BACKGROUND
One of the major challenges facing municipalities in South Africa is ensuring that all households within their areas of jurisdiction are provided with a basic level of waste service (DEAT, 2007). Huge waste service backlogs still exist in the country ranging from an average backlog of around 80% in Limpopo to 8% in the Western Cape (Stats SA, 2007). In terms of the Local Government Turnaround Strategy (CGSTA, 2009), all households should be provided with at least a weekly refuse collection service by 2014.

PROBLEM STATEMENT
Kerbside collection is feasible and practical in well planned and established urban townships with proper road infrastructure. In South Africa, the biggest waste collection backlogs exist in rural areas and informal settlements. Obstacles to providing a sustainable waste collection service include:

1) Limited road access and infrastructure: In certain areas, road infrastructure is limited and the collection vehicles cannot reach all the households. Where road infrastructure may exist, the streets are too narrow with sharp curves, making it inaccessible.

2) Extensive travel distances: Transportation costs in rural settings where households are sparsely spread over long distances impede a weekly waste collection service, thereby contributing to rampant illegal dumping.

3) Cost limitations: Providing a kerbside waste collection service to more households requires additional collection vehicles and personnel, as well as additional funds for the receptacles to be used.

4) Lack of monitoring on progress in the provision of waste collection services: In the absence of reliable monitoring and tracking systems, municipalities do not know whether they are making any progress towards addressing the challenges of providing a waste collection service (eradicating backlogs and improving the service rendered).

METHOD
Real life examples of practical, sustainable waste service delivery in rural and informal areas in South Africa were documented as potential solutions to overcoming the challenges and addressing service backlogs. Municipalities were visited to gain first hand information on how the services were initiated and structured.

SOLUTIONS
There are three options for waste collection service delivery:

1) Household transfer to communal skips and central collection points:
   Although the provision of communal skips is a waste service option in areas with restricted access, such communal points are often plagued with litter and illegal dumping. Alternative receptacles are in use in several municipalities. The innovation in the alternatives lies in ensuring that a receptacle is easily accessible by children and wheelbarrows. It should also be difficult for community members to get the waste out of such receptacles. To eradicate littering and dumping, the provision of such receptacles should be complemented with effective education and awareness programmes to change people’s behaviour.

2) Organised transfer to central collection points and/or transfer stations:
   Communities in rural settings may organise themselves and transport their waste to a transfer station where it will be collected by the municipality. This practice significantly reduces the distance which the municipal vehicles will have to travel if they were collecting from individual households.

3) Kerbside collection:
   Where kerbside collection is hindered by cost implications, municipalities should ensure that their charges are informed by the costs incurred to provide the service (Full Cost Accounting). Proper costing of services can ensure a self sustaining waste collection service. The burden of such high tariff costs on low income groups will be off-set by the policy on “Free Basic Refuse Removal” which government is currently developing.

4) Monitoring:
   In order to continually improve the service being rendered, whether by extending the service to unserviced areas or improving the already existing collection service, the following should be considered:
   a) Setting of standards to measure progress in improving the service rendered
   b) Proper recording and information management to track the number of households receiving a waste collection service and establish the outstanding backlog; and
   c) Enforcement of policies and by-laws to ensure that all role players act according to their respective mandates.

CONCLUSIONS
Where conventional services cannot be rendered, alternative innovative solutions together with massive education and awareness campaigns should be found. The importance of community participation towards addressing service backlogs cannot be overstated. Wherever possible, planned programmes should be aligned with the bigger government targets of job creation and improving the quality of people’s lives.

A waste collection service can be self sustaining if the tariffs set are based on the actual costs of providing the service. A Full Cost Accounting exercise is one of the highly recommended models to assist municipalities to accurately cost and set tariffs for the services they render to the public. Continual monitoring of the status of the waste collection service being rendered is key in ensuring proper and effective future planning. It is also important in determining the effectiveness and relevance of proposed programmes in addressing the waste service problems.

REFERENCES
1) DEAT. 2007. Assessment of the status of waste service delivery and capacity at the local government level. Department of Environmental Affairs and Tourism.