



Development Bank
of Southern Africa

**Management and Innovation of the
water challenge to alleviate
Poverty on Local Government
level.**

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Knowledge Management Week

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Outline

- ❑ **Introduction**
 - **Reasons for choosing this topic**
- ❑ **What could the problem be?**
 - **Do we have too many people?**
 - **Do we have too little water?**
 - **Do we have a population according to the census and we do have enough water?**
- ❑ **A possible solution for Local Authorities (LA)**
- ❑ **The cost of managing water badly**
- ❑ **Water opportunities**
- ❑ **Community-managed low-cost water supply and sanitation**
- ❑ **Small-scale water technology for livelihoods**
- ❑ **Faces of Poverty**
- ❑ **LA's are burdened with Rural Livelihoods and Climate Vulnerability**
- ❑ **Conclusion**

The reasons for choosing this topic

- ❑ We are dealing with extreme poverty especially in the rural areas in South Africa, these rural areas are now part of local authorities;
- ❑ Many countries have started with projects to get water to these poverty stricken communities so that they can cultivate some sort of income, it seems in many areas great successes have been registered;
- ❑ It also showed that if the Local Community can take responsibility for the management of their water resources, the more successes are recorded;
- ❑ These water problems must be closely monitored with the agricultural and rural/urban sectors because all these people are using and competing for the same sources of water;
- ❑ I thought using this topic because it is relevant now in South Africa. Because we have seen lately in the news media (Belfast, Delmas and 23 local authorities in the Free State etc) that local authorities are not managing their water resources well;
- ❑ Why do the LA's find it difficult to deliver effective services?
- ❑ Could it be that the LA's work with wrong population figures? and
- ❑ Could the illegal migration be more than what is reflected in the official data?

WE MUST REMEMBER EVERY DECISION WE MAKE IS ABOUT PEOPLE

What could the problem be?

Three Possible scenario's

- Do we have too many people?

- ✓ The official population figures indicate we have a population of 48,5 million.
- ✓ Could the population in SA not be closer to 60-65 million? Who knows?
- ✓ That could be a reason why LA's struggle to deliver effective services?
- ✓ During 2006 IEM Kroll estimated that the number of ID's issued by the Department of Home Affairs could be 40% to "illegal's" while locals can wait up 4 years.

- Do we have too little water?

- ✓ Although SA is a country not endowed with plenty of water it seems we have enough.
- ✓ Lately the population is warned not to swim in many of our rivers due to sewerage overflows into our rivers. Also not to eat the fish. Fishes die. Water polluted.
- ✓ Could this mean that now and in the future our water resources are diminishing?

- We do not have a large population and enough water?

- ✓ Let's say our population is correct between 48-50 million;
- ✓ Why are so many communities complaining on services and especially clean water?
- ✓ A possible answer could be that the employees on LA level cannot cope with the problems due to lack of experience?

**REMEMBER LA LEVEL OF GOVERNMENT IS PROBABLY THE MOST IMPORTANT
BECAUSE THEY ARE CLOSE TO THE PROBLEMS OF THE POPULATION**

A possible solution for LA's

- ❑ **Total Quality Management System (QMS) ISO 9000: 2000**
 - **To ensure that the Municipality executes its service delivery mandate on sound leadership and management principles;**
 - **To provide assurance to all the stakeholders, i.e. Residents, business, government, suppliers and investors that the Municipality is committed to quality service delivery and international benchmarks;**
 - **First step: Management develops Quality Policy which adopts ISO 9001:2000 quality Standard as its framework for implementation;**
 - **Second Step: Management Appoints Quality Management Representative to facilitate the implementation;**
 - **Appoints Consultant to assess Municipality's readiness for certification;**
 - **Action plan must be developed and implemented;**
 - **SABS must be appointed and application must be done;**
 - **Development of Scope of Certification;**
 - **QMS cover the following provisions: Water, sewerage or sanitation, environmental health, cleaning services, primary health, human resources, administration, provision of information, technology resources, assisting LA's in putting the people first, increase the efficiency of service provision and many more;**
 - **QMS is the fastest growing standard in the world for companies, government departments, Metro's, LA's etc., when accredited it helps with obtaining finance.**

The Quest For Quality and Excellence Is A Journey And Not A Destination !!!

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The cost of managing water poorly

- **Nearly half the population of the developing world is suffering at any given time from diseases related to poor access to clean water and sanitation, ranging from diarrhoea to a number of parasitic illnesses.**
- **Over two billion people are infected with water- or soil-borne parasitic diseases (bilharzias and helianthus), with 300 million suffering serious illness.**
- **Well designed water and sanitation infrastructure reduces the incidence of bilharzias by more than three-quarters.**
- **A range of pollutants also affects health: high arsenic levels in water from deep wells affects 50 million people in Africa.**
- **Diarrhoeal diseases are the greatest health problem, with more than four billion cases and between one and two million deaths each year.**
- **Water for agricultural use, it is found that there is a strong correlation between rural poverty and low levels of irrigated land. Irrigation is clearly an important tool for poverty reduction.**

Water Opportunities

- **Re-using waste water for peri-urban agriculture.** Installation of low-cost sewerage in medium to large cities in developing countries could provide biologically safe irrigation water for poor farmers living in the slums and shanty towns at the city's margins. This would not only have a direct benefit for the farmers, but also prevent pollution from untreated waste water.
- **Developing sustainable smallholder agriculture in wetlands.** As an alternative to complete reclamation, some wetlands (for example "dambos" in Africa) can be adapted for agriculture while maintaining the existing ecosystem.
- **Research to increase the productivity of water for food production.** More efficient water use can meet the rapid increase in urban and industrial water demands without further environmental impact. Investment costs are relatively low, at R1800 billion over 10-15 years, and expected benefits are high; benefit/cost ratios of 15-20 have been estimated. The initial investment could create a benefit of R36000 billion.

Community managed low-cost water supply and sanitation

- This option covers an integrated package of measures designed, implemented and managed with the full involvement of the community. Low-cost water supply would entail the provision of standpipes and low-cost sanitation would comprise good quality latrines in rural areas and low-cost sewerage in urban areas (septic tanks or shallow, small-bore sewerage plus low-cost treatment). These would be supplemented by hygiene education.
- At the end of the twentieth century, it was estimated that 1.1 billion people did not have access to a safe water supply, and 2.4 billion people were not served by basic sanitation. One of the Millennium Development Goals (MDGs) is to halve these numbers by 2015, which means not only halving the present numbers, but also catering for a significant population increase.
- To achieve this goal, just over 1.5 billion extra people would have to be supplied with safe water, about 60% of them in urban communities. In the case of sanitation, the figure is 2.1 billion people, this time split quite evenly between urban and rural dwellers.
- Funding: in many cases, this has been because projects have been donor-driven, top-down and technology focussed, and has failed to involve the local community.

Small-scale water technology for livelihoods

- **Exploitation of appropriate low-cost, small-scale technologies which individual farmers can use to improve agricultural productivity. This is applicable to rural poor people, plus some peri-urban dwellers that depend on farming for a living. To make a real difference, these technologies have to be provided in a supportive environment, where micro-credit, training and support are available.**
- **Recently, there has been increased focus on the provision of a range of water technologies to smallholders. These include low-cost electric or diesel pumps, a number of manual irrigation systems and techniques for water harvesting. Such technologies offer a major opportunity to reduce poverty in rural areas.**
- **Drip irrigation is one example of the technologies used. This can give significant yield increases (20-70%) while using less water than traditional methods.**
- **Previously the preserve of commercial farmers, the availability of cheap, small scale equipment has made this an option also for smallholders. For example, the so-called “Pepsee” system in India costs only R 558 for equipment to irrigate an acre of cotton. This gives yields almost twice as high as non-adopters, and comparable to those from conventional drip irrigation systems costing twice as much.**

The Faces of Poverty

- **The richest fifth of the world population accounts for 82.7% of the gross national product, while the poorest fifth is 1.4%.**
- **Poverty has a woman's face- of the 1.3 billion people living in extreme poverty, 70% are women.**
- **Twenty percent of the world's population survives on less than US\$1 per day.**
- **Every minute of every day, 50 babies are born into extreme poverty. Of these, more than one in ten will die within the first week, usually due to a lack of proper nutrition, sanitation, or vaccinations.**
- **When we address poverty it must be about helping each person achieve his or her fullest potential. It is not only about cash capital but about human capital. Money is merely a tool that helps unlock human dreams and helps even the poorest and the most unfortunate people on this planet achieve dignity, respect and meaning in their lives.**
- **The poor are willing to save, holding back a few cents in cash from regular expenditures. It is very hard to find a safe place to store cash. Formal opportunities to do so - at banks and the like - are rarely accessible. How do you keep even a few cents back when the children are hungry?**

Rural Livelihoods and Climate Vulnerability

- Rural households tend to rely heavily on climate-sensitive resources such as local water supplies and agricultural land;
- Climate-sensitive activities such as arable farming and livestock husbandry;
- Natural resources such as fuel wood and wild herbs;
- Climate change can reduce the availability of these local natural resources;
- Land may become less fertile (fewer reeds for basket making and less fire wood);
- the poorest regions are most likely to suffer because they are least able to adjust to new conditions. Decline of productive agricultural land, people forced to migrate for work;
- Food production is falling in South Africa. In Limpopo Province alone over the past 5 years lost 81 farms that were in full food production, these farms are now at a complete standstill. Food security is becoming a great problem. The supply of food is becoming less and the demand increase. The result is food price increases. Also for the positive HIV infection population medication is only one aspect good food on a daily basis makes up the rest of the equation to fight HIV infections. Due to the high food prices of the 57 000 women on the ARV programme approximately 15 000 stopped with the programme;
- **I have to mention: Human Security It is very important;**
- Ecological and social issues are linked;
- Equity and poverty are key agents for natural resource depletion and environmental degradation. Environment security: where individual and group security are maintained;
- Human Security comprises of: Economic, Food, Health, Environmental, Personal, Community, Socio-cultural and Political security

Conclusion

- We have to **use the correct demographic data** to promote sustainable resource management;
- Initiate and implement various human programmes and projects related to population-development-environment;
- Conduct in-depth applied research case studies with communities at local level and build public awareness;
- Build the capacity of key stakeholders, gender analysis, collect and share information on human and environmental security;
- Engage in population-development-environmental policy advocacy, develop information-education and communication implementation plans;
- Develop networks in the stakeholders;
- **Possible research areas**: sustainable land use and land use planning;
- Water-scarcity, access to clean water, increasing water supply, strategic value of water, trans-boundary water management;
- Food-food insecurity / Environmental health / Biodiversity, Mining and environment;
- Environmental degradation and resource depletion / Urbanisation impacts; and
- Natural disasters and climate change

Shark steaks only use 10 000 liter/kg



Blue Bull steaks use +-75 000 liter/kg

