Case Study:
Innovative community-driven sanitation services: The Langrug water, sanitation and hygiene (WaSH) facility

June 2017

Author: Delani Mathevula
ICLEI Local Governments for Sustainability Africa
1. ABSTRACT

Increasing access to adequate water and sanitation services in cities remains a key challenge in most African cities. Among others, this is due to the rapid growth of urban populations which often results in backlogs with respect to delivering the services of water and sanitation to citizens and communities. South African municipalities have been working towards improving the ratio of toilets per household; however most local authorities have been unable to attain the standard goal of five households per toilet. Against the backdrop of these challenges, the Community Organisation Resource Centre (CORC) has been providing assistance to the community of Langrug within the Stellenbosch Local Municipality (SLM) to participate in a comprehensive process of informal settlement upgrade. Through its partnership with the SLM, the community and Worcester Polytechnic Institute (WPI), the CORC has demonstrated remarkable results in addressing these challenges through the GE Foundation that provided financial support for an innovative, community-driven sanitation project. A community water, sanitation and hygiene (WaSH) facility was designed, which goes beyond the standard in sanitation by incorporating community-driven aspects into the design and delivery of innovative sanitation services.

2. INTRODUCTION

According to the latest estimates of the World Health Organization (WHO, 2017), in 2015, 32 per cent of the world’s population – 2.4 billion people – lacked improved sanitation facilities, and 663 million people still used unimproved drinking water sources. The effects of poor access to safe water and sanitation on human health and well-being are well documented, and include ill health, poor economic opportunities and deepening of poverty. Poor sanitation and hygiene practices impact communities at multiple scales, from countries to individuals, and are a major factor in reducing quality of life.

With this in mind, it is noteworthy that prior to the intervention by project partners in Langrug, the community had access to only two toilets which were often out of operation due to frequent vandalism (Shack / Slum Dwellers International (SDI), 2013). As with many informal settlements in South Africa, the sanitation situation in Langrug posed a significant health risk to its residents, particularly vulnerable groups such as children and the elderly. Sustainable, context-specific water and sanitation interventions and alternatives were desperately needed to improve health, quality of life and promote dignity in a particularly vulnerable community.

3. CITY IN CONTEXT

Franschhoek is a town in the Western Cape province of South Africa, situated about 90 kilometres east of the metropolitan of Cape Town and in the south-eastern extremity of the Stellenbosch Local Municipality (Figure 1). The area surrounding Franschhoek is characterised predominantly by commercial viticulture. From a

Figure 1: Location of Franschhoek in South Africa
settlement perspective, the greater area is comprised of formal, planned settlements/suburbs, informal settlements (such as Langrug), rural homesteads and farmsteads, as well as peri-urban or peripheral urban areas. According to Census 2011, the greater Stellenbosch area had a population of 155,733 people living in 43,420 households (Statistics South Africa, 2011). Upwards of 20,000 families are housed in informal settlements and back yard shacks within greater Stellenbosch, and with local housing authorities receiving some 300 housing subsidies a year from the State, families in need could wait up to 130 years to receive a subsidised house (SDI, 2013).

4. CASE STUDY

It is against this backdrop that the SLM created the Informal Settlements Management Department to respond to the multi-faceted socio-economic challenges posed by informal areas within its jurisdiction. One of this Department's guiding values was that the upgrading of informal settlements provides an opportunity to serve as a people-driven, pro-poor solution to the social ills that are associated with the urban and housing crisis within the SLM.

Community consultation and multi-stakeholder partnerships are not something traditionally associated with the provision of water and sanitation services in South Africa, a process which tends to takes place in a unilateral, passive fashion with little regard for local community conditions or contexts. This is perhaps unsurprising given the size of basic service delivery backlogs in the country, and the consequent challenge posed to authorities mandated to provide these services in fiscal and socio-economic environments which are challenging at best and severely or fatally constrained at worst. On the other hand, the absence of community involvement in the design, provision and operation of water and sanitation services contributes to the disempowerment and disenfranchisement of communities who tend to rely on the State rather than taking ownership of communal spaces (Brooks, et al., 2013).

With this situation in mind, the Langrug case proved to be pioneering and innovative, as is detailed below.

4.1. Partnerships

In a ground-breaking move, a Memorandum of Understanding was signed between the Municipality, the NGOs SDI/CORC, and the Langrug community. CORC is a subdivision of SDI that specialises in working with informal settlements to support community driven upgrading processes. This was the first instance in the country where a community-based, model partnership was formally agreed upon in this manner.

4.2. Implementation

In March 2011, the community leadership of Langrug mandated a local profiling team to closely work with its enumerators. The aim of this was to spatially map the settlement's existing infrastructure by identifying the location and conditions of all toilets; water taps drain, drainage gullies, electricity boxes, and street lights on a scaled and georeferenced aerial photograph. This exercise showed that the
ratio of people to toilets was 49:1, and that of people to water points was 72:1, with such services being intermittently dispersed within the settlement. In addition, access to these services was shown to be unequal, and the location inconsistent. The mapping process highlighted the urgent need for upgrading the sanitation and water facilities within the settlement.

Informal settlements often grow in an disorganised manner, and new settlers must locate and erect their shacks as fast as possible in whatever open space is available in order to avoid eviction. A grading model known as re-blocking was used to address this issue, as these types of communities were found to be more dignified and safe living environments. Re-grading consists of realigning housing such that groups of shacks are clustered together into blocks sharing a common entrance and a courtyard-like area. Each home faces the courtyard where a single entrance ensures that no unwanted individual can intrude on the block.

The communal water, sanitation and hygiene (WaSH) facility was designed to include five hand-washing sinks, two of which are lowered for children, four laundry basins in a central area so mothers can watch their children while washing laundry, urinals, two showers, and a total of nine toilet stalls – three each for men and women, two for children, and one unisex handicapped stall.

The technical design of the outer structure consisted primarily of poles, timber and zinc sheets; these materials were chosen because they were easy to work with, of a low cost, and local products. The toilets, hand sinks, and laundry basins were made of a composite material that is both durable and aesthetically pleasing. The toilets use a push button design reducing the risk of vandalism by concealing the plumbing behind the walls. The facility has been designed with the intention of introducing sustainable sanitation options in the future, such as rain water collection, grey water collection and urine divergent toilets.

5. RESULTS AND LESSONS LEARNED

The Langrug WaSH Facility had a number of positive outcomes, with the most noteworthy being that the facility is currently fully functional and that it is used by the community to its full capacity. The facility operates between 6 am and 10 pm. Caretakers are available on site to monitor, clean and maintain the facility, which includes distributing toilet paper and soap. Residents have expressed their satisfaction with the development of the facility, especially given that they have been waiting for a long period of time for such a development. In light of these points, the outcomes of the WaSH facility had a number of positive physical and social impacts:
Physical Impacts

- The collaboration between the profiling team and enumerators allowed project team members to map out and spatially define existing infrastructure which can be used for future planning exercises.
- Through the mapping process, the Langrug community increased the community's access to water and sanitation.
- The process of informal settlement upgrade increased social cohesion and restored dignity to the Langrug community.
- By involving the community in improving its well-being the residents contributed financially to the project with their community savings.
- Through the use of the participatory planning tool, the community was strongly involved and influenced the decision making in the type of the water and sanitation facility they needed. The municipality of Stellenbosch has contracted two community members to clean and monitor the use of the facility.
- The WaSH facility has been designed with the intention of introducing sustainable sanitation options in the future such as rainwater collection for hand washing sinks, grey water collection, and recycling for toilet flushing, urine diversion toilets.

Social Impacts

- The facility is multifunctional, including amongst other things, a children's learning area.
- The wash facility is currently fully functional and is being used to its full capacity by local residents.
- Through the construction of the WaSH facility there was a local economic boost, emanating from job opportunities created.
- The facility is not only limited to the community's use but football clubs also use it. Local churches are also anticipated to make use of the facility when they are hosting events.

6. CONTACTS

Bonita Kohler
Slum/Shack Dwellers International
1st Floor Campground Centre, Cnr Raapenberg and Surrey Rd, Mowbray, Cape Town 7700
+27 (0) 21 689 9408
documentation@corc.co.za

7. REFERENCES

