because of the higher insurance costs attached to their properties. The director of National Association of Realtors therefore urged Congress to "strike a balance between ensuring the long-term fiscal viability of the NFIP and avoiding changes that may result in market inequities and housing affordability problems" (Subcommittee on Housing and Community Opportunity 2007: 72).

The arguments of the different expert-groups involved in the policy discussions on the NFIP reflected their underlying interests. The ASFPM and FEMA, two actors involved in the NFIP's mapping activities, called for mapping revisions to improve the program's mitigation potential, which would strengthen their own role in the program as well. The financial industry recommended the elimination of discounted rates to restore the NFIP's financial balance, which would bring stability to the insurance market and benefit their operating space. The real estate sector drew attention to affordability problems in relation to possible obstructions on the housing market.

However, by connecting flaws in the operational structure of the NFIP to the program's extremely high debt after Katrina, the experts (FEMA, the ASFPM, and the financial industry in particular) presented a logical and coherent story in which undesirable policy outcomes were linked to operational flaws. This "operational" interpretation of the problem became the shared understanding in

the policy discussion on the NFIP. Referring to Katrina, one Congressman, for example, argued that "history has shown in the last year that we do people no favors by not having an effective flood insurance program, by not helping people prepare; indeed, to the contrary. What we are doing is we are encouraging more people to be in harm's way. […] We are spending billions of dollars that could have been avoided if we had been dealing with an effective flood insurance program" (152 Cong. Rec. H4567-H4568, 2006). By emphasizing how operational problems today would undermine the program's effectiveness in the future, these expert-actors also fostered a sense of urgency for reform. Policymakers started to emphasize that the program needed a "tough medicine" to make "the flood insurance program sustainable in the long run" (152 Cong. Rec. H4566, 2006).

The NFIP thus provided the structure through which actors interpreted the problems they experienced after Katrina. The next section describes how the "political" value orientations and these "technical" problem definitions interacted in the policymaking process and resulted in the development of a shared policy frame.

6.4.3 The construction of a joint policy frame

The criticisms forwarded by Great Lake states in which they questioned the distributive principles underlying the insurance program did not fit the operational understanding that became dominant in the policy discussions. The concerns of Great Lake states were generally dismissed by pointing to the insurance rationale that underpins the program. As the ranking member of the House Financial Services Committee, for example, responded, "We are running here a national program. And if it becomes 50 separate State programs or a couple of thousand separate county programs, you lose the insurance principle. […] The government is not a supermarket where you come in and pay for only exactly what you buy off the shelf. There is some joint effort" (152 Cong. Rec.

4613, 2006). The NFIP thus not only provided a framework through which policy problems were grasped, but it also provided the framework through which these problems were to be addressed.

The arguments of fiscally conservative groups and the financial industry fit better within this framework. Referring to the NFIP's outdated rating structure, the financial industry stated that the expectation always was that a large part of the subsidized properties would naturally dissolve from the program, as these properties would be destroyed by floods and their owners would relocate to safer zones where insurance was cheaper. Drawing on this insight, fiscally conservative groups argued that subsidized rates were never meant to last and now "unintentionally" burdened the American taxpayer (153 Cong. Rec. H10962, 2007). Fiscally conservative groups and the financial industry therefore met in their call for the implementation of a risk-based pricing structure.

Moderate Republicans started to point to the positive effects of risk-based pricing as well. They generally emphasized how it would increase the self-reliance and local autonomy of communities. A good example of this is provided by Illinois's representative Biggert, who described how the NFIP worked in a town in her district, Tinley Park: "Following remapping in the 1990's, 550 homes in Tinley Park were placed in the floodplain and homeowners would have been forced to pay an extra $1,000 per year for flood insurance. However, instead of paying higher insurance rates and leaving homes vulnerable to floods, the residents of Tinley Park took action. They worked on a flood mitigation project, received a revised FEMA approved floodplain map in April of this year, and avoided paying higher insurance premiums" (Subcommittee on Housing and Community Opportunity 2007: 3).

These calls for risk-based pricing were, however, generally criticized by coastal state representatives, the real estate industry, and the ASFPM. The ASFPM continued to urge Congress to "keep in mind that the NFIP has multiple goals, and

providing flood insurance that is reasonably priced in order to avoid direct government subsidy of flood damage is an important goal. A number of studies have concluded that if premiums rise too steeply or become too costly, many policyholders will find ways to avoid buying flood insurance. The consequence of having fewer people insured against known risks would be greater reliance on tax-payer funded disaster assistance" (ASFPM 2007: 6). The organization argued that "spreading the risk" by extending the NFIP's mandatory purchase requirement was a better alternative to restoring the financial solvency of the NFIP. By increasing participation in the program, risk-spreading would not only contribute to damage mitigation and loss reduction, but it would also increase insurance coverage and provide the program with a more stable source of income.

However, the ASFPM's suggestion to federally impose a new purchase requirement in 500-year and levee-protected areas was widely opposed. Conservative groups negated this proposal for it would entail risk spreading.[24] Acknowledging that "[a] fundamental tenant of insurance is to spread the risk", a Republican California representative for example argued that "we shouldn't be spreading it to people whose homes will likely never be flooded" (Subcommittee on Oversight and Investigations 2007: 4). But the proposal also met with criticism from coastal state representatives and the real estate industry, for it undermined the American dream of homeownership and the development of the housing market. For Texas's congressman Green, requiring people in 500-year areas to buy insurance also took it one step too far; according to him, supporters of this option often "act like it is the victim's fault when their houses flood, but these critics do not realize that many people did not move to the floodplains, the

[24] Interview Resources for the Future, April 22, 2014, Washington, DC; Interview Association of State Floodplain Managers, April 23, 2014, Washington, DC. Interview FEMA, April 25, 2014, Washington, DC.

floodplains moved to them" (152 Cong. Rec. H4606, 2006). The real estate industry was opposed to risk-spreading because it feared new purchase requirements would cause economic hardship on low- and middle-income families living in 500-year and protected areas.

As the risk-spreading option never attained sufficient support, risk-based pricing became the "communicative devise" through which actors talked to each other about the problem and based on which they positioned themselves against each other in the policy discussions on NFIP reform. Fiscally conservative groups and the financial industry underscored the good risk-based rates would do for the taxpayer, and moderate Republicans highlighted its positive effects on local communities' self-reliance. In this context, coastal state representatives, the ASFPM, and the real estate sector started to frame their concerns about affordability directly in relation to risk-based pricing and started talking about the option to slowly phase in risk-based rates to temper rate increases. Congressman Green, for example, argued that spreading out premium increases over time would "make the NFIP more affordable for low-income homeowners, increase participation in the program and decrease the likelihood of a taxpayer bailout in the event of a flood" (153 Cong. Rec. H10987, 2007).

Between 2006 and 2008, different reform bills were produced that moved the program closer to risk-based rates. Because this solution continued to raise concerns about affordability—besides the effects of eliminating subsidized rates from the programs, concerns also centered on the implications of requiring FEMA to repay its still-lingering Katrina debt on premium increases—the reform bills generally struck a balance between debt forgiveness and implementing risk-based rates. There was, however, a considerable difference between how Senate and House bills made these trade-offs. Defended as a "fair compromise", House bills required FEMA to repay its debt but only implemented risk-based rates for business properties, second homes, and vacation homes (152 Cong. Rec. H4591,

2006). Senate bills, contrarily, cancelled the debt but in exchange included provisions to eliminate subsidies on a wider range of properties (154 Cong. Rec. S4059, 2008).

6.4.4 Dealing with uncertainty about possible rate increases

It proved difficult to resolve the differences between House and Senate versions of NFIP reform bills because there was a lot of uncertainty about the impacts of the proposed reform measures on rate increases and the affordability of flood insurance.[25] This was because of the fact that NFIP had never really worked with a risk-based pricing structure. In high-risk areas, the use of discounted rates had long obviated the need to develop an accurate risk-based pricing structure, and in low- to medium-risk areas the program always worked with flat rates.[26]

In different committee hearings, Congress members tried to gain a better insight into the impacts of risk-based rates on premium increases. However, none of the committee hearings generated much clarity on these questions, as the conversations between Republican Representative Neugebauer and the NFIP's deputy administrator at FEMA, Mr. Connor, and between Congressman Green and Mr. Minkler of the Independent Insurance Agents and Brokers demonstrate.

> "Mr. Neugebauer: Just because of the caps that are on the increases, what would you say, if we passed a bill today that said let's make all premiums, vacations homes, primary homes, let's make them actuarially based, what would be the percentage of increase that most people would be experiencing? Mr. Connor: You know, what I'd like to do is to provide that testimony for the record, because I'd like to go back and just do an analysis on that." (Subcommittee on Housing and Community Opportunity 2007: 19).

[25] Interview US Government Accountability Office, April 25, 2014, Washington, DC; Interview National Association of Realtors, April 25, 2014, Washington, DC.
[26] Interview Resources for the Future, April 22, 2014, Washington, DC.

> "Mr. Green: We've talked about having persons actually pay who are in the targeted areas of floodplains, let them pay the costs of the burden of having repairs or replacement, making it actuarially sound. What will that cost a typical person if we do this? Mr. Minkler: Congressman, I don't have the exact figure. A broad statement would be there will be an increased cost for those. Mr. Green: Do you think it would double what persons are paying now? Could it triple what persons are paying now? Mr. Minkler: I'm sorry, I don't have an answer for you. Mr. Green: Does someone else on the panel have some intelligence to share with us on this? Double, triple? [No response]" (idem.: 43).

Coastal state representatives called for postponing the implementation of risk-based rates until its impacts on premium increases were better understood (e.g., 152 Cong. Rec. H4604, 2006). Democratic Senator Landrieu and her Republican colleague Vitter from Louisiana, for example, insisted on a study into the effects of actuarial rates on the affordability of flood insurance (154 Cong. Rec. S3821, 2008). However, no NFIP reform bill was passed because Republicans and Democrats couldn't agree on the issue of debt forgiveness. As a result, the program expired in 2008. Between 2008 and 2011, the program survived on 16 short-term extensions but also lapsed four times in between these extensions.

These program lapses meant that insurance contracts could not be sold and house sales could not be closed in high-risk areas where flood insurance was a mandatory condition for obtaining a mortgage. This happened right in the middle of the economic crisis, which already put a lot of pressure on the housing market. In this situation, Congress was pressured to quickly pass a long-term reauthorization of the program to not further distress the housing market. However, its options to act were reduced by an important change in the political landscape. After the 2010 elections, the Republicans seized the majority in the House of Representatives, and their conservative faction blocked any bill not

marked as "budget neutral" by the Congressional Budget Office.[27] In effect, this meant they gridlocked every bill that included a provision for debt forgiveness or the prolongation of subsidized rates over time.

Against this background, real estate organizations, who up to that moment had always opposed risk-based pricing out of fear for steep rate increases, started to support reform bills that included risk-based rates to put an end to the policy impasse that burdened their members.[28] Likewise, the ASFPM, who from the beginning onward underscored the importance of embedding the implementation of risk-based rates in a larger framework of risk-spreading to ensure affordability and participation, started to advocate solutions for affordability in means that were disconnected from the insurance program itself to make sure the program would not cease to exist[29], breaking the organization's role in it down along this path. The association, for example, called for the implementation of a separate means-tested voucher program to make sure flood insurance would remain affordable for low-income families (Subcommittee on Insurance, Housing, and Community Opportunity 2011a: 8-16).

With key critical voices on affordability more or less "sidelined" in the policy discussions on NFIP reform, views on the solution of implementing risk-based rates started to change as well. Increasingly, Congress members started to stress the good risk-based rates would do for restoring an effective operation of the program. Risk-based rates would provide better damage mitigation incentives, reduce future flood losses, and keep premiums affordable in the long run (154 Cong. Rec. S3855, 2008). Even coastal state representatives started to emphasize this "operational" function of risk-based rates. Congressman Green, who had always strongly opposed actuarial rates, stated that "[w]e all know that the flood

[27] Interview Resources for the Future, April 22, 2014, Washington, DC.
[28] Interview National Association of Realtors, April 25, 2014 (skype interview).
[29] Interview Association of State Floodplain Managers, April 23, 2014, Washington, DC.

insurance program plays a critical role in lessening the impact of major flooding disasters; but to make the program more effective, we need greater participation from Americans of all incomes" (153 Cong. Rec. H10987, 2007, see also Congressman Green's statement at 156 Cong. Rec. H5634, 2010). Phasing out risk-based rates came to be seen as a temporary solution to soften the short-term impacts of rate increases that would allow the program to restore its effective operation. Supporting a bill that would move the program closer to risk-based rates, a California representative, for example, argued that phasing in risk-based rates over a period of five years "would address the NFIP's serious financial challenges by directing it back towards fiscal health and self-sustainability" and would also "lower the burden of higher insurance rates" on low-income families (156 Cong. Rec. H5625, 2010).

In 2010 and 2011, the discussion on NFIP reform mainly revolved around how fast to phase out discounted rates (by increasing the 10% cap set on annual rate increases for different kinds of properties) and how fast to phase in risk-based rates for remapped properties (by gradually breaking down the grandfathering provision). At this point, however, some experts started to emphasize the consequences of implementing risk-based rates. At a 2010 committee hearing, the GAO—an independent watchdog organization in US politics that closely followed developments around the NFIP after Katrina—stated that charging risk-based rates to provide better mitigation incentives is one thing, but that such a choice should always be accompanied with "a dialogue about the appropriate role of government in paying for losses for natural catastrophes" (Subcommittee on Housing and Community Opportunity 2010: 13).[30] The ASFPM also prevailed upon Congress to substantiate its policy choices: "Should the NFIP accommodate catastrophic floods […]? If so, are there realistic, affordable program adaptations that can achieve this objective? And if not, would it not be best to clarify that the

[30] Interview US Government Accountability Office, April 25, 2014, Washington, DC.

program is not expected to cover catastrophic losses?" (Subcommittee on Insurance, Housing, and Community Opportunity 2011a: 7). FEMA started to demarcate its responsibility. It argued that moving toward actuarial rates would lead to higher insurance premiums in many cases: "The tendency has been, as constituents have raised the issue of the fairness of that, that there has been a question of how fast we should move. We will move as fast as Congress directs in allowing us to raise those rates" (Subcommittee on Insurance, Housing, and Community Opportunity 2011b: 3).

However, such reflections came at a time when the reforms, for Congress, were already a done business. As the ASFPM explained during the interview, "when it became clear that full risk rates was really their goal, we started saying, that is good, but if you don't address this affordability thing it is going to turn around and bite you. And that is when we tried to get their attention". But because the reform bill had been included in a larger bill on mobility (the Moving Ahead for Progress in the 21st Century Act of 2012), "in the last six months there was really no opportunity to provide amendments. So even the few people in Congress who realized that this was going to be problem, and wanted to make some changes, it was on a track they couldn't stop" (idem.).[31]

6.4.5 The 2012 Biggert-Waters Act and its implications

In June 2012, Congress passed a long-term extension of the NFIP in the "Biggert-Waters Act" as included in the Moving Ahead with Progress in the 21st Century Act. This reform package encompassed a range of measures that moved the NFIP closer to a risk-based pricing structure. It called on FEMA to calculate premiums based on catastrophic instead of average loss years and required the organization to repay its debt within 10 years. The cap on annual rate increases was increased

[31] Citations in this paragraph are from the interview with the Association of State Floodplain Managers, April 23, 2014 (skype interview).

from 10% to 20-25%, subsidies for grandfathered properties remapped into a 100-year area were phased out over a period of four to five years, and the law also arranged that subsidies would be eliminated upon the sale of a property. When the bill was discussed in Congress, Republican Congresswoman Biggert presented the bill as a necessary measure that "improves the NFIP's financial stability; it will reduce the burden on taxpayers [… and …] help bring certainty to the housing market through a 5-year reauthorization" (158 Cong. Rec. H4621, 2012). According to her Democratic colleague Waters, the Biggert-Waters Act "will make flood insurance more affordable […] and strengthen the financial position of the flood insurance program" (158 Cong. Rec. H4623, 2012).

As referred to in the introduction of this chapter, the implementation of the Biggert-Waters Act had a major impact on rate increases. The complete loss of subsidy upon the sale of a home, which was put in at the last moment probably to make sure the bill would be "budget neutral" and accepted by the Republican conservative fraction, put an almost immediate stop to the sale of subsidized properties, which caused outrage among owners (New York Times 2013). In addition, the actuarial rates that property owners were expected to pay in the end were much larger than expected. Stories were reported about homeowners who used to pay $300 and after the reforms were required to pay $8,000 or even $24,000 annually (The Times-Picayune 2013). One year after the adoption of the Biggert-Waters Act, Congress was faced with increasing public outcries over the rate increases, picked up by newspapers and other national media.[32]

At a committee hearing on the Biggert-Waters Act in 2013, Louisiana Senator Vitter, who like many coastal state representatives eventually voted in favor of the Biggert-Waters Act, stated: "We all expected some premiums increases. We knew they were necessary to make the system fiscally sound. But quite frankly,

[32] All US interviews

what we have been told to expect since then, is a completely different planet in some cases" (Subcommittee on Economic Policy 2013: online broadcast).[33] His Louisiana colleague Landrieu admitted: "We made a mistake. […] It was not well thought-out. It must be fixed" (idem.). Everyone looked at FEMA to do something to stop the rate increases. However, FEMA explained that its hands were tied: "I need help. FEMA does not have the means to address affordability. The bill was set up to create an actuarially sound system, not an affordable one. I have a specified number of years to increase rates, no means to define, let alone address, affordability" (idem.).

In April 2014, Congress adopted the Homeowner Flood Insurance Affordability Act. This law scaled back annual rate increases to a maximum of 18 percent, restored subsidized rates for remapped properties, and reimbursed homeowners for paid premiums that exceeded their premium as it would be under the new law. To cover some of these rollbacks, a surcharge of $25-250 was placed on all outstanding insurance policies.

6.5 The role and effects of experts in NFIP reform

The reconstruction of the policy discussions on NFIP reform laid out in this chapter demonstrates that as the policy discussions on the NFIP started out after Katrina, actors forwarded different views on the nature of the problem. Some of these views were "political" in the sense that they addressed distributive aspects of the flood insurance program. These views were primarily, although not exclusively, expressed by policymakers. Experts generally forwarded more "technical" views, as they linked problems to flaws in the program's operational structure.

[33] Online broadcast available at: http://www.banking.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=46b52a52-4d45-4c47-8ddc-de2f32cd348e [January 4, 2015].

The analysis revealed how a technical-problem orientation prevailed in the policy discussions on NFIP reform after Katrina, in which the program's regulatory structure was seen to have become outdated in a new context of climate change. This view not only helped actors to grasp the problems experienced after Katrina, but it also presented them with a road map for action. In order to continue to ensure an effective operation of the program, its regulatory structure needed to be "modernized". Of the two alternatives outlined by experts in this respect, only one—that of implementing risk-based insurance premiums—proved politically viable. This policy frame, in which the cause of the problem was placed in an outdated regulatory structure in light of new flood risks posed by climate change and the solution was to implement a more risk-based pricing structure to continue to offer effective damage mitigation incentives, became dominant in the policy discussions on NFIP reform.

The reconstruction of the policymaking process also indicates, however, that the development of this technical policy frame did not automatically imply that political views were overshadowed. Rather, political views were redirected toward this technical policy frame. Value judgements were expressed in relation to the solution of risk-based pricing; some supported this solution for emphasizing the individual responsibility of floodplain occupants, whereas others criticized this solution for undermining the provision of affordable flood insurance. These value differences also stirred up a conflict over the question of whether FEMA should be required to repay its Katrina debt; those favoring individual responsibility generally argued against the taxpayer buyouts debt forgiveness would induce, whereas for those stressing the importance of affordability, debt forgiveness was essential to prevent steep rate increases.

These value differences blocked policy action; different standpoints on debt forgiveness and risk-based pricing led the program to expire in 2008. This expiration put a stop to house sales in high-risk areas where insurance is a

mandatory requirement and therefore placed a huge burden on the housing market, which was already in distress because of the economic crisis. In this situation, critical voices on the solution of implementing risk-based rates started to disappear; most of these critical arguments had been voiced by actors who formed part of the institutional arrangement in US flood governance and who as such were dependent upon the continued existence of the insurance program in the future. Putting the program back on track became an important new goal for these actors. With critical voices removed from the policy discussions, an "operational" understanding of the solution of risk-based rates emerged in the policy discussions on NFIP reform. This operational understanding bridged value differences. The idea was that an effectively operating insurance program would minimize flood losses in the long-term, which would keep premiums affordable and address the responsibility of floodplain occupants. Phase-ins of risk-based insurance premiums over a number of years came to be seen as an adequate means to deal with short-term rate increases while directing the program back to operational health, although it was unclear what these increases would precisely entail. This perspective created the necessary common ground for a long-term reauthorization of the NFIP in the Biggert-Waters Act.

Interestingly, recent scholars have already drawn attention to the influence of such "operational" frames in public policymaking, especially in the domain of risk governance. In risk governance, experts usually play a large role. By calculating risk probabilities and estimating the impacts of policy measures on risk reduction, expert-knowledge can reduce some of the uncertainty that surrounds risks, which helps policymakers act under uncertain circumstances (Vogel 2008, Dunlop 2010, Rayner 2012). Now that societies are increasingly "bound up with the aspiration to control and particularly with the idea of controlling the future" (Giddens 1999: 3), policymakers increasingly rely on expert-knowledge for devising risk governance strategies (Ewald 1991, Beck 1992, Reddy 1996, Kahan 2006, Rosanvallon 2008, Cutler 2010). However, risk governance also has important

distributive aspects, as decisions have to be made on how costs and responsibilities for dealing with the risk are distributed over different members of society. This often results in complex decision-making processes where value conflicts and uncertainty meet. As Rayner (2012: 111-120) and Dunlop (2010) have argued in particular, operational policy arguments can help policymakers deal with these uncertain and conflictive circumstances in risk governance because they offer a way to reduce value conflicts and uncertainty to technical certainties about the operation of a policy program. The possible drawbacks of such "operational frames" have been outlined as well. Operational arguments generally offer a simplified and future-orientated outlook on a policy solution and therefore emphasize how the solution would work under ideal circumstances (Enserink et al. 2013, Van der Steen and Van Twist 2013). In doing so, attention is drawn away from the implications of these policy solutions in practice. Consequently, the distributive impacts of a policy solution may not be recognized and value trade-offs behind policy choices may not be sufficiently legitimized in the policymaking process (Vogel 2008, Bressers et al. 2012, Anderson 2013).

This explanation about the role and impact of operational policy frames on policymaking processes seems to provide a good characterization of the policymaking process on NFIP reform after Katrina. Rather than the sole product of expert-actors involved in policy discussions on the NFIP, the focus on an effectively operating insurance program can be seen as a "collective framing reaction" to a new problem that emerged from 2008 onward in which value conflicts and uncertainty hampered policy action in the context of an economic crisis that demanded an urgent response. The operationalized view on risk-based rates helped policy actors deal with this situation by uniting different value orientations in a future outlook on the positive effects created by having an effectively operating insurance program. However, the unrest instigated by the implementation of risk-based rates in the 2012 reforms indicates that the

distributive impacts of this solution were not sufficiently recognized in the policymaking process.