

MOSHOESHOE ECOVILLAGE

Demonstrating and testing innovative concepts

The Moshoeshoe Ecovillage in Galeshewe, in Sol Plaatje Municipality, was a pilot demonstration project where environmental technology and building materials were tested and introduced to future beneficiaries, in order to find out what would be suitable and feasible for the larger housing development that was planned for Hull Street, also in Sol Plaatje.

Sida and Sol Plaatje Municipality agreed to implement an environmentally friendly integrated housing delivery project and the municipality established the Sol Plaatje Housing Company (SPHC). A service level agreement was thereafter signed between Sol Plaatje Municipality, the Department of Housing and Local Government and SPHC.

Demonstrating innovative techniques and sustainable solutions

The Moshoeshoe ecovillage, next to the Galeshewe Housing Support Centre (HSC), is a colourful ecological village consisting of 13 town houses – one of which was designed for people with physical disabilities – occupied by 11 families. Two houses are used by the Sol Plaatje Housing Company as offices and for measuring environmental indicators (see picture to left).

The objective of the project was to test several concepts for affordable, environmentally sustainable low-cost housing involving community participation in planning, construction and maintenance.

The ecovillage demonstrates the eco-block concept and an innovative dry sanitation system involving urine diversion and composting of faeces. This system, which is used in many other parts of the world, saves significantly on water, conventional sewers and

MAIN ACTORS IN THE ECOVILLAGE PROJECT

- Sol Plaatje Municipality
- Sol Plaatje Housing Company
- The provincial Department of Housing and Local Government, Northern Cape
- The community
- Swedish contractors association and local small contractors association
- Housing Support Centre in Galeshewe
- SIPU International
- Stockholm Environment Institute
- Agama Consultants (SA)

An eco-block is a set of housing units placed around or adjacent to a communal area that is controlled by the residents themselves.



KEY ENVIRONMENTAL FEATURES OF THE ECOVILLAGE

Alternative urine diversion sanitation (UDS) saves more than 50% of water consumption and produces compost for gardens. Grey water is filtered and reused in gardens, and families pay less for municipal services.

Solar water heaters that reduce electricity costs. One of the houses gets all its electricity from solar panels.

Wind energy and a photovoltaic cell system generate electricity for two housing units.

Gas stoves and **back-up geysers** were introduced as a cheaper energy source.

Urban Agriculture in a fenced communal area enables cultivation of vegetables and saving on food budgets.

treatment, and thus on both capital and operating costs. Household grey water is passed through sand filters to a common pond and used to irrigate vegetable and other gardens and fruit trees.

Passers-by wonder at the shining solar water heating panels and the electricity-generating photovoltaic panels. Though these elements are not standard features at Hull Street due to capital costs, clean, sustainable and cost-saving eco-technologies have been encouraged and some of the villagers have chosen to invest in them.

Community participation from the start

The ecovillage project plan was presented in public meetings to all communities in Sol Plaatje to make them part of the project and to gauge individual families' willingness to participate and to accept the concept of the ecovillage: double storey semi-detached houses, urban agriculture and alternative sanitation and energy options.

Information on the project was also published in the local newspaper and broadcasted by the local radio station, resulting in a long list of interested households, from which 11 beneficiaries were selected. The beneficiaries were informed and trained on environmental issues and household economy. There were quarterly stakeholder meetings and councillors were brought up to date regarding the features of the project.

The project targeted families earning less than R3 000/month (\$500), and favoured families headed by single mothers. In the end, 11 low-income families who preferred to stay in Galeshewe



and who met the other criteria were selected for the pilot project, including five female-headed households and one elderly woman. The households were consulted about the type, design and size of the houses, and about materials and finishes. Densification minimized infrastructure costs and small emerging contractors from nearby poor areas built the houses.

Learning to live sustainably

On moving in, the families were trained in greening, gardening, grey water handling, alternative sanitation and use of the urine diversion sanitation (UDS), as well as in general home maintenance.

The Housing Association held frequent meetings with the beneficiaries on association and housing issues, informing people about their responsibilities as members of a housing association. Saving schemes were started and residents learned to use their income more wisely. Budgeting skills enabled many to save and even invest money. Most had never thought of financial planning, but since moving into the ecovillage they have become conscious of preparing for the future.

Municipal and provincial staff learned a great deal about alternative and sustainable low-cost housing and public participation from the project and from working with the Swedish consultants. Emerging contractors developed essential con-

WHAT RESIDENTS SAY

“From where I come from, this is the most comfortable house to live in; to me it is more like in the suburbs.”

“We experience a lot of people coming here to look at the village and they think it is a very good project. They like these houses because they are bigger than the average ‘matchbox’ houses and the design is unique compared to other houses in the township.”



Old houses in the background – where some of the ecovillage residents used to live.

LESSONS LEARNED FROM THE MOSHOESHOE ECOVILLAGE

To overcome prejudice regarding alternative housing, it is necessary to hold workshops and implement pilot demonstration projects. Important lessons were learnt in the pilot and transferred to the Hull Street Project:

- The future residents should participate in the planning process from the beginning, as should the community, politicians, municipality, province and financiers
- Don't offer too many variables or choices
- It takes time for both communities and politicians to accept and adjust to new approaches
- Very strict financial and construction control is essential
- Don't 'cast the plan in stone' – be open to changes. New lessons and challenges constantly present themselves and solutions can be found together with the community.
- The formation of a housing association must be based on 'user democracy'.
- Urban agriculture was not particularly popular among beneficiaries, due to people being tired after work and lacking interest and gardening skills.
- If urban agriculture is to be part of the approach it needs to be driven by a dedicated person or organisation providing training, support and motivation, and demonstration gardens should be set up.
- The approach is geared towards low-income earners but not the poorest of the poor.

struction and business skills via training and working on the project.

Neighbourliness and status

Residents are happy with their unique and spacious houses that are much better than those they previously lived in, or houses in other new projects in townships.

They describe living in the ecovillage as more like living in a suburb (regarded in South Africa as a quality lifestyle, as opposed to a township). They see their dwellings as townhouses, associated with an element of prestige, rather than flats.

Residents appreciate that the housing arrangement in ecoblocks promotes good neighbourliness and sharing of facilities, and they enjoy working together on projects to improve their shared environment.

Tenure options

The housing company provides two tenure options – residents can rent or enter into instalment sale agreements. All families are members of the Housing Association and pay for a top-up loan, enabling financing of houses that cost more than subsidies provide. They have been empowered through participating in designing their houses and forming the Housing Association.

The Moshoeshoe Ecovillage was the first social housing pilot project in the Northern Cape and due to its success both as an environmental and as a social intervention, the basic approach was used also in the Hull Street Integrated Housing Project.

