

Gender-smart, Climate-smart:

The 'double mainstreaming'
of gender and climate within
affordable housing in low-income
contexts.



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Executive Summary

Approximately 80 percent of those displaced by climate change-related factors like extreme weather events, natural disasters, and environmental degradation are women. This includes “indigenous women, women of African descent, Roma women, women from religious minorities, women with disabilities, and LGBTIQ+ women”, who all face exacerbated vulnerability to violence (United Nations, 2022).

Climate change is a gender issue, just as housing is a gender issue, and Reall’s work to date demonstrates their commitment to putting women at the centre of the ‘Green Affordable Housing Revolution’ (Reall, 2024), therefore prioritising climate and gender. Reall’s current **impact areas** span financial inclusion, economic growth, water and sanitation, health, disability, climate and gender, and demonstrate their commitment to cross-cutting themes within the affordable housing sector. One way that can ensure both climate change and gender equality are addressed in affordable housing is the mainstreaming of both elements simultaneously.

A ‘double mainstreaming’ approach to gender and climate involves integrating gender considerations into climate policies and actions while simultaneously integrating climate considerations into gender policies and programs. This dual focus ensures that efforts to address climate change and promote gender equality are mutually reinforcing and lead to more inclusive and sustainable outcomes. This approach acknowledges that women are disproportionately affected by climate change and that their unique needs and perspectives must be incorporated into climate-related decision-making processes.

This thought piece explores the concept of double mainstreaming, and how it creates a positive impact on an individual’s health, economic, and social well-being. Reall’s own work is then given in three case-studies, exploring the curation and fostering of community in Pakistan, ensuring economic stability in Mozambique, and prioritisation of women’s voices in Kenya. These examples are only the beginning of Reall’s commitment to move towards a double mainstreaming approach.



Image credit: Pakistan. Ali Magsi

Double Mainstreaming

Double mainstreaming is the process of integrating gender equality and climate issues so that policy and programmes can respond to these issues simultaneously. Both gender and climate are ‘cross cutting’ issues in that they have ramifications across multiple areas of international development, thus need robust and continued consideration so that these issues are given the required attention.

The concept of ‘double mainstreaming’ was first introduced by Liane Schalatek and explained as:

“Mainstreaming or climate-proofing of development policy, which at the same time incorporates a gender mainstreaming approach to reach the goal of truly low-carbon, climate resilient and gender equitable development”

(Schalatek, 2011, p.2)

Schalatek discusses this concept in relation to the financing of development, emphasising that donors and investors must consider this dual-pronged approach so that gender remains an important concern as the world rightly focuses attention and resources on addressing the climate crisis. The double mainstreaming approach resonates more broadly with the increased recognition of the importance of ensuring that efforts to address climate change are not done at the expense of gender equality goals. In Roy et al’s 2022 systematic review of climate change adaptation practises, they documented that although the aim of adaptation is to reduce exposure, risks, and vulnerabilities to climate change, these do not automatically enhance gender equality (Roy et al, 2022). More effort should therefore be taken

to ensure both gender-sensitive project design and conscious choice of awareness-building instruments, this includes:

“gender-targeted dissemination of climate information, direct engagement of women in decision-making; and wherever applicable, female leadership in adaptation projects”

(Roy et al, 2022, p.9).

Since 2012, the gender impacts of climate change have been a regular agenda item at the UNFCCC COP (United Nations Framework Convention on Climate Change, Conference of the Parties) meetings. At COP28, held in 2023, there was a dedicated day to gender and climate issues, which discussed policies and strategies to better integrate gender considerations into climate responses, the first time this had happened. One of the key outcomes from this day was the endorsing of a ‘Gender-Responsive Just Transitions & Climate Action Partnership’ by 68 parties; the partnership includes a package of commitments on finance, data and equal opportunities (Van der Veur, 2023).

Schalatek demonstrates the need for ‘double mainstreaming’ by focussing on how efforts to address climate

change through green financing mechanisms for climate mitigation and adaptation strategies remain ‘gender blind’. This is problematic for a number of reasons. Firstly, ignoring women leads to inequitable results; involving women and girls in all aspects of project design and implementation improves development outcomes. Secondly, there are existing obligations to mainstream gender within international environmental and human rights law. As Schalatek argues:

“Human rights and women’s rights are indivisible. Climate change action that does not differentiate between men and women can effectively discriminate against women”

(Schalatek, 2011, p.2).

Double mainstreaming focuses the delivery of affordable housing in low-income contexts, ensuring it is done in a manner that is both climate-smart and gender-smart. When we think about the need for a double mainstreaming of gender and climate within affordable housing for communities in the Global South, it extends beyond the financing of housing, to all stages of project planning and implementation. For example, Reall’s recently launched

Toolkit on 'Creating Accountability to Gender in Affordable Housing' demonstrates the need for gender sensitive decision making at all stages throughout a project cycle. Reall also recognises the unequal gendered impact of climate change, and how climate risks may be reduced when housing can withstand the shocks of climate change.

We see all too frequently how communities can be destroyed when

typhoons, flooding and other natural disasters occur. Meanwhile, women, especially those from women-led single family households with young children, are disproportionately affected by the negative impact of these natural disasters (Harwood et al, 2022). The construction of homes plays a huge role in how families are able to cope during these disasters, and these impacts can be magnified for women and girls who often spend more time within the home and therefore can be at greater risk

from building collapse and/or drowning if and when disaster strikes. A double mainstreaming approach is urgently required – in designing houses that are climate-smart and gender-smart we can address both aspects at once. In what follows, we further describe the rationale and potential impact of doing so, and include case studies that demonstrate the impacts of double mainstreaming.



Image Credit: Safiya Homes, Faisalabad, Pakistan. Reall and AMC

Gender-Smart, Climate-Smart Housing: Key Impacts for Women and Girls

Gender equality and climate change are interlinked global challenges, and for all organisations wanting to act sustainably, an active effort to double mainstream gender and climate should be a key priority. In terms of affordable housing, it is important to ensure that efforts to address climate change do not result in inequitable outcomes for women and girls. The building, development and financing of affordable housing can be delivered in ways that are both climate-smart and gender-smart; generating positive outcomes for all genders in terms of health, educational outcomes, and economic empowerment and poverty alleviation.

1. Health Impact

Climate change is associated with a range of negative health outcomes, especially for populations living in informal settlements which are extremely vulnerable to extreme heat, flooding and the effects of climate change on rates of infectious disease and food insecurity (Williams et al, 2019).

In these circumstances, women and girls are often far more vulnerable due to their unequal social status leading to higher rates of mortality, hunger and exposure to disease.

“Gender and its power relations are produced and reproduced in the housing sphere, leading to inequalities in living conditions and, therefore, in gender inequalities in health outcomes”

(Vásquez - Vera et al, 2022)

The disproportionate effect of climate change on women and girls is dramatic and well documented. A 2023 systematic review by Wray et al noted nine disproportionate pathways, which are thematic areas

in which women are known to experience climate change impacts more severely than that of other genders. The pathways include: Infectious Disease, Reproductive Health, Air Quality, Heat, Mental Health, Violence, and Displacement (Wray et al, 2023). These pathways are disproportionate due to additional health needs in relation to menstruation, menopause and pregnancy, lack of access to financial resources for disaster preparedness and recovery, and conventional norms that dictate inequitable domestic labour.

Unpaid, inequitable labour has disproportionate health impacts on women and girls. Two key examples are water collection and fuel usage. As women and girls are often responsible for water collection, they may access sources that are polluted, increasing exposure to disease vectors, including malaria, cholera and typhoid. Through unpaid care work in the home, women may inhale cooking fumes from traditional stoves fuelled by kerosene, biomass and coal. Inhaling these toxic fumes

kills more people than malaria – and women are disproportionately affected (Whiting, 2021). One way in which housing developments can lessen women’s exposure to water borne diseases and respiratory illnesses is through the prioritisation of clean cooking technologies and safely managed water supply.

Given the well documented vulnerability of women to inequitable health outcomes, and the unequal impacts of climate change, it is reasonable to suggest that climate-smart gender-smart affordable housing has the potential to deliver positive health outcomes that reduce health inequities. There is growing recognition of how better designed affordable housing can mitigate negative health impacts (Teare et al, 2020), for example, by building housing developments that incorporate access to shade and green spaces (Shuvo et al, 2020). Access to green space is, in turn, associated with better health outcomes for children and the elderly in a range of recent studies (Rother, 2020; Adlakha et al, 2021).

2. Economic Impact

Climate change has a distinct gendered impact on economic opportunities, and often exacerbates existing inequalities. Women, especially in developing regions, are disproportionately affected due to their greater reliance on climate-sensitive sectors like agriculture and their limited access to resources such as land, credit, and education.

Without access to credit, for example, women cannot readily switch their business focus if agricultural land is not producing enough crops to maintain a living. Lack of training and education also limits women's options to switch jobs and careers in these situations.

Within the housing sector, making a property more sustainable and therefore climate-smart can decrease financial burdens. Green buildings have the potential to

prioritise energy efficiency through insulation and renewable energy, and decrease water consumption through water-saving fixtures, such as low-flow taps and showers, low-flush toilets and efficient irrigation systems. In turn, this reduces energy and overall utility costs, making housing more affordable, especially for women, who are often deeply impacted by energy poverty (Nguyen and Su, 2021).

Beyond the physical design and construction of houses, there is a need to consider the issue of property ownership. Action on climate change needs to be accompanied by the creation and enforcement of laws and policies that acknowledge gender differences and protect women's rights, particularly in terms of property ownership and land rights. Across the world, and especially in Asia and Africa, we

can observe a 'gender asset gap' which plays out in relation to home and land ownership (Deere and Doss, 2006). The 'Gender Asset Gap' refers to the unequal distribution of assets between women and men and can be exacerbated by unequal inheritance practices, which result in men and boys being more likely to inherit a family home. This can leave women homeless and dependent on spouses and/or male relatives ultimately reducing their agency within households and communities, and contributes to their unequal social status. Housing, as an asset that women can access (on the basis of sole or joint ownership) presents a solution to gender inequality that can transform their status in the household, and render women less vulnerable to the negative impacts of climate change on their health and wellbeing.

3. Social Impact

Gender-smart, climate-smart homes promote sustainable living; they contribute to greater comfort and well-being, in turn reducing stress and enhancing quality of life (Schneider-Skalska, 2019). Green housing developments often include community spaces and shared resources, such as gardens and communal areas, which can

foster social interaction and build a stronger sense of community (Arnberger and Eder, 2012).

This social cohesion is vital for creating supportive and inclusive neighbourhoods. There is also the potential for green buildings to support work-life balance through the provision of open green spaces

and by including amenities like childcare facilities or by providing women with the space to operate home-based businesses, whilst the construction of green buildings can also be leveraged to create employment opportunities for women (Dormakaba, 2023).



Image credit: Safiya Homes, Faisalabad, Pakistan. Reall and AMC.

Affordable Housing and Double Mainstreaming: Reall's Work to Date

The following examples highlight the existing gender-smart, climate-smart practices present across Reall's portfolio. The examples cover the importance of fostering community in new developments, the resilience of homes in natural disasters, and the promotion of women in design and construction.

1. Fostering Community and Reducing Social Isolation

Sustainable homes provide a higher quality of life through features such as natural lighting, comfortable indoor temperatures, and communal spaces. These elements can enhance well-being, which can encourage social interaction and enhance community connection, and in turn reduce social isolation.

Safiya Homes, in Faisalabad, Pakistan is one example of Reall promoting community through its gender-smart and climate-smart homes. The development, created in partnership with Reall and AMC ([Ansaar Management Company](#)), not only allowed families on low incomes to secure home ownership through an innovative loan system, but it prioritised community well-being. The site design included communal green spaces, a gated entrance, and full-time security, therefore, providing safety for all residents. Existing case studies explore personal experiences of increased community and decreased isolation ([Reall, 2020](#)), which centre around how the increased safety, especially at night, has meant women are able to leave their homes to socialise and increase their mental wellbeing.



Image credits: Safiya Homes, Faisalabad, Pakistan. Reall and AMC.

2. Resilience in Natural Disasters



Image Credit: Beira, Mozambique. Reall and Casa Real.

Climate-smart homes are often designed to withstand extreme weather events, making communities more resilient to climate-related disasters. This can reduce the social and economic disruption caused by such events and help communities recover more quickly. This is especially important for women who are disproportionately affected by such disasters due to their increased time spent inside the home, and lack of access to finance to aid recovery following disasters.

In 2017, Reall partnered with Casa Real, and with finance and technical support, Casa Real completed the initial pilot in the port city of Beira, Mozambique. Not only were these homes voted second cheapest house in Africa in 2021, but, in 2019 when Cyclone Idai destroyed over 70% of housing in the area (in one of the worst tropical cyclones on record), all of Casa Real's pilot homes remained standing. Since Cyclone Idai, Cyclones Chalane, Eloise, Guambe, Freddy and Filipino have also passed over the areas, all resulting in

minimal damage to the houses. The Casa Real project embedded climate adaptation measures and built in the resilience from the design through to the construction of the homes. These interventions included the use of reinforced roofing timbers, the use of screws instead of nails to secure roofing, and deep drainage channels and block-paved roads to avoid flooding. Therefore, when these cyclones have hit, all homes have been able to withstand the natural disaster, and as a result, the disproportionate health, economic,

and social impacts often seen and experienced by residents during natural disasters and climate events were minimised. These climate-smart adaptations are also gender-smart adaptations; the project's design ensured that women, who are often most affected by such crises, experienced increased safety both socially and financially, as the durability of these homes eliminated the need for rebuilding or relocating.

3. Promoting Women's Involvement in Design and Construction

The construction and maintenance of green homes can stimulate local economies by creating jobs in sustainable construction, retrofitting, and renewable energy sectors. This can stimulate local economies and provide employment in sustainable industries, especially across urban Asia and Africa.

This is the case with one of Reall's current developments, **Zima Homes**, where both gender and climate are core to the design and implementation of the project. Not only are Zima Homes led by a team comprising of 88% women, but the developers, **BuildX**, prioritise sustainable impact through the use of green certification tools to address climate change mitigation (using IFC EDGE certified experts¹), prioritisation of 'Quality of Life & Wellbeing' (applying a Health and Wellbeing Framework and tracking key metrics such as daylight, air quality and thermal comfort), and commitment to 'Inclusive Design & Construction'.

¹ The International Finance Corporation (part of the World Bank Group), created EDGE a green buildings platform that advocates for certification of sustainable homes, in part through 'EDGE certification' (a 20% reduction in projected operational energy consumption, water use, and embodied energy in materials as compared to typical local practices).

Zima Homes' inclusive design and construction is also proven through their commitments to employ at least 30% women through local community engagement and collaboration with their sister company **Buildher**; a women-run social enterprise that provides low-income women with construction skills and access to sustainable jobs.



Image Credit: Zima Homes Groundbreaking, Nairobi, Kenya. Reall, BuildX, and Buildher.

Conclusion

The double mainstreaming of climate and gender presents a possible method to move towards more sustainable and equitable practices, especially in the affordable housing sector. Only by actively promoting climate adaptation, mitigation, and resilience in ways that contribute to gender equality can we begin to prevent the disproportionate economic, social, and health impacts from falling on women and girls.

Reall's work presents evidence for the need to operate at the intersection of gender and climate within the housing space as a solution to global housing and climate crises, while addressing gender inequality within low income communities across urban Africa and Asia.

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