

Solid Waste Management and Basic Sanitation

A pilot project for the improvement of hygienic conditions through integrated approaches for waste management and basic sanitation in Lokossa, Benin

General Information

The Federal Ministry for Economic Cooperation and Development (BMZ) commissioned GIZ for the development of concepts for a sustainable solid waste management in developing countries and emerging economies. One of the main topics of the advisory project is the linkage of waste management and other sectors. To test the developed concepts and approaches, and after bench-marking different projects of GIZ and other organizations, analysing the advantages and disadvantages of implementing new activities, and checking cooperation will and capacity, the project decided to focus on a pilot activity about combining basic sanitation with waste management in Benin.

Together with GIZ PEP (Water and Sanitation Programme, fr. Programme Eau potable et Assainissement) in Benin, the advisory project decided to implement a pilot activity in Lokossa, a city with a population of around 77,000 inhabitants and located in south-western Benin.

The pilot project mainly includes the construction of several EcoSan latrines (ecological sanitation) for semi-communitarian use and a composting site, the collection and co-composting of organic solid waste from the central market and sanitary wastes from the latrines, and awareness raising campaigns.

To ensure sustainability, the project has formed partnerships and formal agreements with local authorities and NGOs.

Target Groups:

- Households obtaining demonstrative EcoSan latrines
- Gardeners working on the composting site
- The population of the Municipality of Lokossa
- Local authorities

Structures involved:

- City council of Lokossa
- Intercommunal group GI-Mono
- NGO PROTOS
- NGO DCAM Bethesda

Implementation:

September 2012 – August 2014

Specific objectives of the pilot project

- To contribute to the improvement of the waste management and basic sanitation of the City of Lokossa, through innovative, ecological and sustainable solutions
- To develop income-generating activities and boost the agricultural sector of the region on a long term, through the production of a natural soil conditioner (compost)

Initial situation

According to the Hygiene and Sanitation Communal Plan (PHAC), the Municipality of Lokossa faces serious problems of solid waste and basic sanitation due to a non-functional management system, a low percentage of access to latrines at the household level, and a low awareness of the population. Most of the garbage ends in illegal dumps, on the streets or in superficial water bodies. At the same time, it is estimated that around 80% of the population still practices open-air defecation.

On the other hand, the intensive use of chemical fertilizers has a big negative environmental impact on agricultural land in the region and is very cost-intensive for many farmers and gardeners. The quality of the soil has decreased in the last decades and the production of agricultural crops is not as big as it could be.



Collection of public waste, co-composting site and public EcoSan latrines

Description of the activities

The pilot project built 28 EcoSan community latrines, administered and maintained by selected households, as well as 2 public EcoSan latrines installed on the lot of the Municipality and administered by staff of the city council itself. Additionally, the pilot project rehabilitated and extended an existing composting facility for the treatment of organic and sanitary waste and for the storage of the produced compost before sell. The collection activities were complemented with the purchase of a waste collection truck for the conventional municipal waste and a motorized tricycle for the collection of the sanitary waste.

The management system combines the joint collection of sanitary waste from the EcoSan latrines and the organic waste from the central market and some households involved in the pilot project. Both kinds of waste are transported to the co-composting site, where the gardeners separate rough pieces of inorganic material, store the faeces in drying chambers, and let the urine containers in a sunny place for stabilization. The dry faeces are co-composted and hygienized with the fresh organic waste, and the final products (compost and hygienized urine) are packed for further use by the gardeners or for sale. The gardeners have been testing and using the first lots of natural fertilizers for organic agricultural practices, initially for self-consumption. While the production grows, they plan to sale some produce and the fertilizers itself at the central market.

The project includes a strong sensibilization, communication and awareness raising component, to help reduce open-air defecation, to assure that the EcoSan latrines are correctly used, to motivate other citizens to build new latrines, and finally to communicate the advantages of using compost in comparison with the intensive use of chemical fertilizers.

To ensure the sustainability of the project and contribute to the realization of similar projects, a monitoring and evaluation strategy was developed and implemented during the last months. By using questionnaires, making several SWOT analyses (Strengths, Weaknesses, Opportunities and Threats) and developing a plan for necessary actions in case of problems, the stakeholders will

be able to overcome possible difficult situations or problems. In addition, the dissemination of experiences and advantages of this approach through the partner GI-Mono, well known in the region, aims to encourage the continuity and, even more, the replication of the project, not only in Lokossa but also in other neighbouring cities of the Mono region.

Sustainability of the project

The success of the pilot project on the long term depends on the successful further execution of the project by the City of Lokossa, which is both the host and reception entity and the main partner of the project.

The responsibilities of the Municipality include the regular monitoring of the activities, the solution of specific problems or mediation, the maintenance of the infrastructure and equipment needed for the well-functioning of the project, as well as the logistical support in case of replication or further development of the project.

The Municipality officially received the project on February 2014. After transferring the last responsibilities and making a final evaluation in March, the Municipality will continue independently with the implementation of the project.

Long-term impacts

This project will help boost the agricultural sector while improving the hygiene of the city as well as health and sanitation situation of the population. The valorisation of biodegradable waste and excreta, replacing chemical fertilizers with alternative products and reducing the practice of defecation in the open air will contribute to environmental protection and the preservation of public health.

The pilot project will contribute to improve the system of waste collection in the city and will also influence the socio-economic situation by allowing gardeners to improve the quality of their harvests and to sale the natural fertilizers produced at the composting site.

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