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Strategic sanitation in South Asia

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CITIES IN THE countries of the South are growing rapidly. In South Asia, the urban population in 1992 was almost 300 million, of which around 110 million lived in cities with populations of over 1 million, and was growing at around 100 million people per year.¹ India alone had an urban population of around 230 million. A high proportion of new development is provided without services in the first instance and the subsequent provision of services puts great strains formal mechanisms for the provision of shelter and services. Sanitation is no exception in this regard. Even where services are provided, their working life is often reduced by poor operation and maintenance, due in part to lack of resources. The consequences for urban sanitation coverage are serious. World Bank figures suggest that in 1990, at the end of the International Drinking Water Supply and Sanitation Decade, 453 million urban people, or 33 per cent of the urban population in developing countries had no sanitation services (Wright 1997). This overall figure masks considerable differences between different cities and areas and there is no doubt that coverage rates are much lower for the urban poor. For example, surveys in low income 'bastis' in Howrah, Calcutta revealed up to 200 people sharing a single WC².

Problems with current approaches

Current approaches to the provision of improved sanitation are often fragmented and there is a tendency for specialist government water and sanitation agencies to be concerned primarily with the provision of sewers. Financial and other constraints mean that the provision of new facilities rarely keeps pace with development. This can lead to overloading of those facilities which do exist. Conversely, failure to provide facilities at the household or local level can result in higher order facilities being underloaded. In either case, systems are often unbalanced in the sense that the facilities provided at different levels in the system hierarchy have differing capacities. A related problem is that plans are prepared and implemented by professionals on the basis of what is technically possible and pay little attention to user priorities. In other words they are supply rather than demand based. Engineers often prefer centralised systems to more decentralised alternatives but the high capital and running costs that they require are often difficult to sustain. New works may have to be concentrated into large packages and this means that the pattern of investment is often lumpy and sunk costs are correspondingly high.

In response to the failure of formal approaches to the delivery of sanitation, drainage and solid waste collection facilities, many individuals and groups within South Asian cities attempt to provide their own facilities, with or without some outside support and guidance. While some of these initiatives have been quite successful in solving local problems, there are few examples of them going to scale and problems have tended to arise when the success of community-managed local initiatives is dependent on the provision of higher order facilities by others.

Strategic sanitation principles

The Strategic Sanitation Approach (SSA) developed by the UNDP-World Bank Water and Sanitation Program is a response to the problems with existing approaches outlined above. It can be defined as '*an approach to the delivery of sanitation services which engages with all the factors, social, technical, institutional and economic which impact on the potential for sustained services provision to all sectors of the urban community*'. The two underlying principles of the SSA are its:

- **demand orientation** - in other words its assumption that sanitation services should be responsive to the expressed needs of users who should demonstrate this demand by bearing some or all of the costs incurred in meeting those needs; and
- **attention to incentives**, particularly those which relate to the sound management of completed facilities.

Beyond these underlying principles, the SSA requires:

- a **commitment to sound finances**;
- a **concern with cities as a whole**, rather than with discreet projects;
- a **wide view of sanitation** which encompasses stormwater drainage, sullage disposal, the disposal of human wastes and solid waste management;
- **horizontal unbundling of technologies** - in other words, recognition that there are alternatives to centralised systems and that different sanitation options may be appropriate in different geographical areas within a city;
- **unbundling of responsibilities** - in other words adopting different institutional arrangements and/or making different organisations, institutions, groups and individuals responsible for the supply of services:

- at the household, neighbourhood and city-wide levels (vertical unbundling); and
- at different locations within the city (horizontal unbundling);
- a **small steps approach** which sees the provision of sanitation as a process rather than a series of large projects.

Most of these key concepts of the SSA relate to the two underlying principles in one way or another. They are explained in more detail in Wright (1997). The key questions for policy-makers and practitioners are:

- are these principles and key concepts valid as they stand or do they need some modification in the light of experience?; and
- how can a strategic sanitation approach be developed in practice?

This paper is based on an ongoing DFID-funded research project to explore the answers to these questions in the context of South Asia. The research grew out of a recognition that, no matter how valid the SSA principles and concepts, they are unlikely to be widely implemented unless their validity can be practically demonstrated in a field context. In addition to GHK Research and Training, the research involves WEDC and the Regional Water and Sanitation Group - South Asia (RWSG-SA) of the Water and Sanitation Program.

SSA in South Asia

The development and dissemination of SSA concepts in South Asia is being led by RWSG-SA. An early focus for the process was the Regional Workshop that was held in Dhaka in February 1997. This brought together selected stakeholders from international agencies, government departments and the private and non-government sectors to consider strategic sanitation options in the light of a number of case studies prepared in the weeks preceding the conference. The case studies showed that some ongoing initiatives incorporate some aspects of the SSA. In particular, some NGOs have adopted a strong 'demand' based approach and there has been explicit recognition of other aspects of the approach. For instance, the Orangi Pilot uses a similar approach to vertical unbundling to that proposed by the SSA and suggests a division of responsibilities with users taking full responsibility for local 'internal' services and government continuing to provide higher order 'external' services. However, there are currently no examples of SSA principles being applied *as a whole* in South Asia. There is still a strong tendency for professionals to be entirely 'supply' orientated while incentives are often 'perverse'³, for instance in the way that they encourage new construction over improved operation and maintenance. Another important issue is the lack of coordination between different stakeholders, particularly that across the 'formal - informal' divide. The DFID research project

which forms the background to this paper aims to provide a further step towards the more general application of strategic sanitation principles.

The need for an SSA process

An important aspect of the SSA is the development of the institutional framework and relationships necessary to support it. It has been suggested that '*the sectoral and project-level institutional framework should be in place before attempting to implement the demand-based approach*'. (Wright 1997). This is not a realistic requirement in the context of South Asia. The current situation is one in which projects are still predominantly supply driven while the institutional framework contains many perverse incentives, many of which are deeply embedded within current systems. The response to this situation must be to see the introduction of the SSA as a process which aims to bring the various stakeholders to a shared understanding of what the SSA should mean in practice. This process should be informed by the outputs from activities at the local level and it will be very important that opportunities are provided for policy to be developed in the light of experience. Rather than attempting to introduce the SSA as a *fait accompli*, it will be better to adopt a strategy that is based on incremental improvements in the existing situation. The fundamental question in relation to such a strategy concerns the extent to which aspects of the SSA approach depend on each other so that the absence of one impacts on the chances of success in relation to another. While it is not yet possible to answer this question in its entirety. It seems reasonable to proceed on the assumption that the introduction of SSA concepts must be a process on the basis that *no other assumption can realistically be expected to yield results*.

Process requires structure if it is not to deteriorate into something amorphous and therefore unmanageable. A structure for the SSA process in South Asia, drawing on the World Bank's New Project Cycle and the initial, consolidation, expansion and maintenance model proposed by Glennie (1982) might have the following phases:

Preparation (dialogue) phase - during which the aim should be to develop sufficient interest among the various stakeholders for an SSA process to be initiated.

Pilot (initial) phase - during which the emphasis is on testing procedures and techniques but accepting some dependence on outside resources and some variations from currently accepted procedures. The proposed procedure for the pilot phase in India will be briefly described later in this paper.

Consolidation (demonstration) phase - during which the emphasis is on institutionalising the lessons learnt in the pilot phase and demonstrating that the approach is institutionally viable. One aim during the consolidation phase should be to gradually phase out external assistance at the same time developing an effective SSA support operation at the national or state/provincial level.

Expansion phase - during which the aim is to initiate the process in other areas. The expansion phase may involve

two movements, first the expansion of the SSA to all municipalities within the state or province within which the pilot and consolidation phases have been implemented and second the introduction of the approach in other states or provinces.

Mainstreaming phase - during which the programme goes nationwide.

The structure may vary in practice in the light of local experience but the basic principles should be generally applicable.

The pilot phase process

The model outlined above applies to the application of the SSA from the town level upwards and there is an immediate need to consider how it might be developed in relation to the preparation and pilot phases. A conceptual model for the preparation/pilot project process has been developed which moves through a series of stages from process establishment through information sharing and problem identification to the development and negotiation of roles and responsibilities, detailed consideration of preferred options and planning through to implementation and ongoing evaluation of the whole process. Within this overall town-level process, pilot schemes will be implemented in typical areas to test and demonstrate particular aspects of the SSA.

The process described has some parallels with the traditional World Bank project cycle but with:

- greater emphasis on stakeholder involvement, particularly during the identification of needs; and
- extension of evaluation into a process that involves stakeholders and allows feedback in the light of experience.

The aim of the research project is to take this process as far as the preparation of an outline SSA plan for the pilot town, supported by proposals for action and identification of possible sources of funding. The process has started in the Indian state of Rajasthan and is planned to go on to the end of the year. Some lessons have already emerged. One of the most important is that there is a very real need to take a wide view of sanitation. Preliminary investigations in the town of Bharatpur suggest that water supply and solid waste disposal problems must be addressed in parallel with sanitation while failure to address drainage problems will mean continued pollution of water courses within the

town, particularly the moat which surrounds the central fort, with possible consequences for health. All of these are of concern to local stakeholders. There are indications that localised sanitation systems may be the only possible way forward in the immediate future. One key question will be how an emphasis on local improvements can be coordinated with a concern with the problem of polluted water-courses. One important aspect of the process has been the way in which the different stakeholders are being brought together to discuss the best options and the part that they might play in implementing those options.

Overall, there is clearly considerable interest in the SSA but there is a need to find ways of stimulating this interest locally if SSA initiatives are not to be dependent on continued support from external agencies and their consultants. One possibility is the development of some form of support unit at state level.

Alongside the pilot project, the research team is preparing a case study data-base which should provide a useful source of information for those interested in implementing the SSA elsewhere.

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- ¹ Figures based on World Bank World Development Report 1994.
- ² Information collected in course of Calcutta Environmental Management Strategy and Action Plan (CEMSAP).
- ³ Wright defines a perverse incentive as one which is 'incompatible with the goals of an enterprise or program'.

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