

AFFORDABLE AND CLIMATE-RESILIENT: HOW CASA REAL'S HOMES WITHSTOOD CYCLONE IDAI



Image 1: Casa Real's homes ready for clients to move in.

WHEN CYCLONE IDAI DESTROYED 90% OF BEIRA'S BUILDINGS, CASA REAL'S HOMES STAYED STANDING. HERE'S HOW THEY MADE THEIR HOMES AFFORDABLE AND CLIMATE RESILIENT.

In March 2019 Cyclone Idai tore a path of devastation through south-eastern Africa. One of the deadliest and most costly cyclones the region has ever seen, Idai took the lives of over 1,200 and made 40,000 homeless. In total, the disaster is estimated to have cost Mozambique, Madagascar, Zimbabwe and Malawi over \$2bn in damages.

As Idai struck outside of the area which typically experiences cyclones, the regions were completely unprepared for the onslaught. Climate change has resulted in the warming of the Indian ocean, increasing the intensity of cyclones and widening their range to include unprecedented areas. This means that none of the buildings in the path of Idai had been intentionally constructed to be cyclone resistant. The impact on lives, communities and economies has been catastrophic.

The socio-economic context of Idai's path is also poignant. The high proportion of people living on low incomes in Mozambique, Madagascar, Zimbabwe and Malawi has maximised Idai's negative impacts. Informal homes are particularly susceptible to climate-related disasters, as they are, by definition, constructed from poor materials and typically

situated in geographically 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. Without the provision of decent, affordable homes, disasters like Idai are likely to become increasingly prevalent. The demand for affordable, secure and resilient housing has never been greater.

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In light of Idai, Reall's Mozambican Partner, Casa Real, were able to demonstrate that affordable and resilient housing is commercially viable. Amidst the post-cyclone chaos, they have a positive story to tell.

"AMIDST THE POST-CYCLONE CHAOS, THEY HAVE A POSITIVE STORY TO TELL."

Founded in 2017 as a not-for-profit housing developer, Casa Real seek to make affordable homes accessible to Mozambicans living on low incomes, with house prices starting at \$10,000.

Reall provided the initial funding for Casa Real's break-out project; the pilot phase of a 180-house scheme called Inhamizua, situated in Beira, which has been developed in partnership with the Beira Municipality and the Dutch government.

In Beira, where Idai made landfall on the 14th of March, over 90% of buildings were damaged or destroyed. Casa Real had just completed all of houses for the first phase of Inhamizua. But in stark comparison to the wider city, Casa Real's homes were not destroyed. The structures withstood the storm's impact extremely well, suffering minimal damage with only the roofing sheets needing repair.

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What Casa Real has clearly demonstrated is 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, the structures were robust enough to withstand the challenging conditions. Reall's stringent investment process ensures that projects are vetted using a criteria that includes environment factors and insists on use of good materials. This resilience, however, has not come at the expense of affordability. Casa Real's target market sits firmly in the low-income bracket. They have proven that it is possible to build homes which are both affordable and climate-resilient.

Casa Real has rebounded from the impacts of the cyclone extremely well, with additional financial support provided by Reall to cover their capacity costs and the minor repair works needed on the project.

Steps have also been taken to further improve the resilience of Casa Real's housing. The roofing sheets have been adapted so that they are now attached with long screws in the place of nails, meaning that they can't be ripped off by strong winds. Additionally:

- Roofing timbers are now joined using metal straps to bind the structure together.
- The roof structures are attached to the walls using straps joined below the ring beam.
- Insulation is being built into the roof in order to reduce solar gain and minimise internal temperatures.
- Drainage channels have been deepened and roads block-paved to allow heavy rain to drain away.

Of course, these techniques will be included in the design of all future Casa Real homes, and Reall will be applying this learning across its broader



Image 2: Casa Real's first client signing his Purchase Agreement.

portfolio, especially in cyclone-prone areas.

As well as building quality, affordable and resilient homes, Casa Real has been setting precedents in other areas of Mozambique's housing market.

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Via negotiations, they have made promising steps towards convincing three local banks to extend mortgages to low-income earners. For context, only 600 mortgages are currently in existence throughout the whole of Mozambique, and in 2016 only four mortgages were approved across the whole nation. Casa Real are working with these banks to adapt their mortgage products to suit families living on low incomes. Currently, Mozambican banks will only lend to

families earning around \$690 per month. If these negotiations are successful, as is looking likely, Casa Real will have reduced this requirement by two thirds. The ground-breaking nature of these negotiations in making housing finance affordable for people living on low-incomes should not be understated.

The future looks bright for Casa Real. With land allocated by Beira's Municipality for the development of 180 homes, there is real scope to demonstrate the viability of affordable, resilient and commercial housing solutions. Beyond this, Casa Real have their sights on developing more projects in Beira, and in other parts of the country.

"CASA REAL ARE POISED TO KICK-START THE MARKET."

The opportunity in Mozambique is huge. Despite the national backlog of 2M homes, the lowest house prices on the market start at \$55,000, which is affordable to just 1% of the population (Source: Centre for Affordable Housing Finance in Africa). Casa Real are poised to kick-start the market, with promising progress for housing finance made, and a clear demonstration of the quality and affordability of their product.

CASA REAL - BUILDING A HOME FOR HUMAN POTENTIAL		
Mozambique's Housing Need	No. of homes planned for Inhamizua	Inhamizua's Potential Beneficiaries
2M	180	900