

#18 CASE STUDY: THE SOLID WASTE DEPARTMENT OF THE MUNICIPAL COUNCIL OF MAPUTO, MOZAMBIQUE

by Joachim Stretz

1. Introduction

Maputo is the capital, and the largest population center in Mozambique. Of the 1.2 million inhabitants of the city, 50% live below the poverty level (US\$ 1 per day). The city produces more than 1000 tons of solid waste per day and the quantity is increasing. Maputo currently has an total annual municipal budget of about US\$ 10 million. Under these circumstances the first priority in solid waste management (SWM) has been to establish a simple but efficient operational system to guarantee basic standards of waste collection and city cleaning. In 2002 GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit – German technical cooperation) was commissioned by the German Ministry for Economic Cooperation (BMZ) to assist the city of Maputo to build up a sustainable SWM system. This assistance has been operationalized by the project AGRESU (Apoio a Gestão de Resíduos Sólidos Urbanos) with the aims of developing efficient organizational and institutional structures, developing the capacity of personnel, and promoting local recycling. A concerted effort was made to integrate the informal sector into this system.

Solid waste management is organized and executed by the Municipal Department (Directorate) for Health and Cleansing, which is also responsible for the Municipality's activities related to health and for the management of the city's cemeteries. Political responsibility for this work rests with the Councillor for Health and Cleansing, who is nominated by the Mayor. This paper will focus on SWM, which is the biggest and most important section of the Department. In 2007 there were approximately 630 people working for the Department: 416 in SWM (63 in administration), 135 at the cemeteries and 79 in the process of retirement.

Since 2004 SWM has maintained a high political profile because of a high level of public criticism and the uncertain situation of the Department. Service delivery was extremely poor and heaps of waste were lying in the streets for weeks. A new mayor was elected in 2004 and made SWM one of the top priorities for his administration. The municipal budget for SWM was about US\$ 1.2 million in 2004, representing about 20% of the total budget. About 40% of the SWM expenditure was covered by a waste fee that had been introduced in 2003. The waste collection service handled 25 - 30% of the city's waste and served about 15% of the total population, with a strong focus on the urbanized inner city and residential areas.

The Department, with the assistance of the AGRESU project, is developing its institutional and individual capacities with a broad approach to all relevant aspects of capacity development. Since 2007 the Municipality has also a development programme financed by

the World Bank (PROMAPUTO) that seeks to overcome the structural weaknesses of the young administration that was hurriedly put in place in 1999 as part of the decentralization process in Mozambique.

This study is concerned with capacity development and reviews the most relevant aspects of internal administrative challenges, development measures that are already realized or in process, and future challenges and needs. The study was compiled by members of the newly formed Planning and Monitoring Section of the Waste Department with the support of the technical advisor of the AGRESU project.

2. Capacity development of the Solid Waste Department of the Municipality of Maputo

This section will outline all relevant components of capacity development in the DSMSS (Directorate for Municipal Services of Health and Cleansing). The sub-sections will present a short overview of the initial or current situation, the key activities or measures taken and the continuing weaknesses and future challenges. As appropriate, reference is made to the PROMAPUTO Municipal Development Programme or other aspects outside the current Waste Department.

2.1 Recruitment of new staff, resignations and transfers

The recruitment and retention of qualified staff are mainly influenced by the financial attraction and interest of a particular position to the individual concerned. Since it is part of the public administration, the Solid Waste Department's salaries are defined and fixed by law. The government tries to increase basic salary levels, but they are still two to five times lower than salaries paid by the private sector for similar work.

Instead of the old tendency to "distribute" vacancies in the public sector, now all recruitment is done through public announcements. There are two procedures. One is a centralized selection of new staff for the Municipality (such as accountants, assistants and secretaries), based on general qualifications. These are internally pooled and distributed according to the demands of the different departments. Normally, two or three candidates are available and the Department makes its choice based on interviews.

The other procedure, for more specific positions, involves a formal and individual selection process. Senior positions, such as heads of departments, are normally nominated by the responsible councillor and individually contracted.

The Solid Waste Department is improving its attractiveness as an employer (which had been extremely low) by means of a restructuring programme that offers positions requiring higher qualifications and thus paying higher salaries. Other measures, such as team building and a more transparent recruiting process, guarantee a better identification of the staff with the employer. As a result, resignations to take up more attractive positions have reduced significantly.

2.2 Qualifications and formal training

Formerly, no specific attention was given to the qualifications necessary for a certain position. Available personnel were allocated to vacancies. This is changing through the development of a clear organizational structure and job descriptions that include technical, managerial and specific skills for every position.

2.3 Career structure and transfer

In 2006 the official minimum qualifications for management positions were changed at the national level. This forced many employees to improve their qualifications. Currently all universities and schools are overloaded with after-work students. The DSMSS gives scholarships to selected employees in order to safeguard their careers. These scholarships are awarded in return for a formal commitment that the employee will stay at the DSMSS for a certain minimum time, or otherwise refund the scholarship. After an initial phase of redistribution of positions, transfers and resignations reduced significantly. As already mentioned, the improved reputation of the employer and a more team-oriented approach in the working environment have contributed considerably to the higher identification of the employees with their job.

It is considered essential that these processes continue in order to maintain loyalty to the employer.

2.4 Range of duties

Solid waste management is the key function of the Department. Therefore, the work of most of its officials is concerned with SWM. Only the Director and the sections for cemeteries and health are dealing with other issues. Joint workshops for all sections, in which each section presents itself to the others, are held in order to develop a common understanding of the whole department. Internal services, and the vision and mission of each section are defined and communicated to the others. Initially, there were major misunderstandings of the roles and responsibilities of the other sectors, but this situation has been steadily improved by these joint workshops.

Planning had only a minor role for the coordination of the Department. Until recently, management consisted of a series of emergency responses to the problems that arose each day. Following the finalisation of the Solid Waste Master Plan in 2007, a participatory planning process was initiated, involving all sections of the Department that were concerned with SWM. The result was an operational plan for the Department which has now been detailed and broken down according to the responsibilities of each section. The process is led and supervised by the newly-formed Planning and Monitoring Section, but every section is involved in discussing and preparing its own plan according to the structure and main objectives of the Master Plan. This process is supported by the AGRESU project and serves as a capacity building programme for planning and monitoring for all sections and sub-sections.

The situation of the current dump site is a major concern on the political level and a new landfill site is being planned. Other aspects of environmental protection are not yet a serious issue considering the level of service delivery, which is still insufficient. The Municipality

promotes various initiatives regarding the recycling of waste and participates in a very successful project for plastic recycling involving the informal sector.

The responsibility for hazardous waste is with the Ministry for the Environment (MICOA), therefore there is little awareness of that topic in the Municipality. Nevertheless, on an operational level there is some basic knowledge of how to deal with that kind of waste.

2.5 In-service training

Capacity development of the DSMSS is one of the primary objectives of the AGRESU project. Relevant expertise is delivered through international and (increasingly) local experts. The project is working to transfer the necessary knowledge and resources to the Department during what is presumably the last phase of the project. The organizational structure foresees an advisory board to assist the Director of the Department and be responsible for capacity development in the future.

Current and future capacity development activities are part of the Master Plan and the operational plans.

There is no formal or structured introduction for new staff. As a first step to providing initial orientation and training, it is planned to prepare a folder with all relevant information (Master Plan, organizational structure, job descriptions of superiors and subordinates, etc.), and have a one-day formal introduction to all sections and to delegate one person in every section to help new staff to integrate into the Department.

The number of training courses (internal and external) has been increased significantly during the last three years. Focus is given to specific knowledge or skill gaps that are identified by organizational and individual needs assessments. Using detailed job descriptions, an official programme for training and education will be prepared and implemented in order to improve the effectiveness of the Department in training and developing its human resources.

The Department experienced several failures in its training courses. The reasons for these problems were:

- Lack of adequate personnel or people not available (due to workload)
- Unrealistic expectations and no concern for the individual needs of participants
- No follow-up on training or the implementation of the content of the courses
- Short timeframes for the department to prepare their staff for the courses.

As a consequence, current training courses use non- formal methods (usually in-house workshops or on-the-job training) and skill development exercises that are specifically tailored for the needs of the participants. The selection of the participants is according to the needs assessments – training is not considered as a reward for the employees and an opportunity to relax. Inputs are focused on practical exercises that favour the successful transfer of the knowledge in the working environment.

There is no specific national organisation or facility that can provide skill development or training courses in SWM.

Initially, courses were considered as an obligation and participation was as good as the control of attendance. This changed when courses were more closely related to work and tailored for the specific needs of the participants. Now all training courses have a final exam

that will affect the promotion prospects of the individual employees. Courses also have to be scheduled to suit the availability and workload of the participants. They are therefore limited to reasonable timeframes (for example: two hours each morning for one week). Another possibility is the insertion of trainers into the work environment for on-the-job training.

2.6 On-the-job training and mentoring

(This has already been discussed in the previous sub-section.)

Internal knowledge transfer is still not relevant considering the fact that the organization is going through a thorough restructuring process in which almost all processes are being redefined. Possibilities for exchanging experiences with other sites or organizations are quite limited, because Maputo has the most advanced system in Mozambique and language is a significant barrier in communication with neighbouring countries.

2.7 Other means of improving skills, knowledge and understanding

Just in recent times the Department started to address the importance of knowledge management for the development of institutional capacity. A library with relevant books and reports is being built and an internal network (including news bulletin) is being planned.

National or regional networking has very limited resources, but international conferences are used to connect to other experiences.

The responsible councillor convenes regular internal meetings at which the current status of projects, political decisions and difficulties are discussed. All heads of sections and selected technical staff participate.

2.8 Assessment and promotion

The current performance evaluation system for public services does not allow for a “real” performance-oriented assessment of employees. Thus, possibilities for introducing alternative systems are quite limited. Nevertheless, the department is studying alternatives in order to link individual performance to additional incentives and promotion. “One on one” assessments will be introduced in 2009.

2.9 Financial aspects

Weak budget planning was one of the major concerns of the Department. Basically, there had been only a slight increase of the budget each year, and the size of the increase was determined without consideration of activities or real costs. The process of operational planning that was mentioned above will be used for future budget planning. That means that the next budget (2010) will be based on actual activities and cost monitoring.

The Municipality has developed a very detailed cost estimation scheme for SWM with the assistance of AGRESU. The objective of this estimation is to relate service delivery with real costs and with necessary revenues. The Master Plan clearly defines the relation between the improvement of services, the increase of costs and the level of revenues that is necessary to guarantee a sustainable service. The Plan is also a political commitment to full cost recovery through waste related fees and revenues.

These figures were used to convince the World Bank to finance operations through the PROMAPUTO programme until sufficient revenues are collected. According to the plan, financial sustainability should be achieved in 2017.

To implement the Master Plan the municipal by-law was revised. The revision included a new waste fee that is proportional to energy consumption as an incentive to reduce waste and as a cross subsidy from the wealthier to the poorer.

The Department is installing management software that will improve the transparency and accessibility of the accounting system.

2.10 Management style

The traditional management style of public administration in Mozambique was a 100% top-down approach with almost no room or incentives for contributions from lower ranking officials. Basically, information was collected and orders given by the former head of department. As mentioned before, this has changed quite significantly during the last three years under the current director.

Following the implementation of the new department structure, responsibilities are now better defined for every position. This new structure has the support of the Director. Issues are openly discussed and decided upon in internal meetings. Workshops and training are designed to promote team-oriented working structures. (Clear examples of this are the workshops for operational planning and for the definition of the vision, mission and values of each section.) Another innovation is that positive aspects or achievements are mentioned to give positive feedback to subordinates.

Mistakes do get critical feedback, but more in the manner of problem analysis and guidance. In general, the chain of command is respected, but several new aspects are dealt with by teams without a vertical hierarchy. For example, procurement under the PROMAPUTO programme must follow World Bank guidelines, so staff from the financial, technical and planning sections work together as equals to produce bidding documents or to monitor contracts.

The senior staff have a very close link to the work on the ground. Field visits and supervision of activities are carried out frequently and on a regular basis. Progress and performance are communicated at management level during regular monthly meetings. There is no direct connection between the Director and the employees, because the heads of sections are expected to pass on information from these meetings.

Specific training in management techniques has been provided especially for senior officials and political representatives. The weaknesses in municipal capacity are a major concern for the whole municipality. Therefore emphasis is given to improving management skills.

There is still a considerable lack of communication between the sections. On the lower management level the processes of assuming responsibility and learning to take initiative are still proceeding quite slowly.

2.11 Organisation and administration

The new job descriptions for the Department are about to be finalized and include all the staff in the Department. These job descriptions and the organization chart were discussed with the relevant officials to achieve a high degree of acceptance of these instruments.

2.12 Links with the public

The official responsibility for public relations lies with the Department for Information and Public Relations of the Municipality. Specific campaigns, for example for the introduction of the new waste fee, are designed and implemented by the Solid Waste Department in coordination with the public relations unit. The Solid Waste Department does not have a designated unit or any staff specialising in public awareness or public relations

Most of the public awareness material is being produced by local media and publicity firms and the Department seeks support from local or international experts. With such support, a strategy for awareness-building and public relations has been developed and is now being implemented along with the introduction of new service levels. A wide variety of means are used, including TV spots, radio, newspaper (announcements and interviews), billboards, leaflets and other media. A very successful method was a form of theatre in the neighbourhoods with two very well known comedians. In their very typical style they presented basic messages in an attractive way that communicates very well with the local population.

The locating of containers and various other aspects of services that are of direct interest to residents are discussed in the neighbourhoods and decided upon with the local administrative structure that represents the population of the neighbourhood.

The complaints system is still a weak spot. Normally complaints are channelled through the waste controllers or handled directly at the Department. There is no systematic recording of complaints and response has still to be improved. The new private service providers are contractually obliged to install a green (telephone) line for complaints and they have to report to the Department all complaints and their responses to them. A municipal system with a permanently available green line is being planned.

2.13 Links to other stakeholders

Solid waste management has been a politically important topic throughout the last five years. Extensive attention has been given to raising political awareness regarding suitable solutions. The new “philosophy” or approach to SWM was broadcast by means of public discussions, interviews on television and newspapers. This led to the approval by the Municipal Assembly of a 10 year strategy for solid waste management, which was the basis for the Master Plan for SWM.

This strategy helped to convince the World Bank to finance the development of the sector according to that strategy through the PROMAPUTO programme. Other donors have also agreed to work according to that strategy.

Since April 2008 some of the services in Maputo are being provided by the private sector. There are two levels: two major three-year contracts with international companies and (at the time of writing) 19 service contracts with small service providers for primary waste

collection in the suburban and periurban neighbourhoods. (This is the first time that these areas have had a waste collection service.)

So far, experiences are positive. The service contract took a long time to negotiate and the private sector showed some reluctance to sign the contracts because of fears regarding the reliability of the Municipality. The backing of the PROMAPUTO programme convinced them to sign. One major concern for the service providers is the impact of regional and international economic developments on the financial sustainability of the contracts (for example, fuel prices increased by 70% during the last year).

There is a clear understanding that the capacity of the Municipality in terms of control and supervision is limited. Therefore a specialized company was contracted to monitor the service contracts and to build the internal capacity of the Department.

The informal sector is perceived in two ways. One view is that waste pickers are a nuisance because they spill waste from the containers and complicate the collection of waste. The other view is that they are a key element in recycling efforts. The Municipality intends to extend its positive experience with a recycling initiative that formalized activities of the informal sector and so it is working to develop a programme that will include street pickers in the collection of recyclables.

2.14 Equipment and technical support

There is a considerable ongoing effort to improve working conditions for all staff of the Department. The office building and workshop are undergoing a complete renovation. Administrative and technical sections are being equipped with computers and specialized software (for example for accounting and for workshop management). Internet access is being prepared as part of the computerization of the department. The department has no laboratory.

The entrance of the dump site was rebuilt in 2006 and now offers adequate (but still not good) facilities for the personnel working there. Site security was a big problem and has now been improved with the permanent presence of armed guards. The weighbridge used to suffer from accidents and breakdowns, but now works reliably and accurately.

Several vehicles are available to provide transport for supervisors and controllers. The use of personal transportation by managers is usually compensated with the provision of free fuel.

Safety equipment is distributed to all labourers but there is still insufficient control of the way it is used. Equipment continues to be sold for additional income.

All of the abovementioned aspects are part of the operational plan for the department and the ongoing improvement is considered essential for the increased efficiency of the service.

2.15 Maintenance

The operations of the workshop have been modernized and improved with the help of a local specialist during the last three years. Now vehicles are serviced at regular intervals and every vehicle has a detailed logbook in which all servicing, breakdowns and repairs (including costs) are documented. Several vehicles were completely refurbished and are back in service again.

However, breakdowns continue to be quite frequent and repairs often take a long time for the following reasons:

- ♦ There is no efficient training and control of the drivers
- ♦ Spare parts are not readily available and the fleet consists of many different brands and models (donations from different countries)
- ♦ Specialized repair shops (e.g. hydraulics) are not available
- ♦ Specialized mechanics get better payment in the private sector
- ♦ The fleet is old and worn out, and having the vehicles out and providing a service is considered more important than maintenance
- ♦ Skills development is not yet being done systematically.

2.16 Health and safety

All employees and their families have free access to an internal health post of the Department. Vaccinations and health education (especially HIV/AIDS) campaigns are rolled out on a regular basis. Neither analysis of work-related injuries nor health and safety education are yet being implemented. Regular inspections of health-related aspects are soon to be contracted out. There is no official who is designated as responsible for health and safety issues in the Department.

2.17 Operational standards

The quality of supervision and monitoring still needs considerable improvement. For that purpose a specialized company was contracted for three years to monitor the major service contractors and to improve the capacity of the inspection unit of the Department. Five inspectors of the Municipality will work directly under the command of that company and an extensive training programme will be implemented.

The Master Plan has clearly defined service goals for the different services provided by the Department and a monitoring system will be implemented by the end of the year. This will serve as a basis for a more advanced management information system (MIS). The Department reports annually to the Municipal Council regarding the achievement of these service goals.

Recycling is still in its early stages, so there are no clearly defined targets for recycling and waste reduction yet.

2.18 Perceived needs

One of the biggest concerns of the Department is the need for more and better qualified staff. Progress has already been made, but there is still room for improvement. It is also considered important to maintain the current dynamic of improvements and capacity building in order to motivate the employees and give them a perspective for their future career in the department.

It is also important to develop the enthusiasm for development and innovation among the staff. Consistency and transparency are essential in this connection.

A frequently mentioned issue is the need for improved communication between the different sectors and management levels.

2.19 Observed needs

Specific and especially new tasks are not supported by adequate training and skills development. The AGRESU project needs to improve the transfer of knowledge and skills to the relevant sectors and people of the Department.

The communication between the sections and the individual needs to be improved. Momentum for change must be increased. Processes of capacity development are not yet perceived as beneficial by all employees. There is still a lack of confidence in superiors and in the hierarchical structure of the department. Problems are not communicated because there are low expectations that they might be solved.

2.20 Obstacles

One of the main obstacles might be the interruption of the political commitment to change. At the end of 2008 a new Mayor will be elected. There is concern whether he will continue the programme with the same vigour and motivation, or whether he will change direction completely.

Experience shows that time is an important factor and that changes cannot be implemented faster than the capacity and willingness of people to adapt to these changes. Patience and persistence are important success factors.

Another relevant aspect is that capacity development must be perceived as an internal and integral process of improvement, and not as an external obligation or option. The benefits from investment in capacity development must be made clear. Financial means, whilst not the most important component, are necessary to initiate processes and get them moving. Budget planning should always include resources for capacity development.

In the case of Maputo, regulations, especially procurement rules and the necessary approvals by donors caused serious delays in the implementation of the Master Plan. On the other hand, these requirements also helped to improve the quality of procurement documentation and tendering, and enforced a steep but worthwhile learning curve on all involved.

3. Success factors for capacity development in Maputo

- Commitment: Political awareness and support are vital.
- Structural approach: Capacity development must include all units and sectors. If one falls behind the others will not succeed.
- Consistency: This is necessary for building up confidence and coherence within a development programme.
- Perseverance: A large amount of time and money must be invested to achieve sustainable success.
- Adaptation: The people involved and the local conditions should define the goals, content and approach of capacity development. There is no idealized system that suits all situations.