

Across South Africa where affordable, low-income housing is in short supply, Eco Domes Africa has embraced a revolutionary building system that uses simple and sustainable materials.

The innovative building technology was first put to the test in a community project in Langbos, creating the Langbos Children's Centre. Once stricken with poverty, lacking clean water, electricity or paved roads, the area has now been regenerated, forming a haven for vulnerable children and creating a sense of purpose amongst the locals.

The centre is the result of a partnership between Quintin Christian, founder of Eco Domes, and Christopher Grava, the founder of Intsikelelo. Utilising a construction technique called 'superadobe', the centre uses building resources from the surrounding environment to provide a low-cost and eco-friendly building structure whilst educating the community in sustainable living practices.

Born and bred in Johannesburg, Christian saw the potential of superadobe for low-income communities and as an answer to the overwhelming housing crisis. The technology utilises local materials and renewable energy systems, including rainwater harvesting and solar energy. Collaborating with Intsikelelo, a non-profit organisation focusing on improving the lives of vulnerable children in South Africa, the Langbos Children's Centre was born.

Langbos has been an area of concentration for Grava and Intsikelelo for some time. It sponsored Langbos' first woman to attend college and currently provides daily, nutritious meals for approximately 30 vulnerable pre-school children. The needs of the community have been at the heart of the project since the very beginning, with Intsikelelo spending time investigating the problems of residents and holding numerous meetings prior to construction to ensure the community had a voice in the project. A team of 30 residents, including men and women, was employed and allocated a substantial wage, two meals every work day, and transportation to the local clinic. They were also provided workshops in health and nutrition.

For the community, the Langbos Children's Centre has served as an invaluable platform to launch communitywide initiatives to support vulnerable children and families. This has included hosting after-school programs and educational workshops during school holidays, attended by over one hundred children. Beyond this, the Langbos Children's Centre has served as a meeting place for local government officials and other stakeholders like the Addo Elephant Park and local business owners. Fostering upward mobility for all those involved, educational workshops have been held to help the builders write CVs and to accelerate their employment opportunities. Many of the workers have since been able to invest in their future, buying vehicles or tools that will allow them to continue to work in upcoming superadobe projects.

Within six months Langbos Children's Centre has created a brighter future for the next generation and also provided empowerment to a poverty-stricken community. To ensure that this approach to construction can be a long-term solution to South Africa's housing crisis, Christian is looking to develop 3D printed eco domes, reducing costs by 60 per cent.

Once a place avoided by people outside the community, the Langbos Domes now provide a safe, spacious, and inspiring meeting point to plan initiatives in the community.

To find out more about the Langbos Children's Centre and to follow Intsikelelo projects, www.intsikelelo.org

For information on Eco Domes Africa, please visit www.ecodomesafrica.org

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