



# Interrogating community-led strategies for sanitation provision at scale in South Africa

# Building knowledge. Improving the WASH sector.

## Contributors

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# Contents

<b>Acronyms</b>	<b>4</b>
<b>1. Background</b>	<b>7</b>
Work completed before the SHARE Project	8
<b>2. Updated Midrand informal settlement profile (2014)</b>	<b>10</b>
Midrand profile	10
<b>3. Identifying a practical and scalable way forward to access decent and dignified sanitation</b>	<b>17</b>
<b>4. Unpacking and costing the options</b>	<b>19</b>
Option 1: Building a community ablution facility at the bottom end of the settlement on municipal land	21
Option 2: Building a community ablution facility located in the middle of the settlement on municipal land	23
Option 3: Reconfigure the spatial layout of the settlement including private and municipal land	25
Option 4: Reconfigure the spatial layout of the settlement with all shacks on municipal land	28
<b>5. Taking the project forward</b>	<b>29</b>
Recommendations	29
<b>6. Engaging with the Municipality following initial research and planning</b>	<b>32</b>
Municipality support	33
<b>7. Next steps in this action research project</b>	<b>35</b>
<b>Bibliography</b>	<b>36</b>

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# Acronyms

- CoCT** City of Cape Town
- CORC** Community Organization Resource Centre
- CUFF** Community Upgrading Finance Facility
- FEDUP** Federation of the Urban and Rural Poor
- ISN** Informal Settlement Network
- MOU** Memorandum of understanding
- NGO** non-governmental organisation
- SA** South African
- SDI** Shack / Slum Dwellers International
- SHARE** Sanitation and Hygiene Applied Research for Equity
- UPFI** Urban Project Finance Initiative
- WASH** Water, sanitation and hygiene

Figure 1: Projects in Nelson Mandela Bay



Notes: The SHARE project is located in Midrand informal settlement, shown in yellow; ISN/FEDUP-affiliated and profiled settlements are shown in blue.

The South African Alliance identified the Midrand informal settlement in the Nelson Mandela Bay Metropolitan Municipality in the South Africa's Eastern Cape province as the locus of the Sanitation and Hygiene Applied Research for Equity (SHARE) project. This was done through Federation of the Urban and Rural Poor (FEDUP) and Informal Settlement Network (ISN) processes of engagement and strategic thinking led by Evelyn Benekane and championed by the late Patrick Hunsley. This research monograph reports on the work done to secure sanitation improvements in the Midrand settlement. It begins by locating Midrand both geographically and in terms of its proximity to other ISN and FEDUP-affiliated settlements. It starts with a summary of what ISN and FEDUP initiated in Midrand before 2014, before focusing on the activities implemented through the SHARE project. The discussion elaborates on these, and includes a situational analysis, settlement profile and mapping of the settlement. It then poses appropriate sanitation options alongside their related costs and drawings for implementation. The desired effects of implementing such a project are to catalyse community-led processes that will lead to the provision of decent and dignified forms of sanitation, influence how the state engages with communities on the roll-out of sanitation solutions, and mobilise low-income communities in the Nelson Mandela Bay to take action.

The project was anchored by Shack / Slum Dwellers International (SDI)'s local affiliate the South African Alliance, which includes two networks of community organisations, FEDUP and the ISN, working together with the non-governmental organisation (NGO) Community Organization Resource Centre (CORC). Technical assistance was provided by Ikhayalami (NGO).

# 1. Background

Midrand is a small informal settlement in the North Western part of the Nelson Mandela Bay Metropolitan Municipality ('metro') in an area called Kleinskool (shown in Figure 2). FEDUP has had a strong presence in this locality since the mid-1990s; the federation emerged from the earlier social movement, the South African Homeless People's Federation. In Figure 2 Midrand is shaded in yellow; Joe Slovo is highlighted in green.

In 1996 a federation savings group led by Evelyn Benekane invaded a piece of land. They called the area they invaded Joe Slovo in honour of the late Minister of Housing, Mr. Joe Slovo with whom the federation had a strong allegiance. Before his passing, the Minister pledged 10 million rand to the National Federation to set up a bridging finance facility as a revolving housing fund (Bolnick 1996). The land invasion ultimately led to the formalisation of Joe Slovo and tenure security for over 3,000 households. The federation has a strong presence in Joe Slovo especially in the area where the women from the 'Win saving scheme' successfully built 258 households.

**Figure 2: Locating Joe Slovo and Midrand**



Notes: Joe Slovo is shown in green, Midrand in yellow and all other profiled settlements in blue.

## Work completed before the SHARE Project

Between 2012 and 2013 ISN and FEDUP conducted settlement profiles primarily in the north-western region of the Eastern Cape as part of a mobilising strategy to activate community saving schemes and create a network of leaders linked to the ISN. Figure 3 (zooming in on the north-western area) shows all settlements that have been profiled in light blue, including Midrand (in yellow).<sup>1</sup> The settlements are: Joe Slovo West, Joe Slovo Hill Side, Joe Slovo Powerline, Westville, Kwanoxolo Endlovini, Kwanoxolo Endlovini 1, Moeggesekel, Extension 32, Strelitzia, Extension 34, Midrand, Mckays Ground, Clip Rand, Enkanini and Bridge.

**Figure 3: North-western area of the Eastern Cape**



Notes: Midrand is shown in yellow; ISN and FEDUP-affiliated and profiled informal settlements are shown in blue.

ISN and FEDUP used the profiling exercise as a means to start an engagement with the Nelson Mandela Bay metro. The significance of profiling as a movement strategy is elaborated in Patel et al (2012): it helps to build a strong identity in the settlement, identifies priorities for the local community, and strengthens relations with the local authority. These engagements led to the municipality installing two standpipes into the settlement at Midrand (among other results). Before the profiling there were no taps in the settlement and residents had to walk 300m to the nearest municipal standpipe. Installing the two standpipes enabled easier access to water with a maximum distance of 40m from the furthest household to either standpipe.

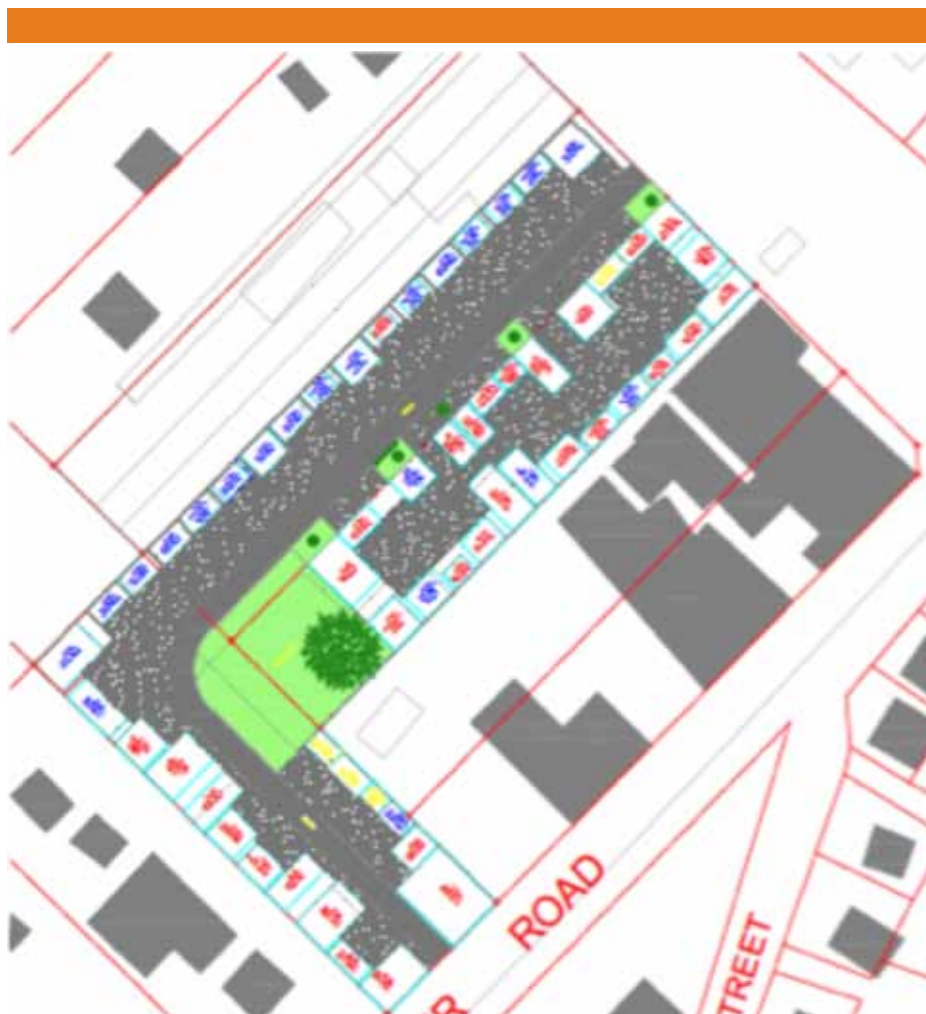
<sup>1</sup> <http://sasdialliance.org.za/midrand-community-maps-settlement/>



Following successful re-blocking projects in Cape Town, the ISN advocated re-blocking projects for a number of settlements in the Eastern Cape including Midrand.<sup>2</sup> The limitation of this approach at the time was that it was motivated by the desire to replicate what had been done in Cape Town rather than being driven by a need identified by the community. After a new layout had been drawn (Figure 4) it became apparent that the land in which Midrand was situated was owned only partly by the City of Cape Town ('City') and also by private landowners. This resulted in a perceived stumbling block and the project did not move forward. "We stopped because of the private land issues - this is where we got stuck." (Roger Msecane, community leader from Midrand, June 2014).

In both the mapped layout and the proposed re-blocked layout compiled by CORC's technical team (once superimposed onto a Google layout) the placement of shacks was indicated on three, rather than all four, erven<sup>3</sup>. Since there is no legend the assessment is that this was an oversight.

**Figure 4: New Midrand layout proposed in 2013 (three erven)**



<sup>2</sup> For examples of re-blocking see the SA SDI Alliance in South Africa's website: <http://sasdialliance.org.za/from-re-blocking-to-housing-lwazi-park-cput-studio-2015/>

<sup>3</sup> In South Africa [Afrikaans] 'erven' (plural) are plots of land marked off for building purposes (singular 'erf').

## 2. Updated Midrand informal settlement profile (2014)

As part of the SHARE project an updated profile was completed between June 2014 and November 2014. The community of Midrand, with support from the ISN and FEDUP leadership, collected updated information based on the new profile form used by all SDI affiliates. Ikhayalami collated the information in November 2014. An updated map was drawn based on Google images and work done by the Ikhayalami technical team, taking into account work done by CORC in 2013, ensuring that shacks were drawn on all four erven. The updated profile was conducted in line with a more extensive investigation based on a generic profile compiled by SDI and adjusted slightly to fit local contexts.

### Midrand profile

#### Location

Midrand informal settlement is located on an undeveloped parcel of land in the middle of Kleinskool. It is situated on a slope of undulating and uneven topography.

#### Legal status

The status of the settlement is illegal. Most of the surrounding dwellings in Kleinskool are of a formal nature.

#### History

In 2008, 25 households who were living as backyard shack tenants decided to invade an open piece of land that was not being used, as they were tired of paying rent to exploitative landlords. Between this invasion and August 2014, another 26 backyard shack-dwelling households (backyarders i.e. also paying rent and living in backyard shacks) moved onto the land. A further six backyarders moved onto land adjacent to the area. These six backyard households are identified by the community as part of Midrand informal settlement. By August 2014 the Midrand community comprised these 57 households.

#### Name

The community came up with the name 'Midrand' to indicate that the settlement is centrally located in the middle of Kleinskool.



Clearing the area

**Figure 5: Location of Midrand in Kleinskool**

Notes: Midrand is shown in yellow

### Land ownership

Midrand is situated on four erven within a larger block. Two of the erven, namely 245 and 246, are owned by the municipality, whereas erf 251 and erf 253 are privately owned. The ratio of municipal to privately owned land is 50:50 (see Figure 6).

### Landowners

According to investigations made by Midrand community members, three private landowners own erf 251 and erf 253. However, no one knows of or has seen the landowners. When the community members went to the deeds office to investigate the landownership status of Midrand the officials told them which erven were privately owned and which were municipal, but they said they were not at liberty to give the names of the landowners.

Figure 6: Midrand's erven



### Number of households and shacks

There were 57 families living in Midrand informal settlement as of September 2014. Of these, 51 families live in 48 structures in the informal settlement and another six households, who are regarded as part of Midrand, live adjacent to erf 251 and erf 253 as backyarders. The total number of shacks including the backyarders on adjacent land was 54. In November 2014, 10 families agreed to a municipal relocation initiative. Since then the total number of families has been 47, living in 44 structures that are part of Midrand, with 38 in the informal settlement and 6 as backyarder structures on adjacent land.

### Shops

There is only one spaza shop<sup>4</sup> in Midrand; the shop is also used for residential purposes.

### Family size

The average family size is 4.5 people.

### Structure ownership

Only two of the structures in the settlement are rented. The remaining structures are owned by their inhabitants.

### Plot sizes

There is no average plot size as plots are not demarcated. Shacks are placed randomly. Only three shacks have built fences to indicate that some of the open space is part of their dwelling.

<sup>4</sup> Local convenience shop

### Water

The settlement is connected to the main water line. There are only two water taps in the settlement; these were installed in 2013 as a result of ISN/FEDUP engagement with the municipality. Currently only one is operational. The community asserts that the tap was broken by other shack dwellers living next to their settlement as, in the words of one community member, the Midrand community "... fought for the taps to be installed and look after them". Water is collected from the taps in buckets and is safe for drinking.

### Sewerage

The settlement is not connected to the bulk sewer infrastructure; however, bulk infrastructure runs along two of the settlement boundaries, Uitenhage Road and Wimmer Road.

### Toilet system

Of the 47 families living in Midrand, only 14 families use the bucket system. The remaining 37 households use what is commonly referred to as the 'fly by night' (toilet). This is where people defecate into a packet inside their shack, tie a knot in the packet and toss it out - hence the 'fly by' scenario. The reason that only a few households use the bucket system is because they would have to build a structure outside their shack for this purpose and most do not want to have the smell close to their homes nor do they want to invest in building such a structure. The City provides buckets to households who want to use this system. Community members say that the contractor who distributes buckets and collects the waste requires a R20 deposit for the bucket, thereafter there is no cost to collect the waste, which is done once a week.

### Electricity

The municipal electrical grid surrounds the borders of the settlement. The settlement is not officially connected to the electrical grid; however, 90% of households are illegally connected to the grid. The only payment that households make is a one-off illegal connection fee.

### Access to bulk infrastructure

For both electricity and sewerage there is potential to tap into the surrounding bulk infrastructure. It is for this reason that having conventional access to waterborne sanitation and electricity from the grid are the obvious and most practical choices. Alternative forms of sanitation and energy production have less chance of being successful when the desired and aspirational form of infrastructure is literally across the road.



Walls going up

### Rubbish

There are five informal dumping sites in Midrand where rubbish is disposed of. Rubbish keeps piling up and is not collected from the settlement - it is a health hazard.

### Drainage

There are no drains so rainwater and grey water runs through the settlement bringing mosquitoes and smells.

### Employment

Most people living in Midrand are unemployed. The most common forms of employment opportunities for settlement dwellers are as taxi guards, domestic workers and garden workers.

### Transport

The main modes of transport are bus and commuter taxi, which are accessible by foot within five minutes of the centre of the settlement. The railway station is too far to access by foot. The cost to travel to town one-way by commuter taxi (mini bus that has the capacity to transport 16 to 18 passengers) or bus is R12. By car the cost would be R100 one way.

### Roads

The settlement to the northern side borders a well-accessed road - the Uitenhage Road that becomes a main arterial road, the R368, and a suburban road on the east side - Wimmer Road. Ceratonia Crescent is on the southern border. Inside Midrand there are only dirt pathways that wind through the settlement.

### Wider community

Midrand is relatively well located within Kleinskool with shops, banks, clinics and schools within a 5km radius.

### Access to healthcare

A mobile health clinic comes to the settlement once a week. The closest clinic is situated 7km away; it would take approximately 90 minutes to walk to the clinic. An AIDS clinic is located 2km away, which would take 20 minutes to walk to. The hospital is not located within walking distance of the settlement; two taxis are needed and the round trip costs R48. There is no cost to use the clinics but the hospital costs R38 for assessment. The most common diseases and health conditions in the settlement are tuberculosis (TB), HIV, diabetes and high blood pressure.

### Emergency services

It takes a long time for ambulances and fire services to respond to emergencies - approximately 90 minutes. One community member commented that: "By the time the fire trucks arrive the shacks

have burnt to the ground”. This unacceptable response time is exacerbated by the inadequate emergency vehicular access due to the spatial arrangement of shacks. The settlement has had to face the perils of shack fires. The last shack fire occurred in February 2014 with two shacks burnt. “It’s a risk for all shacks if one shack burns” (Kathryn from Midrand).

### **Risk of natural hazards**

Flooding occurs every year in the rainy season as the settlement is situated on a slope and the water floods into peoples’ homes as it trails down the hill.

### **Threat of eviction**

The settlement has not faced an eviction threat nor is it currently under any perceived threat of eviction. However, local government has offered shack dwellers the opportunity to relocate to plots on un-serviced sites close to Joe Slovo with the promise of securing a housing subsidy. Ten households from Midrand relocated to the new site.

### **Leadership structure**

ISN and FEDUP started engaging with the Midrand community in 2009. The current leadership structure elected in 2013 is made of 10 people. The portfolios include: chairperson, deputy chairperson, technical, health, savings, safety and security. The leadership has a relatively good relationship of open dialogue with the current Ward Councillor.

### **Savings**

The settlement has a FEDUP saving scheme called ‘Masibambane Saving Scheme’. Every household in the settlement is represented in the saving scheme. Aggregated savings fluctuate between R2,000 and R3,000.

### **Priorities and concerns**

The profiling provided an opportunity to identify development priorities and concerns. Key issues of concern that the community identified are: inadequate access to dignified sanitation, inadequate shelter, and the piling up of waste and flooding during the rainy season. Their primary concern is inadequate access to adequate and dignified sanitation.

Figure 7: Current Midrand structure layout



Notes: Midrand is shown in yellow; structures are shown in red.



### 3. Identifying a practical and scalable way forward to access decent and dignified sanitation

The SHARE project aims to identify and implement ways of providing decent and dignified forms of sanitation that are ideally resourced by the state and replicated at scale. This should in turn influence how the state provides access to basic services (in particular sanitation) for informal settlement communities.

Sanitation has persisted as a critical issue cited by Midrand community residents since ISN and FEDUP first engaged the Midrand community in a profiling exercise<sup>5</sup> in 2012. Some residents were using self-built pit latrines while others were simply using buckets in their homes and throwing the excrement out into public open spaces in packets. Regional and national leadership of FEDUP and ISN made this pressing need known to the broader social movement. It was through engagements conducted by the national leadership of ISN and FEDUP with the support of the NGO CORC that Midrand was identified as the settlement to conduct research for and implement the SHARE City-wide Sanitation project.

To ensure that the research and decision-making processes are led by the community, the role of the technical support agency - Ikhayalami in the case of the SHARE project - is to support the community in identifying a number of technical solutions. It should then link these options to projects already implemented by the federation to expedite exchange programmes so that community members can learn from other shack dweller communities how they went about identifying, choosing and implementing their sanitation solution. It should then frame all these solutions in the context of the settlement in question based on technical research and cost analysis so that the community can make their own informed decision.

The community leadership together with ISN and FEDUP regional leadership and Ikhayalami technical support identified that the most appropriate technical solution, since the settlement is close to the municipal sewerage system, is to implement waterborne sanitation linked to the bulk municipal infrastructure. It is clear that there is no need for alternative forms of sanitation such as dry toilets,



Final work to a toilet block

<sup>5</sup> See footnote 1.

bio-digesters, settled sewerage. The focus is therefore to tap into the bulk infrastructure that runs along two of the boundaries of the settlement by drawing in the municipal government and holding the state accountable to meet its constitutional mandate of providing basic services to all.

The participants met with fellow shack dwellers and visited 4 informal settlements focusing on the sanitation solutions that that settlement had opted for. They visited the ablution facility in Langrug containing male and female waterbourne sanitation with showers, a re-blocked project in Mshini Wam where waterborne sanitation was provided per household and in some instances shared between two households due to spacial constraints, and two re-blocked projects where waterborne sanitation was provided per household (Flamingo and Kukulutown).

Ikhayalami's role during the exchange was to encourage reflection and dialogue on the options seen in relation to Midrand. After the exchange Ikhayalami conducted additional research, drawings and cost analysis so that informed decisions could be made by the Midrand community.

The four options are summarised below and discussed in detail in the following sections including the costs, advantages and disadvantages of each option.

### **1. Build a community ablution facility at the bottom end of the settlement near Uitenhage Road.**

This will be the 'easiest' in terms of not displacing any households. Community contribution would be 10% with small ongoing payments per household per month for use.

### **2. Build a community ablution facility in the middle of the settlement.**

This will displace a number of households but it will be safer for women, children and the aged as well as being more centrally located for everyone. However, this scenario would require the relocation of six households to open spaces in the settlement to centrally locate the ablution block and to make way for the infrastructural earthworks along the boundary of the settlement (Option 2 below). It has advantages but will cost more than the first option. The same community contribution would apply: 10% with an ongoing monthly fee/contribution for use per household per month.

### 3. Reconfigure the entire spatial layout of the settlement including the private land to open up space for the provision of sanitation, among other advantages.

The idea here would be to use SHARE capital funds to catalyse a re-blocking of the settlement so as to allow for the later provision of services either through SDI's Urban Poor Finance International (UPFI) funding or through leveraging state resources - as clearly defined and delineated access would have been taken into account in the design and process of re-blocking. When the community designed this option in 2013 with technical support from CORC, they did not include individualised plot sizes, and rather focused on creating public open spaces. Should the community identify this as the most appropriate solution, Ikhayalami advocates that it should consider creating plot boundaries. This is because there is enough space to warrant such an approach and it could later help them attain tenure security as it aligns with the government's approach to upgrading. Further explanations, advantages and disadvantages and a drawing of the 2013 layout superimposed on a satellite image are given in section 4.

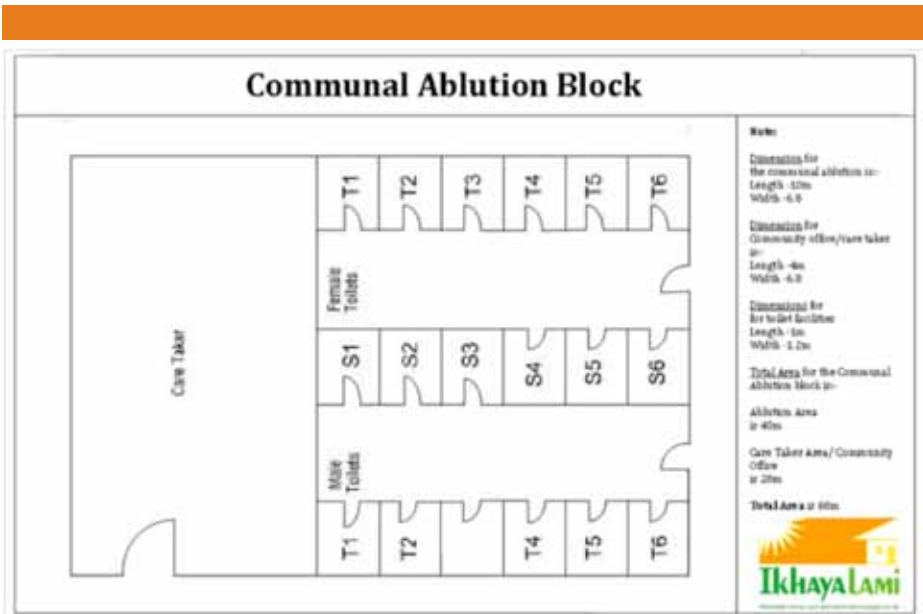
### 4. Reconfigure the spatial layout of shacks on private and municipal land to be repositioned onto municipal land only.

Due to the higher density, in such a scenario there would not be sufficient space to allow for 'plot' sizes beyond the size of the shacks themselves, only public open spaces. Ikhayalami produced a layout design for the community to assess if all the households in the settlement could fit onto the municipal land (erf 245 and erf 246) in a decent re-blocked layout. It was ascertained that this was possible (refer to layout on page 28) however the community after some reflection decided it would be better for the families that are on private land to reconfigure their shacks on the private land while those living on the municipal land stay on municipal land. The hope is that once the re-blocking starts the landowners will come to the fore and negotiations can begin. From a negotiation and legal standpoint, the community can at any stage decide to realign on the municipal land should that prove strategic. Re-blocking is itself a sanitation solution because the City is obliged to provide access to services on municipal land and re-blocking would thus facilitate fulfilling this obligation. On the other hand, the City is not obliged to provide access to services on privately-owned land, therefore only moving everyone onto municipal land would ensure access to services for all.

# 4. Unpacking and costing the options

This section elaborates on these options and costs them. Option 1 and 2 both involve the building of an ablution facility. As per current policy regulations, the state stipulates that for every five households there must be one toilet (seat). Therefore, at the very least the community ablution facility must have a minimum of 10 toilet seats, as there are currently 47 households in Midrand. As an ‘agitator’ for low-income households to access dignified services the South African Alliance should ‘push the boundaries’ and increase the number of toilets from one to five households to at the least one to four or even three households. This therefore means that there would be a need to build between 12 and 16 toilet seats. Due to the likelihood of a higher demand for the use of showers and toilets during peak periods - early in the morning and after work in the early evening the number of toilets to showers is 1:2. For a structure to house 12 toilets and six showers with a caretaker unit attached (or community office) it would need to be a minimum size of 68sqm (Figure 8).

Figure 8: Communal ablution block layout



## Option 1: Building a community ablution facility at the bottom end of the settlement on municipal land

**Advantages:** This option will not displace any households; it is the closest point to the bulk infrastructure and it will provide decent dignified sanitation to the community. It will build mobilisation and management capacity within the community.

**Disadvantages:** It will be at the bottom of the settlement so will not be easily accessible; the topography is very uneven so earthworks will be costly; there is no guarantee that the City will provide resources for the provision of toilets, pipes and connections - and if it does not then community contributions per household would need to be in the region of R1,000. This is too high an amount to raise, and is especially pertinent in light of past experiences of the South African (SA) Alliance on securing community ablution facilities. The households would also need to be willing to contribute on an ongoing basis for the upkeep and maintenance of the facility, again an approach that has not met with much success in the South African context.

Figure 9: Layout of option 1



## Costs:

Top structure including timber, 0.5mm thick concealed fixing Zinc/aluminium sheeting, 8 wooden windows, 3 external doors, 18 internal doors, waterproofing of shower walls, transport and labour (including community labour)	R37,500
Earthworks - level and prepare the site	R10,000
Foundation and 100mm slab with channels for infrastructure	R12,500
Training of community in building the prototype	R5,000
Basic top structure excluding infrastructure	R65,000
Estimated cost for earthworks and installation of toilet, pipes and connection to sewer at an average cost of R25 000/toilet <sup>7</sup>	R300,000
Estimated cost per installation of shower, pipes and connection to the mains and grey water outlets	R90,000
<b>Total estimated cost for project</b>	<b>R455,000</b>
Likelihood of community contribution	Very low, 0

<sup>7</sup> This estimation is based on input from CORC on costs as indicated by the City of Cape Town for re-blocked projects for the provision of waterborne sanitation at an estimated cost per household. It is likely that community-managed construction will be lower cost but these figures were not adjusted because the extent to which these costs will be reduced is unknown.

## Option 2: Building a community ablution facility located in the middle of the settlement on municipal land

**Advantages:** Situated in the middle of the settlement so will be easily accessible and will provide decent dignified sanitation to the community. It will build mobilisation and management capacity within the community.

**Disadvantages:** The topography of the settlement is extremely uneven, which will make earthworks very difficult and costly. It will result in the displacement of six shacks to provide a pathway for the access of pipes and infrastructure; additional costs will be incurred in facilitating the material relocation of the six households to other areas in the community. There is no guarantee that the City will provide resources for the provision of toilets, pipes and connections - if it does not then community contributions per household would need to be in the region of R1,000. This is too high an amount to raise and is especially pertinent in light of past experiences of the SA SDI Alliance in securing community ablution facilities. The households would also need to be willing to contribute on an ongoing basis for the upkeep and maintenance of the facility, again an approach that has not met with success in the South African context.

Figure 10: Layout of option 2



## Costs:

As per option 1 for top structure and infrastructure, including the estimated cost for earthworks and installation of toilets, pipes and connection to sewer at an average cost of R25,000/toilet <sup>8</sup>	R455,000
Additional earthworks from the periphery to the centrally located ablution facility to level and prepare the site	R25,000
Displacing six households to open up space for the ablution facility: six shack replacements will be needed at a minimum cost of R7,000 per household	R42,000
Some might not be willing to move if they only get compensated for walls, therefore the <b>lowest estimated cost for project would be:</b>	<b>R522,000</b>
Likelihood of community contribution	Very low, 0
Likelihood of leveraging state resources	Unknown
Should it be agreed that the relocated households be provided with full shack replacement for the six households the amount per household would increase to:	R12,500 x 6 = R75,000

<sup>8</sup> See footnote 5.

For options 1 and 2 the strategy would be for ISN and FEDUP to engage officials at municipality, tell them of their plans to build a community ablution block and negotiate that the state provides the infrastructure - pipes, toilet seats and connection to the main sewer line. However, there is no guarantee that the municipality will provide the infrastructure. ISN and FEDUP discussed building the top structure hoping the state would come on board. This may be risky for the community and the negotiated option is preferred. As per current practices in the SA SDI network, the community would need to contribute a minimum of 10% of the costs. Should the state provide the infrastructural costs then the community would have to contribute towards the structure costs, which would be approximately R160 per household.

If the state will not provide the infrastructure then the required community contribution would escalate to R44,500 at R946/ household for option 1 or R52,200 at R1,110 per household for option 2. As soon as these options emerged, negotiations between the community and the municipality were initiated.

Past experience in the South African context, taking the examples of attempting to build the Joe Slovo ablution facility in 2010 and the Langrug Wash facility in 2012, showed the difficulties of raising the community contribution. In neither circumstance did the SA SDI Alliance succeed in activating community savings. In Joe Slovo the amount required was R135 per household to total an amount of R67,400. After eight months of engagement total savings towards the ablution facility were R2,300. In Langrug no contribution was requested from the community. The running costs of the facility have had to be paid for by an external source. After two years the municipality is taking over the running costs; however, it is not evident that this can be replicated at scale. The Stellenbosch municipality has opted to replicate a sturdier and cheaper option.

In addition to the above constraints of community saving towards a communal ablution facility, community members from Midrand said that they are not willing to pay to use the facility once it has been built.



## Option 3: Reconfigure the spatial layout of the settlement including private and municipal land

**Advantages:** It will create easy access for the provision of basic services; create public open space; upgrade people’s shacks; reconfigure the settlement to a more rationalised layout that can lead to delineated access for the provision of infrastructure and the creation of plot boundaries. It has the potential of mobilising ISN and FEDUP, igniting community savings, drawing in the landowners so as to deal with the land ownership issues and catalysing a replicable model for service provision, including sanitation services, for the Eastern Cape metro.

**Disadvantages:** The land that the settlement is situated on is both municipal and privately owned. The state is not legally obliged or allowed to tamper with privately-owned land; therefore, the municipality cannot lay sewer lines on the privately-owned land. It is, however, obliged to provide access to sanitation on the peripheries. Since through the process of re-blocking space would be created for easier access for the provision of services, the strategy would be to leverage state resources to provide sanitation on the upper edge of the municipal land close to the privately owned land. Once the landowners come to the fore either before the provision of services or thereafter the community and the City can negotiate whether either the City can provide sanitation on the land or the land can be bought for the purposes of tenure security.

The City might not agree to the provision of sanitation; in this eventuality the community has agreed that they will implement the second phase by activating additional community saving towards a one-to-one sanitation solution to link the bulk sewerage system. This would require them to leverage additional funding by applying to SDI’s UPFI or the fund of the SA SDI Alliance, the Community Upgrading Finance Facility (CUFF).

**Figure 11: Layout of option 3**



Notes: Community and CORC layout prepared in 2013 (superimposed on the site). Ikhayalami findings: the layout was drawn on three erven not all four (a technical oversight).

## Costs:

The cost associated with a re-blocking of 48 shacks is a maximum of R7,000 per household. In re-blocking projects to date, communities have contributed 20% of these costs to the revolving fund CUFF.

Re-blocking 48 shacks x R7,000 per household	R336,000
A higher likelihood of community contribution <sup>9</sup>	(R67,200)
<b>Total required for the project</b>	<b>R268,800</b>

Additional costs will be incurred for the provision of land sanitation. There is a strong likelihood that these could be leveraged from UPFI (as loan finance) or from CUFF.

Numerous precedents have been set in Cape Town. With each successive precedent the municipality has provided increased access to services. The two most recent re-blocking projects in Cape Town have resulted in the municipality providing the earthworks to level the site and sanitation on a one-to-one household ratio. With this in mind the aim of implementing a re-blocking project in the Nelson Mandela Bay would be to demonstrate the model that the Cape Town municipality has followed. It would intend to 'open the way' literally and figuratively for the Nelson Mandela Bay metro to follow suit.

Table 1 summarises the progress achieved in other re-blocked sites. Community members have indicated that re-blocking should be phase 1, which among other advantages will open clear pathways for the later provision of basic services. Phase 2 will be service provision either with support from the state or from community savings and leveraging funding from the UPFI or CUFF.

Should this option be chosen, a new layout would need to be drawn taking into account the space created by the voluntary relocation of 10 households to municipal land elsewhere. Such a layout would need to place the households on the requisite land that they are currently on - so if they are on municipal land they remain on municipal land and if they are on private land they remain on the private land. This will reduce contestations as the project unfolds and as land ownership issues arise. Those on private land are aware of the risks. The new proposed layout should take into account spatial planning, boundaries and plot sizes and clear delineated pathways for the easier access and provision of basic services, all of which can have the desired effect of leading to formal tenure security and township establishment.

<sup>9</sup> Community contribution has been successfully attained in a number of re-blocked projects.

**Table 1: A summary of re-blocked projects and associated sanitation provision**

Date	Province	Settlement	Number of households	Number & type of WASH before re-blocking	Type of sanitation as result of re-blocking	Number of toilets and taps installed	Sanitation provision paid for by:	Estimate costs of improvements
2009-2012	Cape Town	Sheffield Rd	169	15 waterborne toilets, 3 taps	Additional waterborne sanitation	Additional 15 waterborne toilets & 3 taps	City of Cape Town	@ R20,000 estimated by CoCT per unit = R300 000
2011-2012	Gauteng	Ruimsig	369	70 ventilated pit latrines (VIP) & 3 self-built pit latrines & 3 taps	Additional self-built pit latrines on created plots	15 additional self-built pit latrines	Individual household	R1,500 per unit
2012-2013	Cape Town	Mshini Wam	250	16 chemical toilets	Waterborne sanitation	200 waterborne toilets & taps	City of Cape Town	@ R20,000 estimated by CoCT per unit = R4 000,000
2014	Cape Town	Kuku Town	22		Waterborne sanitation	22 toilets & 22 taps	City of Cape Town	@ R25,000 estimated by CoCT per unit = R550,000
2014-2015	Cape Town	Flamingo Crescent	104			104 toilets & taps	City of Cape Town	@ R25,000 estimated by CoCT per unit = R2,600,000

CoCT: City of Cape Town

## Option 4: Reconfigure the spatial layout of the settlement with all shacks on municipal land

**Advantages:** If and when the City provides access to sanitation all households will benefit. The households living on the private land will have greater security.

**Disadvantages:** Settlement density will increase.

**Figure 12: Layout of option 4**



### Costs:

The cost of this option is the same as option 3. The community is less keen on this option, but would consider it should negotiations with the municipality and/or with landowners result in a deal that would require relocation onto municipal land in exchange for the provision of services on a one-to-one household ratio. A desktop study was conducted to ascertain if spatially this would be possible. It was proven to be, yet when looking at the layout it makes little sense to squash people into two erven when there is open private land where people currently live. The likelihood of other shack dwellers inhabiting this tract of land once cleared is high.

Therefore, it is proposed that those shacks that are currently residing on private land remain on the private land as they are currently. As the re-blocking unfolds the landowners will come to the fore and then the community with support from the municipality can enter into negotiations with the landowners.

# 5. Taking the project forward

ISN and FEDUP have been negotiating with the Nelson Mandela Bay Metropolitan Municipality for the past three years. They are seeking to sign a memorandum of understanding (MOU) with a focus on informal settlement upgrading. This engagement, up until the writing of this report, has not resulted in the desired outcome. Before the SHARE project and during 2014, direct engagement with the City focusing on Midrand was discouraged as the ISN have been advocating that it is close to signing an MOU and once the MOU is signed then both parties (ISN and the City) would be in a better position to deal with site-specific matters. This has impeded an important aspect of the project - that is direct engagement with the City focusing on site-specific matters. Discussions on how to draw the City to the negotiating table took place with the Midrand community and the SHARE Project technical support team (Ikhayalami) taking heed of ISN's strategy not to engage the Municipality directly on project-specific matters until the ISN has secured an MOU with the City.

Consensus on how best to proceed and which sanitation option should be implemented has also not been reached. It is hoped that this document will provide the tools necessary for consensus to be reached.

## Recommendations

### 1. Reconfigure the settlement to open up access to basic services

The community, with technical support from Ikhayalami, recommended in April 2015 that the best way to catalyse the City to action and gain access to decent and dignified forms of sanitation is to implement a spatial reconfiguration of the settlement to open up space for delineated and easier access for the provision of basic services linked to the bulk infrastructure. If the State does not provide access to sanitation services, which is unlikely based on the experience from previous re-blocked projects, then it would be necessary for a second phase wherein the community would need to save towards this eventuality and leverage additional funding. The community is aware of this eventuality and is willing if necessary to embark on a second phase themselves through galvanising savings and applying to SDI funds. In such a case the strategy will be to implement individual household connections linking them to communal connections within the settlement and leading the pipes to the municipal street. Since the settlement is situated on a declining slope leading to the street this will be possible. Once the pipes reach the street it will be up to the City to link the final

connections into the municipal infrastructure. If it does not, then sewerage will spill onto the municipal street. This would be a similar approach to that of the Orangi Pilot Project to activate the state to link the community to the bulk sewerage system. In Orangi there were natural drainage challenges and the community installed secondary drainage to remove waste from the vicinity if needed. However, here there is no need for either a decentralised sanitation system or the community investment in secondary drains, as the bulk sewers run adjacent to the settlement.

The strategy therefore will be to implement a spatial reconfiguration that opens the way for the provision of sanitation and services. Even if these are not going to be provided by the state, the project would have opened the way (quite literally) for sanitation provision. In the process the project will start a dialogue with the City around sanitation and basic services, catalyse the community to action by identifying a feasible sanitation intervention while concurrently upgrading the spatial layout, creating a safer community and vastly improving shelter conditions thereby reducing people's vulnerability.

## 2. Engage the municipality (while working on the MOU)

An additional Ikhayalami recommendation is that ISN and FEDUP should engage the municipality about the Midrand project while at the same time working on the MOU. The project ought to demonstrate to the City the advantages of signing an MOU with the SA SDI Alliance. Instead of agitating the City to sign an MOU based on theory, drawing the City into engagements around a tangible project ought to have the desired effect of building trust and a relationship that ought to lead to the eventual signing of an MOU.

This project is important for the SA SDI Alliance for numerous reasons:

- it is not located in Cape Town
- it can develop the continuum from the precarious nature of informality - fire and flooding risk, eviction threat, dehumanised forms of sanitation to regularisation
- it is a scalable and practical way to hold government to account for its constitutional obligations of providing communities access to basic services
- it will catalyse ISN and FEDUP to action in the Eastern Cape and, most importantly for the SHARE Project
- it will demonstrate how community-led initiatives can open up the space literally and figuratively for participation and access to decent and dignified sanitation that at the same time will result in an improved spatial and environmental layout of the settlement, vastly improve the standard of living of 44 families, increased the likelihood of tenure security 10-fold and will have set a powerful precedent in the Eastern Cape.

Spatial reconfiguration linked to shack upgrading as per the re-blocking projects implemented in Cape Town has proved to be a powerful strategy in which organised informal settlement communities are able to engage the state, upgrade their settlements and open clear delineated space for the easier access and provision of basic services. Re-blocking can therefore also be considered a strategy for upgrading sanitation services. This intervention has had an effect on policy at the level of the City of Cape Town and has influenced many informal settlement communities and municipalities throughout the country through exchange programmes. It is of vital importance and makes strategic sense that similar community-led initiatives in other provinces as a powerful means for low-income informal settlement communities to hold the state to account for the provision of basic services, in particular sanitation.

## 6. Engaging with the Municipality following initial research and planning

Starting in April 2015, ISN and CORC representatives took up further engagement with the community around the research and findings from this document presented by Ikhayalami. Through a series of consultations and ongoing engagements with the municipality, the community and ISN, it has been agreed that building of a toilet block is the preferred option. The community and ISN have, however, chosen not to include showers in the block, as lessons have been learned from the Langrug project in Stellenbosch that geysers are extremely expensive to operate and that people are not likely to use cold showers. Hence, including showers is an unsustainable option. Since the primary need of the community is ablution facilities, the project is advocating for these. The community has identified an open site where currently refuse is thrown. This is where they want to situate the toilet block.

The municipality has shown interest in this toilet facility and CUFF is willing to provide additional finance.

By October 2015, the community were busy saving for the CUFF requirement that they contribute 10% (R20,000) of the cost. While there is some frustration in the community with respect to the slow progress, the leadership and savings team committed to raising the required contribution by the time the municipality gives the go ahead and the community is ready to implement.



## Municipality support

At a meeting on 7th October 2015, the community, FEDUP and CORC staff met with four officials from the Nelson Mandela Bay Metropolitan Municipality who represented the Electricity, Infrastructure, and Water and Sanitation Departments. Officials reported that the Nelson Mandela Bay Municipality City Manager (the most senior official in the municipality) has approved and is excited about this pilot project, and has requested that managers from the three departments support this project and ensure its success. The municipality accepts that with the SA SDI Alliance investment in the toilet block, it will:

- install and connect the main sewer and water connection to the WASH facility
- maintain the hard infrastructure of the WASH facility
- hire caretakers and security (although it is not clear if they will use the Expanded Public Works Programme that creates employment possibilities for local community members), and
- ensure that the electricity department is willing to assist with solar power as the source of energy in the facility.

This report was warmly welcomed by the ISN leaders, community leaders, CORC staff and the officials in the meeting. Officials from the Infrastructure and Water and Sanitation Departments were concerned that there are presently no funds in their departments or a mechanism in place to run the facility. To move forward on these issues, the municipal officials agreed that a further meeting would be held with the City Manager. CORC would write committing itself to handing over the facility to the municipality so that it would be able to allocate the additional funds needed. Municipal monies can only be allocated to projects owned by the municipality. The Electricity Department requested that the roof will be strong enough to hold the solar panels, but it was agreed that such details can be finalised later. Municipal officials were also concerned about having to provide sanitary towels and toilet paper for everyday use. The SA SDI Alliance responded saying that the community will try to sell such products. The community leaders also made a commitment that the community would save towards its required 10% contribution.

# 7. Next steps in this action research project

The sections above describe the evolution of this SHARE project in South Africa. It outlines the ways in which a community without access to adequate sanitation understood and assessed their options. South Africa is a country in which sanitation needs are recognised in state policy but access to such infrastructure is constrained by inefficiency, a deep sense of wishing away the problem and also a technical reality in that access to enable the provision of basic services is often hampered by the haphazard nature of the placement of informal settlement dwellings. In other provinces, the SA SDI Alliance has made some progress in securing state support for community-led informal settlement upgrading that has included improved access to sanitation infrastructure. Work to convince the provincial and city governments to support community-led informal settlement upgrading has now began in the Eastern Cape in Nelson Mandela Bay.

This monograph has described the preparatory work that has been undertaken to address sanitation needs in the settlement of Midrand in the Nelson Mandela Bay Metropolitan Municipality. This has included community mobilisation through savings activities followed by community-led data collection to assess needs in the neighbourhood and identify community priorities. The community, working with technical assistance from Ikhayalami, then identified and assessed four options for addressing sanitation needs. Ikhayalami recommended re-blocking as per the findings in this paper, however as the SA SDI Alliance intensified their engagement with the Nelson Mandela Bay municipality, possibilities and perspectives changed. After the above research and numerous engagements with government officials, the municipality agreed to support infrastructure connections to a communal sanitation block. The SA SDI Alliance through these engagements with the state decided on an abultion block as the course of action.

On the 5th of May 2016 the Ikhayalami Build Manager with two Ikhayalami staff went to Midrand to assist 6 community members in the construction of the ablution facility. The design of the facility was facilitated by Ikhayalami based on the needs of the community. The facility consists of 9 toilets (5 for women and 4 for men), 2 urinals, a caretaker room of 6sqm, a male and female section and a veranda of 18.5sqm. The total dimensions of the facility are 12.2m x 5.1m totaling 62sqm. Between the 5th of May and the 19th May the team cleared and leveled the site, did earthworks, laid the foundation, did brick-work, constructed the top structure, roofing and veranda. All doors were hung including the internal doors for each cubicle and the woodwork for the partitions was completed.

Phase 1 being research and phase 2 being the construction of the top structure are now complete. The cost of phase 2 was R150 000. Phase 3 will consist of putting in the partition boards, putting in the sanitary ware in terms of toilet seats, urinals and outside wash basins. All piping for the sanitary ware will need to be connected with secondary infrastructure going from the ablution facility to the border of the settlement where it meets the main road. The SA SDI Alliance will leverage additional funding from its local funding facility to cover these costs estimated to be approximately R120 000. The Nelson Mandela Bay Metro will cover the final cost of connecting to the main sewer line as per their agreement with the SA SDI Alliance.

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## (Footnotes)

<sup>1</sup> This estimation is based on input from CORC on costs as indicated by the City of Cape Town for re-blocked projects for the provision of waterborne sanitation at an estimated cost per household. It is likely that community-managed construction will be lower cost but these figures were not adjusted because the extent to which these costs will be reduced is unknown.

<sup>2</sup> See footnote 5.

<sup>3</sup> Community contribution has been successfully attained in a number of re-blocked projects.

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The Sanitation and Hygiene Applied Research for Equity (SHARE) Consortium seeks to contribute to achieving universal access to effective, sustainable and equitable sanitation and hygiene by generating, synthesising and translating evidence to improve policy and practice worldwide. Working with partners in sub-Saharan Africa and Asia, two regions with historically low levels of sanitation, SHARE conducts high-quality and rigorous research and places great emphasis on capacity development and research uptake.

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