

SOME RELEVANT CONCEPTS

1 THE HOUSEHOLD-CENTRED APPROACH (HCA) MODEL

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The Household-Centred Approach (HCA) was originally devised in late 1999 by the environmental sanitation working group of the WSSCC. The primary aim of this working group was to improve the reach and sustainability of sanitation services for low-income groups in urban and peri-urban settings. The possibility of widening the approach to cover rural water supply services was explored during a workshop held in Switzerland in 2000.

The approach seeks to replace conventional “top-down” approaches with a “centre-out” orientation, taking the concept of decentralisation to its logical end-point. With HCA, problems are solved as close to their origin as possible. They are not exported for more remote management until all local options have been explored and discounted. Decisions are taken at the lowest decisional level, which means the household level in practical terms for water and sanitation issues. It is not an approach that seeks to sideline the role of government or conventional, communal approaches but to integrate them in a framework that clearly places the needs, aspirations and capabilities of end users as its centre.

Recent investigations into traditional household solutions have produced surprising results in Zambia, challenging conventional wisdom that suggests that very modest capital outlays for basic improvements to traditional water sources (e.g. concrete linings for traditional scoop-holes) can be effective in terms of health impact and the sustainability of interventions. The HCA is being seen as an effective means of introducing equitable service improvements for all sections of society, and the potential impact is correspondingly wide-reaching.

In terms of sanitation, the HCA has already gained a wider acceptance through the development and dissemination of on-site domestic ecological sanitation (or EcoSan) and the separation of urine from faeces.

Advantages of HCA over Conventional Approaches

- HCA is specific and focused and problems are solved where they occur
- HCA creates a sense of ownership, responsibility and empowerment
- Solutions are generally sustainable. They rely on lower level of technology and operate within financial and technical capabilities of managers.
- HCA takes the views of marginalized members of society (e.g. women, children) into account
- HCA builds capacity at the grassroots level

However there are also a number of challenges inherent in the Approach

- Low literacy levels and low levels of general awareness of household members present challenges to mobilisation and implementation.
- High poverty levels, resources for investment are limited.
- It is time consuming and expensive to implement
- Monitoring progress at the household level is difficult
- There is a need for widespread a paradigm shift to embrace the approach
- Donors are not geared to promote the approach

Methodologies for Scaling Up HCA

- Strengthening structures and linkages to adopt a household focus, including re-orientation of the mandates and institutions involved in watsan service provision
- Promotion and institutionalization of two-way information flows
- Promotion of gender dialogue and advocacy. Women's concerns over water and sanitation issues can provide a vehicle of scaling up.
- Equitable approaches to service provision across social groups
- Economic empowerment for households is required if households are to pay for service provision. HCA that focuses on income generation and livelihood creation is more likely to succeed.

This emphasis on a more holistic approach to waste disposal that stresses the benefits of reducing the strength or quantity of waste at source and, where possible recycling or re-using it close to the point where it is produced has parallels with DWWM.

Household-centred environmental sanitation (HCES)

The following principles for planners and decision-makers are based upon the HCES model and are relevant to planning, design, and implementation of decentralised wastewater management systems :

Principle 1 : In relation to decision-making processes, the HCES model is based upon a participatory approach involving community consultation in all stages of project planning, design, and implementation. The need for an enabling environment supported by effective policies and institutions is also identified to be complementary to the community participatory approach.

Principle 2 : The concept of zones for planning adopted by the HCES model stipulates that the domain in which environmental sanitation problems are resolved should be kept to the minimum practical size.

Principle 3 : Waste should be considered as a resource and its management should be holistic and form part of an integrated water resource, nutrient flows and waste management process.

Principle 4 : Wastes should be managed as close as possible to the location of production and wastes should be segregated at source and diluted as little as possible to enable appropriate forms of technology to be adopted
Kalbermatten, John M., and Richard N. Middleton. "Urban Services for a Sustainable Environment: Approaches for the 21st Century."

2 THE CONCEPT OF UNBUNDLING

Infrastructure systems in urban areas can involve local self-contained facilities, as for instance is the case with on-plot tubewells fitted with handpumps and on-plot sanitation systems such as the double-pit pour-flush design provided under India's Integrated Low-Cost Sanitation Programme.

However, many urban services are provided through integrated systems involving a hierarchy of system components. The number and complexity of components tends to reduce as one rises through the system hierarchy. This principle can be illustrated in relation to the municipal water supply system shown diagrammatically in Figure 2.2. For a surface water source, such as a river, there will normally be a need for one or more water treatment works, which feed water via pumping stations and transmission mains to strategically placed elevated service reservoirs. From these, water is distributed to a number of local distribution systems to individual house connections and standposts. Systems based on groundwater can be less centralised but even these often centralise production at local 'well-fields'.

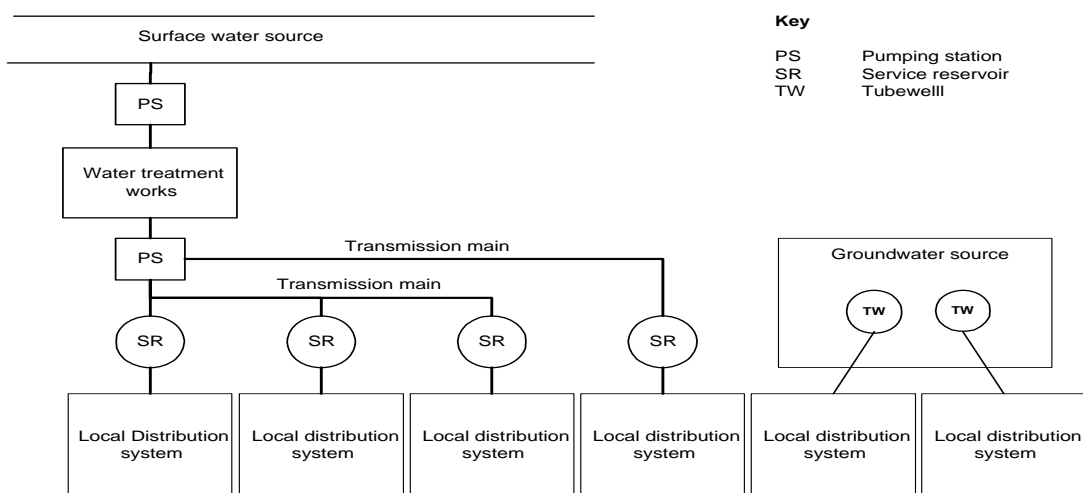


Figure 2.1 Diagrammatic representation of municipal water supply system

This system can be unbundled in two ways. It can be **vertically unbundled** with one organisation taking responsibility for producing and transmitting water while another organisation or organisations are responsible for storing and distributing it. It can also be **Horizontally unbundled** with different organisations taking responsibility for storage and distribution in different areas. When the system is arranged

Some examples of Unbundling

Community management of local sewers - Pakistan

In Pakistan, local community groups are frequently involved in tertiary sewer and, rather less frequently, water main provision. Their activities illustrate the advantages of unbundled provision. Almost by definition, community-managed schemes are demand-responsive, delivering the services that people want and for which they are prepared to pay. Because of this, they do not suffer from the problem, commonly encountered with publicly provided sewers, of low connection rates. Community financing of tertiary facilities also reduces the overall need for government finance.

However, most community-managed sewers in Pakistan also illustrate the problems associated with unbundled systems. The standards used by communities are rarely acceptable to government authorities and, in the absence of technical assistance, many sewers are poorly constructed. The existence of such 'informal' efforts are rarely recognised by the 'authorities' with the result that most community-managed sewers remain more or less illegal, even when they are connected to 'official' sewers. This, in turn, means that there is no mechanism for fairly sharing costs in a way that reflects the investment made by community members. Either they pay nothing, in which the water authority has to bear the full cost of operation and maintenance, or they pay the full connection charge and tariff, an arrangement that ignores the investment that they have made.

(b) NGO and community management of communal sanitation facilities - Pune

A survey carried out in Pune, India in the mid 1990s, at the request of the then Municipal Commissioner, revealed a requirement for 9700 toilet 'seats' in the slum areas of the city. Although 6500 'seats' already existed, most had fallen into disrepair and were in poor condition. In 1999, the Municipal Corporation embarked on an ambitious scheme to construct 271 new toilet blocks, providing a total of 5000 new 'seats'. The scheme is designed to provide one 'seat' for 50 people.

Responsibility for implementing and managing toilet blocks has been subcontracted to various NGOs. In the first phase, the only contractor was Sulabh International. Seven NGOs have been contracted to work on the second phase of the programme. The Municipal Corporation bears the cost of construction work while the NGOs are required to implement schemes and manage the facilities, carrying out all maintenance work and charging users on a 'pay for use' basis, for a period of 30 years. The designs adopted vary, depending on local conditions. Where possible, toilet blocks are connected to the city sewers. In most cases, each family pays Rs 10 per month for using the toilet facilities and a further Rs 5 per month for using the adjacent washing facilities. Again, this scheme provides examples of both horizontal and vertical unbundling - horizontal because a total of seven NGOs are involved and vertical because many of the facilities are connected to the city sewers.

hierarchically, it is possible to combine vertical unbundling with horizontal unbundling at the local level.

Unbundling increases the number of organisations involved in infrastructure provision. This, in turn, leads to an increase in the number of transactions between different organisations. Each transaction incurs a cost and these costs must be set against the potential benefits to be derived from unbundling.

Transaction costs will be reduced if the parties to a transaction have developed a strong relationship based on trust. This, in turn, will be easier to achieve if they work within a shared system of values and assumptions. However, government organisations and those working in the private and civil society sectors often start from different assumptions and operate in very different ways. **Government organisations** must follow official rules and regulations and often have to balance complex objectives, incorporating the views and concerns of a number of stakeholders. In contrast, **private companies, civil society members and groups** usually pursue immediate objectives in isolation from those of other stakeholders and, in the informal sector at least, with limited concern for official rules and regulations.