# Stakeholder Involvement and Money Fluxes for Sustainable Faecal Sludge Management in Burkina Faso

A major challenge in securing sustainable urban sanitation consists in identifying and analysing the roles of the relevant stakeholders, and creating an environment conducive to their coordinated involvement in planning and implementation. In his PhD thesis<sup>1</sup>, Halidou Koanda<sup>2</sup> has developed methodologies for devising sustainable FS management strategies based on stakeholder involvement and money flux considerations. Both may serve as useful urban sanitation upgrading tools. Halidou Koanda, Doulaye Koné, Martin Strauss

### The "scene"

In Ouahigouya, Burkina Faso (population: 65,000), 96% of the households use traditional latrines and the remaining 4% other types of FS facilities such as septic tanks and VIPs. Since the faecal sludge is discharged on streets, into surface drains or reused untreated in urban and periurban agriculture, there is a high risk of excretarelated disease transmission. Households resort to private service providers to empty and dispose of their latrine contents. Latrine emptying is mainly conducted by manual emptiers (70%) and 30% mechanically by a single truck owned by the municipality. The thesis focuses on creating a well-functioning "faecal sludge market", based on stakeholder analysis, concertation, strategic scenario validation, and money flux analyses.

#### Methodologies

► A "Stakeholder Analysis" Method (DFID, 1993) was applied to analyse stakeholders' influence and perceived roles, as well as to ascertain the long-term involvement of each stakeholder or group of stakeholders. This method consists in identifying and classifying the stakeholders according to their importance and influence, and in defining their roles and responsibilities in the sustainable management strategy.

The overall financial analysis of the mechanical emptying enterprise included operating costs and income. The truck was accompanied for two weeks to assess emptying operations, distances covered, operating time, and fuel consumption.

► A household survey was conducted to evaluate the willingness-to-improve FS management. A total of 646 households were interviewed over a period of four weeks using a semi-structured questionnaire. Willingness-to-use hygienically safe biosolids produced from faecal sludge or faecal sludge-solid organic waste mixtures by 175 vegetable farmers was also assessed in the field.

► Focus group meetings with the specific stakeholders and a final all-stakeholders workshop were organised to present, discuss and validate the scenarios on money fluxes, institutional framework and opti-

mum location of the future treatment plant. All stakeholders; i.e. municipal authorities, manual and mechanical emptiers, farmers, the national water and sanitation agency, and NGOs, participated in the final workshop.

#### Results

According to the stakeholder analysis, the municipality and households are important and influential stakeholders in FS management in Ouahigouya. Important but not very influential stakeholders are emptiers for their sludge emptying and disposal activities, farmers for their biosolids reuse project and Women's Associations for their sludge composting projects. Based on

Final, all-stakeholders workshop on strategic FSM planning in Ouahigouya, Burkina Faso. Manual and mechanical pit emptiers (equipped with protective clothing; background) discussing with decision-makers and politicians (foreground), filmed by cameramen of the national TV of Burkina Faso.



<sup>&</sup>lt;sup>1</sup> This PhD thesis, on which this article is based, was financed by SDC, the Swiss Agency for Development and Cooperation, supervised by Prof. Joseph Tarradellas of the Swiss Federal Institute of Technology (EPF), Lausanne, and co-supervised by Eawag/Sandec and CREPA, Ouagadougou.

<sup>&</sup>lt;sup>2</sup> koanda.halidou@fasonet.bf



Stakeholders divided into two groups discussing the scenarios during the final workshop on strategic FSM planning in Ouahigouya, Burkina Faso.

these results, we chose the involvement approach consisting of focus group discussions and all-stakeholders workshops. During the final workshop, the entire involvement process was evaluated by the stakeholder themselves through a questionnaire. Fig. 1 presents a sustainable money flux scenario ensuring minimum profits for both the emptier and treatment plant operator. This scenario, chosen by all stakeholders, can be successful if 77% of the sanitation fees levied by the central government are injected into its application. Truck leasing

Figure 1: Sustainable money flux scenario for faecal sludge management in Ouahigouya, Burkina Faso (numbers indicate cost or income in Euros per round trip of the 8 m<sup>3</sup> suction vehicle).



or licencing fees levied by the municipal authority should be used to cover the monitoring and control costs. To increase their profit, the operators should apply sound management principles such as for example optimisation of FS operation and maintenance costs, marketing, availability, affordability, adequate quality, and service provision at the right time.

The experience gained in Ouahigouya reveals also the need for capacity building of locally important stakeholders without power to influence the decision-making process. Furthermore, a balanced partnership between municipalities and small entrepreneurs is essential to ensure continuous and sustainable sanitation services, which are affordable and thus accessible to all social groups, particularly to the most disadvantaged.

## Conclusions and recommendations

Stakeholder analysis, combined with focus group discussions and all-stakeholders workshops, as well as money flux modelling, offer key tools to improve the understanding of stakeholder roles, perceptions and relationships, to allow concerted and meaningful stakeholder involvement and to reach sustainable financial scenarios for faecal sludge management. To devise urban sanitation upgrading strategies with a long-term sustainability potential, we recommend the use of the aforementioned key tools or case specific versions thereof.

- DFID (1995): Guidance note on how to do stakeholder analysis of aid projects and programmes. DFID, London, U.K.
- [2] Grimble R. and Wellard K. (1997): Stakeholder methodologies in natural resource management: a review of principle, contexts, experiences and opportunities. Agricultural Systems 55, No. 2, 173–193.
- [3] Strauss M., Barreiro W.C., Steiner M., Montangero A., and Koné D. (2003): Urban excreta management – situation, challenges, and promising solutions. In: Proceedings, Asian Waterqual 2003-IWA Asia-Pacific Regional Conference, Bangkok, Thailand, Oct. 19–23.
- Water and Sanitation Program-Africa Region (2002): The Ouagadougou Strategic Sanitation Plan: A Holistic Approach to a City's Problems. WSP Field Note 10.
- [5] Wright, A. (1997): Towards a strategic sanitation approach: Improving the sustainability of urban sanitation in developing countries. UNDP-World Bank Water and Sanitation Program.