

Linking strategy and practice in urban sanitation provision

Kevin Tayler & Jonathan Parkinson

There is a large gap between sanitation strategies at the policy level and actions that are practicable by those working at the municipal level. Policies should respond to and support local initiatives and sanitation plans should always be based upon a sound understanding of existing conditions.

The problem of urban sanitation

Rapid urbanisation in the developing world is creating a growing demand for housing, infrastructure and services. This demand is often greatest in 'informal' developments, which are rarely provided with services at the time that they are first occupied. UNICEF estimates that at least 600 million people, 40% of the present urban population of less developed countries live in 'housing that is so crowded, of such poor quality and with such inadequate provision for water, sanitation, drainage and rubbish collection that their lives and their health are continually at risk.'

One aspect of the demand for services is the need to deal with wastes in a hygienic and environmentally responsible way. The density of urban settlements means that they often suffer more than rural areas from the problems created by poor sanitation and drainage. In some areas, particularly rapidly growing fringe settlements, the problem is an absolute lack of sanitation facilities. In others, sanitation

services may be provided but they may be unpleasant, unhygienic or inconvenient for users. Problems result from the use of inappropriate technology. They may also be due to poor operation and maintenance and the fact that the facilities provided are insufficient to meet the needs of the population that they are intended to serve. In some cases, poor and vulnerable groups are excluded from those facilities that do exist. Even where action to solve local sanitation problems is taken, it may be at the expense of the wider environment.

Most sector professionals recognise that we have not been very successful in dealing with the need for better sanitation in urban areas. Large projects and programmes, often funded by international agencies, have had some success but they have rarely been scaled up to create a city-wide impact. The local, more or less ad hoc, interventions favoured by local communities and many municipalities have similarly failed to match the overall demand for sanitation. The result is that the absolute number of people without access to adequate sanitation continues to grow in many countries and regions.

The Strategic Sanitation Approach – a 'new' approach

In recent years, a number of 'new' approaches to urban sanitation have been proposed. These vary in their details but most originate in international agencies and 'northern' research institutions. Most of these approaches are concerned with systems and procedures rather than technologies. An example is the UNDP-World Bank Water and Sanitation Program's (WSP) Strategic Sanitation Approach (SSA).¹ This is grounded in a belief that sanitation programmes must be demand-responsive and ruled by

1. A good introduction to the SSA is given in A. Wright, *Towards a Strategic Sanitation Approach: Improving the Sustainability of Urban Sanitation in Developing Countries*, World Bank, Washington, 1997.



Participatory mapping, Faisalabad

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appropriate incentives. It emphasises the need for 'unbundling', the division of systems into manageable units, the selection of appropriate technologies within unbundled units and the devolution of management responsibilities wherever possible. It also requires a commitment to sound finances, a concern with cities as a whole and a wide view of sanitation encompassing stormwater drainage, sillage disposal, the safe disposal of human wastes and solid waste management. The SSA also identifies the need for a small-steps approach, which views sanitation provision as a process rather than a series of large projects.

To date, 'new' approaches to sanitation have had little impact upon sanitation conditions in rapidly growing cities. Why is this? Research carried out by a team led by GHK Research and Training and including the Water, Engineering and Development Centre (WEDC) and the WSP's South Asia regional team (WSP-SA) and focusing on the practical application of the SSA suggests one overarching reason. There is usually a large gap between the actions suggested by the SSA's theoretical principles and concepts and those that seem possible and relevant to practitioners working in the field. Jeremy Colin and Clarissa Brocklehurst illustrate this point from their experience in Bharatpur later in this issue. At the same time, a number of studies confirm the impression, gained from experience, that people are much less concerned about wider environmental issues than they are about getting household wastes out from 'under their feet'.²

This example illustrates a basic problem with the original SSA. Its designers assumed that 'the sectoral and project-level institutional framework should be in place before attempting to implement the demand-based approach'. This framework should be 'adaptable and able to respond to new developments and lessons from experience'. The examples suggest that these conditions will rarely be met. To some extent, the SSA is tautological. It aims to foster a more flexible, demand-based approach to sanitation provision but can only be implemented if adaptable and flexible institutions are already in place. If this is the case, what options are open to move towards the implementation of a more strategic approach to sanitation provision where these pre-conditions do not exist?



The need to ground theories in existing realities

Some answers are provided by the strategic planning process piloted in Bharatpur, Rajasthan as part of our research and described later in this issue. The first might seem obvious but it is often ignored. Sanitation plans and programmes should always be grounded in the existing situation, taking into account what has already been done and responding to actual problems and deficiencies. Claudia Weisburd's article on a programme in Yoff, Senegal, clearly illustrates this principle.

The second important point, which is drawn directly from the SSA, is the need to proceed in small steps towards an overall

The gap in living conditions within urban areas can sometimes help to improve standards

2. See for example, P. Anand, 'Waste Management in Madras revisited', in *Environment and Urbanisation*, Vol 11, No. 2, 1999, and D. Whittington et al, *Urban Sewer Planning in Developing Countries and 'The Neighbourhood Deal'*, UNDP-World Bank Water and Sanitation Program working paper, 1997.



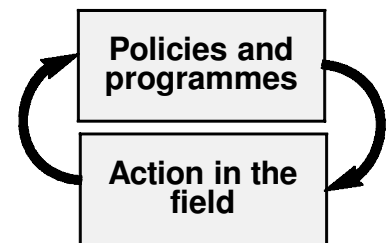
Bharatpur – (left) drainage deficiencies often require action beyond local level; (right) outer moat's once clean water is now encroached and polluted

“Ideas that look great on paper in Washington or London may be clearly impractical when viewed from the perspective of a zonal municipal office in Calcutta or a precarious slum in Dhaka.”

goal, again matching interventions to the existing situation and taking particular account of existing assumptions and attitudes.

The important point here is to have an overall goal in mind. Pilot projects that lead nowhere except to more pilot projects are not going to solve the sanitation needs of rapidly growing cities. The initiatives in Bharatpur and Artas described in this edition of *Waterlines* have, however tentatively, started to inform the policy debate in Rajasthan and Palestine respectively. There is a real chance that they will be the starting points for moves towards more strategic approaches to sanitation provision.

These examples suggest that there is no single way to start a strategic process. Sanitation initiatives will only achieve



Links between policy and practice

widespread success if activities in the field are supported by policies and programmes that incorporate strategic principles. In particular, the SSA's emphasis on developing incentives for taking appropriate action is very important. However, the detailed working out of policy is most likely to lead to positive change if it draws upon experience gained in the field. Strategic thinkers and policy makers need to pay more attention to this point. Strategies and policies should be informed by practical experience. Ideas that look great on paper in Washington or London may be clearly impractical when viewed from the perspective of a zonal municipal office in Calcutta or a precarious slum in Dhaka. The fundamental point is that policy and practice must always be linked.

Possibilities for a more household-centred approach

Another possible way forward is suggested by the SSA's emphasis on unbundling. In the absence of strong central management capacity, it would seem to make sense to divide systems into smaller independently managed units that allow a greater degree



Open drains carrying untreated wastewater is a particular hazard for children

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of user involvement and control. This principle has recently been further developed in the Household Centred Environmental Sanitation (HCES) model,³ which sees urban settlements as a series of zones from the household level through local communities and larger settlements to the town or city as whole. Its two key principles are that decisions should be reached by all the stakeholders that they affect and that problems should be solved as close to their source as possible.

All the initiatives described in this



Cost control – household level sanitation facilities do not have to be expensive

issue of *Waterlines* incorporate the principle of unbundling, albeit in different ways. In Bharatpur, the emphasis has been on bringing both government and non-government stakeholders into the strategic planning process. The process shows that an emphasis on unbundling needs to be balanced by an equal concern with fostering improved coordination between the various stakeholders. This is particularly true when some sanitation facilities are being provided ‘informally’ outside official rules and regulations.

The Artas scheme respects the local topography and is physically separate from the larger Bethlehem 2000 sewerage scheme although it does bring together flows from other settlements where this is the sensible thing to do. The Yoff scheme is the closest of the three to the household centred model and like the Artas project involves innovative approaches to waste disposal. It illustrates the fact that it is easier to plan for a household-centred approach when developing a new housing scheme from scratch. A recent case study of the potential for the use of a household-centred approach, focusing on Faisalabad in Pakistan revealed that the limited availability of land for low-cost low-maintenance sewage and sullage disposal is a real problem in many urban and peri-urban locations. The need for treatment could be reduced by following

Larger scale projects often founder despite good intentions – these pipes have waited years to be laid, in a process that is still being done by manual labourers

3. A short introduction to the HCES model is provided by R. Schertenleib & U. Heinss, ‘Keeping Wastewater in Sight and Mind: A New Approach to Environmental Sanitation’ in *Journal of the City Development Strategies Initiative*, Issue 2, February 2000.

the Yoff approach and dealing with faecal wastes and sullage water separately. In practice, sanitation users may be reluctant to move away from existing systems, with which they are familiar and which solve their immediate problems, however imperfectly, in favour of unfamiliar and, to them, unproved systems. This implies a need for greater attention to plans for wastewater disposal.



Community initiatives can improve the local environment at relatively low cost, but there is a need to develop appropriate standards and design criteria

about the authors

Kevin Tayler is Managing Director of GHK Research and Training. He is a civil engineer who has worked on aspects of urban development and infrastructure upgrading in Asia and Africa for almost 20 years. GHK Research & Training, 526 Fulham Road, London SW6 5NR. E-mail: < taylerk@ghkint.com >

Jonathan Parkinson is a Research Associate at GHK Research and Training. He is an environmental engineer specialising in sanitation, drainage and wastewater management. E-mail: < parkinsonj@ghkint.com >

These comments are not meant to discourage attempts to develop the need to develop and refine theoretical approaches such as the SSA and the HCES. They do reinforce the main point made in this article. Sanitation plans must start from a realistic assessment of the existing situation and, where necessary, strategic principles must be reinterpreted in the light of the local situation.

Strategists must pay more attention to the lessons to be learnt from initiatives such as those described in the remaining

articles in this issue of Waterlines. One way of doing this is illustrated by the way in which the Artas project grew out of a training programme. There is a need to move beyond compartmentalised approaches to training to provide opportunities for multi-disciplinary education, training and action. Only when this is done will it be possible to institutionalise innovation and encourage professionals and project managers to act in a truly strategic way.

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