#### >> Executive Summary

# "It's time we look at unsafe housing as the global epidemic it is, threatening one third of the global population."—Dr. Elizabeth Hausler, September 2018

#### The issue of vulnerable housing requires urgent action and massive investment.

By 2030, three billion people—about 40% of the world's population—will be living without adequate housing.<sup>5</sup> Inadequate housing is disproportionately inhabited by the poor, putting those who are already vulnerable most at risk when earthquakes, windstorms, floods, and pandemics strike. Against a rising qualitative housing deficit, climate change is increasing the frequency and intensity of many natural hazards, with severe consequences for those without a safe, resilient home.

It is time for the issue of vulnerable housing to be treated as a public health emergency.

Investment in better, safer, and more equitable housing must be prioritized if we are to protect people's health and well-being and better withstand future crises, whatever form they may take.

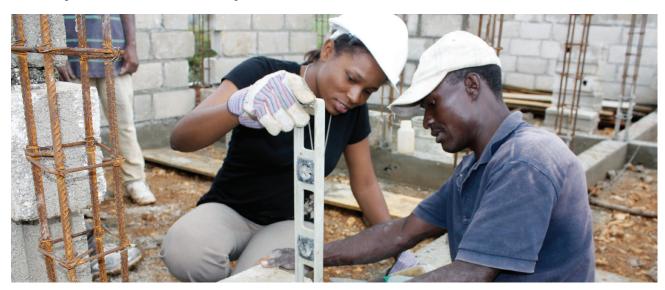
### Upgrading existing housing is an effective way to save lives and resources.

At Build Change, we advocate for improving the homes that people already live in, rather than building new ones, wherever possible. The majority of homes can be made safer using relatively simple, tried-and-tested solutions that already exist. Along with a range of wider benefits, this approach is the most cost-effective: our studies show that the average cost to upgrade housing is 23% of the average cost of building new housing.

By strengthening existing housing, our efforts can be directed toward a preventative—rather than a reactive—response, and governments and funders can start saving and improving lives without delay. We can avert the devastation and financial losses caused by disasters that could have been prevented.

### Resilient housing programs can improve lives and transform housing systems.

Beyond saving lives and resources, resilient housing programs can offer a range of wider benefits. Through a holistic approach that seeks to transform housing systems, they can improve people's quality of life and health, create jobs, reduce inequality, and change unsafe construction practices permanently. They can provide both a cost-effective and a longterm solution to the qualitative housing deficit that countries throughout the world are experiencing today.



Build Change staff member Alexandria training builders in Haiti in 2016

5 UN-Habitat, "Housing," accessed July 15, 2021, https://unhabitat.org/topic/housing

## The Build Change model focuses on change in three key areas: People, Money, and Technology.

The most successful resilient housing programs put homeowners first and involve a wide range of stakeholders. They work to ensure homeowners have the awareness, and the financial and technical resources they need to make their homes safer, by driving change in three key areas:

- People: People have to want to strengthen and improve their homes. Demand for resilient housing increases when governments choose to prioritize it. Governments must lead change by raising awareness, providing technical support to homeowners and the workforce, and ensuring policy is designed to meet the challenges that lie ahead.
- Money: People must have the financial means to strengthen and improve their homes. This requires wider access to affordable financing options for homeowners, in particular for low-income families, and government support in the form of subsidies and incentives. Resilient housing at scale necessitates innovative financial solutions, and funders must commit to long-term change.
- Technology: The right engineering and construction technology must be locally available, widely known, and cost-competitive. Digital technology can be leveraged to create huge efficiencies, to support with scaling.

Since 2004, Build Change has supported resilient housing initiatives in 24 countries, impacting over 600,000 lives, safeguarding more than \$1.5 billion in housing infrastructure assets, and helping to establish lasting mechanisms for resilient housing around the world.

- In Colombia, we have successfully advocated for key regulatory reforms and proved the feasibility of retrofitting at scale, enabling hundreds of thousands of lowincome families to improve their homes through the Casa Digna, Vida Digna program. » Go To: Part 3, Case Study 1
- In Nepal, our innovation in engineering and technical resource development has made it possible to conduct structural retrofits of rural homes at a national scale, for approximately 15% of the cost of replacing them. » Go To: Part 3, Case Study 2





In the **Philippines**, our proof of concept and market studies have shown that homeowners will borrow money to strengthen their homes to withstand disasters, when this is combined with making other improvements. Affordable homeimprovement loans with targeted



technical assistance are now available for the first time. » Go To: Part 3, Case Study 3

- In Dominica, our post-disaster expertise combined with technological innovation have supported the national Housing Recovery Project with a Management Information System (MIS), resulting in easy access to information and greater accountability. » Go To: Part 3, Case Study 4
- In Haiti, we carried out the first structural retrofits at scale for low-rise masonry houses, as an alternative to building temporary shelters post disaster. The program has created hundreds of jobs and enabled thousands of families to retrofit their homes.
- In **Guatemala**, we have demonstrated the huge opportunity to support vertical expansion (i.e. adding a second story) while strengthening the ground floor, thus achieving both growth and safety.
- In Indonesia, where we have been working since 2005, thousands of single-story schools are vulnerable to earthquakes. We began retrofitting schools by applying similar techniques to those used for housing, to address damages and increase their resilience.







SOURCE: FREE VECTOR MAPS

With the publication of *The Build Change Guide to Resilient Housing*, Build Change now wishes to provide governments, funders, and practitioners around the world with the tools they need to carry out successful resilient housing programs at scale.