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Empower Upgrade Model offers a holistic response to South Africa's housing crisis

Urban Think Tank Empower (UTTE) is confronting South Africa's housing crisis head-on with the ambitious goal of constructing 1000 homes by 2030. Their innovative Empower Upgrade Model offers a comprehensive solution, viewing housing as an integral part of a broader ecosystem that addresses interconnected urban challenges like energy access, food security, and economic opportunity. By leveraging underutilised land within existing informal settlements, UTTE aims to create sustainable, community-led developments that preserve social networks while providing reliable energy, social infrastructure, and income-generating opportunities.

The global housing crisis: South Africa's context

Globally, an estimated 1.6 billion people lack access to adequate housing. In South Africa, more than 6 million people are affected, leaving numerous families without proper shelter or basic services. Although the South African Constitution guarantees the right to "adequate housing," the country faces a backlog of over 1.5 million homes. As a result, millions of residents live in informal settlements with inconsistent access to essential services. In these communities, a single tap may be shared by 20 to 50 households, and 10 to 20 households often share a toilet with inadequate sewerage systems. Other issues include poor rainwater drainage, limited waste management, unreliable electricity, and insufficient healthcare, education, and transportation facilities. The lack of local economic opportunities further diminishes quality of life. Demand for formal housing far outpaces construction, with nearly 20% of Cape Town's population – around one million people – living in informal settlements. This housing crisis extends beyond the lack of physical structures to include the absence of safe, affordable, and dignified living environments.

Empower's solution: Housing as an ecosystem

The Empower Upgrade Model offers a transformative approach to the housing crisis by leveraging underutilised, occupied land to create sustainable, integrated communities. Instead of viewing informality as a problem to be eradicated, UTTE works within these informal settlements, maintaining the community ties and social networks that have existed for decades. This approach avoids displacement or 'decanting' and ensures that residents are housed on the very land they have lived on for years.

"Our approach at UTTE isn't just about building homes, but rather focusing on creating ecosystems where people can live with dignity, have access to opportunities, and stay connected to their social networks," explains Delana Finlayson, Managing Director of UTTE. "By working within informal settlements, we preserve the heart of these communities, enhancing the quality of life through integrated solutions."

The Empower Upgrade Model goes beyond housing by introducing social amenities and infrastructure into underserviced peripheral urban areas, improving access to opportunities and livelihoods. By installing rooftop solar panels on each house, Empower introduces solar power to townships with insufficient energy infrastructure, enabling communities to access reliable electricity and generate excess renewable energy. The long-term intention is for this surplus to ultimately be fed back into the grid, generating income that supports the ongoing maintenance and management of community spaces.

Furthermore, each community is designed to include shared public open spaces, offering residents safe areas for recreation and social engagement. Community centres, like the recently completed Caracas Community Facility in BT-Soweto Community in Khayelitsha, feature social infrastructure such as an indoor sports pitch, daycare centre, and rooftop farm. The farm aims to provide nutritious, affordable food to the surrounding community, upskilling residents in farming while teaching children about urban agriculture. Managed entirely by the community, the farm's profits will be reinvested into maintaining the farm, public open space and the community facilities.

Community-driven design: Building resilient, sustainable neighbourhoods
Empower's success stems from its community-driven approach. From the outset, UTTE engages with residents through participatory urban planning and design workshops. As a result, each housing unit is tailored to the unique needs of the community, incorporating sustainable materials and renewable energy systems.

This bottom-up methodology fosters economic inclusion and community growth. Currently, 50% of Empower's workforce comes directly from the community or nearby areas, and the urban farm will be entirely managed by local residents. Surrounding communities benefit from shared public spaces, job creation, local businesses, and access to community centres. By engaging not just immediate residents but the broader community, Empower has fostered strong support for its projects and built trust in the process.

As Phumezo Tsibanto, a community leader and one of the first recipients of an Empower home, notes, "It was a bottom-up approach. We designed this place as its residents. It shows that this could be a solution, an alternative to RDP [Reconstruction and Development Programme] housing."

Empower's model aligns with several United Nations Sustainable Development Goals (SDGs), tackling critical issues such as Poverty (SDG 1), Food Security (SDG 2), Green Infrastructure (SDG 6 & 7), Economic Inclusion (SDG 8 & 10) and Sustainable Cities (SDG 11), among others. Central to its mission, Empower is committed to fostering economic inclusion and building resilient, thriving communities.

Scaling for the future: Ambitious plans for growth
Empower aims to scale its model both locally and globally; with the City of Cape Town as a key partner, a further 14 sites have been nominated across the Cape peninsula. Over the next five years, the project plans to build 1,000 homes, as well as community centres, safe play zones, and vertical urban farms, creating 7,000 jobs and benefiting 24,000 individuals. "At the rate we are currently scaling, from a pilot of one home, to a prototype of four homes, then the first community of 72, by the time we complete the tenth community, we will have built 14,510 homes." says Benjamin Kollenberg, Architectural Director of UTTE. "Furthermore, by this stage Empower alone would be annually producing over 35GW of excess renewable energy to be fed back into the national grid. "

Empower's model presents a scalable and replicable solution to the global housing crisis by combining advanced materials, sustainable design, and community collaboration. This project showcases how informal settlements can be transformed into dignified, resilient communities that provide not only housing, but holistic urban solutions, integrating social, economic, and environmental considerations.