Developing Strategies for Faecal Sludge Management

In Baan Klang municipality, Lamphoon province, Thailand, strategies have been developed to involve stakeholders in FS management. These strategies, adopted by the Thai Dept. of Health and UN-Habitat, have been integrated in their national or strategic plan for FSM. Thammarat Koottatep[1] and Supattra Jiawkok[1]

It is a well-known fact that in most developing countries faecal sludge management (FSM) remains unrecognised or is given low priority in community development practices compared to other sanitation practices, such as solid waste management, access to safe drinking water etc. To explore and learn from the possible causes, a research team of the Asian Institute of Technology (AIT), Thailand has undertaken a Partnership Action for Mitigating Syndromes (PAMS) project supported by the Swiss National Centre of Competence in Research (NCCR) North-South programme. Its aim is to develop strategies for effective FSM through stakeholder involvement processes. The project used a case study of a peri-urban community of Baan Klang municipality, Lamphoon province in northern Thailand, where only 3 % of the 36 000 m^3/year collected faecal sludge is treated by the constructed wetland system (Photos 1–6). Societal learning processes and analyses of stakeholder involvement will help determine the appropriate coping strategies for effective sanitation planning. The study has: (i) revisited technical performance of current treatment systems, (ii) analysed potential stakeholders, (iii) conducted stakeholder dialogues/workshops, and (iv) developed appropriate FSM strategies through national consultation seminar/workshops.

The field investigation revealed that indiscriminate dumping of 35 000 m^3 of untreated FS onto agricultural land, into aquacultural ponds or on bare land could be the prime cause for the high prevalence of diarrhoeal diseases in the community (Photo 7). The focus group discussions could highlight some main causes for inefficient FSM, i. e. inefficient operation/maintenance of on-site sanitation systems at household or commercial level, poor municipal management as regards the provision of appropriate FS emptying/collection services, inadequate capacity of FS treatment system, and lack of public participation and awareness. Even the questionnaire survey indicated that a majority of the interviewed persons regarded the health issue as a high-priority problem. Excreta-related diseases due to poor FSM are not well perceived compared to the health impacts by industrial emissions. SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of the information collected from focus group discussions and the questionnaire survey revealed: (i) *Strength* from the active volunteer groups tackling health and environmental issues and high revenues secured

Photo 7: Indiscriminate FS dumping practices in Baan Klang municipality, Lamphoon province, Thailand.

by the municipal administration, (ii) *Weakness* as regards minimal recognition by policy-makers, inadequate legislative enforcement and less control of FS emptying service providers, (iii) *Opportunity* of financial support from central government for local development, and (iv) *Threat* from unavailability of national FSM guidance and regulatory measures.

Based on the aforementioned results, the consultative dialogues with stakeholders contributed to developing four main strategies for effective FSM: (1) capacity development of the local officers, (2) provisions of appropriate FSM practices, (3) enhancing societal learning processes on FSM, and (4) continuous monitoring of FS treatment systems. Details of such strategies are given in PAMS-SEA 2-2 Final Report [1]. The developed strategies have been adopted by the Thai Department of Health and UN-Habitat and integrated in their national or strategic plan for FSM.

1) Screening

2) Mixing

3) 1st Constructed wetland

4) Sump

5) 2nd Constructed wetland

6) Agricultural field

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[1] Koottatep, T. and Jiawkok, S. (2008): Effective sanitation systems through stakeholder involvement: A case study of faecal sludge management in Thailand, Final Report, submitted to the National Centre of Competence in Research (NCCR) North-South.