Water as an entry point to integrated community development

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The paper aims at outlining how water can be used as an entry point to integrated development. Specific reference will be made to Ekulindeni Cost Recovery Pilot Project. This pilot project is funded by Mpumalanga Water Sector Support Unit, a Department for International Development (DFID) funded initiative.

Project Location
The project is found in the former Ekulindeni TLC, the now part of the Albert Luthuli Municipality. The community is located in the NorthEastern corner of Eastvaal district Municipality, Mpumalanga in South Africa. Swaziland borders it to the east.

Socio-economic profile and levels of service
The population covered in 1998 is estimated at 17,109 (DFSA, 2000). Previous socio-economic assessments have characterized the area as a low-income status community. In 1998, the average monthly household income was R1057 (US$132) with 47% earning between R1-800 (US$0.12-100). The situation has deteriorated considerably with the closure of the areas principal source of employment, the Msauli asbestos mine, which closed in 1999 (see Figure 1).

During the preplanning phase it was discovered the cost recovery level was too low it ranged from 2-9%. The monthly tariff is R27. 91(US$3.5) for Kroomdraai residents (the township). From this sum, R10 (US$1.25) is for water provision, R10 (US$1.25) for emptying of buckets and R7.91 (US$0.99) for assessments. Those who stay in other villages pay only R10 (US$1.25) for water that they draw from standpipes. The following were the major factors contributing to low levels of cost recovery:

- Affordability - low socio-economic status in the community (see figure 1)
- Conflict between community structures (South African National Civic Association, SANCO, and the Ekulindeni Local Council. Because the municipality did not consult the community when choosing the metering options.
- Lack of information on reasons for payment and transparency on the part of the Council
- The water infrastructure was difficult to manage and as a result the community did not have a reliable water supply

Sanitation conditions – the Development Focus of South Africa
A study conducted by DFSA (2000) revealed that the sanitation conditions at Ekulindeni were below the RDP standard. The community still uses mostly the bucket system, bush and ordinary pit toilets (See Figure 2).

During the feasibility study, respondents were asked if in the past two weeks one of their family members has suffered from water and sanitation related illnesses such as diarrhooea. The results are shown in Figure 1. The situation deteriorated considerably with the closure of the areas principal source of employment, the Msauli asbestos mine, which closed in 1999 (see Figure 1).

![Figure 1. Income Profile](image-url)
rhoea, eye infections and bilharzia (see table 1). Inappropriate planning resulted in the establishment of water borne sewer system that the community never used because:

- It is expensive to do house connections
- The water supply is not reliable
- Low levels of cost recovery

Currently to rehabilitate the existing not functioning waterborne sewer system, it will cost the community more than R1m.

Table 1 reveals that Ngonini and Kroomdraai respectively have reported high cases of diarrhea as compared to the other areas. The situation can be attributed, among other things, to the fact that these communities spent three months without regular supply of water. The local clinic indicated that a skin disease called Impetigo is prevalent in the area and is related to poor hygiene practices. It does respond to treatment obtainable from the clinic.

The Ekulindeni water cost recovery pilot project
Due to the results of the feasibility study, DFID funded the implementation of the above-mentioned project. An integrated approach was adopted with DFID funding the water aspect and make limited provision for the project agents to help the community to secure funding for sanitation and local economic development (LED) intervention. Mvula Trust and DFSA were appointed as the project agents (specifically, water project), they used water as an entry point in addressing these three major problems (water, sanitation and poor economic conditions) in a sustainable manner. The following were considered the main objectives of the project:

- To put into place a cost recovery plan and customer care system approved and implemented by all stakeholders
- To establish an effective and sustainable operational and maintenance system
- To develop a sanitation, health and hygiene programme developed in collaboration with all stakeholders
- To ensure that coordination and integration of LED initiatives are affected through the use of water as an entry point.
- To implement capacity building programme for relevant water institution to ensure the sustainable provision of water services

Progress made per objective
Through this intervention funded by DFID, the following significant results have been achieved, viz.

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Table 1. Prevalence of diseases (DFSA, 2000)

<table>
<thead>
<tr>
<th>Disease</th>
<th>Ngonini =13</th>
<th>Kromdraai Township =30</th>
<th>Greater Ekulindeni =122</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhoea</td>
<td>100%</td>
<td>100%</td>
<td>63%</td>
</tr>
<tr>
<td>Bilharzia</td>
<td>92%</td>
<td>97%</td>
<td>72%</td>
</tr>
<tr>
<td>Eye infections</td>
<td>62%</td>
<td>66%</td>
<td>54%</td>
</tr>
</tbody>
</table>
The above project will not only improve sanitation conditions alone, but will also reduce the tariff by R10 (US$1.25). As stated earlier, the Kroomdraai residents pay R10 (US$1.25) towards bucket emptying, and if a ventilated improved pit latrine (VIP) is introduced, the tariff will then be adjusted accordingly. This will have a positive impact on affordability levels. It must be noted that this project resulted from the water cost recovery project as can be seen on the project objectives. The Water Services Act 1997 (South Africa) defines “water services” as including sanitation. It is in this spirit that mechanisms were sought to access funds to implement sanitation project parallel the water cost recovery project.

**Impact of the sanitation and hydroponics project on water services provision and integrated community development**

**Sanitation project**
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<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>Achievements</th>
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| **1. Cost recovery plan & customer care system approved and implemented by all stakeholders** | → Effective communication strategy was developed with community resulting in improved relations between the municipality and community stakeholders  
→ Community awareness strategy was implemented effectively through the use of local fieldworkers, community leaders resulting in the increased awareness regarding cost recovery and service delivery. The community is willing to pay affordable, appropriate and reliable services. |
| **2. Capacity building programme implemented for relevant water institution to ensure the sustainable provision of water services** | → Skills audit was conducted focusing on the newly formed development forum, village water committees and sanitation committees  
→ Providing assistance and support to the municipality in order to perform its functions effectively as Water Services Authority (WSP) and as Water Services Provider (WSP). The major problem is that the municipalities in South Africa are still trying to cope with the impact of demarcation processes and the new mandate of the local government. In this output progress is very slow. |
| **3. Effective and sustainable operational and maintenance system established** | → An Audit was conducted to assess the reliability of the water system. Results of this assessment together with recommendations on Operations and Maintenance (O&M) were discussed with the community and were forwarded to the municipality so that they take action regarding - affordable tariffs, levels of services and how they intend to upgrade the system. The community through this process begins to understand the cost of providing sustainable water and what part should they play.  
→ The audit came up with recommendations on how the municipality can implement a 6kl free water policy as a requirement for all municipalities to implement the free basic water policy. In this aspect progress is very slow, as the municipality does not have technical and management capacity to implement the policy as required. This might take more time. |
| **4. Sanitation, health and hygiene business plans developed in collaboration with all stakeholders** | → Funding for implementing a sanitation project has been secured from Department of Water Affairs and Forestry (DWAF). This will assist in improving the facilities as depicted in Figure 2. Moreover much emphasis in this sub-project will be on health and hygiene promotion. The aim is to decrease the health risks related to poor sanitary conditions as depicted in Table 1. |
| **5. Co-ordination and integration of local economic development initiatives through water entry point** | → Funding for the implementation of a community driven hydroponics project has been secured from the Department of Social Services, Population and Development in Mpumalanga, South Africa. The project seeks to produce cash crops and sell to identified local markets. At least 30-40 people, mainly women will work in the project and earn some income to improve their household income (see figure 1).  
→ Another brick making project has received capital funding from DFID budget. At least 25 women will work in the project and improve their income. This project will be sub-contracted during the implementation of the sanitation project to produce concrete slabs - more income.  
→ These projects will benefit from training programmes aimed at increasing management capacity at a local level.  
→ Village Bank (owned by the community) has been launched, the objective is to encourage local people to save locally as they stay far away from towns. |
The hydroponics project as explained above will generate income to the community. At present, 30-40 households will benefit. As the project gets bigger more members will be drawn in so that more households can benefit. This project did not come as a coincidence, but as a step towards the fulfillment of the project objective as stated on page 3. Again, the increase in income level will have a positive impact on cost recovery compliance rate. The more income generating activities are introduced in the area, the more their affordability levels increases.

In conclusion, the integrated nature of the water cost recovery pilot project (as can be seen from the project objectives) will have a wider impact and benefits on services payment. The intervention will also help improve the socio-economic and health status of the community.

Preliminary lessons learned
The following important lessons have been learned and should be understood within the development context.

- Because of the integrated nature of the project, it is difficult to co-ordinate other elements like LED funded project as we do not have a direct control. The LED initiative is managed separately by the Department of Social Services, Population and Development.
- Water can be used as an entry point to address other development and because of the fact that water, sanitation and local economic development, health and hygiene are not separable intervention in one aspect should lead to the positive progress on the other. However the main challenge is how to mobilize resources to address other important aspect of community development as well as managing them efficiently without losing the objective of a particular project.
- Inappropriate and expensive technology in water and sanitation services is not always sustainable. When planning water projects issues like socio-economic aspects and management capacity of the water services providers and authority need to be taken into consideration.
- Community participation and involvement when choices and decisions are made regarding levels of services and tariff setting are the pillar in sustaining water delivery in a given community.

References
Water Services Act, 1997, Government of South Africa