"SHELTERING IN PLACE"
IS NOT A SAFE OPTION FOR BILLIONS OF PEOPLE

BOGOTA, COLOMBIA | PHOTO: XAVIER CONESA

THE **GLOBAL PROGRAM FOR RESILIENT HOUSING** ALREADY HAS A PLAN TO CHANGE THAT

Over the past months, governments across the world have ordered billions of people to stay at home to slow the spread of the COVID-19 pandemic, wash their hands frequently, and self-quarantine if they develop symptoms. These are critical recommendations. But what if that home has no running water for frequent handwashing? What if there is no refrigerator to store food, and only one bedroom for 6 members of a single family?

Unfortunately, that's the situation for a significant portion of the population in developing countries. Over 2 billion people do not have access to flush toilets, and hundreds of million do not even have access to running water. These unsanitary homes are a breeding ground for disease spreading, including COVID-19 cases.

It's pretty simple: without adequate sanitary housing, we will not be able to contain the spread of COVID-19 in the developing world. Furthermore, without information on the location of these homes for decision makers, how can they target interventions? That's why we recommend a massive, immediate investment in sanitary, upgraded housing, backed by geospatial data.

Of course, shelter at home orders and social distancing guidance are necessary to prevent medical systems from being overwhelmed as COVID-19 cases spike. At the same time, for many countries these lockdowns raise urgent concerns about jobs and livelihoods.

That's why, starting now, governments need to invest in better housing, focusing in three areas:

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1. **Leverage technology to locate, quantify and characterize homes and neighborhoods that need upgrading.** Through geospatial assessments, opportunities to reduce overcrowding and allow for social isolation and self-quarantining can be identified.

2. **Plan targeted infrastructure investments to improve home sanitation, including installing kitchen sinks with** running water, flushing toilets, windows for proper ventilation, and energy efficient technologies to save families money.

3. **Introduce housing subsidies that (i) improve homes in up to 6 months, creating jobs for community residents** (plumbers, masons, carpenters); and (ii) provide rental assistance and mortgage safety net programs to vulnerable groups.

Taken together, these actions give governments and public health systems a fighting chance against the fearsome COVID-19 virus, especially until an effective vaccine is approved and distributed. Better homes will provide residents a safe haven from infection and a sanitary space to isolate when sick. Critically, these home improvement efforts also support local economies and create jobs.

Now you may well ask how governments will find these homes to target investments, particularly in the middle of a pandemic with social distancing requirements. That's the good news.

The methodology of the Global Program for Resilient Housing (GPRH) relies entirely on remote technology perfectly suited to current COVID-19 requirements. Images of the houses are captured from drones and car mounted cameras and then processed entirely in a home office. Machine learning algorithms tailored to the local context are then built by engineers to extract characteristics about each house.

As a result, without sending staff members into the field, decision makers can learn the count, use, size, material, and condition of each building in a neighborhood, and gather other facts about the area, such as the slope of the terrain, density of the building, and quality of the sidewalks. When combined with existing GIS data, information

ECATEPEC, MEXICO | PHOTO: XAVIER CONESA

on overcrowding, land tenure security, poor access to health services, and lack of utilities and can be derived at a household and neighborhood level.

How do we know it works? Because over the past two years the GPRH has applied this methodology in eight countries.[1] Two new Bank Loans are currently in preparation. In Colombia, the Ministry of Housing has requested GPRH's method to scale-up its new program to subsidize improving existing homes ("Casa Digna, Vida Digna").[2] In Peru, the government is using this approach to improve property tax collection for financially distressed municipalities through automated detection of building use.[3] And we are working with Mexico and Indonesia to reach the most vulnerable and make safe construction a central part of their home improvement programs.[4]

As you can see, the benefits can go far beyond a response to the current crisis. Detailed geospatial housing databases, for example, could help make it affordable for home insurance companies to provide estimates to potential customers, or increase the confidence of banks to offer home improvement loans to families.

Every global crisis teaches us too many lessons that we learn the hard way. One of the easiest lessons of this pandemic is that a safe shelter from danger must also be a healthy one. Even in the midst of this crisis, the Bank's GPRH is in a position to help governments around the world improve housing right now, save lives, and protect economies.

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[1] Countries include: Guatemala, Peru, Mexico, Sint Maarten, Saint Lucia, Colombia, Indonesia, Paraguay.
[2] Colombia: Resilient and Inclusive Housing Project (P172535).
[3] Peru: National Urban Cadaster and Municipal Support Project (P162278).
[4] Indonesia: National Affordable Housing Program (P154948).

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