July 12, 2013

Waste Management in Mozambique: A Case Study from Beira - Summary of results and recommendations¹ –

Summary:

More than 20 years after the end of the civil war, municipalities in Mozambique are still facing enormous challenges. In order to grow into their tasks, a) public administrations will need sufficient resources and scope for planning, b) the private sector and its interests has to be involved and considered in respective objective targets, and c) the population needs to dispose of relevant knowledge of development challenges as well as opportunities for public participation.

In environmental economics, the theory of economic efficiency equates to an absence of waste products of all kinds. Based on an analysis of waste management – particularly bottles and cans – in the city of Beira in central Mozambique, the present paper reveals some of the major opportunities and challenges for an improvement of municipal waste management.

The main results from the study are:

- The city of Beira is faced with an enormous waste problem. The majority of actors interviewed from the provincial government, the municipality, the private sector and the wider population agrees that improved waste collection will lead to an improvement of general living conditions;
- In order to improve the situation, the municipality of Beira turns out to be the most important actor. While the municipal administration is increasingly capable to successfully guarantee waste collection in downtown areas, the situation in informal settlement areas remains somehow precarious. Due to financial and personnel limitations, the municipality has not elaborated an overall waste management concept yet;
- Due to an insufficient regulation system for dealing with waste products, beverage industries do not feel obliged to take back their empty packing products. As a whole, incentives for - as well as knowledge of - potentially cost-reducing recycling opportunities are widely nonexistent;
- As regards the wider population, a strong majority does not advertise distinct environmental attitudes. Empty bottles and cans are perceived as "worthless" and are usually discarded carelessly. Just about one-third of those interviewed are willing to pay a mark-up for recycling reasons.

¹ The present summary is based on a study project that was conducted with Master course students in the Environmental Economics module throughout May 2013. The main report is available in Portuguese language and will be presented and made available to relevant actors from the provincial government, the municipality and from beverage industries that have participated in the study. All opinions, results and recommendations expressed in this study are based on the work from the authors.

Recommendations from this study are based on an integrated approach for improving the waste management system:

Challenges for improving waste reduction in the beverage industries have to be resolved within the context of an overall waste management concept. This should include waste disposal in informal settlement areas. Improving the waste management system will demand for a commodification of waste products.

Incentives and financing mechanisms for setting up an efficient and sustainable waste management system can only be guaranteed through cooperating with production industries and by involving private waste collection enterprises. In respect of recycling packing products such as bottles and cans, the introduction of economic incentives for waste reduction should build the central concern for any future strategy:

- Introduction of a wider waste separation system by the municipality and development of a recycling system by either the private industries or for the whole city of Beira, based on a joint break-even analysis by the municipality and existing beverage industries. company-own or developing joint initiatives (Public-Private Partnerships, PPP) between the municipality and the beverage industries;
- 2. Stricter regulations for, and application of, the "licenciamento ambiental" for granting business licenses on behalf of the provincial government; control of compliance with environmental regulations; availability of trainings and capacity development for beverage producers;
- **3.** Involvement of donors for the development of financing schemes for the private industries and for technical assistance in the elaboration and implementation of an overall waste management concept;
- **4.** Analysis of "lessons learned" from other cities that make part of the Portuguese-speaking community (CPLP), as well as exchange visits (e.g. Lisbon/Portugal and Victoria/Brazil).