



RESEARCH BRIEF SERIES

MITIGATION MATTERS

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FEMA defines mitigation as the effort to reduce loss of life and property by lessening the impact of disasters. Effective mitigation requires that we all understand local risks and invest in long-term planning to reduce risks and enhance community well-being.

WHAT DRIVES HAZARD MITIGATION POLICY ADOPTION? FEMA'S PROPERTY BUYOUT PROGRAM IN VIRGINIA COUNTIES

SUMMARY

Recurrent flooding has resulted in repeated property damage in the United States. The property buyout program was introduced several decades ago as a hazard mitigation strategy to move properties out of harm's way.

This study surveyed local floodplain managers to explore factors that influenced the adoption of the Federal Emergency Management Agency property buyout program in Virginia counties. A new theoretical framework involving logistic regression models was used to analyze the 59 survey responses and various secondary data. The survey participants were from inland and coastal Virginia cities and counties with riverine and coastal flooding risk. The factors that were investigated included: flooding problems, social vulnerability, institutional capacity (including individual professional capacity, organizational management capacity, and system capacity), policy diffusion, and upper-level policy environment.

The results indicated that the individual capacity of local floodplain managers—for instance, their hazard mitigation experience, ability to innovate, and awareness of flood risks and the benefits of buyouts—is a significant factor that influences local government adoption of property buyout policies. Repetitive loss from flooding is a moderate trigger for counties to adopt buyouts. Findings suggest that experienced floodplain managers who are enthusiastic about buyouts programs are more likely to generate community buy-in and political will.

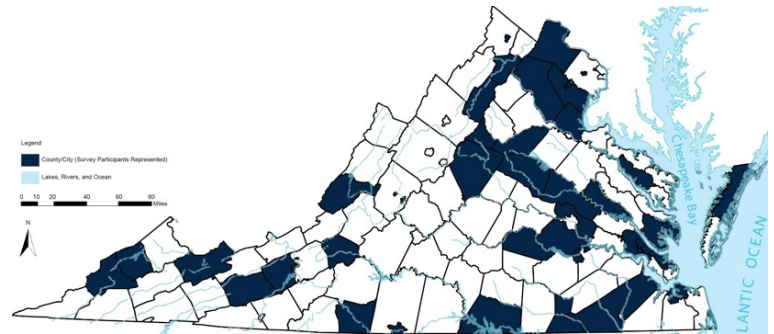


Water covers the road in the Cambridge Crescent neighborhood of Norfolk, Virginia, during King Tide. ©Virginia Sea Grant/Aileen Devlin, 2021.

KEY FINDINGS

- The individual capacity of local governments is a strong predictor of adoption outcomes. Local governments that employ floodplain managers with high levels of flood mitigation experience, policy innovation, and an understanding of flood buyout benefits will be more likely to add property buyout programs to their agendas. Since local governments carry the major functional responsibility for hazard mitigation, floodplain managers are key in advocating for the introduction of buyouts.
- Repetitive loss from flooding is also an important factor in motivating counties to take up property buyout programs and reduce financial losses. This is because it is not effective to use flood mitigation funds to address continually damaged properties.

- Although social context, organizational and system capacity, policy diffusion, and environment impacted the adoption of other kinds of policies in the literature, they did not influence local governments to take up property buyout policies in Virginia. This may be related to the features of property buyout policies. Since buyouts are voluntary and local governments act as subgrantees in charge of the adoption and implementation process, elements beyond local governments control can influence a city or county government decision on the buyouts.



Map of Virginia Localities Represented in the Survey.

POLICY IMPLICATIONS

- Research findings suggest that FEMA should conduct more property buyout-related trainings for local floodplain managers, including technical training on flood risk analysis and program training on the buyout policy. Policymakers should consider the individual capacity to conduct hazard mitigation strategies innovatively and efficiently.
- Another recommendation is to modify the buyout program to simplify and reduce the length of the application process, which could cause more localities to consider buyouts. The approval and implementation processes of buyouts are usually lengthy, complicated, and time-consuming. A typical buyout project funded by FEMA can take more than five years to complete.
- FEMA's buyout is voluntary, so most land acquired through buyouts are not clustered. Developing a market-based buyout strategy can help the city convert buyout properties to low-impact land uses, such as parks or recreational space, thereby furthering resilience and managed retreat goals in high flood risk areas.

STAKEHOLDERS

Stakeholders who might be interested in this research include FEMA representatives, state hazard mitigation agencies, local floodplain managers, and resilience experts. This research can help them improve the property buyout program and enhance adoption at the local level.

Full report: Wang, Q., Zhang, Y., & Owen K. (2022). What Drives Hazard Mitigation Policy Adoption? FEMA's Property Buyout Program in Virginia Counties. Natural Hazards Center Mitigation Matters Grant Report Series, 10. Boulder, CO: Natural Hazards Center, University of Colorado Boulder. Available at: <https://hazards.colorado.edu/mitigation-matters-report/what-drives-hazard-mitigation-policy-adoption>



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