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SUSTAINABILITY OF WATER AND SANITATION SYSTEMS

Parastatal development — institutional strengthening

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WHEN THE WORLD Bank financed BKS technical assistance team arrived at the Water and Sewerage Authority of Lesotho (WASA) in 1994 it was evident that the organisation was facing three main obstacles to the sustainability of the organisation:

- absence of a proper planning function;
- financial frailty; and
- limited institutional capacity.

This paper illustrates the problems, discusses how solutions have been approached and the extent to which strategies have been successful.

Lack of proper planning

The key task of the technical assistants is to develop a five year capital programme for WASA from 1996 / 7 to 2000 / 01. This was problematic in WASA for several reasons; lack of corporate policies, poor base data and little information about beneficiaries.

First, it is clearly not possible to develop a plan for the future if the goals management are seeking to achieve are not explicit. In WASA there was no formal statement of policies. The technical assistants initiated the process of policy formulation by holding a series of seminars with senior management, with departmental heads contributing policy proposals.

The process of formulating a policy document adequate to submit to the Board of WASA took almost a year. This was because a number of the management team tended to view policy formulation as of secondary importance to day-to-day operational management. There is a real danger in this situation that technical assistants write the policy document themselves and then submit it to management for approval.

This leaves management with little 'ownership' of the process.

Our experience has shown that the single most important factor in developing a useful policy document is the support of the Managing Director of the implementing agency. Without this it is very difficult to involve staff at all levels in the process of policy formulation.

A second problem faced in the investment planning exercise was the very poor quality of base data. In WASA the quality of financial data is good, but the most basic operational data such as customer numbers and the capacity of existing infrastructure was often only accurate to within +/- 50%.A great deal of time was spent collecting accurate base data for the investment planning exercise and, whilst laborious, the creation of accurate base data has proved to be one of the most valuable spin-offs from the investment planning exercise.

The third, and related problem, was that WASA had no information about either their existing, or potential, customers. As both these groups of people will be the beneficiaries of any capital investment programme, it was important understand who they are and their aspirations.

Building up a data base on existing customers proved relatively straightforward and inexpensive. A questionnaire seeking information on socio-economic variables, perceptions of service quality and price was included with the monthly bills, resulting in a response rate of about 10%. This has generated invaluable planning data such as unit service demands for different categories of customer, willingness and ability to pay, and areas where WASA performance is poor. This exercise also has useful spin-offs.

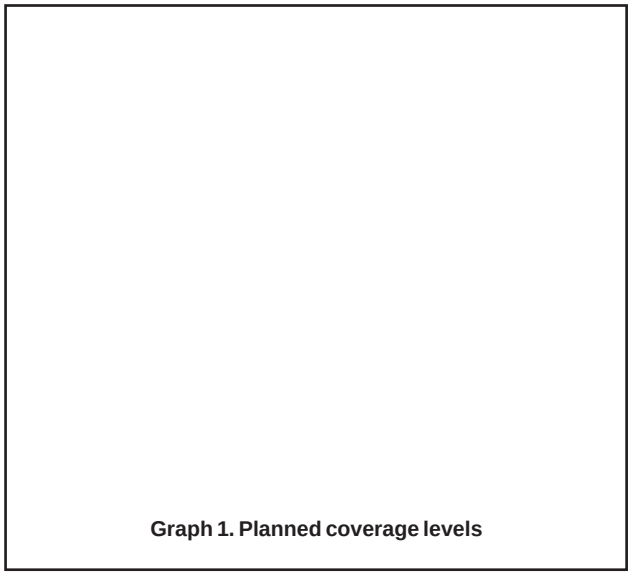
For instance, by far the most common complaint from customers was also the cheapest to remedy, namely being informed in advance of interruptions in water supply.

Data on potential future customers was collected by hiring a local consultant to undertake a Beneficiary Assessment in a sample of peri-urban locations. This exercise cost some M100 000 (US$3.67 = 1 Maloti as at June 1995)

Whilst very large sums have been spent on four master planning exercises at WASA over the past five years, full account has never been taken of the needs and aspirations of beneficiaries. Master plans undertaken by European consultancies have tended to perpetuate the conventional approach of planning a very high level of service (if direct house water connections, often with reticulated sewerage) for a small minority of consumers and no service for the majority.

The Beneficiary Assessment illustrated that this approach was not appropriate in Lesotho. What most people want in the per-urban area is a clean, inexpensive and close-by water source and a Ventilated Improved Pit Latrine (VIP). Direct water and sewerage house connections cannot be afforded by most households, and in some cases, are not even desired (if households living in a single room will not generally want internal sanitation).

This led to a radical shift in the philosophy underlying the capital programme away from 'everything for a few'



Graph 1. Planned coverage levels

towards 'something for everyone'. The coverage rate targets, outlined in Graph 1, drive the capital programme.

Note that even with an acceleration in the rate of new connections, the 'conventional' water delivery mechanism of direct house connections scarcely keep pace with population growth. The number of people served by public standpipes also declines as these are closed, in response to Government late payment.

The need to develop a universal, affordable and socially acceptable alternative delivery mechanism took WASA staff and technical assistants on a study tour in Swaziland to see some pilot schemes in operation. The pilot schemes involved two methods of community-driven water delivery.

The **water kiosk**: a lockable structure with a community nominated attendant. Five taps which, controlled from inside the kiosk, deliver water to the public. The sale price of M0.10 per 20 litre container is split between the attendant, the community council and the water authority (with the latter receiving the equivalent of the 'basic needs' tariff).

Shared Water Points (SWP): these are essentially a lockable standpipe. Up to 20 households in an area get together and share the capital cost of extending the reticulation and building the SWP. After paying a deposit each household receives a key to the tap and pays a flat charge of M5 per month, provided water consumption is not excessive.

A very basic reticulated system with kiosks, and the capacity to be upgraded to SWPs or house connections, has a capital cost of about M0.6 million per km² (or M120 per capita). This will give everyone access to a water kiosk as a minimum. Individuals and groups can then upgrade to a shared water point and subsequently a direct house connection in accordance with their own means and aspirations. By way of contrast, a conventional water reticulation system would have a capital cost about 70% more (M200 per capita) than WASA's chosen option, and only serve the more affluent minority.

Full sewerage reticulation would cost about M2 000 per head, and attract few customers.

WASA is only at the point of piloting these solutions in the per-urban areas. However, the principles of community consultation, affordability and flexibility to upgrade appear to contribute to a truly sustainable capital programme.

Financial frailty

WASA's financial performance has deteriorated each year the organisation has been in existence. This is despite the clear financial requirements of the Order establishing WASA, that revenues have to fully recover all costs.

In its first year the Authority returned a small gross profit of M0.2 million. However, in 1993/4 the Authority made of loss of M0.8 million and in 1994/5 a loss of M2.1 million was reported on a turnover of M21 million. The 1995/6 budget anticipates an even bleaker future with a projected deficit of some M3.5 million. The reasons for this poor financial performance are both external and internal.

Externally, Government has shown a reluctance to approve tariff increases proposed by the Board of WASA. Since the creation of WASA inflation has increased by about 39%, yet tariffs have only been allowed to increase by 4% - implying a real reduction in the value of the tariff of about a third. Government has justified its refusal to increase tariffs by highlighting the inefficiencies within WASA.

The deteriorating political situation facing the Government was also a factor in reducing the enthusiasm for raising prices for water supply and sanitation services.

Internally, there have been very limited attempts to improve operational efficiency in WASA. Within the organisation the civil service culture persists with management seemingly unwilling to implement reforms to raise productivity even when inefficiencies are obvious.

A tariff study was undertaken by the technical assistants and it was found that the current average tariff of M2.8 per m³ would have to be raised to about M4.2 per m³ in the short term to ensure financial viability.

The average tariff will have to be increased to about M5 (in 1995/6 prices) in the medium term to finance the capital programme to the Year 2000. At the same time as the tariff study a series of workshops were held with senior WASA management to identify and quantify potential efficiency improvements within the Authority. These efficiency findings have been taken account of in the tariff analysis.

The technical assistants have sought to deal with the issue of requiring significant tariff increases in two ways. One has been to propose a three band tariff structure to protect the poor with all 'basic needs' consumption charged at the O&M tariff, all 'normal' domestic and all

non-domestic consumption charged at full cost recovery, and 'excessive' domestic water use charged at a level sufficient to cross-subsidise the cost of 'basic needs' water use.

Second, the related issues of the need for a significant tariff increase and efficiency improvements have been brought together in the form of a Performance Contract being developed between WASA and Government. Essentially this specifies in detail the regulatory framework within which WASA will operate over a five year period. The basis for annual tariff reviews is being negotiated as is the achievement of quantified corporate performance indicators required by Government.

It is hoped that this will allow WASA to achieve financial viability but also put pressure on management to improve efficiency as the *quid pro quo* of tariff increases. The fundamental challenge remains that ultimately tariff and productivity reforms are decided by politicians, not technocrats.

Institutional capacity

Whilst it has been relatively unproblematic to develop with WASA an appropriate capital programme, the extent to which the technical assistants have contributed to the capacity of the institution to be self-sustainable is much more limited.

This is implicity recognised in the capital programme planned for WASA from 1996/7 to 2000/01.

It has been estimated that, in order to implement the M¼ billion programme, some M24 million will be required in institution building projects (see Graph 2).

The central institutional problem at WASA is one of significant overstaffing in the Authority as a whole, but a very low proportion of professional staff. The total staff complement of 585, implies a staff per 1000 connections of about 29.

Notwithstanding the general overstaffing, only 19 staff on WASA's payroll (some 3%) have a degree-level qualification, and only a further 6% have diplomas. This means that the qualified and competent staff are often overstretched. The response to this has been for donors to finance, usually on a grant basis, technical assistants. This has real short-term advantages both for donors and the implementing agencies. Donors can be more assured that specific pieces of work, such as investment plans, policy documents, etc will be produced to a satisfactory standard in a timely manner. Technical assistant projects also have the advantage to a bilateral donor that much of the budget is likely to be spent in the country of origin rather than destination.

The implementing agency also benefits to the extent that technical assistants essentially subsidise the payroll.

However, it could be argued that not only are technical assistants without proper counterpart not a long-term solution to the capacity building of institutions, but also that they are part of the problem.

Graph 2. Components of WASA's five year capital programme

The Basotho people are amongst the best educated in Africa and have a long history of seeking employment in South Africa, which surrounds Lesotho. Wage levels in South Africa are about 40% higher than those in Lesotho. The reason that WASA requires technical assistants is probably more a reflection of the uncompetitive remuneration for senior management in the Authority rather than the absence of suitably qualified and experienced Basotho professionals. There is a danger that technical assistants may be an obstacle to developing the salary structure which would facilitate the smaller, more highly qualified and productive workforce required at WASA.

Lessons to be learned

1. A useful planning process requires the careful formulation of goals and collection of reliable technical and socii-economic data as a pre-condition. This may result in very different conclusions about the best use of scarce investment funds.
2. Given the current structure of the industry in Lesotho it is not clear what are the appropriate boundaries to Government intervention in WASA. The performance contract may provide a useful formalisation of this relationship, particularly if this places the annual tariff review process in the hands of an independent regulator and away from central government control. The may obviate the need for a more fundamental restructuring of the sector.
3. Technical assistants are not a long-term substitute for qualified, motivated and competent local professional management staff.

The authors wish to stress that this paper expresses their personal views only and does not reflect the views of BKS Incorporated Consulting Engineers, the World Bank, the Water & Sewerage Authority or the Government of Lesotho.