

Peoples Housing Process- Good Practice Case studies

Project: Kanana Project, Sebokeng, Vereeniging, Gauteng

Outstanding features: Household participation and house construction

**Report prepared by Development Action Group, Cape Town.
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1. Background to the project

1.1 Name of project

The project is called Kanana and is named after the biblical Canaan, the promised land

1.2 Location and basic description

The project is located in Sebokeng Extension 12 and is adjacent to the Golden Highway which joins Johannesburg and Vereeniging in the province of Gauteng. It is approximately 20km from Vereeniging CBD and 60km from the Johannesburg CBD. The area falls under the jurisdiction of the Sedibeng District Council.

The area is characterized by low rolling countryside largely grass covered. The project area has a variety of foundation conditions including areas where raft foundations have to be used due to adverse geotechnical conditions. All strip footings in the other areas have to be reinforced.

There are 2570 sites, all of which have been serviced with gravel roads, water, electricity and sanitation. There is no street lighting.

1.3 Stakeholders we met

The following people were met on the 21st and 22nd May 2003 at the Housing Support Centre and on site:

- Ace Molaung-Ward Councillor for Ward 28 Sebokeng
- Esau Moleko-Project Co-ordinator Sedibeng District Council
- Maria Ntamehlo-Project secretary, HSC
- Alice Mafa-Project co-ordinator, HSC
- Jacob Motsoane-Principal contractor, HSC
- Keke Khanye-Assistant principal contractor, HSC
- Geoffrey Moleko-Gauteng housing department official
- Eduardo Cruz-Architect and adviser from Cuba
- Ketty Guizade-Architect and adviser from Cuba
- Gillermo Archia-Engineer and adviser from Cuba
- The staff of the BIT center, Homeless Peoples' Federation
- Various beneficiaries as described later in this report

We had also previously met with Grace Nkosi: Project Manager of the Gauteng Provincial Government, Housing Department who works in the PHP directorate in this department.

1.4 Who started the project and why

In April 1994, 1500 backyard shack-dwelling households in Sebokeng invaded this vacant piece of land which was intended for industrial development. Plots, roads and sites for community facilities were laid out. The residents of Kanana were threatened with eviction due to health reasons. In response, Kanana's leaders paid council workers to steal plans of the water and sewerage systems in the area and show them how to tap into the water mains. Contributions from the households were made and water points installed. Subsequently the community joined the Homeless People's Federation and some houses were built.

2. Description and analysis of the outstanding features

2.1 Community participation

The key to the success of this project lies largely in the organization and structure of the community and in their participation in the functioning of the project.

Leaders are chosen from community groups to meet on a regular and structured basis with officials and members of the local council that has the function of Support Organisation.

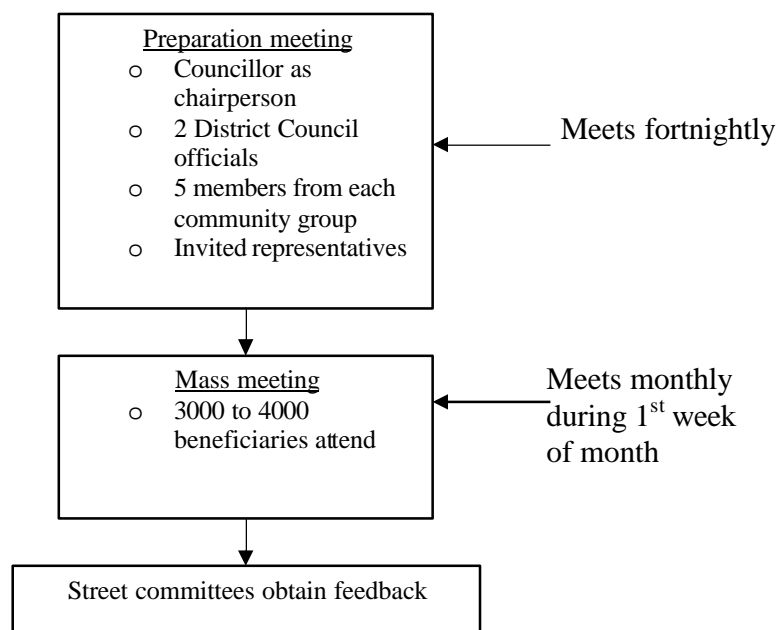
2.1.1 Community organization

Representative leadership is chosen by the community and are from the following organizations:

- Ward committee. This committee is appointed by the beneficiaries and report to Councillor Molaung.
- SANCO
- Homeless People's Federation
- Women's stockvels
- Sewing clubs
- Street committees
- Youth formations

Five members from each of these groupings have regular fortnightly meetings with Councillor Molaung in preparation for the monthly mass meeting with the beneficiaries. The fortnightly meetings are held in advance of the mass meetings and are designed to give input to the discussions that will take place during the mass meetings.

The communication cycle can be pictured as follows:



The agenda items at the mass meetings are typically:

- The pace of development. This has been slow in the past and the leadership are under pressure to speed things up.
- The level of services. The provision of high mast lighting and a solution to the poor condition of internal streets are priority items.
- Dumping of garbage.
- Invited representatives from the provincial government and district council are asked for input on increases in the consolidation subsidies and budgets.
- There is also provision for discussion on general matters of concern.

After the conclusion of the mass meetings, feedback is given to the beneficiaries via their street committees.

2.1.2 The Homeless People's Federation

This organization has an active presence on site and has 200 to 300 members. There has recently been a discussion initiative with the ward councilor and the staff of the Housing Support Centre and as a result ten of the Federation's members will be applying for subsidies which will be administered by the Support Organisation. The Federation members will be using their access to the uTshani fund for top up loans to fund bigger houses for themselves. The members have designed their own house which has 4 rooms and a bathroom and is 67m² in floor area.

The Federation has set up a B.I.T. centre (Building Information Technology) and runs their activities from there using volunteers from the community.

They have nine different housings savings schemes each with a team leader. We spoke to Jacob Diamond, who is the leader of the "Emang Housing Savings Scheme" which has 105 members. Their savings principle is for members to save R1 per day to go towards the loan deposit the uTshane fund requires. This list of loan amounts, deposits and monthly repayment amounts was prominently displayed in the office.

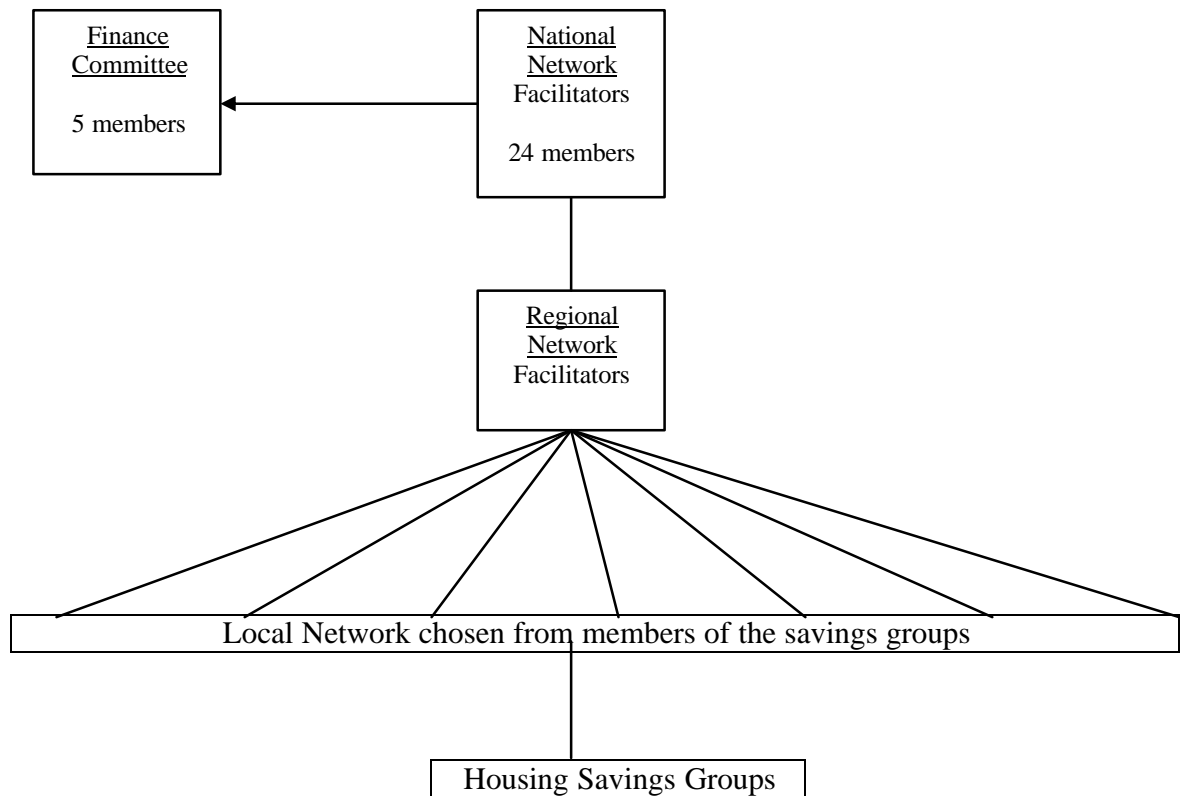
Repayment	Loan amount	Deposit
R40	R3326,20	R170
R50	R4157,74	R210
R60	R4959,59	R250
R70	R5820,84	R290
R80	R6652,39	R330
R90	R7899,71	R390
R100	R8315,49	R420
R120	R9978,59	R500

The Federation also organizes the savings clubs, particularly those dominated by women, to engage in fundraising activities. They grow and sell vegetables, do sewing, brick making and produce and sell fruit juice.

The B.I.T. centre is also organized into teams who take on specific responsibilities and duties involving the community. Issues such as health, technical, enumeration, storekeeping, etc are lead by team leaders.

The latest Federation initiative is to build a regional and national network growing from the housing savings clubs' memberships. This will involve the broader community and is set to be launched shortly with all major role players being invited to participate.

The outline of the network is as follows:



- Each local network is made up of 12 members from the 40 member savings groups.
- The local network chooses members to become representatives as Regional Network Facilitators.
- The National Network Facilitators are chosen from the regional network.
- The Finance Committee are chosen from the National Network Facilitators.

This organisation works on a truly “bottom up” system with the starting point being the local housing savings groups in each project. This ensures the maximum involvement of the community in their own affairs as well as regional and national matters.

The impression is gained that the activities of the Federation in this area has broad appeal amongst the people and can be seen as making a positive contribution to community participation.

2.1.3 Successes and problems

The following were identified as reasons for the successes of the community participation of the project and the biggest problem the Councillor's meetings has to deal with:

- The beneficiaries feel that they own the project. The turn-out at meetings is very high and provides a forum for the people to express their views and desires. The groupings help them with this expression as many people cannot voice their opinions at mass meetings.
- The leadership is united and strong. They have patience and are able to take criticism. They are able to work hand-in-hand with the beneficiaries to everyone's benefit.
- Communication is strong at all levels with all parties participating in the discussions that take place on a regular and organized basis. Those that do not attend meetings obtain feedback on issues from their street committees.
- The activities of the Homes People's Federation in the area appears to be positive and the recent co-operative discussions held with the Housing Support Centre and the Support Organisation will be of benefit to their members.
- The biggest problem the community currently faces is the delay in funding for the second phase. Some 250 houses have been built in the first phase and were completed in January 2003. Subsidy approval is awaited for a further 250 units and the District Council as the Support Organisation wants to complete 40 houses per month or 500 per year. The community is putting pressure on the council for progress and to overcome the funding delays as these project delays have a demoralizing effect on the community. In addition, delays lead to price increases from suppliers thereby putting additional pressure on the Support Organisation.

2.2 House construction

2.2.1 Background

There are 250 houses have been completed with the first funding tranche and funds are awaited for the next 250 units. The target set is to complete 40 houses per month or about 500 per year. To enable construction at this pace to take place at an acceptable quality level, the organization of the Housing Support Centre must be set up to deal with the volumes.

The Support Organisation for the project is the Sedibeng District Council who also provide Accounts Administrator and Certifier services. They are contracted by the Gauteng provincial government to provide this service. The Council officials work in close co-operation with the community groupings and the staff of the Housing Support Centre. All the people that work on the project are from the community and have their support to carry out the work in the community's best interest.

Before construction on the first phase of 250 houses began, the Sedibeng District Council ran a series of workshops for the people in the area to check their qualifications for housing subsidies. About 95% of those involved qualified for the subsidy. As the land that was invaded was unserviced at the time, some adjustments of beneficiaries sites and allocations had to be made. This was carried out fairly smoothly as the community could see the progress that was being made.

2.2.2 The construction process

□ House designs and specification

The house design choices are fairly wide to accommodate beneficiaries that depend solely on the subsidy and also those that have savings and want a bigger house. The choices are:

Option	Size	Description
1	33,15m ²	Lounge/kitchen combination; no internal walls; separate bathroom. Foundation built for future extension
2	37,53m ²	Lounge/kitchen;1 bedroom; separate bathroom. Foundation built for future extension
3	48,75m ²	Lounge/kitchen/2 bedrooms combination; no internal walls. Separate bathroom
4	48,75m ²	As per 3 above but with dividing internal walls
5	53,15m ²	Lounge/kitchen combination; 2 bedrooms. Separate bathroom
6	42,64m ²	Lounge/kitchen;1 bedroom; separate bathroom. Foundation built for future extension
7	47,52m ²	Dining room; kitchen; 2 bedrooms; separate bathroom. Has double pitched apex roof.
8	54,00m ²	Dining room; kitchen; 2 bedrooms; separate bathroom. Has double pitched apex roof.

The above designs result from workshops held with the beneficiaries and are extendable. The plans are on a CAD system and can thus easily be revised or amended if required. The Homeless People's Federation also has a house plan of 67,14m² and has a much more elaborate footprint and higher costs as a result. The final costs are still to be estimated by them.

The specification for the 8 designs is:

Substructure: Concrete raft foundation to be laid on damp proof membrane on clean sand on well compacted fill. Alternatively a reinforced strip footing of 600mmx200mm may be used for load bearing walls and a non-reinforced strip footing of 450mmx200mm for non load bearing internal walls.

The finished floor level to be a minimum of 150mm above ground level.

Walls: 290mmx140mmx90mm concrete maxi brick. Brickforce to be laid every 4th course of brickwork and every course above window height.

Roof: IBR sheeting 0,5mm on steel lipped channels purlins to span between external walls to be fixed to steel wall plate with 30x1,6mm hoopiron strap at 600mmc/c, built into 6 brickwork courses. Roof slope to be 5 degrees.

Doors and windows: Steel Clisco doors and windows

The houses are provided with an inside toilet which is connected to the sewer system. The basin, bath and sink connections are made and ready for the homeowner to install his/her own fittings. Walls are jointed externally and bagged internally. Floors are steel-trowelled finish. No paint for walls or frames is provided. . The roof designs are mono pitch with the exception of options 7 and 8 which have a low slope double pitch roof.

All house and site plans are approved by the Sedibeng District Council who have instituted a quick plan approval system to avoid any delays.

The house designs and specifications are typical of the types of houses that would be built using the capital subsidy. The principle of maximum choice for the beneficiaries has been followed. Options 1 and 2 require no additional pay-in to be made by the beneficiary, but the larger houses for options 3 onwards require savings or loan funds or own materials to be added to make up the cost.

□ **Material purchasing and delivery arrangements**

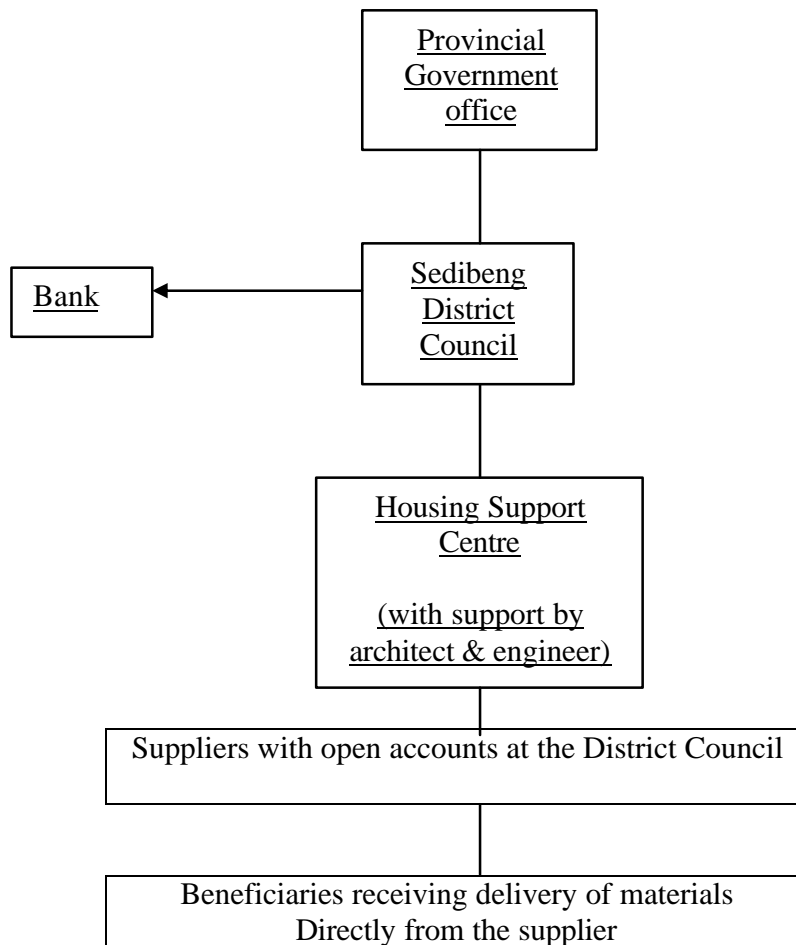
Bills of quantity have been extracted for the house designs and sent to numerous suppliers for pricing. In the first phase some 45 different suppliers were used. This is expected to be reduced somewhat in the next phase. Those suppliers used were chosen on quality and service as well as price. Prices were negotiated on bulk buying quantities with individual site delivery required. Prices were to be held for 6 months from the date of the quote.

Each supplier must have an open account with the District Council who receives invoices and delivery notes duly authorized for payment by the Housing Support Centre. The District Council finance department makes the necessary payments directly to the supplier concerned.

The materials are delivered in the correct quantities directly to site. The delivery vehicles are accompanied to site by a staff member from the Housing Support Centre. The beneficiary signs the delivery note if all is in order.

The beneficiary is responsible for the security of the materials and any surplus materials such as bricks that are left over once construction is completed are retrieved and used for the next house.

The organisation can be illustrated as follows:



□ **The construction phase**

The construction of the houses is supervised by a Principal Contractor who is on the staff of the Housing Support Centre. He was chosen from the community and was previously a private contractor. He is helped by an assistant and between them are in charge of all building activity on site. They are paid monthly from the Establishment Grant.

The site itself is divided up into approximately 50 phases, and houses will be built phase by phase. This is being done to concentrate activity to be able to exercise better control and to also save cost on delivery. The initial houses were built as the subsidies were approved and as a result were fairly widely spread apart in the project area. This led to difficulties in control and as a consequence there were some quality problems. The phasing and grouping of the houses under construction in the next phase will hopefully help to improve matters.

The construction activity is broken down into 6 stages:

- **Preliminaries:**
The Principal Contractor visits the site with the house and site plans and checks the position of the existing shacks, trees and roots, external toilet and sees that the construction area is clean and free from interference.
- **Foundations:**
The pegs are found and the Principal Contractor sets out the house in the cleared area ensuring that side spaces are maintained and that the setting out is square. The position of the house must also comply with the site plan. The trenches are then excavated by the beneficiary ensuring they are level, the correct width and depth, well compacted and pegged to the required concrete depth. Steel is then fixed and the ready mix concrete (25Mpa) poured and cured. After 24 hours the plinth brickwork is built once the profiles have been erected. Once the brickwork has cured, the area is backfilled and trench sides filled in.
- **Floor slab:**
The slab area is compacted and 20mm of sand is laid. On this is laid the damp proof membrane and any mesh steel that might be required. The concrete is site mixed or ready mix (15Mpa) and then poured in one day. The door frames are set up the next day ready for the superstructure brickwork.
- **Brickwork:**
Corner profiles are set up and the superstructure brickwork built, ensuring correct positioning of windows and doors as well as brickforce and roof ties.
- **Roofing:**
The rafters are set in position, leveled and tied down. The roof sheets are placed, fixing opposite to the wind direction with the correct side laps, depending on the sheet type. The beamfilling is then completed and the roof sheets sealed.
- **Completion:**
Plumbing-trenches are dug and pipes installed to the correct falls. The mains' connection is made and the system tested prior to backfilling and compaction. The toilet pan and other fittings are set in place and connected to the water supply.
Glazing-the window frames are putty glazed by the supplier.
Hanging the doors-the doors are hung and locks fitted.

The District Council building inspector carries out a foundation check and a house complete check. If all is approved, a completion certificate is issued and the beneficiary signs a happy letter. (The “check list of activities in the construction process” is attached in the appendix to this report)

The construction process appears to be broken down into several well defined stages each with an orderly set of routines to ensure that the appropriate quality standards are met with the full participation of the beneficiaries.

□ **Construction control**

The project is charged with the responsibility to control the construction programme, the cost of material and to ensure acceptable quality standards.

The *programme* is largely driven by the number of subsidies that are approved in each tranche. The first 250 houses were built in 5 months. A total of 2 months was wasted whilst funding was approved. This led to the loss of skilled bricklayers in the area who went on to find other employment.

A typical house takes about 8 to 10 days to build and is not on the critical path as production can be stepped up if required. The slowness of payment to suppliers and approval of subsidies are the biggest factors holding up progress.

The *cost of material* is set for 6 months and the *labour costs* are agreed beforehand. Typically the bricklayer is paid R450 per house, the plumber R200 and the carpenter R150. Surplus materials are collected once construction in an area is complete and is used in the next batch of houses. The slow rate of payment to suppliers also has the effect of escalating prices as the draw down of materials might only start some 2 months after the quoted prices become effective leaving only 4 months of effectively lower prices before the quote period expires.

Attention is paid to *quality control* by the Principal Contractor and the council's building inspector. There is constant communication between the Housing Support Centre and the District Council on quality issues. People from the community have been trained in the building trades and are appointed to work on the houses under the supervision of the Principal Contractor. This supervision has the objective of avoiding mistakes and associated material wastage.

The use of own material by the beneficiaries is carefully monitored and checked by the Principal Contractor.

The use of the trained and monitored artisans is preferred by the project. Their services must be used by the beneficiaries and the use of the beneficiaries own bricklayers is not encouraged. They are not prevented from using their own builders, however, provided an acceptable performance level is maintained.

2.3 Assessment of why the construction is successful

□ **Successful aspects**

There are several keys to the success of the house building and associated activities on this project:

- There is a constant support system that surrounds the Housing Support Centre. The District Council as the Support Organisation is committed to make PHP work in the area. Good control systems are in place to monitor site activity. The presence on site of professional architects and engineers from Cuba also plays an

- extremely large role in the levels of quality achieved and in the low negotiated prices from suppliers.
- The material suppliers are chosen not only on price but mainly on quality. The quality of the materials is monitored by the engineer and the District Council officials.
 - The beneficiaries are fully involved in the construction process. They have maximum choice of house type, and contributions they can make with their own materials and savings.
 - Communication on the project is good. People can see progress on site and also are satisfied with the quality of the product they are getting.
 - There is job creation and skills transfer in the community. Women are involved at all levels and in all activities.

The Housing Support Centre is hosting other projects to show off their successes and to show how PHP works.

□ **Some areas of concern**

Despite the many positive aspects to this project there are a few areas of concern that were expressed and noted that might give rise to future problems and have a negative effect on the project.

- It appears that the supplier payment system is not running smoothly in the finance department of the District Council. The strict procedures and “red tape” can hold up payments. A cheaper supplier cannot be used if the District Council does not have an account with them. This rigid system, whilst ensuring financial control, does not give the project the flexibility it needs to ensure the lowest possible material prices. There are also some suppliers that do not want to work with the council as they have experienced payment problems in the past.
- The payment system between the Gauteng province and the District Council works on a reimbursement basis. As is often the case, the province holds up the payment which in turn affects the projects as they cannot make their necessary payments in turn. A resolution to this procedural problem could go a long way to streamlining payment systems and ensuring lower supplier costs.
- The use of the professional architects and engineers from Cuba have had a very profound effect on the project. They are largely responsible for the material price negotiation and the level of building quality achieved. The question of sustainability and the ability to replicate the system in other projects must be raised. The cost of their services would not be fully offset by the material savings and they would then become a cost to the project.

3. Evaluation of the PHP framework of this project

○ Community participation

The definition of community participation was raised and the different interpretations discussed. It has since been interpreted as “showing people how to help themselves”. The intense involvement by the District Council and the province could be seen as these organizations doing things for the people without letting them take charge of their own affairs.

It was through discussion and involvement with the community at all stages that the community took ownership of the project. People from the community work on the project and staff the Housing Support Centre. The community is proud that their own are in these positions and are able to make things happen for the betterment of all the people. The project has a successful track record and other housing projects regularly visit to obtain information.

The community has accepted the restrictions that have to be imposed to comply with by-laws and financial discipline and accept that communities cannot be given free reign and thereby waste their subsidy money.

○ Flexibility

A greater degree of flexibility must be instilled in local authorities and provincial government to change policies and procedures that do not support the PHP systems. The tendering system for material prices and the red tape surrounding payments to suppliers should be revised to enable projects to take advantage of cheaper quotes which usually require faster payments. The Gauteng government is said to be targeting the delivery of 12 000 houses this year from 20 new Housing Support Centres using the PHP system. The delays in delivery caused by financial red tape will negatively affect this programme.

4. Other observations on the project

4.1 House visits

Several houses that were built in the first phase were visited in the project area to obtain some idea of the type of houses being built and to obtain the opinions of the beneficiaries.

○ House Kheswa

This two room house has no internal walls. This design has been discontinued as the lack of parental privacy has initiated the change to a design with bedrooms screened by internal brick walls. The house is neatly kept and has been extended by the owner.

○ House Chabalala

The foundation of this house was built out of square which necessitated an amendment to the foundations and positioning of the superstructure brickwork.

This fault has been blamed on the unsupervised building of the owner. The second lift brickwork has not been pointed.

- House David Senong

Another foundation fault was evident in this house as the foundation was built out of level. This has been blamed on untrained bricklayers. The necessary correction was made in the superstructure. The floor slab is also at the same level as the ground and flooding could occur in heavy rain if precautions are not taken. The house is otherwise neatly built.

- House Puleng

This three roomed house was built with no internal walls and a curtain separates the bedroom from the living area. The subsidy covered the full cost of the house. The beneficiary is happy with the house and the service obtained from the staff at the Housing Support Centre. She will make improvements with her savings at a later stage.

- House Maduna

This house has already been extended and is occupied by a beneficiary who is very happy with the service from the Housing Support Centre. There are also no internal walls and curtains provide some internal privacy.

- House Ndweni

This house is the pride of the staff of the Housing Support Centre and its owner. The walls are plastered and painted and the perimeter of the house has a concrete walkway. At the back of the house is a neatly built and painted shed/garage built out of corrugated iron and painted to match the house. The finishes and general appearance of the house are of the highest order.

All the houses and the general area seen give the impression of neatness and care. Yards, and in some cases even the dirt road in front of the houses, are compacted and swept. There is pride of ownership and even some greening has taken place. The overall appearance of the project would be vastly improved if some improvement could be made to the internal streets, street or high mast lighting provided and an active greening campaign undertaken.