

# ACHIEVING THE SUSTAINABLE DEVELOPMENT GOALS THROUGH AFFORDABLE HOUSING IN AFRICA AND ASIA



**REALL IS PIONEERING COMMERCIALY VIABLE SOLUTIONS FOR CLIMATE-SMART AFFORDABLE HOUSING IN URBAN AFRICA AND ASIA.**

**CLIMATE-SMART HOMES OFFER A DOORWAY TO ACHIEVING 16 OUT OF 17 OF THE SDGS. THERE IS THEREFORE AN URGENT IMPERATIVE TO INTEGRATE AFFORDABLE HOUSING WITH THE SUSTAINABLE DEVELOPMENT AGENDA.**

## OVERVIEW

With only ten years to go to achieve the 2030 Agenda for Sustainable Development,<sup>1</sup> many of the Sustainable Development Goals (SDGs) are off track – a situation that has been compounded by the Covid-19 pandemic<sup>2</sup>.

The pandemic has triggered the worst economic recession since 1930 and the combined social, economic, and health impacts of Covid-19 have outpaced any other major crisis in recent history. As an ongoing global crisis, Covid-19 will undoubtedly set back years of progress made against the Goals and disrupt development progress and funding activities for the decade to come<sup>3</sup>. An additional 207 million people could be pushed into extreme poverty by 2030 due to the severe long-term impacts of the coronavirus pandemic, bringing the total number to more than a billion<sup>4</sup>. Extreme poverty, hunger, unemployment, inequality and violence are rising; education has been disrupted; men, women and children are confined to their homes in many parts of the world, while new phases of the pandemic are unfolding. The poorest and most vulnerable people and countries have inevitably been hit the hardest.

New solutions are urgently required to get the SDGs back on track – and these must be underpinned by a re-commitment to the foundations of 2030 Agenda, namely integration, innovation, and collaboration.

### Integration – working and learning across the 17 Goals:

The SDGs are by their very objectives and targets integrated and indivisible, yet too often efforts to achieve them focus only on individual goals and targets. To realise the 2030 Agenda vision, stakeholders must embrace SDG interconnectivity and focus on implementation which combines goals and actors. Lessons learned on co-benefits should be evidenced and shared to enable further successes and avoid replication of failure. Improving data availability, comparison and reporting is key to this, as lack of data has important consequences on resource allocation and prioritisation.

### Innovation – scaling up action and investment:

Even before the Covid-19 pandemic, there was a recognition that ‘business as usual’ was not enough to achieve many of the SDGs by 2030. Innovative partnerships are now even more

urgently needed to tackle the global crises the 2030 Agenda seeks to address. Many of these solutions represent a massive economic opportunity to promote GDP growth, job creation, financial sector deepening, generate revenue and support climate change mitigation and resilience. Governments, the private sector, and civil society all have an important role to play, especially with catalytic funding to drive innovative and scalable solutions and actors.

### Collaboration – embracing unusual partnerships:

Partnership is at the very core of the SDGs. It is one of the five pillars underpinning the 2030 Agenda as outlined in the Preamble<sup>5</sup> but is also the objective of Goal 17<sup>6</sup>. Everyone – be it governments, civil society, private sector, investors or UN institutions and other multilateral bodies – has a part to play. In doing so, there is a need to actively seek out new and innovative partnerships that go beyond traditional spheres and actors. Instead of ambition being shackled by business-as-usual, integration, innovation, and partnership are essential to meet the urgent challenge of realising the ambitious and transformative 2030 Agenda.

1 Adopted in 2015 by all United Nations (UN) Member States, the 2030 Agenda for Sustainable Development provides a shared blueprint for both people and planet by the means of 17 Sustainable Development Goals (SDGs). The SDGs are integrated and indivisible, and together to balance the three dimensions of sustainable development: the economic, social, and environmental, <https://sdgs.un.org/2030agenda>

2 United Nations Development Programme (UNDP), ‘The Impact of the COVID-19 Crisis on the Sustainable Development Goals,’ (2020) <https://sdgintegration.unndp.org/accelerating-development-progress-during-covid-19>

3 United Nations (UN), ‘2021 High-level political forum on sustainable development (HLPF) Concept note,’ (2021)

4 United Nations (UN), ‘COVID-19 could see over 200 million more pushed into extreme poverty, new UN development report finds,’ (2020) <https://news.un.org/en/story/2020/12/1079152>

5 Along with ‘people’, ‘planet’, ‘prosperity’, and ‘peace’. <https://sdgs.un.org/2030agenda>

6 SDG 17: Strengthen the means of implementation and revitalise the global partnership for sustainable development, <https://sdgs.un.org/goals/goal17>

## BUILDING BACK GREENER: AFFORDABLE HOUSING AS AN INTEGRATOR OF THE 2030 AGENDA AND THE PARIS AGREEMENT

At least 1.2 billion people worldwide currently live in standard housing, and this global crisis of a lack of affordable, safe and accessible housing is increasing. An estimated 300 million new homes will be required by 2030 to bridge the global deficit, with the majority of this need concentrated in rapidly urbanising Africa and Asia<sup>7</sup>. By 2050, 68% of the world's population will be urban, representing an increase of 2.5 billion people from today – with close to 90% of this increase being in Africa and Asia<sup>8</sup>. This will require a vast amount of construction in these geographies over the next few decades. It is estimated that 70% of the buildings that will exist in Africa and Asia in 2050 have yet to be built.

How future cities are built, and the materials used, is critical as the built environment and housing contributes a significant 39% of global emissions today. Consequently, simultaneously meeting the goals of both the Paris Agreement<sup>9</sup> and the 2030 Agenda must lie at the heart of all future thinking and investment. Put simply, our solutions must support a net zero, inclusive and prosperous future for all.



The global Covid-19 pandemic has further demonstrated the impact of inadequate housing conditions that characterise many African and Asian cities, and how these exacerbate and exploit health and other vulnerabilities. The escalating housing deficits across both continents underscore the need for urgent and innovative solutions. The pandemic has also heightened awareness of the wider socioeconomic impact of poor quality housing beyond the household – highlighting how affordable housing is a key opportunity for post-Covid economic growth strategies.

While the challenges are clear, the potential for sustainable impact is enormous. Quality affordable housing with secure tenure, clean water and sanitation is a catalyst for meeting the health and wellbeing needs of people living on low incomes. Building climate-

smart assures that the construction of much needed affordable homes will not result in negative future climate impacts and instead boost climate resilience and foster social cohesion. Furthermore, delivering housing at scale will also catalyse macroeconomic growth, job creation and support financial inclusion in 'building back better'.

As an innovator and investor in climate-smart affordable housing Reall works with its partners in the global south to unlock housing solutions for people living on low incomes in urban Africa and Asia. Supported by the UK and Swedish governments, Reall has invested US\$80 million into impactful affordable housing development since 2000, housing over 100,000 people and creating over 80,000 new jobs. From this work, several lessons in support of the SDGs can be drawn.

### KEY RECOMMENDATIONS FOR INTEGRATING CLIMATE-SMART AFFORDABLE HOUSING SOLUTIONS INTO THE SUSTAINABLE DEVELOPMENT AGENDA:

**Access to affordable end-user housing finance must be improved for people living on low incomes in order to deepen inclusion and widen affordability – especially for women and marginalised and excluded groups.** Unlocking finance solutions that enable climate-smart affordable housing, such as green mortgages for energy efficient homes, must be part of this approach

**Green solutions must be developed and integrated across the entire housing ecosystem – including green financing and investment, and green construction materials and design standards.** This will improve access to clean energy and energy reliability while lowering long-term living costs, as well as unlock green finance, entrepreneurship and create green jobs, not least in developing countries – and be one of the most important and impactful resilience solutions for those most vulnerable to the risks of climate change

**For data to influence the wider ecosystem and inform policy and investment decisions, it must be accessible and driven by partnerships, especially by partners in the global south. The necessary data revolution to support the 2030 Agenda must be inclusive.** Housing market data and client data need better disaggregation, including by gender, to improve understanding of access, needs and barriers to housing for different groups, and to support an evidence-driven approach

<sup>7</sup> World Bank, 'Housing for All by 2030', (2016): <https://www.worldbank.org/en/news/infographic/2016/05/13/housing-for-all-by-2030>

<sup>8</sup> By 2050, the urban population of Sub-Saharan Africa is expected to increase by 183% (going from 459 million people today to 1.3 billion). In South Asia that urban increase is expected to be 83% (709 million people to 1.3 billion) and in South East Asia by 58% (from 334 million people today to 527 million). UN Department of Economic and Social Affairs (DESA), *World Urbanization Prospects: The 2018 Revision*, (2018) <https://population.un.org/wup/>

<sup>9</sup> <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

<sup>10</sup> Reall, 'Sustainable Development Goals X Affordable Housing,' <https://www.reall.net/sustainable-development-goals-x-affordable-housing/>

## CREATING SYNERGIES BETWEEN AFFORDABLE HOUSING (SDG 11) AND CLIMATE (SDG 13)

The climate crisis is an existential threat, to which the world's urban poor are particularly vulnerable. Investing in and constructing climate-smart affordable housing in urban Africa and Asia can simultaneously address a range of climate-related mitigation and resilience challenges at scale.

Informal and low-income homes are particularly at risk to climate-related disasters, typically constructed from poor materials and situated in vulnerable areas. The increasing frequency of climate-related disasters is being accompanied by a sharp rise in the world's urban population. This means that more and more people are moving to climate-vulnerable cities and regions. In turn their vulnerability and housing poverty undermines urban adaptation and resilience for all urban environments and citizens.

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**AN ESTIMATED 90% OF GLOBAL URBAN GROWTH WILL OCCUR IN AFRICA AND ASIA BY 2050. MOBILISING INVESTMENT TO ELIMINATE THE PRESENT DEFICIT OF 60 MILLION HOUSES IN SUB-SAHARAN AFRICA AND 80 MILLION IN SOUTH ASIA<sup>11</sup> REPRESENTS A MASSIVE ECONOMIC OPPORTUNITY VALUED AT US\$17 TRILLION<sup>12</sup>.**

New opportunities are emerging to address at risk housing to strengthen sustainability and resilience, while still being inclusive and affordable to the bottom 40% of the income pyramid. These include:

### Delivering climate-resilient designs:

Recent climate-related disasters have demonstrated the specific vulnerabilities of the urban poor and the importance of constructing houses with core structural integrity. By building homes with decent materials, to a high standard of construction and on a secure piece of land, it is possible to build affordable housing solutions that are robust enough to meet the environmental



challenges while still being commercially viable. This has been demonstrated by the design and construction of seismic resilient affordable housing which effectively withstood the 2015 earthquake in Nepal, wind resistant housing that withstood Cyclone Idai in Beira, Mozambique<sup>13</sup>, and housing designs that integrated bamboo-based construction for greater resilience against extreme weather events in the Philippines.

### Embracing new technologies and climate-smart build materials:

There are exciting new technologies and materials that are emerging in the African and Asian construction sector that can make houses greener and more affordable. Interlocking Compressed Earth Brick (ICEB) technology significantly reduces construction-related CO<sub>2</sub> emissions and low air quality as it uses minimal cement, requires no firing, and has a simple on-site manual production process. ICEB are also 30% cheaper than conventional bricks.

Further innovations in the sector include 3D printing that can reduce housing carbon footprints by 70%<sup>14</sup>; low-cost solar collectors for solar-heated water; and climate-smart flat-packed prefabricated housing panels made completely from recyclable materials can be constructed in days and operate off-grid with renewable energy and water purification systems<sup>15</sup>.

### Integrating IFC EDGE certification to drive climate-smart decision-making in build portfolios:

EDGE<sup>16</sup> supports the delivery of greener buildings by helping housing

developers make better decisions earlier in the project process, quantifying improvements and creating an opportunity to certify these.

For example, the EDGE tool helps developers identify cost-effective measures that can improve energy and water efficiency and reduce embodied energy in the materials used to construct buildings, contributing to emissions mitigation and developing resilience. The belief that green certification is not possible for lower-income housing in the global south is no longer valid. Instead, we must ensure that there is no trade-off between green and affordable if we are to meet the intersecting ambitions of the Paris Agreement and 2030 Agenda. Working with partners, Reall is committed to ensuring that 100% of its projects in affordable housing are EDGE-certified, demonstrating to the market that green buildings are possible and commercially viable at scale.

### Strengthening resilience in water and sanitation infrastructure systems:

By facilitating systems change within the housing construction supply chain, building community infrastructure, and piloting new innovations, it is possible to address the sanitation crisis through affordable housing and in a climate-smart way. Examples of such approaches include developing community hygiene programmes and installing DEWATS (Decentralised Wastewater Treatment Systems), roof top pressure tanks which can be supplemented with rainwater collection, or reed bed filtering and biodigesters that can be used within sanitation systems.

11 Compiled by Reall based on most recent housing deficit calculations and projections (2021)

12 Reall, *Corporate Strategy 2020-2025*, (2020) <https://www.reall.net/wp-content/uploads/2020/06/ReallA4.pdf>

13 Centre for Affordable Housing Finance in Africa (CAHF), *Affordable and Climate Resilient Building: A Case Study of Casa Real in Beira, Mozambique*, (2020), <https://housingfinanceafrica.org/documents/case-study-17-affordable-and-climate-resilient-building-a-case-study-of-casa-real-in-beira-mozambique/>

14 CDC Group, '14 Trees pioneers 3D printing technology in Africa for affordable housing and schools,' (2020) <https://www.cdcgroup.com/en/news-insight/news/14trees-pioneers-3d-printing-technology-in-africa-for-affordable-housing-and-schools/>

15 Reall, *Reall Partnerships: ModulusTech*, 2020 <https://www.reall.net/wp-content/uploads/2020/09/ModulusTech.pdf>. ModulusTech co-founders were recently recognised on Forbes prestigious list for their zero-carbon affordable housing: <https://www.forbes.com/profile/modulustech?sh=49bc3dd35cab>

16 <https://edgebuildings.com/>

## SUPPORTING AFFORDABLE HOUSING (SDG 11), GENDER (SDG 5), ECONOMIC GROWTH AND DECENT WORK (SDG 8)

Gaining access to secure, healthy, and affordable housing is essential for escaping the cycle of urban poverty<sup>17</sup>. Climate-smart affordable homes can change the lives of women and girls in immeasurable ways. Affordable housing and the construction sector can also be an entry point for women's financial inclusion and economic growth.

### INVESTING IN AFFORDABLE AND CLIMATE-SMART HOUSING CAN STIMULATE GDP GROWTH, JOB CREATION, AND FINANCIAL SECTOR DEEPENING – WHILE SUPPORTING A POST COVID-19 RECOVERY AND THE AMBITIONS OF 2030 AGENDA AND A NET ZERO FUTURE

#### Decent work and leadership:

In low-income countries, women typically earn less and have weaker job security as they are more likely to work in the

informal sector. As a predominantly masculine industry, the construction sector compounds these economic and societal inequalities and skilled and managerial jobs are dominated by men. The affordable housing construction sector has an important role in countering this inequality. A growing number of developer companies are recognising both the opportunity and their ability to work differently, prioritising labour for women in their communities and empowering women through accredited training. These companies are also strengthening their own businesses and the construction sector by encouraging women into technical, design, and leadership roles – ensuring these positions are aligned with regular pay structures to eliminate discriminatory pay rates. Investors, like Reall, support this impact by focusing their investment policies on supporting private sector developers in developing countries that have a transformative and inclusive agenda and commitment.

#### Financial inclusion – financial literacy and access:

An estimated 56% of unbanked adults globally are women, and women particularly encounter barriers to accessing housing finance<sup>18</sup>. This can be due to their low or informal incomes but can also be the result of entrenched patrimonial practices which exclude women by means of unfamiliarity with banks or other financial institutions. Providing the opportunity to gain access to formal finance mechanisms and financial literacy can break the cycle of poverty and have a multiplier effect. For example, through social enterprises<sup>19</sup> that undertake financial literacy training,

property management and employment for women, or pioneering financial technology (FinTech) solutions, such as Syntellect's RightProfile<sup>20</sup> platform that transforms how formal financial institutions assess the creditworthiness of people working in the informal sector<sup>21</sup>. New solutions are needed to extend housing finance to the informal sector, and this will have a particularly positive impact on women who are more likely to be employed in informal jobs. The uptake of digital financial services in Africa and Asia offers an opportunity to develop alternative credit scoring systems and to create profiles for clients without credit histories.

#### Economic growth and livelihoods:

By being able to access affordable housing women can achieve economic empowerment and greater security for themselves and their families. Many women capitalise on their homes as an asset for extra income or to expand their business. Secure land and home ownership enhance the social position and financial security of women and can reduce their vulnerability to violence. As a deliberate strategy to promote gender equality, several affordable housing developers prioritise women in their business model and marketing strategies. Examples of how developers have achieved this include prioritising female-headed households in the sale of their homes, reserving a significant proportion of their land plots for women entrepreneurs who will then build out affordable homes for rental to generate incomes in the future, or driving forwards either joint or women-only title home ownership.



17 Reall, *Affordable housing and sustainable communities in urban Africa and Asia*, (2021) <https://www.reall.net/wp-content/uploads/2021/03/Affordable-Housing-and-Sustainable-Communities.pdf> See also: Reall, *Safe and secure affordable housing communities for women and girls: Key learnings and recommendations in Africa and Asia*, (2021) <https://www.reall.net/wp-content/uploads/2021/03/Safety-and-Security.pdf> and Reall, *People living with disabilities and affordable housing: Key learnings and recommendations in Africa and Asia*, (2020) <https://www.reall.net/wp-content/uploads/2020/12/People-Living-with-Disabilities-Learning-Paper.pdf>

18 Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar, and Jake Hess. *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution* (2018) <https://global-findex.worldbank.org/>

19 Reall, *Reall Partnerships: Smart Havens*, (2021) <https://www.reall.net/wp-content/uploads/2021/03/Smart-Havens.pdf>

20 Reall, 'Pioneering tech partnership gives access to affordable housing finance to people living on low incomes,' (2019) <https://www.reall.net/blog/new-partnership-syntellect/>

21 Andrew Jones and Lisa Stead. 'Can people on low incomes access affordable housing loans in urban Africa and Asia? Examples of innovative housing finance models from Reall's global network'. *Environment and Urbanization*. 32:1, pp.155-174. (2020) <https://journals.sagepub.com/doi/full/10.1177/0956247819899557>

## CATALYSING AFFORDABLE HOUSING (SDG 11) THROUGH PARTNERSHIPS FOR DATA (SDG 17)

More data and evidence is needed to better understand the bottom 40% of the income pyramid. If we are to succeed in leaving no-one behind, we need to understand the needs and aspirations of people living on low incomes much more comprehensively. Often such data does not exist. For example, the lack of updated global data concerning housing affordability means that reporting on the SDG 11 indicators often focuses on slums and informal settlements, thereby excluding people living with housing affordability problems who do not qualify as slum dwellers when estimating the Goal's target population<sup>22</sup>.

For the global data sets that do exist, even the ones seen as the most robust struggle to effectively capture low-income households and their multidimensional needs. Better data is also needed to effectively demonstrate the impact of affordable housing on households and show why investing in affordable housing is effective and impactful. Finally, there are critical gaps in housing markets data (including community-based and private sector data) that must be bridged to resolve information asymmetries, allowing for better targeted and de-risked

investment. Only then we will be successful in crowding in new actors, researchers and resources into the sector.

### Baseline data tools and initiatives:

There is an urgent need to better understand affordable housing target clients living in the bottom 40% of the income pyramid, particularly in terms of incomes, expenditure, previous housing conditions, and quality of life. This includes data generated over time, to better understand community change in relation to the impact of affordable housing. While Reall has initiated baseline tools with partners, other developers and stakeholders that are not Reall's usual collaborators have begun to adopt the tool in their operations, highlighting a growing appetite for more and better data. This means that the baseline is being expanded to new segments of the affordable housing market, in particular rental, and in doing so is enabling access to valuable comparative data. The impact of this baseline data will be extended further by being a key contribution to the Kenya Open Access Initiative – a joint initiative between Reall, the Centre for Affordable Housing Finance (CAHF) and FSD Kenya to encourage the sharing of data throughout the housing project lifecycle.

### Market Shaping Indicators:

One systemic barrier to scaling up

investment and sustainable financing in the housing market is the lack of comparative indicators. Market shaping indicators (MSI) are critical to resolve existing housing market data voids that have inhibited more effective affordable housing solutions and inclusive policy and investment decisions. As a mechanism to trigger wider market transformation in Africa, Reall and CAHF have collaborated to develop a standardised set of market shaping indicators to assess a country's housing market and identify areas where intervention would be productive. This pioneering work is being extended to Asia (starting with India and Pakistan) where no equivalent to CAHF exists and housing market data is consequently fragmented and disparate.

### Sharing open access data:

There is a growing recognition of and willingness to share open access data, and efforts are being made to progressively resolve systemic data voids and evidence gaps relating to affordable housing markets in Africa and Asia and incorporate new knowledge products and market data. Reall contributes to this open access data movement by evidencing the need and investment viability of affordable homes. Reall's Data Dashboard<sup>23</sup> provides detailed information from 150 Reall-funded projects in 12 countries on project finances, home completion costs, household demographics, and loan repayment data to help inform and drive change.



For more information please contact the Global Policy and Influence team at Reall, at [info@reall.net](mailto:info@reall.net).

22 Habitat for Humanity International, *Progress report: Sustainable Development Goal 11 Target 11.1, (2021)* <https://www.habitat.org/sites/default/files/documents/SDG%20Progress%20Report.pdf>

23 <https://www.reall.net/data-dashboard/>