

# TACKLING CLIMATE CHANGE AND PROMOTING ENVIRONMENTAL RESILIENCE THROUGH AFFORDABLE HOUSING



**THE GLOBAL IMPACTS OF CLIMATE CHANGE ARE FAR-REACHING. REALL ARE UNLOCKING GREEN AFFORDABLE HOUSING AT SCALE TO ALLEVIATE POVERTY AND PROMOTE SUSTAINABILITY.**

## WHY IS IT A GLOBAL PRIORITY?

We know there is a growing global housing deficit and there are 300 million affordable homes that need to be built by 2030. There is a huge opportunity to mitigate climate change in conjunction with providing affordable housing, such as introducing renewable energy into every new home which could stimulate an enormous market in sustainable building materials.

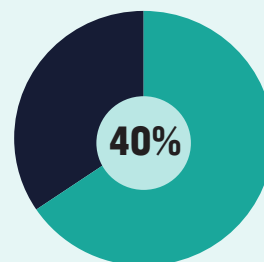
## HOUSING & CLIMATE: THE GLOBAL CONTEXT

The construction sector (including residential housing construction) is a significant contributor towards climate change, with cement alone responsible for 8% of global CO<sub>2</sub> emissions.

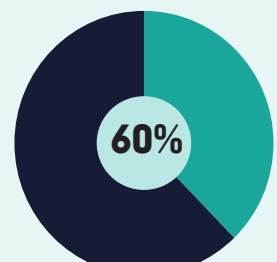
Given the vast need for housing internationally and especially in Africa and Asia, where climate change impacts are most acute, there is an urgent imperative to bridge affordable housing with the sustainable development agenda.

Reall is pioneering alternative materials, innovative green technologies, renewable energy solutions and disaster resilience. But these must be implemented and delivered at scale, without compromising affordability. To do so will require dedicated action grounded in innovative new models and the crowding in of dynamic partnerships.

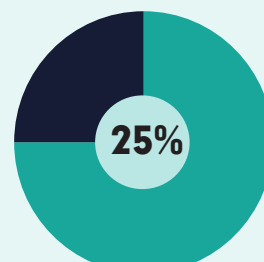
### GLOBAL CONSUMPTION OF RESOURCES BY BUILDINGS



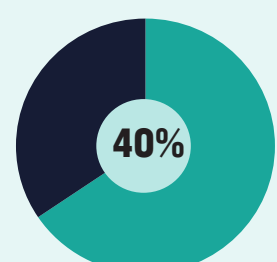
**ENERGY**



**ELECTRICITY**



**WATER**



**MATERIALS**

## HOUSING & CLIMATE: REALL'S BREAKTHROUGHS

- 1 **NEPAL, PAKISTAN, THE PHILIPPINES** Successfully piloted innovative and greener cement alternatives in affordable housing construction, including compressed earth blocks and bamboo.
- 2 **KENYA, NEPAL, ZIMBABWE** Pioneered innovative decentralised wastewater treatment systems (DEWATS) and sanitation that service over 1,300 low-income households.
- 3 **MOZAMBIQUE** Piloted quality affordable homes for people on low incomes in Beira that withstood the devastating impact of Cyclone Idai in 2019, where 90% of the wider city was destroyed.
- 4 **NEPAL** Facilitated earthquake-resilient housing across Nepal for over 2,500 low-income households. Many of the homes remained standing after the 2015 earthquake.

## HOUSING & CLIMATE: REALL'S STRATEGY

### ALTERNATIVE MATERIALS & GREEN INNOVATION

Reall implements innovative and sustainable building practices and technologies that can reduce environmental footprints. These include prefabricated modular units, stabilised earth blocks, and a range of more sustainable cement alternatives. Reall also leverages partnerships to streamline and green construction supply chains at local, national and transnational levels. In parallel, Reall strives for positive policy change that can enable affordable housing as a vehicle for climate-smart development.

### RENEWABLE ENERGY

Reall advocates for affordable housing to embrace local,

renewable resources within the regions where it is most needed. This includes geothermal energy, wind, solar, biomass, and waste-to-energy. Expensive technologies are not always necessary, and the priority is to incorporate innovative energy solutions into construction without making housing unaffordable for people on low incomes.

### EFFECTIVE DESIGN & URBAN PLANNING

Reall demonstrates that effective low-cost housing can promote social development, stimulate local economies and reduce environmental impacts. Reall pilots and shares innovations that reduce the environmental footprint of housing without

compromising affordability. Reall also innovates via building compactly to reduce the cost of construction, mitigating urban sprawl and encouraging sustainable resource use.

### AFFORDABILITY & COMMERCIAL VIABILITY

Building homes to a decent standard is cost-intensive and subject to a wide range of unpredictable risk factors. Reall promotes construction models that embrace efficient material use and streamlined processes, encouraging sustainable sourcing, and recyclability throughout the production chain. This demonstrates that affordable housing is commercially viable while delivering tangible social and environmental outcomes.