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## Improving the Post-Flood Financial Resilience of Lower-Income Households through Insurance

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### INTRODUCTION

Flooding is the costliest natural disaster and the risk is escalating in many places due to the combined effects of sea level rise, changing storm patterns, and increased development [e.g., 1-3]. Prior research has found that lower-income groups and minorities suffer disproportionately from disasters and recover less quickly than more privileged residents [for example: 4, 5-7]. Current policies and programs are not effectively meeting the post-disaster financial needs of these households. As many municipalities around the country face escalating flood risk in the coming years, new policies are needed to secure the post-disaster financial resilience of low- and moderate-income (LMI) households.

This brief presents six policy options for local governments to harness the benefits of insurance to help achieve this goal. The policy options are aimed at improving the financial resilience of homeowners. While many of the policies could also be tailored to renters, additional policies, such as to help landlords repair structures and ensure the availability of affordable housing post-disaster, will also be needed. Achieving climate resilience requires a suite of interlocking policies: this brief discusses but one piece of that puzzle.

### THE NEED

Low- and moderate- income households and communities suffer disproportionately from disasters.<sup>2</sup> Wealth inequalities are already substantial and increasing in the U.S., with detrimental effects on many aspects of well-being [8-10]. Natural disasters can compound existing inequities and act as tipping points,

### KEY FINDINGS

- Low- and moderate- income (LMI) households and communities suffer disproportionately from disasters, but there are a few policies or programs to help them achieve post-disaster financial resilience.
- This brief is intended to help policymakers begin the conversation about what new or supplemental policies could help LMI households in at-risk areas. In particular, it explores the critical role insurance can play in securing financial resilience.
- Policy options explored include: (1) parametric microinsurance, (2) premium reductions for low-cost flood mitigation, (3) local flood insurance affordability programs, (4) community assistance combined with a high-deductible NFIP policy, (5) community-based insurance, and (6) right-sizing insurance coverage.

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<sup>2</sup> The US Department of Housing and Urban Development (HUD) provides estimates at three income levels based on data from the Bureau of Census: low income (up to 50 percent of the Area Median Income (AMI)), moderate income (greater than 50 percent AMI and up to 80 percent AMI), and medium income (greater than 80 percent AMI and up to 120 AMI).

consuming savings, and pushing households into financial insecurity [11, 12]. Renters face their own set of challenges. Beyond damaged possessions, they could be “evicted” by flood damage, with potentially long-lived impacts [13].

A natural disaster is a negative economic shock—an event of limited duration where income declines and/or expenditures increase. Financial resilience—the ability to recover quickly from these shocks—underpins other aspects of recovery. Having the resources to rebuild and repair is linked to emotional well-being, mental health, educational attainment, and the stability of families [14]. Without the resources to recover, households may turn to financial coping mechanisms that have negative long-term impacts [15].

Currently, there are very few policies or programs to help LMI households achieve financial resilience in the face of natural disasters. Disaster financial resilience requires access to sufficient liquid resources for recovery. There are four primary sources for these funds: savings, credit, aid, and insurance. Unfortunately, LMI households can struggle with access to any of these sources. Regarding savings, roughly 40 percent of households do not have \$400 in liquid funds for an emergency [16]. Loans typically fail for LMI households as they may not have the resources to take on additional debt or may be locked out of access to credit. Indeed, over half of applicants to the federal disaster loan program are rejected as uncreditworthy [17]. In a flood, entire neighborhoods may be hit, limiting the ability of friends and neighbors to provide financial support for each other. Contrary to some perceptions, federal disaster aid is limited and delayed, making it an inadequate recovery source [18, 19]. As FEMA’s National Advisory Council has recently noted, federal disaster aid may also be distributed inequitably and exacerbate inequalities [20]. Bottom line: current programs and policies are not serving the financial recovery needs of LMI households.

Insurance, therefore, has a critical role to play in helping secure financial resilience, but many remain uninsured against flooding (see Box). In areas of higher flood risk mapped by FEMA nationwide, only roughly one-third of households have flood insurance, although there is high regional variation in this number, with much greater take-up rates along the hurricane-prone coast [21]. A number of factors lead to low demand for flood insurance, including lack of awareness about flood risks; lack of understanding about the role of insurance on one’s finances; a range of decision-making biases, such as over-optimism; inadequacy of current flood insurance to cover certain types of buildings, particularly multifamily buildings; as well as the cost—flood insurance can exceed what residents can afford or are willing to pay for coverage. Indeed, the cost of flood insurance can be a fundamental barrier for LMI households.

### **Box: Overview of the National Flood Insurance Program**

Standard homeowner policies in the U.S. do not cover flood damage. The majority of flood insurance policies are offered through the National Flood Insurance Program (NFIP). Housed within the Federal Emergency Management Agency (FEMA), the NFIP is a voluntary partnership between the federal government and local communities. Once a community joins the NFIP, all properties can be insured through the program, including residences, commercial structures, and municipal buildings.

NFIP communities must adhere to specific regulations for new construction within the 100-year floodplain, the area with a 1 percent annual chance of flooding according to FEMA maps, also referred to as the Special Flood Hazard Area (SFHA). A residential property owner can purchase up to \$250,000 of coverage for the building and up to \$100,000 of coverage for its contents. Renters can purchase a contents-only policy. To expand flood insurance uptake rates, Congress created the mandatory purchase requirement in 1973, which obliges federally regulated lenders or issuers of federally-backed mortgages to require flood insurance on all loans secured by property in the SFHA.

As noted above, one reason for low take-up rates for flood insurance is that premiums are often cost prohibitive for lower-income households. Nationwide, average annual premiums in the SFHA for residential policies were roughly \$980 in 2018. In the narrow area on the coast subject to wave action, the average premium jumps to over \$5,000; outside the SFHA, the annual premium averages around \$500. There have long been calls for an affordability program at the federal level to provide means-tested assistance on the cost of NFIP policies [22-24], but to date, Congress has not created such a program.

## LOCAL POLICY SOLUTIONS

In the absence of federal or state policy to improve the ability of LMI households to recover after floods, local governments have several potential policy tools to help these residents. This brief presents six policy options that would harness the benefits of disaster insurance to aid in post-flood financial recovery:

- parametric microinsurance,
- premium reductions for low-cost flood mitigation,
- local flood insurance affordability programs,
- community assistance combined with a high-deductible NFIP policy,
- community-based insurance, and
- right-sizing coverage.

While these solutions may not all be viable in all contexts, and each policy option could take a variety of forms, this brief is intended to help local government policymakers begin the conversation on what new or supplemental policies would be best suited to helping LMI households in at-risk areas. The policies are targeted at homeowners, although many could also benefit renters. They should be considered one important intervention among many that will be needed to build climate resilient communities.

**Parametric microinsurance.** Parametric microinsurance, an approach that has been tested in many developing and emerging economies, is designed to provide funds very quickly post-disaster and meet the needs of lower-income households. Parametric insurance refers to policies where payouts are based on observable metrics related to a disaster [25]. Microinsurance refers to policies designed to have lower premiums, coverage, and costs of administration. While new to the United States, these policies could be utilized in a community, drawing on mobile-based technologies and use of big data to ease and speed claims payouts [26]. Harnessing microinsurance would require the local government to partner with private sector insurers willing to innovate and offer such policies. It likely could require public-sector premium support if those most in need could not otherwise afford the premium on their own. One major benefit of this type of insurance is that policyholders could use they payouts how they choose, allowing LMI households to target the funds to their most critical expenses. These policies would not, however, fully replace more traditional indemnity insurance.

**Premium reductions for low-cost flood mitigation.** Many flood mitigation measures, such as home elevation and buyouts, can have prohibitive upfront costs, or are technically challenging for larger multi-family and attached buildings. Lower-cost measures can still reduce risk, such as elevating mechanicals, installing a sump pump, ensuring proper grading around the home, and using flood resistant flooring [27], but the NFIP does not currently offer premium discounts for these. A local government could develop a program in partnership with a private insurer, offering grants for LMI households to reduce risk and then have lower-cost insurance available through the private partner. Such a program would operate where elevation or buyouts are not an option. In this way, risk would be reduced and post-flood financial recovery assured. Such a partnership could harness lessons learned from Wildfire Partners, a wildfire program in Boulder, Colorado, which helps homeowners with mitigation, lowering losses and helping to secure wildfire insurance.<sup>3</sup>

**Local flood insurance affordability program.** In the absence of a federal program to help LMI households with the costs of flood insurance, some local governments have developed their own programs. Portland, Oregon adopted a program using elevation certificates, insurance consultations, and home audits, saving households on average \$720 annually [28]. Syracuse, New York provided property tax reductions to certain low-income households purchasing flood insurance [29]. North Carolina is piloting NFIP premium assistance for qualifying households. Municipalities could build on these programs to develop a program to help residents lower the costs of their NFIP policy, either through targeted financial assistance, tax benefits, and/or insurance consultations to ensure all cost savings are secured [30].

**Community assistance combined with a high-deductible NFIP policy.** A local government could establish an assistance program for LMI households that would provide them with a pre-defined base level of post-flood assistance. This assistance could be financed with general revenues, a small tax on property and casualty insurance policies, or other means and/or could make use of catastrophe bonds or parametric insurance for financing the program. Designing a

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<sup>3</sup> See: <https://wildfirepartners.org>

program that would automatically issue payments based on prior eligibility would speed response. Households that needed additional financial protection could purchase a high-deductible NFIP policy (since the below deductible costs would be covered through the assistance program); high deductible policies are substantially less expensive. A similar policy approach has been previously analyzed for New York City, finding it could be lower cost than direct premium assistance [24].

**Right-sizing coverage.** The NFIP currently provides a “one size fits all” policy, with only limited ability to make adjustments. However, flood risk, as well as individual financial needs, vary substantially. For instance, a household at risk of shallow flooding from intense rainfall events faces a very different risk profile than a home at risk of storm surge. Similarly, a household with substantial savings or that has friends or family to move in with during any evacuation or repairs, face different financial needs than a household without those things. Tailored insurance consultations in conjunction with a willing private-sector partner in addition to the NFIP options can help lower insurance costs for households by guaranteeing the household is only paying for needed coverages.

**Community-based insurance.** Community-based insurance is an insurance policy purchased by a local government on behalf of a population of households in their jurisdiction [31]. This concept has been developed for the case of flooding, but has yet to be piloted [32, 33]. A municipality could purchase a community policy from a private (re)insurance firm, or possibly in partnership with the NFIP, targeted at low income households. Community policies would relieve households of the onerous process of securing flood coverage and could reward mitigation.

## A PATH FORWARD

In order to determine what policy is the best fit for a given municipality, local leaders will need to consider the population at risk, the nature of the flood hazard, possible sources of funding, political preferences, and available partners. For example, some of the policy proposals additionally require a willing private sector, state, or federal partner. Scoring policy proposals from high to low against criteria can be useful tool to guide thinking about policy choice and development. Local leaders could identify important criteria and assess how the various policies perform under these criteria. To jumpstart the evaluation, some criteria and questions for consideration are listed below.

### **Effectiveness:**

- What is the target population? Would the policy meet the needs of this target population?
- What post-flood financial needs will remain after the policy is enacted?
- How will the policy interact with other disaster programs and initiatives?
- What are the economic benefits or cost savings to local governments from these investments?
- How would the policy address the needs to urban building typologies, including attached and multifamily/mixed use buildings?

### **Feasibility:**

- What are the political and regulatory hurdles this policy would face?
- Does the program require a change in laws or regulations, creating new programs, or hiring new staff?
- Will the target population believe this policy is useful to them?

### **Cost:**

- How much funding is needed to implement this policy?
- What is the anticipated annual cost to administer the program?
- What funding sources are available for the program?
- Are there economies of scale that could be achieved that would reduce the per-household costs associated with the program?

### **Sustainability:**

- Is there capacity to sustain this program long-term?
- Is there long-term funding for the program?
- Are there mandates that could be put in place that would make the program more solvent (e.g., mandating landlords carry policies on behalf of tenants)?

**Administrative burden:**

- How much staff time or additional personnel is needed to design and implement this program?
- How complex, expensive, and/or lengthy would the administrative process be (both in the establishment and implementation of the policy)?
- Which government agency and other partners will be responsible for administering the program?

**Possible partners:**

- What additional government agencies need to be involved in designing this policy?
- What partners do we have locally who would help implement this policy?
- Do we have the federal partnerships needed?
- Do we have willing private sector partners?

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