## **Historical Background**

The rapid growth of urban areas in the developing world has prompted the challenge of creating innovative approaches to sustainable development (Jiusto 2011). In South Africa, like many other places around the world, this urbanisation has led to the rise of informal settlements, or shanytowns, often "characterised by [residents with] low-income profiles, living under extreme poverty conditions, lacking the proper financial means and urban infrastructure to cover their basic needs" (Mels 2009). In South Africa the upgrading of informal settlements has been complicated by the apartheid era. Starting in 1949, the apartheid era intensified a long period of discrimination against blacks, Indians and colored people. In 1994, with the election of the African National Congress (ANC), apartheid was finally lifted. This change drastically reformed South African government, as well as the demographics of South African settlements. New economic opportunities prompted a large migration of people from rural to urban informal settlements (Kenney 2011). Furthermore, strict laws protecting the rights of squatters promoted the growth of informal settlements (Mels 2009). This new democratic government was often unable to meet the demands of the migration, leaving many without basic water and sanitation services. The lack of the services has led to many problems in informal settlements, such as the spread of illnesses and disease within settlements (Kenney 2011).

Since 1994 the national and local governments have struggled to achieve a permanent solution to address water and sanitation issues (Muller 2008). In 1996, the country added to its constitution a "programme to provide basic water and sanitation services", which determined that all South African citizens would receive basic water free of charge (Muller 2008). Still, the process of upgrading informal settlements is a daunting and complicated task. The nature of settlements is one of constant change, population densities are high, and settlements are constantly growing as people and squatters migrate in hopes of employment (Mels 2009). Furthermore, settlements are often formed on land not suitable for development, for example in flood prone areas or sloped terrain, making access difficult for trucks and vehicles (Mels 2009). Settlements are generally located far from the main sewer lines and often formed on private land which adds other legal complications when municipalities try to bring basic services to

settlements. These factors make it extremely difficult for the government to provide basic water and sanitation services and infrastructure to these settlements.

Lack of organisation within the government also makes informal settlement upgrading difficult. Many proposed options for sanitation upgrading require municipalities to routinely empty out toilet collection tanks from non-flush toilets, creating a costly burden in terms of manpower and time. This is often impossible for governments that lack the "knowledge and skilled workers" (Mels 2009) required to complete these jobs. This can be attributed to the "post-Apartheid institutional reforms and constant political changes in the City Council [that] led to rapid replacement and dismissal of key personnel in the Water Services Department (WSD) without a transition period and generally without the transfer of information" (Mels 2009). This is especially difficult because many of South Africa's informal settlements were formed during this post-apartheid era. Thus, government initiatives alone are not enough to solve the issues that informal settlements face. This has leads communities to form partnerships with Non Governmental Organisations and encourage community involvement in upgrading projects (Informal Settlement Network 2011).