

RUO EMOH (Our Home)

A sustainable, eco-friendly and community driven development in Cape Town, South Africa



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Introduction

This paper describes a proposal for a community-driven development of 50 housing units, including a small commercial component, in a “green-field” situation, that will focus on sustainability issues, for low income communities. The main issues to be addressed are: community participation, replicability, affordability and sustainability. The way in which we aim to achieve the above will be described in further detail within this paper.

1 Shelter Situation Analysis

1.1 Basic General Data

Geography & Administration

In 1994 South Africa (SA) held its first democratic elections marking the end of Apartheid. The current administration operates under a Parliamentary Democracy with three tiers of government - Local, Provincial and National.

Economy

According to 2009 estimates, the country is ranked 26th in world in terms of GDP with an annual GDP purchasing parity of US\$488.6 billion. Unemployment is running at

almost 25.2% (Stats SA). Nearly half of the population live under \$1/day, but only half of those are getting monetary support from the government.

1.2 Shelter Related Facts and Figures

Housing Stock: Only **56% of the population live and own formal dwelling houses.**

The percentage of households who are **renting was 20.9%** in 2009 (Stats SA).

Housing deficit: Housing deficit currently stands at **2.1 million units which equates to approximately 12 million people.**

Housing Standard: More than **15%** of the population live in over-crowded, **informal settlements** housed in self-built shacks using second-hand materials. On average, each shack is home to 3 to 4 people.



Informal settlement



Transit camp

Floor area per person: The minimum size of a “subsidy” house is 40m² meaning the floor area per person is approximately 10m².

Tenure of households: According to Human Sciences Research Council (HSRC):

- 21% of SA poor people live in shack type slums without secure tenure.
- 8% live in self-built (Reconstruction Development Programme) houses,
- 12% live in traditional rural settlements,
- 21% in rural villages and
- 27 % in old townships.

Rental (formal and informal): Currently there is limited formal rental stock for poor households.

Ownership: 15% of people live in informal dwellings. 56% of the population own a formal house. 20.9% are renting. Partial ownership is 12.2%

Housing affordability ratio: Only 20% of new households could afford to buy a house through the market which means that 80% of all new households are unable to gain access to adequate housing without government support.

House price to income ratio: Approximately 90% of the population are unable to afford housing costing more than R190,000 and as much as 63% of the population being dependent on the state subsidy.

Land (formal/informal): South Africa has a current population of 49 320 500 with a population density of 40.42 per square kilometre.

Housing construction:

Access to and cost of Basic Services/Infrastructure

More than 80% of households in the country have access to piped water supply within 200m, as a minimum. More than 67% of households have at least access to sanitation at the most basic level of service which is a ventilated improved latrine (VIP). The Government has reduced people without proper sanitation from 50.1% in 1994 to 27.4% in 2007. About 82.6% of all households are linked to the electricity supply grid.

Access to and cost of Education

About 30% of children 0-4 year olds attend state supported early childhood development centres such as a crèche, nursery or pre-primary school. 12% of adults over 15 years old are not literate.

1.3 Housing Policy

The right to adequate shelter is the law of the land in South Africa. Section 26 of the Constitution states, “All citizens have a right to access adequate housing, and the state must achieve the progressive realization of that right”. In 2004, the government introduced the Breaking New Ground Policy (BNG) to focus on the development of **sustainable human settlements**, as opposed to subsidised free-standing units on the peripheries of urban areas.

1.4 Actors in Shelter Delivery and their Roles

- Community members: unless they are the driving force behind any social development, the result is often the recreation of new slums

- Local government: provide land, infrastructure and maintenance
- Provincial government: provide the subsidy finance and bulk services
- NGO's
- Support professionals: consulting engineers, land surveyors, town planners, EIA specialists

2. Organisation

PEP is a relatively small organisation that was legally constituted as an Educational Trust in mid 2000 and has been involved with affordable housing for the “poorest of the poor” for the past 12 years. Besides a compliment of staff, the management of the organisation consists of an executive director, Shawn Cuff and a board of 3 trustees.

PEP is a registered NPO (non-profit organisation) that relies on international donor funding for the implementation of its various activities.

Although based in Cape Town, SA, we have worked throughout the country and have links with a variety of national & international organisations involved in similar programmes. **PEP** was originally established to explore “Alternative technologies and cost saving approaches to affordable housing in South Africa” whereas the focus now is on “**Technical assistance to low-income communities in South Africa seeking to transform slum habitats into sustainable human settlements**”. The organisation has also been very active in providing technical training to various groups, the bulk being residents of informal settlements but also including local and provincial authorities who are active within the “people’s housing process”. The focus of this training has been on technical issues and preparing people for the design, costing and construction of their own homes.

PEP as an organisation has three broad aims and objectives that come together to form one overall strategy i.e. to assist the “poorest of the poor” in achieving some form of land tenure, basic shelter with services and a sense of pride in their existence.

Objective 1: Building community capacity around technical issues related to house planning, costing and construction.

Objective 2: Transforming the approach of local and provincial government officials so that the state institutions are willing and able to develop meaningful partnerships with empowered communities around urban planning and development

issues. This is done through training courses that focus on local authority support for people's housing processes.

Objective 3: Constantly exploring better and more effective designs and technologies for the manufacture, construction and scaling up of low-cost (affordable), incremental housing.

This will include the following initiatives:

- Higher densities
- Alternative layout planning to include eco aspects of housing unit
- Exploration of mixed-use planning alternatives
(residential/commercial/agricultural/industrial)
- Exploration of mixed income housing (lowest & “not as low” housing)
- All of the above are implemented from a community-driven perspective

3. Shelter Problem

I have elected to work on a project called Ruo Emoh which is situated in a so-called “coloured” area situated in the W Cape. It is surrounded by reasonably upmarket neighbours, rather than informal settlements. It is a relatively small, green-field development of 50 housing units. The land was purchased by an NGO (uTshani Fund) ten years ago with the idea that the community would design, plan, coordinate and manage their own development. There has been no progress in ten years due to lack of capacity and resources within the NGO. It is a very poor community, whose members are currently living in backyard shacks and other rental accommodation in the area.

This is a perfect opportunity and manageable size to explore a number of the elements that we believe should become standard considerations in all future developments as stated above.

- Rezoning and subdivision – a process that has to be followed
- Above is part of a process that includes neighbours input etc
- EIA (Environmental Impact Assessment)
- Geo-technical survey
- Land surveyors
- Conveyancing attorneys to transfer individual title to beneficiaries.

- Design & other workshops with community beneficiaries
- Dealing with local authorities
- Dealing with provincial authorities to access subsidies
 - Design of management systems to construct the houses

Background to the particular “township”

Mitchell's Plain is a largely “coloured” township created about 20 km from the city of Cape Town. It is South Africa’s 4th largest township with a population of approximately 1.5 million inhabitants.

Anyone reflecting on SA’s cities will continue to see the steadfastness of the divisive, inequitable and fragmenting Apartheid landscape, characterized by low-density urban development, wide road reserves and expansive open spaces that serve as buffer zones between communities. This urban sprawl not only traps and dislocates the poor into poverty pockets, but critically endangers the country’s fragile environmental systems.

Conceived of as a “model township” by the apartheid government, it was built during the 1970’s to provide housing for low to middle income “coloured” victims of forced removal due to the implementation of the **Group Areas Act**. It is a large, sprawling township where large portions have, over the years, deteriorated into urban ghettos.

It comprises a number of sub-sections or suburbs which reflect the diverse class backgrounds of the population. Gangsterism, crime, alcoholism and drug abuse (methamphetamine predominantly) have increased dramatically over the years. A few informal settlements have also developed within this area.



Typical “row-housing”, in a relatively upmarket area of Mitchell’s Plain, as provided by the previous government.

The houses in this area are generally neat row houses. A recent formal bank survey concluded that for every home put up for sale in Mitchell’s Plain, there are now eight potential buyers. Despite the apparent dreariness of the Cape Flats, space is a commodity!

Current Situation for Ruoh Emoh

Prior to 1998, an NGO called People’s Dialogue (PD), together with its financial arm, uTshani Fund (UF), was established to provide support for a large number of autonomous Housing Saving Schemes (HSS), that together made up the South African Homeless People’s Federation (SAHPF), later to become known as FEDUP (Federation of the Urban Poor). Saving schemes are the cornerstone of the Federation and the tool that unify these homeless/landless people, from all corners of SA. All potential development will be based on Shack Dwellers International (SDI) principles and will pursue the People’s Housing Process (PHP).

Beneficiaries of this project are landless members of FEDUP. The 49 prospective beneficiaries currently:

- live in shacks, backyard shacks, hostels or are renting or sharing rooms
- Approximately 40% of the beneficiaries identified are unemployed.
- the average total monthly family income is under R800.00 per month and
- Almost 70% of these households are single-headed households.

Their current tenure is insecure and constantly under threat. Often the rentals paid by these families to reside in these situations are substantially more than the costs they confront when obtaining secure tenure and formal housing. These families were/are part of the severe backlog in delivery of secure tenure, adequate services and housing confronting the City of Cape Town.

The community organised themselves, identified an open land and approached uTshani Fund for support. A Committee to lead and drive this project is established, meets on a weekly basis and is in turn responsible for reporting to a general meeting of existing and prospective beneficiaries. All project activities are conducted in partnership between the Ruo Emoh Housing Association Committee, UF & PEP and in consultation with the beneficiaries and local communities.

Bulk storm-water drainage and sewerage disposal, as well as link services, have been provided to the project and a water supply pipeline is available on the site boundary. The community-led nature of this project is the foundation for a holistic development as the community themselves have taken the responsibility to initiate and see this project through to completion, including building their own homes through the PHP. Organised and mobilized communities driving their own development process are an important building block of civil society in the city.

The choice of the beneficiaries to secure a relatively centrally located infill site within the city where bus and taxi-based public transport is accessible within walking distance is testament to the importance the beneficiary community itself places on the integral needs of settlement and locational advantage within the city.

Savings plays a significant role in this people's driven project. The beneficiaries themselves have invested their savings through topping up house loans received from UF or setting aside savings to top-up the subsidy. This represents a serious investment by the community itself in this project and presents the need for the community to participate in the management of the project to ensure the success of this project.

To effectively enable community members to manage their project, capacity building is needed. The Committee identifies capacity building needs, which are addressed through engagement, workshops and exchanges with other FEDUP groups who have gone through similar experiences but also through training by PEP and others. Opportunities for information exchange and learning have also been identified with the City of Cape Town, particularly around the responsibilities of home ownership.

As a people's-driven development the intention of the RE project is to seek to maximise opportunities to invest the 'sweat equity' of beneficiaries in this project and maximise the subsidy available for the top structure, thereby, with the investment of personal targeted savings, enhancing the size and quality of the top structure.

Most importantly, it is also the intention to make this a fully sustainable and eco-friendly development. By enhancing the people's participation in their own development, the objective is to also maximise empowerment and job opportunities for beneficiaries and fellow HSS members, many of whom are currently unemployed, and members of poor communities living in the surrounding areas where possible.

The full subsidy amount will be used to construct a house through the PHP. Savings towards the cost of the land have been made by the beneficiaries of this project to date.

The project is largely surrounded by relatively similar housing developments or vacant land. Given the nature of the surrounds of this project and that the site has previously been cleared and filled (as is the case with vacant surrounding sites) in preparation for this project, the development of this site does not present a negative environmental impact.

The state's funding support for this project will complement and build on the significant resources of the beneficiaries themselves. This means that the state's subsidy and related grants is used to gear the community's own resources to deliver houses of good quality in a well located infill project in the city. The beneficiaries' initiation and leadership of this proposed project has meant that the beneficiaries have made and are making choices with regard to the proposed project on an ongoing basis – it is their project. Being afforded the opportunity to live on a well located site in the

city with immediate access to public transport opens choice to families around schools their children attend, job opportunities, etc.

The delivery of secure tenure and adequate shelter, and the formal and informal capacity building inherent in the people's driven nature of this project means that the long term impact on the lives of individuals involved in this project is significant. This project is founded on an organized community of beneficiaries who have met, deliberated and made decisions together concerning this project and they have saved together. Allocation within this project is based on active participation in the process leading up to the implementation of the project and active participation in members' savings schemes. This is an important basis for an organized community which can clearly express its needs and seek solutions to those needs within themselves and in partnership with other stakeholders and development partners.

Western Cape Weather and Climate

The climate is typically Mediterranean: warm, dry summers and mild, moist winters with low summer rainfall. The temperatures range from 15° C to 27° C, with strong south-easter winds, that blow in the summer and strong, rain delivering winds, that blow from the north-west in the winter.

Urban Environmental Challenges.

Approximately 90% of South Africa's river systems are critically endangered due partially to urban development practices. Increasing demand on the country's scarce water supply is coupled with the threat to natural resource based livelihoods due to expected sea level rising. The current electricity infrastructure is critically overloaded, with no solution in sight. One of the outcomes is that SA's urban poor use paraffin, coal and firewood for their household energy needs. (SA produces over 50% of the entire continent's emissions – due to our extensive use of coal to fire power stations and for energy needs of the poor).

The best way, perhaps, to summarize the existing situation for the urban poor in SA is to pose a few rhetorical questions:

- Why is there such a disjuncture between the State's developmental policies, planning practice and the real life experience of the urban poor?
- Where is the response to the constantly shifting planning landscape in which everyday people turn nothing into something?
- Why is there an obsession with 'fitting' the country's development path into Western norms and typologies of space and urban structure?
- Where are the responses that recognize the role of informality in shaping our cities?

4 Proposal for Change and Improvement

Together with the beneficiaries of this project, we are aiming to create a unique, **sustainable and eco-friendly community**. A truly sustainable development has to address the ecological, social and economical components.

Even though this is a small development and only a microcosm of the larger situation, it is imperative that whatever we achieve here is **replicable, affordable and achievable** with other developments and in other upgrading projects within informal settlements. We are hoping to compile a user-friendly “manual/check-list”, identifying all issues that we believe could contribute to making future developments sustainable – accepting that not every item can be addressed with every development. In order to achieve the above, we have the opportunity to address all aspects of this development from the urban planning to the house construction stage and the living thereafter – all of which, if addressed properly, are achievable.

We intend creating this scenario by addressing the following issues:

4.1 Ecology:

Look at all physical aspects of the development as listed below and address each one individually.

Urban Planning: <ul style="list-style-type: none">▪ Density – increase the density▪ Climate conscious urban design▪ Spaces between the built environment▪ Social spaces▪ Urban greenery	Housing Units: <ul style="list-style-type: none">▪ Climate▪ Orientation & prevailing winds▪ Internal thermal comfort:▪ Natural light▪ Natural ventilation▪ Built and natural shading▪ Outdoor thermal comfort	Lifestyles: <ul style="list-style-type: none">▪ Solar electricity▪ Solar water heating▪ Rainwater harvesting▪ Grey water systems▪ Solid waste management▪ Composting▪ Recycling
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4.2 Social

By sharing a common goal and then working together, making decisions together, supporting each other and sharing the frustrations and hardships, in trying to achieve that goal, will go a long way in strengthening the sense of community that already exists. Having security of tenure and a sense of community, will go a long way in establishing social sustainability. In this particular project, a strong sense of community has been created over the past 10 years by saving together and fighting for a common goal i.e. improved living conditions. The mechanism to build this sense of community in future developments will be based on the SDI principles that include saving as a cornerstone.

4.3 Economical

Part of any sustainable development is ensuring that there are at least opportunities to generate an income. We intend addressing this issue in a spectrum of ways, some of which are listed below:

- Ensure that opportunities of employment exist within reasonably close proximity. (This is not always easy when there is no choice in the land that is available. Ruo Emoh were particularly fortunate in obtaining a well located site.)
- Try to ensure that the land available is at least accessible (and affordable) to public transport – to the potential places of work.
- Encouraging or establishing an informal market in the area
- Providing training for a variety of skills to previously disadvantaged people, for example:
 - i. Train community members in the variety of skills required to construct a house i.e. bricklaying, plastering, carpentry, plumbing, electrical,
 - ii. Solar installations
 - iii. Grey water systems and the maintenance thereof
 - iv. Horticulture
- Providing those who already have the skills, the opportunity of utilising those skills within the development to gain experience – both skilled and unskilled labour opportunities.

- Expose those with these skills to the open market

4.4 Evaluation

Conduct a thorough evaluation of the entire project in relation to each of the aspects that we were setting out to address. This could be done by compiling a detailed list of criteria and appointing an external practitioner from the field to conduct, to evaluate the project in its entirety. We intend to repeat this evaluation exercise on an annual basis to assess the sustainability of this project and suggest improvements for all future developments.

A crucial part of the evaluation criteria will include the people's participation in all aspects of the design and decision making during the process. The skills acquired and the ability to employ those skills will also be assessed. Sustainable and eco-friendly strategies implemented will also be measured and evaluated on ongoing bases. These will include performance of alternative technologies, social acceptability of the same strategies.

4.5 Manual for future projects

Based on experience of this project, feedback from the community and evaluator, we shall compile a "manual" that will encompass every aspect of this development, that can be utilized by all future communities embarking on similar projects and based on the principles of the "people's housing process".

- Extensive discussions with community group through workshops
- Discussions with respective and relevant government departments and local authorities necessary for approvals.
- Discussions with professionals about alternative technologies
- Research on web sites – product research.

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About South Africa:

<http://www.southafrica.info/>

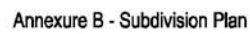
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Annexures

- Annexure A: Site Development Plan (SDP)
- Annexure B: Subdivision plan
- Annexure C: House Plans





Annexure C

