

The Challenge of Financing Sanitation for Meeting the Millennium Development Goals

Meera Mehta and Andreas Knapp, WSP-Africa



This paper was commissioned as a think piece by the Norwegian Ministry of the Environment, for the 12th Session of the United Nations Commission on Sustainable Development (CSD-12), New York, April 14-30, 2004.

The Challenge of Financing Sanitation for Meeting The Millennium Development Goals

Meera Mehta and Andreas Knapp

This Paper was commissioned as a think piece by the Norwegian Ministry of the Environment, for the 12th Session of the United Nations Commission on Sustainable Development (CSD-12), New York, April 14-30 2004.



April 2004

CONTENTS

Summary	iii
I. Introduction	1
II. Funding Sanitation Promotion to Meet Coverage Targets	3
Why is sanitation promotion so important	3
What methods and implementation models have been used for sanitation promotion.....	3
Finance related challenges in scaling up sanitation promotion.....	6
III. Leveraging Additional Resources for Sanitation	10
Why is it necessary to leverage additional resources for sanitation	10
What realistic opportunities exist to leverage resources for sanitation expenditures	15
What lessons emerge for leveraging resources for sanitation in context of scaling up?	16
IV. Public Finance Strategy for Scaling Up Sanitation	16
Paradigm shift	21
How can this paradigm shift be localized in a country/city context.....	16
What are the priorities in developing a public finance strategy.....	23
V. Exploring Actions by Different Stakeholders	24
Bibliography.....	25
Abbreviations	27

Boxes

Box 1: Sanitation and Hygiene: Key ingredients in MDGs	1
Box 2: Measuring Implications of MDGs for Sanitation Outputs, Expenditures and Funding Gaps	2
Box 3: Sanitation Related Activities to be Financed for Meeting the MDGs	2
Box 4: Sanitation Promotion Approaches and Implementation Models in Practice.....	3
Box 5: Selected Experiences in Sanitation Promotion.....	4
Box 6: Lessons from Promotion Campaigns	6
Box 7: Dimensions of Demand Promotion	7
Box 8: Supporting Market-Based Supply of Sanitation in Bangladesh	7
Box 9: Approaches to Scaling Up Sanitation Promotion.....	8
Box 10: Experiences in Scaling Up Sanitation Promotion.....	9
Box 11: Illustrative Cases of Leveraging Additional Resources for Sanitation.....	10
Box 12: Success in Leveraging Household and Community Resources for Sanitation.....	11
Box 13: Leveraging Market-based Resources for Sanitation	13
Box 14: Leveraging Government and NGO Resources for Sanitation.....	14
Box 15: From Funding Grants and Subsidies to Financing Sanitation Promotion and Leveraging Resources	17
Box 16: Steps in Developing a Public Finance Strategy for Scaling Up Sanitation Access	17
Box 17: Nature of Benefits and Potential Sources for Sanitation Activities.....	19
Box 18: Uganda-Addressing the Challenge of Developing a Public Finance Strategy for Sanitation	20

SUMMARY

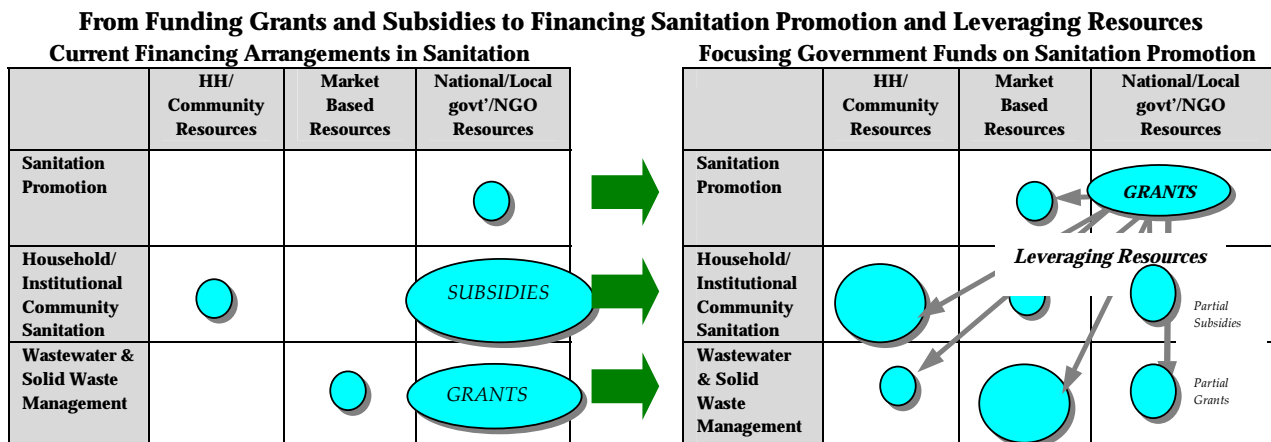
Increasing recognition on how sanitation directly impacts on health, improved living conditions, education outcomes and poverty reduction has intensified the advocacy for markedly improved sanitation access. The inclusion of direct sanitation targets in Millennium Development Goals (MDGs) and an understanding that improved sanitation is essential to achieving targets for health, education and environmental sustainability has given further impetus addressing the challenge of financing scaled up sustainable sanitation.

Sanitation in this context refers to the immediate household and community need for human excreta management required for privacy, healthy living conditions and a clean environment. On a wider scale, it also encompasses wastewater and solid waste collection, treatment and disposal. This summary outlines the key issues and steps in developing a public finance strategy for sanitation to meet the MDGs.

Conventional public finance in sanitation in the past had generally focused on subsidies for household and public toilets, and grants for urban sewerage and solid waste systems. Traditionally the approach to providing access to sanitation had been supply driven and focused on financing the building of toilets, installing sewerage networks and constructing treatment facilities. Most global finance estimates to meet the sanitation MDGs by 2015 are calculated using this approach. According to the Global

Water Partnership the required annual expenditure to meet the sanitation targets is USD 17 billion for basic sanitation and USD 70 billion for wastewater treatment, and the annual finance gaps are estimated to be USD 16 billion and USD 56 billion respectively.

A review of emerging thinking and practice suggests that a shift in sanitation financing is required from financing ‘subsidies and grants for sanitation facilities’ to funding ‘sanitation promotion and leveraging resources’. A key concern among decision makers is the growing evidence that supply driven approaches to build more toilets with household subsidies are not effective in terms of sustainability, partly because users actual needs are not taken into consideration. This leads to a situation where the sanitation facilities are unwanted, inappropriate and unused. There are plenty of examples from different countries of unused facilities, toilets being used for storage in rural areas, households not connecting to sewerage systems and treatment plants that fail to treat sewage. This has led to a search for an appropriate sanitation promotion strategy that recognizes both the demand and supply sides within a marketing approach. In financing, the past reliance of governments on household subsidies for toilets tended to ignore or even ‘crowd out’ household resources. This outlook has changed in recent years and there is increasing recognition of the possibility of greater household and community resources through full or partial cost sharing for



toilets, user fees for public toilets, and sanitation-related taxes or surcharges. Possibilities of market based resources are also being explored.

The differing needs of various sanitation sub-sectors means that sanitation promotion relating to demand and supply of sanitation is situation specific. Promotion can also support leveraging of market based and local government resources:

- Rural sanitation requires a focus on demand promotion and developing effective supply channels
- Urban informal settlements need promotion to resolve the tenure issues, backed by community mobilization and facilitation of NGOs and small private service providers in sanitation supply
- Urban wastewater and solid waste promotion implies a focus on commercial project development for market based resource mobilization, backed by 'polluter pays' type of charges
- In all these sub-sectors, promotion also includes advocacy with national/ local governments

Experience suggests that the immediate focus for leveraging needs to be on household and community resources, with market based resources mobilized only in the medium to long term. As the benefits of on-site sanitation are mainly private or localized at community level, leveraging greater household and community resources makes economic sense. This does however require public policies to create a 'financing space' through appropriate demand promotion, and to facilitate access through credit particularly micro or housing finance. Actual examples demonstrating success in leveraging household and community resources for sanitation can be found in countries as diverse as India, Lesotho, Vietnam, Bangladesh, Pakistan and Burkina Faso.

While recent experience, such as in Mexico, Brazil and India, suggests potential opportunities for leveraging market based resources through private sector investments or market borrowing, considerable capacity building for borrowers is required for wider

adoption of this option. In addition, both national and local government resources need to be leveraged through advocacy and appropriate fiscal incentives.

The review of emerging global experience shows that while the critical need for sanitation promotion is universally accepted, there is still no consensus on the right approach and strategy. In addition, the focus has been mainly on innovations although a few emerging experiences point to possible approaches for accelerated and large scale implementation to achieve country or citywide coverage. Emerging practice from several countries and cities provide potential directions for scaling up:

- *Sanitation within a Sectorwide Approach (SWAp)* is applied countrywide. Scaling up is built into the approach as it uses government administrative and fiduciary systems. SWAps for water and sanitation are being developed in Uganda and Tamil Nadu (in India)
- *National Sanitation Programs* are being developed in Bangladesh and India through total sanitation campaigns. These are community led and use a people centered approach with local governments and NGOs, or as in Lesotho with limited subsidies and private sector involvement
- *Citywide scaling up for basic sanitation* is practiced in Ouagadougou, Burkina Faso through sanitation promotion funded through a local sanitation surcharge. In Pune, India, community toilets are funded through local authority's own resources and managed by communities and NGOs

Implementation of this shift in sanitation policy at scale can be achieved in practice by evolving an appropriate public finance strategy that supports sanitation promotion and focuses on leveraging resources. There are six critical elements that require attention in its design:

- i. *Consensus Building on Approach:* Arriving at a local consensus on the methods and approach to be used in sanitation promotion and for leveraging resources
- ii. *Clarity in Institutional Mandates:* Determining institutional mandates

- across ministries and at different levels of government
- iii. *Sources and Allocation of Financial Resources:* Identifying all potential sources of finance, both public and non-public, and their use and appropriate mix in relation to incidence of benefits and costs
 - iv. *'Fundable Activities' and Financing Mechanisms:* Identifying activities to be funded, related financing mechanisms for flow of funds to create reliable and predictable cash-flows, provide fiscal incentives for promoting sanitation with local governments and ensure appropriate targeting of needed subsidies and grants
 - v. *Addressing Tradeoffs in Public Allocation:* Determining tradeoffs in allocation of public funds to appropriate sanitation activities
 - vi. *Monitoring and Continuous Feedback:* Designing performance monitoring framework that allows measurement of cost-effectiveness, benefits and implementation processes, and application of mid-course corrections

Key challenges to be addressed by national and local decision makers in developing a public finance strategy for sanitation are: institutional fragmentation, trade-offs in the allocation of public resources, and long-term commitment. Examples from case studies all show the advantages of appointing a lead institution and champion, and the importance of clarifying

institutional roles and mandates, especially in the context of decentralization. Potential trade-offs in the use of public resources need to be assessed between basic sanitation in rural and urban areas and urban sewerage and citywide comprehensive slum upgradation, as well as between curative versus preventative health. Country and city governments are urged to prioritize sanitation through long-term political commitment translated to financial support through public funds.

The role of global and regional support agencies is critical for: advocacy, support through a continuing review and dissemination of global experiences, and funding the initial steps in developing a public finance strategy. Besides providing advocacy and technical design support, global and regional support agencies need to ensure a continuing review and dissemination of global experiences. They have an important role to play in filling critical knowledge gaps related to the cost-effectiveness of various methods of sanitation promotion in different country and local contexts, and in the development of performance monitoring frameworks for sanitation. Donor funding to facilitate initial steps in developing a public finance strategy can be critical and they need to follow this through by creating incentives and opportunities for focusing on sanitation promotion and leveraging additional resources. The role of private financing institutions and NGOs in this process is important for mainstreaming innovations in government strategies.

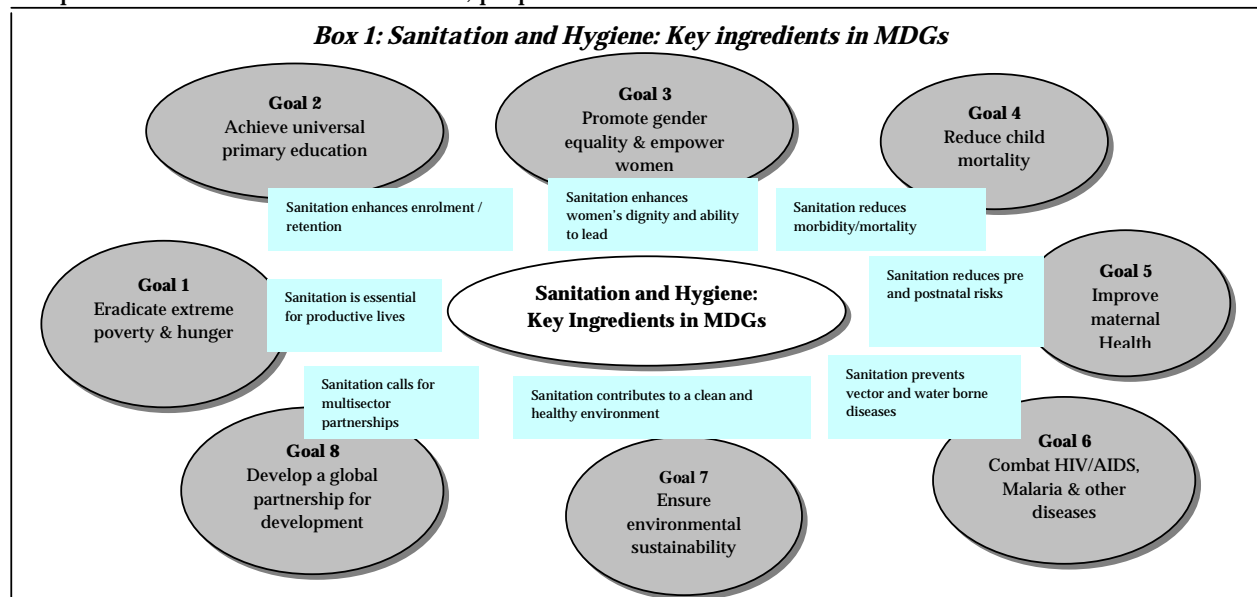
I. INTRODUCTION

In recent years there has been increasing recognition of the importance of sanitation not only for its direct impacts upon health, but also for its contribution to improved living environment, human dignity, improved education outcomes and to poverty reduction. In response, in 2002 at the recent world Summit on Sustainable development in Johannesburg, international delegates acknowledged that it was not possible to reduce poverty without improved access to basic sanitation. This led to sanitation being included into the Millennium Development Goals (MDGs) and world leaders pledged their commitment to “halve the proportion of people without access to basic sanitation by 2015”. Sanitation is also an important component of the target to ‘achieve significant improvement in the lives of at least 100 million slum-dwellers by 2020.’ Besides these direct sanitation related targets, improved sanitation also contributes to most other MDG targets, particularly for health, education and environmental sustainability (Andersen and Grey 2003) (see box 1).

Effective sanitation means a transformation of the living environment, especially in urban areas, and typically includes wastewater treatment and disposal and solid waste management. Beyond capital construction, a sanitation service chain is required to ensure the materials for construction, maintain the services, empty the pits and treat the sludge. Even for higher density rural settlements, the wider issues of environmental sanitation are important if the full benefits of sanitation improvements are to be realized. This wider notion is captured in the definition of sanitation, proposed

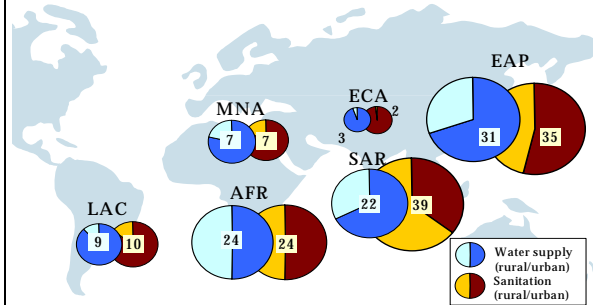
by the WSS Task Force under the UN Millennium Project, as “access to, and use of, excreta and wastewater facilities and services that provide privacy while at the same time ensuring a clean and healthful living environment both at home and in the immediate neighborhood of users”, but also refers to wider urban systems for wastewater and solid waste.

Information for assessing implications of sanitation related MDGs on physical and financial requirements is limited. The basic sanitation backlog is large in both rural and urban areas with an additional 2.4 billion people to be served, and is concentrated in South Asia, East Asia and Africa (see box 2a). For financing requirements, estimates by the Global Water Partnership, which are most often cited, suggest an annual funding gap of about USD 16 and 56 billion for basic sanitation and municipal wastewater treatment respectively (see box 2b). These estimates are affected greatly by appropriate technology choices as evident from recent analysis by UNEP that total cost of meeting 2015 sanitation targets range from USD 11 to 174 billion in rural and USD 27 to 870 billion in urban areas (UNEP 2004). Bhatia (2004) also raises the issue of ‘improved’ versus ‘adequate’ sanitation. In addition to technology choices, a key concern among decision makers and professionals is that investments in building toilets and other facilities may not be effective unless these are used in a sustainable manner. There is widespread anecdotal evidence from many countries on toilets in rural areas that are used for storage, urban sewerage systems that households do not connect to and treatment plants in cities that fail to treat sewage.



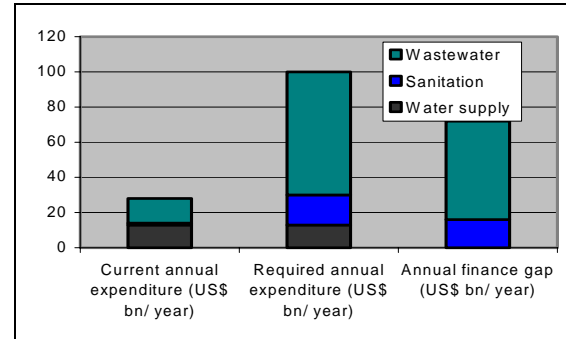
Box 2: Measuring Implications of MDGs for Sanitation Outputs, Expenditures and Funding Gaps

a. WSS Challenge: Population (in million) to be Served Per Year by Region



Source: WSP 2003a.

b. Estimated Finance Gaps to Meet the WSS MDGs



Source: Based on estimates in GWP 2000.

Thus, the challenge of financing sanitation lies not only in finding funds but equally to identify and spend financial resources on the activities that enable sustainable use. Box 3 delineates the three sets of activities associated with sanitation within this perspective. In financing these, public funds should be used carefully to maximize leveraging of household, community and private resources.

In addressing the challenge of financing sanitation, the paper explores three strategic issues:

- Ways to find effective strategies and funding mechanisms for sanitation promotion while ensuring rapid service expansion. The need for a greater emphasis on sanitation promotion comes from the imbalance between the rapid scaling up as implied by the MDG targets and concerns relating to the effectiveness and sustainability over the use of facilities and reaching the poor
- Ways to leverage household, community, local government and other market based resources for

the sector while ensuring demand responsive approaches. This strategy arises out of the possibility that there will be significant funding gaps to support overall sanitation development

- Ways to (re)design public finance strategies for sanitation which focus on identifying: approaches for accelerating sustainable sanitation access, institutional mandates, sources of finance and financing mechanisms, trade-offs in allocation and performance monitoring systems.

These issues are developed in the following three sections using examples and case studies from several countries based on the available literature. The experiences from field offices of the Water and Sanitation Program (WSP) are drawn on, as is feedback from several civil society organizations and thematic groups of the World Bank. The paper concludes with actions required by key stakeholders.

Box 3: Sanitation Related Activities to be Financed for Meeting the MDGs

Sanitation Promotion:

- Creating an environment which enables scaling up through advocacy, policy/institutional reform, capacity development, M&E, enforcement and development of a public finance strategy
- Promoting demand for construction of sanitation facilities, use of sanitation facilities (particularly toilets) and promoting hygienic practices
- Ensuring supply of household sanitation services through the development of household sanitation services as a business. This would include product marketing and training

Household, Institutional and Community Sanitation for Safe Excreta and Sullage Disposal:

- Design, construction and maintenance of onsite sanitation and/ or connection to sewer systems in urban areas
- Improved transport, treatment, reuse and disposal methods for fecal sludge from on-site systems
- Install toilets in institutions (schools, health facilities) and in public places

Waste Water and Solid Waste Management:

- Solid waste separation, collection, transportation and safe and sanitary disposal or recycling
- Construction and maintenance of wastewater collection infrastructure (sewers, storm water drains)
- Waste water treatment and safe disposal / reuse of sludge

II. FUNDING SANITATION PROMOTION TO MEET COVERAGE TARGETS

1. Why is sanitation promotion so important? The scale of the implementation implied by the MDG target on basic sanitation requires an enormous increase in the number and use of sanitation facilities. However, past experience in sanitation suggests that a supply-driven strategy to simply build more toilets with household subsidies may result in unused facilities. For example in Maharashtra, India, 1.7 million rural toilets were constructed with subsidies from the state government over a four-year period, but only 57 percent were actually used (WSP-SA 2002c). Similarly, a three-country study in East Asia suggests that despite high coverage, only about 12 percent of the poor households in Vietnam and Cambodia had effective access to toilets (Mukherjee 2001). Many cities in developing countries have similar problems with urban sewerage systems and this has led to the growing consensus on the importance of sanitation

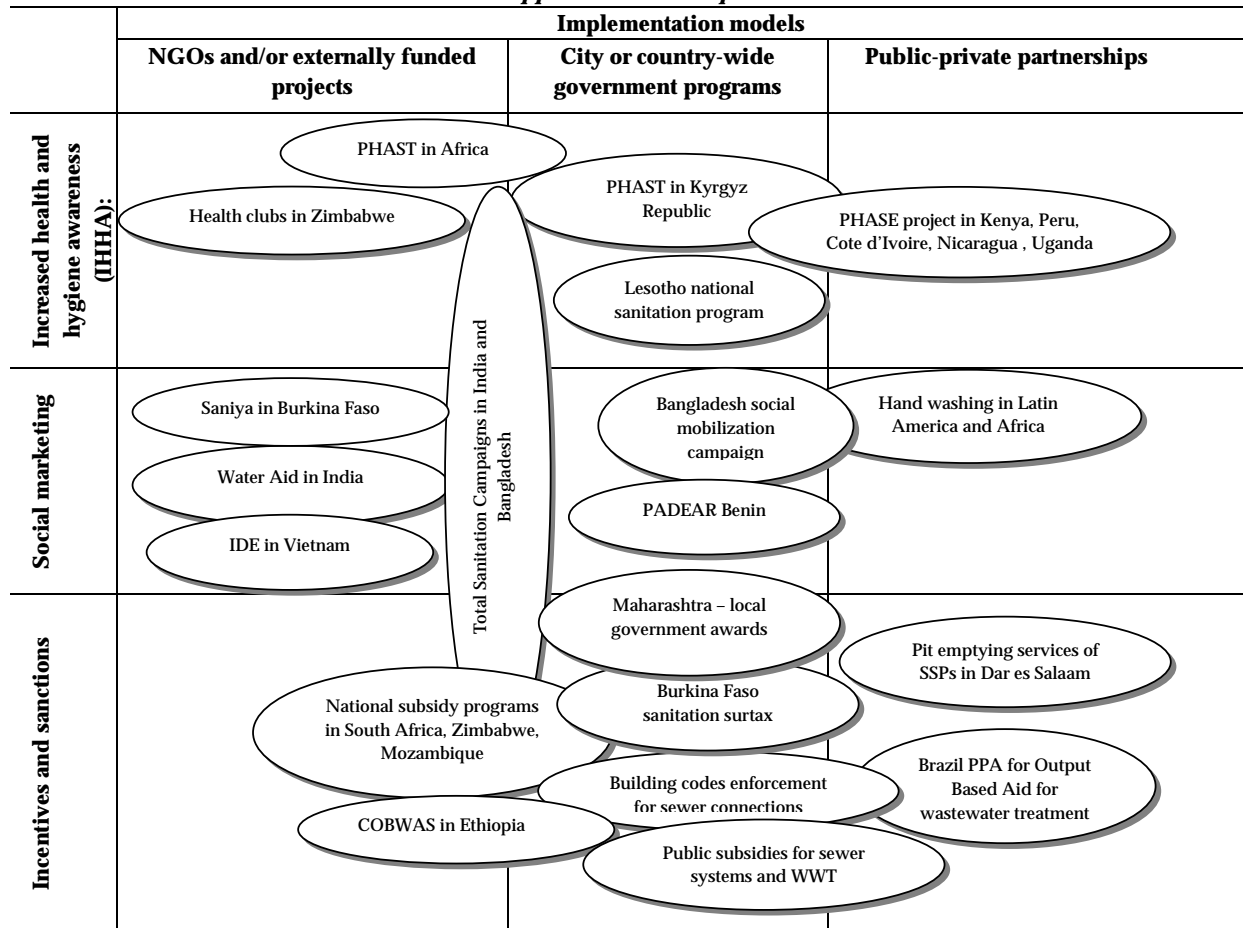
promotion to ensure that the facilities are actually used and the intended health benefits become a reality.

2. What methods and implementation models have been used for sanitation promotion?

A global review of selected cases suggests wide-ranging experiences in sanitation promotion (see boxes 4 and 5). Though implemented by different bodies ranging from the national government, NGOs, micro-finance institutions, local governments and the private sector, there are some key trends in the way sanitation has been promoted and implemented.

Methods Used for Promotion. The three methods used for promoting sanitation are *Increased Health and Hygiene Awareness (IHHA)*, *social marketing*, and *incentives and sanctions*.

Box 4: Sanitation Promotion Approaches and Implementation Models in Practice



Increased Health and Hygiene Awareness (IHHA): The basic rationale of this approach is that there will be a greater demand by households and communities if there is more awareness about the health benefits of improved sanitation. The same applies to good hygiene practices. Three common approaches based on actual practice are:

- i. *Participatory Hygiene and Sanitation Transformation (PHAST)* which was first developed in Africa and implemented through trained community facilitators and local illustrators. It has been used in many countries across the globe
- ii. *Health education and school sanitation* which focuses on health education through schools

or special health clubs. When toilets are provided in schools, the awareness of the children is far greater. Toilets also play a role in increasing school enrollment and attendance, particularly among girls

- iii. *Community led promotion* which emerged mainly in South Asia and is implemented through rural communities and rural local governments. NGOs have played a meaningful facilitating role and a key achievement of the approach has been a significant increase in sanitation coverage without any direct subsidies.

Box 5: Selected Experiences in Sanitation Promotion

Participatory Hygiene and Sanitation Transformation (PHAST): Traditional methods of health "education" to teach have often failed to achieve sustained, large-scale improvements in hygiene practices. PHAST takes a different approach by empowering communities in managing water services and controlling sanitation-related diseases by promoting collective health awareness and understanding, to achieve environmental and behavioral improvements. Following successful field trials in four African countries during mid-1990s, PHAST approach was expanded to other parts of Africa, Asia, and Latin America. Currently, it has been adapted for use in many national languages and institutionalized by numerous governments.

Community Health Clubs (CHC) for Hygiene Promotion in Zimbabwe. Zimbabwe Applied Health Education and Development (ZimAHEAD), a NGO, has promoted a novel method to promote hygiene through the formation of voluntary community health clubs. The program uses participatory approaches like PHAST but combined with a structured implementation process and rigorous follow up. The CHC concept has shown significant results in terms of improved health knowledge and hygiene behavior among club members. Demand for sanitation increased with 30% of the latrines being constructed in Zimbabwe by members of a CHC during the latter half of 1999. Similar groups have now been established in Sierra Leone which shows that the model can be replicated.

Marketing Sanitation: Lessons Learned from PADEAR in Benin: The program attempted to market sanitation through direct consumer contact by masons carrying out door to door promotion campaigns, and large scale advertising campaigns on local and regional radio stations and events at markets. Key lessons include:

- Non subsidized household toilets can be promoted but disadvantaged populations need special attention
- Trained masons are good sanitation promoters and marketing relays and schools and health centers are appropriate sites for demonstration and good practice dissemination
- Specific budgets must be allocated to increase the impact of social marketing through hiring professional marketers for large scale campaigns.

Public Private Partnership on Handwashing with Soap in Central America and Africa: USAID funded EHP and BASICS projects in central America persuaded soap producers from Guatemala, Costa Rica, El Salvador, Honduras and Nicaragua to publicize health information by advertising how the use of soap prevents diarrhea. Similar initiatives have been started in Ghana, Senegal and Madagascar and are being tracked by action research to assess their effectiveness with accompanying action research to assess their effectiveness.

Total Sanitation Campaign in Bangladesh: An innovative model has been piloted in Bangladesh by WaterAid Bangladesh, an international NGO, in collaboration with Village Education Resource Center (VERC), a local NGO. This model has resulted in 100 percent sanitation coverage in five Sub-Divisions in Bangladesh, and has the potential to be replicated in the region. The intention is to sensitize people to the lack of environmental sanitation and its impact on health and uses the principle of 'igniting' communities. This is done through peer pressure and community awards to trigger a behavior change in sanitation practices from open defecation to fixed-point defecation and latrine use. The approach is now being scaled up into a national government program.

Sources: Zimbabwe: Sidibe and Curtis (2002); PHAST: WSP website, Turatbekova et al. (2003); Benin: Reiff and Glebaza (1999); Handwashing: Saadé et. al. (2001), WSP (2003b); Bangladesh: WSP-SA (2002a), WSP-SA, (2002b), Rajiv Gandhi National Drinking Water Mission and WSP-SA (2002), Kar (2003).

Social Marketing Social marketing is broadly recognized as the use of marketing strategies and techniques to achieve a social goal. It has been used widely particularly in the health sector. Social marketing uses the concept of the four “Ps” – *Product, Price, Place* and *Promotion*. *Product* ranges from tangible physical products to services, practices or even intangible ideas while *Price* is the cost in terms of money, time and effort. *Place* is the way in which the product reaches the consumer and *Promotion* is the integrated use of tools such as advertising, public relations, media message positioning, communications channels, selling strategies and media advocacy.

For sanitation promotion, social marketing covers both demand and supply. It aims to stimulate a desire for toilets and then meet the client’s needs by tailoring the design and range of the toilets to what the client wants and can afford. On hygiene behavior change, social marketing differs from the IHHA approach. First, it starts off by finding out about the current level of knowledge and information known by the target group. This extends to attitudes and practices, and then specific messages are designed for that target group to motivate behavior change. Households often place greater emphasis on benefits related to social status, dignity and security rather than health benefits. For toilets, the manufacturers, sellers and installers play an important role because of commercial incentives. Thus, if developed properly, sellers themselves are instrumental in market-based scaling up.

Incentives and sanctions: Governments and NGOs have used indirect methods to promote sanitation, including both incentives and sanctions. Incentives often take the form of subsidies at household level or awards for achieving total sanitation at community level, which are valued as highly prestigious. Sanctions have been mainly through national or local legislation such as including sanitation in housing byelaws, or a local government ‘law for no open defecation’ and the linked fines for non-compliance. The main driving forces for sanitation development in industrialized countries remains a combination of incentives in the form of subsidies for central sewer systems and enforcing compulsory connection as part of the building code. When this compulsory connection is reinforced by peer-group pressure in a community where most people have a latrine, it often helps to

motivate the remaining minority to “having a sanitary latrine” (Cairncross 1992).

However, in many developing countries, building codes are not always enforced. Lack of proper legislation or its enforcement can also be a disincentive for sanitation improvement. The issue of insecure tenure in peri-urban areas or informal settlements may be a key inhibiting factor for households to invest in sanitation improvement even when there is demand for improved sanitation services.

Implementation Models. The review identified three appropriate implementation models.

NGO programs: In many countries both international and local NGOs have played a significant role in sanitation promotion. This has often helped to demonstrate the need for sanitation promotion and the merit of new approaches. Most NGO programs mainly focus on IHHA approaches, on a community-by-community basis, though some incorporate elements of social marketing. In general, however, the NGO programs have implemented on a small-scale. However, they have often influenced or established links with government programs to achieve scale and increased coverage.

Public-private partnerships (PPP): Another emerging model is to use the comparative advantages, resources and skills of both the public and private sectors. PPPs may be broadly defined to include “spectrum of possible relationships between public and private players for the cooperative provision of infrastructure and / or services” (Thomas and Curtis 2003). They have been extensively used in the health sector to prevent diseases, develop and facilitate access to vaccines /drugs and improve delivery of health services. Their use in sanitation promotion would be relevant in two contexts. The first covers the private sector’s ability to tap markets for sanitation or hygiene related products (such as soap, toilet construction or toilet parts, toilet cleaning and fecal sludge management methods and products). Private sector involvement also has the potential to improve efficiency and quality of service delivery. This model for sanitation promotion is relatively new and only a few examples of actual experience are available. There is also a need to further explore the possibility of PPPs with small entrepreneurs and

service providers such as masons, sanitation equipment sellers, and pit latrine emptiers. The viability of such business models for delivering sanitation products and services especially in rural settings must be assessed carefully.

Government projects/programs: Though the NGO programs and PPPs probably provide more innovative attempts in promoting sanitation, government programs have also attempted to incorporate sanitation promotion. There are two types of programs namely externally funded government projects, and national or local government funded programs which have been influenced by either local research or NGO projects. The specific efforts in government programs to achieve countrywide or citywide coverage for basic sanitation are discussed later.

Lessons for Sanitation From Successful Promotion Campaigns. Some clear messages emerge from the review. In particular, the need to focus on a key message or product is crucial as is the ability to respond quickly and flexibly when a demand has been created. This assumes greater importance when accelerated scaling up is required. (See box 6 for the main highlights).

3. Finance related challenges in scaling up sanitation promotion. The review suggests the need for a shift to sanitation promotion rather than a government led supply program. This type of strategic shift aims at the development and regulation of a sustainable national sanitation industry in which affordable and attractive products and services meet the demand of different customers in rural and urban settings. It is based on the assumption that service providers, who are often small, are able to make a decent profit from delivering quality products and services, which then gives them an incentive to create demand and ensure supply. In this new role governments are faced with challenges related to using public finance for demand promotion for construction and use of sanitation facilities, and market-based supply of sanitation facilities and services. A critical challenge in this is the limited knowledge and actual experience available on resource requirements and cost implications of large-scale implementation. The lack of information on costs is mainly due to the lack of local consensus in selection and adoption of approaches for scaling up sanitation promotion.

Box 6: Lessons from Promotion Campaigns

- A well conducted baseline and market survey/research is key to developing a profile of the potential target audience/consumers, product features and to create a baseline for measuring the impact of the campaign
- Simplicity and focus on a clear, consistent and positive (context sensitive) message and product
- Identify appropriate communication channels and determine a cost effective mix of channels
- Get the incentives and motives for behavior change right
- Unnecessary subsidized products crowd out household resources and may also result in unfair competition
- Much of the experience with social marketing campaigns has been focused on promotion of goods or behaviors that do not require significant capital investment – for capital intensive products affordability issues may be important and flexible payments and links with credit may be necessary
- Demand created through promotion must be backed by adequate supply. The local private sector is best suited to respond to this demand. Detailed marketing and distribution plans are necessary
- Continuous promotion, not single, once-off interventions, over a long time is key to lasting behavior change.

Sources: Curtis n.d., Carol Jenkins in Simpson-Hébert and Woods (1998), Heierli and Polak (2000), Thomas and Curtis (2003), Budds et. al. (2002), WSP (2003c)

Demand Promotion. Demand promotion covers both constructing sanitation facilities and promoting the use of the facilities, particularly toilets. It also includes promoting good hygiene practices (box 7). Hygiene practices are linked to the storage and use of water, excreta disposal and disposal of solid and liquid wastes which, in turn, could result in a greater demand for and better use of the facilities. In terms of financing these different dimensions may be distinguished as the nature of expenditure requirements varies, as do the required time horizons – from one time promotion with links to household capital expenditures with related credit needs for toilets to a more extended timeframe with a greater emphasis on recurrent expenditure for hygiene promotion.

Issues in financing demand promotion that need to be addressed include:

- Lack of clear institutional mandates for activities related to demand promotion. While activities related to hygiene promotion are within the mandate of health ministries, the

health sector budgets generally give priority to curative aspects, and neglect preventive measures in environmental health

- Need to reach consensus on a right mix of approaches for demand promotion, both globally and within the specific context of each country to finally get a breakdown of “fundable activities” for actual implementation
- Analysis of the potential cost effectiveness of the different approaches for scaling up demand promotion

- Advocacy with governments to incur the expenditure on necessary ‘software’ (rather than only hardware) type of activities
- Need to develop financing mechanisms and procurement procedures that enable effective participation of NGOs and other stakeholders such as micro finance institutions
- Need to evolve coordinating and budgeting mechanisms to respond to actions required across different ministries and at different levels of governments.

Box 7: Dimensions of Demand Promotion

	Promoting demand for sanitation facilities	Promoting use of sanitation facilities	Promoting hygienic practices
What is being promoted?	<ul style="list-style-type: none"> ▪ Construction of toilet ▪ Sewerage connection 	<ul style="list-style-type: none"> ▪ Use of toilets by all family members ▪ ‘No open defecation’ 	<ul style="list-style-type: none"> ▪ Hygiene behavior – boiling water, washing hands with soap, proper handling of children’s faces, storage and handling of water
Target audience?	<ul style="list-style-type: none"> ▪ Household head 	<ul style="list-style-type: none"> ▪ Whole family, particularly children 	<ul style="list-style-type: none"> ▪ Whole family – particularly women
One time or an ongoing activity?	<ul style="list-style-type: none"> ▪ One time 	<ul style="list-style-type: none"> ▪ On-going but a shorter time frame 	<ul style="list-style-type: none"> ▪ Ongoing over an extended timeframe
Nature of expenditure?	<ul style="list-style-type: none"> ▪ Expenditure on promotion ▪ Capital investments for the facility ▪ R&D for new marketable products and services ▪ Subsidy may be necessary for the very poor 	<ul style="list-style-type: none"> ▪ Expenditure on promotion ▪ Recurrent expenditure on toilet cleaning ▪ Recurrent expenditure on safe fecal sludge removal ▪ Recurrent expenditure on safe fecal sludge treatment and disposal 	<ul style="list-style-type: none"> ▪ Expenditure on promotion ▪ Recurrent expenditure by households on soap, fuel ▪ Capital expenditure on water purifiers, water storage
Is credit likely to be required?	<ul style="list-style-type: none"> ▪ Household credit relevant for the poor 	<ul style="list-style-type: none"> ▪ No 	<ul style="list-style-type: none"> ▪ No
Is it easy to monitor?	<ul style="list-style-type: none"> ▪ Yes 	<ul style="list-style-type: none"> ▪ Yes 	<ul style="list-style-type: none"> ▪ No

Note: Adapted from the original idea in Kolsky 2003.

Box 8: Supporting Market-Based Supply of Sanitation in Bangladesh

In Bangladesh a national social mobilization campaign combined with a market creation approach supported the emergence of more than 4000 private workshops producing, over one million latrines per year in response to demand promotion and gradual government withdrawal from direct subsidy and production. This led to an annual household investment of 10 Million USD in sanitation improvement. Some of the major lessons learnt are:

- Consumers (including the poor) are willing to pay for latrines because of prestige, comfort, privacy and health
- Unprotected latrines near the village pond which were used earlier were socially ostracized by the communities
- The private sector was able to compete with government owned sanitation centers by providing standardized solutions at a subsidized price since it offered technical options tailored for households with different purchasing power. They also offered a “package solution” including transport and local assembly services
- Surveys revealed that the local producers were appreciative of the external support provided for the development of marketing aids for their products.

Sources: Heierli and Polak (2000), Froehlich (1999), WSP-SA (2000), SDC (2003)

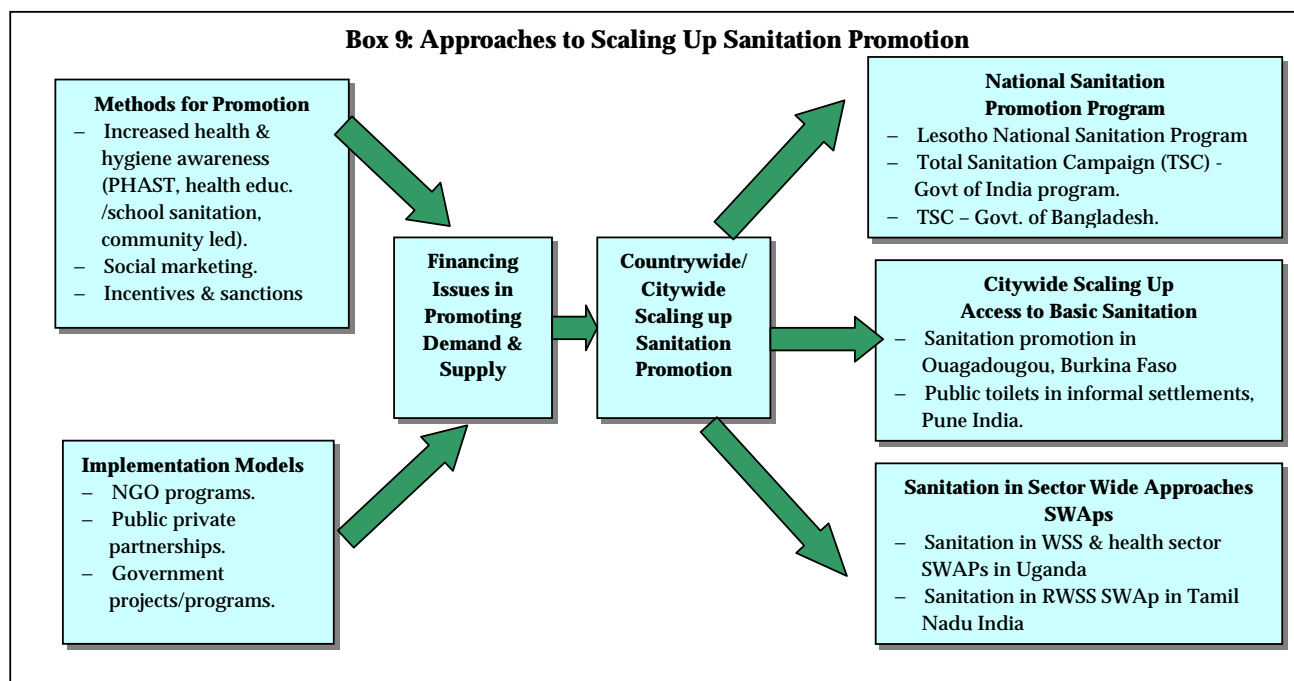
Supply Promotion. The supply of sanitation is an equally important part of sanitation promotion. In the past this has meant government programs for construction. However experience shows that even with external support, governments do not have the resources, the incentive structure or capacity to deliver the required volumes and variety of sanitation products and services. Efforts are needed to work through the local private sector to develop sanitation as a business in response to demand promotion (see box 8).

Issues that need addressing in using public finance to create and sustain such a market include:

- Product development (innovation) and support to applied research to identify cost-effective and varied technology options across the sanitation chain, especially in context of unserved areas
- Facilitating marketing and supply channels, access to credit (with credit enhancement where relevant) and training for small-scale service providers (SSSPs) and local entrepreneurs
- Government quality control and assurance mechanisms, licensing, other such consumer and environmental protection and product regulatory policies

National or Citywide Approaches for Scaling Up Sanitation Promotion. Any move towards a public finance strategy means that practical approaches must be identified for governments to follow at national and local levels. A review of recent efforts at scaling up basic sanitation in rural and urban areas presents evidence of some emerging approaches that may be contextually adapted by national and local governments (see boxes 9 and 10 for details). Of these, the *National Sanitation Promotion Program* has had promising results in Lesotho and as has the *Total Sanitation Campaign* in India. The National Program in Mozambique has recently shifted its focus to sanitation promotion after the failure to sustain subsidized slabs.

Another approach is to include sanitation in a *Sectorwide Approach (SWAp)* for water and sanitation or health. SWAp is an approach by which “development agencies collaborate to support sector reform programs that are based on a country’s long-term vision for its development” (World Bank 2002b). It requires strong government leadership and a progression towards a reliance on government procedures for all investments¹. SWAp is being used in Uganda in both the water-sanitation and health sectors and is being applied in Tamil Nadu, a state in India with a population of 62 million. As a SWAp is applied countrywide



¹ See Mehta 2003 for experience on SWAps in Africa.

and uses the government administrative and fiduciary systems scaling up is built into this approach. In context of emerging emphasis on decentralization, SWApS will require particular attention on local government capacity building and technical support in the interim period.

Citywide scaling up of sanitation access for the poor. Sanitation access for the poor in urban areas is often linked to slum upgrading strategies where public finance needs to target poor and low-income communities, often residing in slum settlements. In this context, future work needs to review citywide approaches for urban sanitation that focus on basic sanitation for the poor. Case studies of existing programs can be seen in Ouagadougou, Burkina Faso and Pune, India. In Ouagadougou, the urban water utility uses a sanitation surcharge to fund sanitation promotion and partial subsidies for improving household pit latrines. In Pune the

municipal authority combined its own funds with national government grants to provide public toilets in slum settlements that were later managed by the community through user fees (Patel and Bapat 2004). In both cases, the participation of NGOs in mobilization and implementation has played a critical role. The NGO costs were covered fully in Ouagadougou but not in Pune.

Integrating such programs within the government systems of planning and budgeting requires development of a public finance strategy for sanitation as discussed further in section IV. It will also necessitate defining and developing the right skill mix and human resource requirements for fulfilling this new role. Appropriate long term support and funds will need to be provided for this shift either through external funding or preferably from the domestic budgets.

Box 10: Experiences in Scaling Up Sanitation Promotion

The National Sanitation Program in Lesotho dates back twenty years and shows how determined government leadership, limited subsidies and involvement of local private sector can lead to large increases in national sanitation coverage (from approximately 20% to approximately 53% of the population). It focuses on demand and supply and is basically not subsidized. Outstanding features of the program are that it is an established item on the government budget, is independent of external support and has simple and clear financing rules, including zero direct subsidies for building individual household latrines. Householders directly employ private-sector latrine builders, while the government concentrates on promotion and training.

Total Sanitation Campaign in India: The Government of India's has moved from a supply driven approach to the demand driven TSC program with the State governments formulating "Total Sanitation Campaign" proposals in selected districts to receive GOI financial assistance. Though each TSC in the district is implemented in a 'project mode', the strategy is to achieve scale through a 'community led' and 'people centered' approach with increased emphasis on awareness creation and demand generation for sanitary facilities in houses, schools and for cleaner environment. Supply is addressed through training of masons and 'sanitary marts'. Subsidy for individual household latrine units has been minimized to serve as incentives to households.

Sanitation within a Sectorwide Approach (SWAp) in Uganda. In Uganda, there have been many attempts to raise the profile of sanitation and develop a national program of action, notably the National Sanitation Forum in 1997 that produced the Kampala Declaration on Sanitation (KDS). However these had a limited impact. The emerging sector-wide approach to planning (SWAp) both in the Health and Water and Sanitation sector now offers now a renewed opportunity to scale up sanitation improvement through:

- Developing a national consensus on policy and approach for sanitation promotion and supply using the established SWAp mechanism for consultation and decision making
- Addressing institutional fragmentation through improved coordination through a separate sanitation sub-sector working group within the SWAp joint sector review process
- Integrating sanitation in key national strategies and operational plans backed with adequate resources
- Linking sanitation investment to the overall economic and social development agenda to mobilize more resource for sanitation
- Developing budget mechanisms for sanitation including specific budget lines and revising guidelines for conditional grants for water and sanitation, health and education

Sources: Lesotho: Pearson (2002); India: Government of India (2004); Uganda: Bazeyo et al. (2002), Government of Uganda and WSP-AF (2002)

III. LEVERAGING ADDITIONAL RESOURCES FOR SANITATION

1. Why is it necessary to leverage additional resources for sanitation? Leveraging is commonly understood to mean the use of public resources to bring in more household, community and private resources. However, here it is used in a wider sense to also include efforts to leverage more public resources through advocacy and better sector preparedness as well as using resources more efficiently to derive more 'value for money'. The most common argument generally advanced for leveraging additional resources is the existence of a potentially large funding gap to meet the MDGs as illustrated by the estimates in box 2. However, leveraging is also useful because it requires the use of more demand responsive approaches and a more considered effort in planning and risk management when accessing market-based resources. Both these strategies would result in higher sustainability of actions and investments. Currently, sanitation activities are generally financed from national government budget allocations, overseas development assistance

(ODA) and external NGOs. Other potential local resources are either neglected, or not adequately recognized or 'crowded out'. Many recent initiatives in the infrastructure sector have highlighted the need for leveraging resources including the high level Camdessus Panel on Financing Water for All (Winpenny 2003). In addition, the World Bank and IMF (2003a) have also identified the need to apply new/existing instruments to effectively maximize leverage in their recent Infrastructure Action Plan.

2. What realistic opportunities exist to leverage resources for sanitation expenditures? There have been limited but varied experiences in leveraging additional resources for sanitation though in general their scale has been limited. The review draws on experiences of wider infrastructure and housing finance as illustrated in boxes 11 to 14. Based on these, three kinds of opportunities are identified for leveraging resources for sanitation.

Box 11: Illustrative Cases of Leveraging Additional Resources for Sanitation

	Leveraging Resources from		
	Household / Community Resources	Market Based Resources (Private, market borrowing)	National / Local Government /NGO Resources
Sanitation Promotion	Sanitation surcharge Burkina Faso	Handwashing Initiatives in Latin America and Africa	Sanitation advocacy in Africa
Household/ Institutional Community Sanitation	Soozal Initiative, WaterAid, India Rural Environment Health Program, Orissa, India	Micro-credit for household and community sanitation in Vietnam and SEWA Bank, India National Sanitation Program, Lesotho	Village Sanitation Awards in Maharashtra, India
Wastewater and Solid Waste Management	Pariwattan Project (slum networking), India Orangi Pilot Project for slum drainage in Pakistan	User charges for use of public toilets – Kenya, India Regulation of small private providers in Tanzania Output based aid for wastewater treatment and disposal, Brazil Market borrowing with credit enhancement, Mexico Solid waste treatment and disposal concessions, India Pooled financing for market borrowing by small municipalities, USA and India	

Leveraging Greater Household or Community Resources. Given that the benefits of on-site sanitation are mainly private or localized at the community level, leveraging greater household and community resources for sanitation makes economic sense. Until recently, the reliance of many governments on household subsidies for toilets to enhance sanitation coverage has tended to crowd out household resources. This outlook has changed in recent years and it is becoming increasingly recognized that it is possible to leverage greater household and community resources through full or partial cost sharing for

toilets, user fees for public toilets and sanitation related taxes or surcharges once consumer demand has been unlocked. Box 12 provides examples of case studies which have shown varying degrees of success with household leveraging. While significant opportunities exist, the examples show that actual experience in scaling up has been limited to date. Scaling up will need to be tailored to country and situation specific characteristics which include what leveraging is possible in relation to income and poverty levels, previous success in demand promotion and potential access to credit.

Box 12: Success in Leveraging Household and Community Resources for Sanitation

Rural Sanitation:

Soozal Initiative, WaterAid, Tamil Nadu, India: Developed by seven NGOs, the initiative facilitates household investments in sanitation through community capacity building. Demand was created by hygiene promotion, informed choices over technology options and making bridging loans to households.

Rural Health and Environment Project, Orissa, India: Gram Vikas, a rural development organization provides financial and technical assistance to poor communities to upgrade their housing, water, sanitation and drainage facilities. Villagers create a savings fund for infrastructure, prior to such financial assistance. Community contributions are about 38 percent of total project costs.

National Sanitation Program, Lesotho: This program promotes latrines to communities and uses small private sector construction companies to supply the latrines as per user demand. Although, the latrines are generally fully financed by households, a government guaranteed loan facility does exist for low income households.

Urban Sanitation:

Orangi Pilot Project, Pakistan: The project has facilitated a US\$1.5 million community investment programme in drainage. Success factors were community mobilization, affordable technical specifications and community managed installation of infrastructure. A constraint has been the lack of access to municipal / city level external connections.

Pariwarta Project, Ahmedabad, India: Households in Ahmedabad's slums were mobilized to invest in one third of the development costs of community infrastructure. Despite initial success, expansion has been slow. Effort is being directed at formalizing a public-private-NGO arrangement for funding and implementation.

NGO Linked Credit for Household Toilets in Vietnam: The World Bank-funded Three Cities Project set up a revolving fund with a local NGO, the Women's Union (WU), to provide credit for household toilets. The WU has over 350 savings and credit groups (SCGs) functioning in these cities. Credit for toilets (US\$150) is on a short-term basis (two years) with a recovery rate of over 95 percent. It is backed by demand generation and hygiene awareness in the monthly meetings of the SCGs. Over 4,000 households have borrowed in the first year and the target is to achieve almost full coverage of low-income households.

User Charges for Public Toilets - Kenya, India and Mali: In Kenya, an association of business owners contracted private operators to rehabilitate and operate the local authority toilets, which were in disrepair. Currently between 500 and 1,000 people, each paying between \$0.06 and \$0.12 per use to the private operator, use each facility every day. In India, Sulabh piloted a concept of user fee backed management of public toilets, which has been very successful. It has subsequently spread the concept throughout the country. In Pune, India, an NGO, SPARC, together with two people's organizations, have built 114 toilet blocks through a contract with local government. The toilet block includes a room for the caretaker to reduce maintenance costs and families using the toilet blocks buy a monthly pass for Rs.20 (US\$0.44). In Bamako, Mali an annual fee of US\$600 is levied and besides operational costs, covers capital cost recovery.

Sanitation Surcharge, Burkina Faso: Resources mobilized through a surcharge on water are used by the urban utility to fund sanitation promotion and partial subsidies for improved toilets. There is some concern regarding expanding the program to other cities.

Sources: Vietnam: EAUDSU (2002); India- Soozal: Sakthivel and Fitzgerald (2002); Pakistan: Arif (1997); Lesotho: Pearson (2002); Kenya: Mbuvi (2004); India – toilet: Burra and Patel (2002) and Patel and Bapat (2004), India – Pariwarta: Vyas (undated); (2002), Mali: WUP (2003); Burkina Faso: Ouedraogo and Kolsky (2002)

Leveraging resources from households and communities requires better links with wider financial systems including housing finance and micro/ community based finance systems. For household level credit, links are necessary with housing finance systems. An example is South Africa where 70,000 latrines were built through sanitation related projects in the first 6 years of democratic government, compared to 2.2 million toilets that were constructed as a part of the housing programs (WSP-AF 2002). Many housing finance companies and micro-finance institutions focus on house improvement loans that may include toilets. There can be considerable scope for such credit in rural areas, though tenure issues may hamper the use of housing finance in urban informal settlements. This has, however, been addressed when NGO linked MFIs provide housing or sanitation linked credit without using mortgage as collateral, as demonstrated in India and Vietnam.

The case studies covered in box 12 show that the issues which influence leverage are fairly consistent:

- Limited public resources must be focused on *community mobilization and sanitation promotion* which includes both supply and demand, using partial household or community subsidies where necessary as incentives for the poor
- *Links to credit* need to be developed if households and communities are to meet the initial high investments
- *Connection to wider municipal systems* are critical for urban sanitation in terms of municipal readiness for city level services and for providing partial subsidies that are fiscally sustainable
- The *importance of ensuring fiscal sustainability* over a reasonable time frame when scaling up cannot be overemphasized, and requires wider government programs and public finance strategy to incorporate these principles either on a national or citywide scale.
- Wider municipal systems and ‘security of tenure’ links need to be established especially for low-income and informal settlements in large urban centers. These can help to generate considerable local community resources for sanitation and slum upgradation in general,

and require municipal readiness for city level services and external connections.

- Water and sanitation linked pricing and tariff structures should be rationalized while ensuring affordability for the poor. This will enable maximizing revenues from sanitation (through, for example sanitation surcharge and various Polluter Pays type charges) and also support better market access

Leveraging Market Based Resources – Private Investments and Domestic Borrowing. Market based leveraging may be through direct investments by the private sector, cash-flow backed market borrowing from banks, special finance institutions or bond issuance. Box 13 provides illustrative examples for market-based resource mobilization.

Opportunities to leverage market-based resources can be explored for those sanitation activities where it is possible to mobilize revenue either through user charges or from the sale of byproducts such as compost. Given the high public benefits that accrue from urban wastewater services and solid waste disposal facilities, cash flow from allocation of general revenues may also be relevant². It is important to structure such transactions with both grants and user charges through mechanisms such as output based aid and minimum subsidy concessions³. These mechanisms help to maximize leverage and avoid crowding out potential private sector resources. A facilitation and regulatory framework is often necessary for small private providers to reduce their risks and develop markets (see the Tanzania case in box 13).

If market borrowing is to be used for urban sanitation, at least three pre-conditions are essential. First, the municipal sector must be relatively stable and have good management and financial capacity, and capital markets and micro-finance or other community based financial institutions need to be reasonably vibrant. Sanitation sub-sectors and activities have to be delineated, which can generate direct revenues or

² This, however, does raise the issue of trade off in the use of public resources between onsite sanitation benefiting a larger population, and particularly the poor, versus benefits accruing to those using the water downstream. This is discussed further in the next section.

³ For principles and examples of minimum subsidy concessions, see Mehta 2003.

prioritize how general revenues are allocated. A rigorous municipal financial assessment is critical as anecdotal evidence from South Africa suggests

that 'over investment' in sewerage systems through market borrowing may be at the heart of financial woes of some municipal authorities.

Box 13: Leveraging Market-based Resources for Sanitation

Direct Investments by the Private Sector.

PRODES - Output-Based Transaction for Wastewater Treatment, Brazil: Incentive based regulation is used to finance water quality improvements. Utilities, when investing in wastewater treatment facilities in vulnerable water basins are eligible for assistance of 50% of the capital cost of the infrastructure investment linked to a reduction of the achieved pollution load. Economic incentives to participate are from charges levied on polluters.

Solid Waste Disposal Concessions in India: Over 50 municipal authorities in India have awarded such concessions. As an example, Kolhapur Municipal Corporation has entered into a 30-year concession to develop a waste treatment facility (270 tons per day capacity). The private operator is responsible to raise the project finance based on returns from sale of compost generated from the operation.

Regulation of Cesspool Emptying Services in Dar es Salaam, Tanzania: The lack of public infrastructure with Dar es Salaam City Commission (DCC) for the emptying of cesspools led to an informal market of exhausters in the mid-1990s. Acknowledging the environmental damage that could result from an unregulated market, DCC required all trucks to register and pay a dumping fee. The formalization of the market led to an increase in the number of providers over the 1996 - 1998 period as well as a drop in price from the maximum level set by the DCC.

Private Investments in 'Handwashing Campaigns' in Latin America and Africa. In the Handwashing Initiative described in box 6, private soap manufacturers have put in funds for sanitation promotion in both Latin America and Africa.

Private Company for Eco-San Solutions in Kenya and Uganda (Kentainers, Crestank Ltd): Kentainers established a network of sales representatives to manage a network of service agents to successfully market and sell ecological sanitation products. A typical service agent has a substantial investment in a community and is recognized and respected as an opinion leader. The company hopes to roll out Ecological Sanitation and Water Management solutions countrywide using this extended private enterprise network, where all players are committed and financially motivated.

Market-based Borrowing for Sanitation Investments.

Market Borrowing for Wastewater Treatment Plant in Mexico: The first transaction of World Bank-IFC Municipal Fund has enabled Tlalpanmunicipality in Mexico to enhance its credit rating and borrow an equivalent of US\$8.2 million from the domestic market. The IFC has backed US\$3million of the total amount but, for the first time in history, has not required a national level guarantee. Instead they have secured the funds on the basis of expected revenue from the wastewater treatment facility.

Pooled Financing for Water and Sewerage Projects in India: Using the framework of US Bond Banks, a Water and Sanitation Pooled Fund (WSPF) was created in the state of Tamil Nadu to enable small urban areas to borrow funds for WSS. Pooling allowed better risk sharing and lower market rates for capital market borrowing. Credit enhancement mechanisms such as debt service reserve fund and partial guarantees through USAID's Development Credit Authority also helped to lower the cost of funds. Based on this experience, Government of India program has been developed to support creation of state level pooled funds.

Community-led Infrastructure Finance Facility (CLIFF): CLIFF developed out of partnership by the UK-based Homeless International and its Indian partners, the National Slum Dwellers Federation (NSDF), Mahila Milan (a community-based finance system), and SPARC, a Mumbai-based NGO. DFID primarily funds the CLIFF initiative, which is focused on providing for three critical elements of community infrastructure financing: (a) development of pilot and demonstration projects; (b) bridging finance for initial scaling up; and (c) partial support for risk management and mitigation. CLIFF's operations require that the basic mobilization work has already been done and a strong institutional base of reputable stakeholders exists. CLIFF is managed globally by Homeless International, and in the first phase is being implemented by a special company (Nirman) set up by the Indian partners. Plans to expand this to countries in Africa are underway. This initiative combines the basic features of project development support, partial guarantees for risk mitigation, and accessing market-based investment funds.

Sources: India-pooled finance: Baker (2003); Mexico: IFC (n.d.), Kelhofer (2003); Brazil: Presentation from ANA by Pereira (undated); Tanzania: Wandera (2000); Kenya: Kentainers Ltd (2003); India-concessions: Devi and Satyanarayana (2001); CLIFF: McLeod (2002), Mehta (2003)

In most cases, transaction costs will be high in the initial phase for market-based resources obtained through borrowing or private sector investments. In addition, there may be an initial need for credit enhancement because of a lack of credit history. A number of facilities have been developed or promoted in recent years to support the development of bankable investment opportunities, and to provide credit enhancement both globally and for different regions and countries⁴. However, as illustrated in box 13, there are very few examples of support being given to sanitation related transactions. Focus is therefore needed to provide specific support for sanitation transactions within the mandates of these facilities.

In general, links with wider financial systems are influenced by the country's readiness in terms of creditworthiness of local borrowers as well as the level of financial sector development, which includes micro-finance. In countries with a reasonable level of financial sector development, focus is needed on facilities that provide support in developing bankable projects and sustainable credit enhancement facilities. These measures should be aligned with overall decentralization and institutional reforms.

Government and NGO Resources. Leveraging greater government resources refers to priority being given to sanitation in the budget allocations of national and local governments (see box 14). As these allocations are influenced as much by political factors as technical considerations, advocacy efforts become important⁵. For national governments, this is linked to making a stronger economic and social case for sanitation with the finance ministries and the need for an institutional champion for sanitation at the national level. When fiscal decentralization has advanced and local governments have budget control over their own resources, local government priorities may be influenced by fiscal incentives through intergovernmental transfers as well as conditional grants, special programs and awards.

⁴ See Mehta (2003) for details of such facilities.

⁵ See Mehta and Fuglesnes (2003) for ideas on advocacy for improving water and sanitation within poverty reduction strategies in Africa.

Box 14: Leveraging Government and NGO Resources for Sanitation

Sant Gadge Baba Awards for Total Sanitation in Maharashtra: In this innovative program, villages compete for a 'clean village' award, which carries a cash amount to be used for village development. Villages are judged through a transparent process on a number of criteria including hygiene, toilets and solid waste disposal. The state government facilitates this process through awareness building among communities and technical assistance to villages when requested. Each year in which the competition has been carried out US\$40 - 60 million has been invested by the communities and rural local governments (through their own sources) in total sanitation.

Solid Waste Collection Through PSP, Various Cases, India: Government resources can be conserved through outsourcing waste collection services to private providers as has been demonstrated in numerous Indian cities. Contracts in Hyderabad are given to sweepers, waste collectors and transporters through an established procurement processes resulting in about 60% of the total solid waste work being outsourced. In New Bombay, contracting waste services to a private firm cut the total cost to under half that of the government administered system.

Sanitation Sector Working Group in Uganda: The recently formed sanitation working group in Uganda gives focus to lobbying for increased sector funding and "making the case for sanitation". With initial support of WSP-AF, the sanitation sub-sector group aims at improving sector coordination. They convey consistent evidence based advocacy messages and facts to key sector decision makers mainly in the Health and Water sectors to mobilize government resources for sanitation. They try to systematically seize opportunities like the review of the Poverty Eradication Action Plan (PEAP) as well as the review of the Health Sector Strategic Plan (HSSP) to mainstream sanitation in key Government public expenditure strategies.

Advocacy Campaigns for Sanitation, Africa: The African Conference was held in Midrand, South Africa in August 2002 with the goal of accelerating sanitation and hygiene work in Africa to achieve the Millennium Development Goals (MDG) and the aims of NEPAD. It was attended by 16 African Ministers and senior sector experts, and came up with clear messages to political decision makers. It was the start of an ongoing African initiative to: a) strengthen leadership and advocacy for improved sanitation and hygiene; and b) raise the profile of sanitation and hygiene in Africa, both at and after the World Summit for Sustainable Development (WSSD). This advocacy is expected to also influence country governments to give greater focus on sanitation in national planning and budgeting processes.

Sources: India: WSP-SA (2002c) Uganda: Government of Uganda and WSP-AF (2004); India: Devi and Satyanarayana (2001); Advocacy: WSSCC webpage "African"

For leveraging government and NGO resources, it is vital for attention to be focused on the possibility of the sector's preparedness to engage with national and local planning processes. Three directions are evident. First, when engaging with national planning and the budgetary process, a good case needs to be made of how important sanitation is to bringing dignity to people's lives and how critical its contribution is to all the MDGs (see box 1). Issues relating to a national / local consensus on approaches to scaling up and clarity in institutional mandates also need to be resolved. The third direction is developing a public finance strategy for sanitation that recognizes the importance of sanitation promotion and the need to leverage resources. In making a case for sanitation, an important element is to develop a monitoring framework that helps to capture the sector performance achieved with public funds. These aspects are discussed further in the next section with a focus on developing a public finance strategy.

While the literature on the role played by NGOs is rich in terms of their contribution to innovations and positively influencing government programs, little is known of the scale of their financial contributions to sanitation investments. Recent studies of water and sanitation (WSS) resource flows in Kenya and Ethiopia suggest that their financial contributions could be as high as 20 percent of total WSS sector resources. A sensitive approach with participatory coordination is needed to retain the positive role played by NGOs. This is important as the role of NGOs could be minimized with shifts to sectoral budget support by donors and fiscal decentralization, as seen in South Africa.⁶

3. What lessons emerge for leveraging resources for sanitation in context of scaling up?

For leveraging resources for sanitation the different sources that provide opportunities for leveraging are household and community resources, market-based resources through private sector investments or market borrowing, and greater government and NGO resources. The review of opportunities for leveraging resources suggests that greater emphasis is first needed on mobilizing household/ community resources as well as government resources. For basic sanitation, leveraging

household and community resources is important. This requires public policies to create a 'financing space' (through appropriate demand promotion) for household and community contributions as well as to facilitate access to credit, particularly through micro-finance/housing finance.

On wastewater and solid waste management, focus needs to be on market-based resources and output-based aid. For this, emphasis is needed on revenue mobilization through Polluter Pays type of charges as well as rigorous financial assessment to ensure financial viability at the municipal/ utility level, and efforts to enhance the focus on sanitation in global and national bodies dedicated to project development support and credit enhancement. While there is evidence of market-based resource mobilization, links do need to be facilitated with wider financial systems in housing and infrastructure finance. Experience is more limited in these sectors and several developing countries may lack the necessary level of domestic financial sector development. More effort will be needed to identify lessons from several ongoing pilot applications.

In addition, both national and local government resources need to be leveraged through advocacy and appropriate fiscal incentives. Sanitation must be given an increasing budget allocation by local governments when fiscal decentralization is in place. However, in general, scaling up use of market-based resources for urban sewerage is likely to be more difficult than leveraging household, community and local government resources for basic sanitation, as experience is so far limited and domestic financial sector development is often weak.

⁶ Based on ongoing studies on WSS resource flows by Water and Sanitation Program, Africa.

IV. PUBLIC FINANCE STRATEGY FOR SCALING UP SANITATION

1. **Paradigm shift - from 'financing sanitation facilities' to 'funding sanitation promotion and leveraging resources'.**

Conventional public finance in sanitation has largely been concentrated on subsidies for household and public toilets, and grants for urban sewerage and solid waste systems. However, the review in the previous two sections suggests that the focus of public finance must shift to sanitation promotion and to leveraging additional resources if the MDGs are to be met in a sustainable manner (box 15). The review has shown that public expenditure on sanitation promotion is justified as it enhances sustainability and helps to leverage additional resources. Public expenditure on subsidies and grants for facilities will still be necessary especially for the poorest people and to solve sanitation problems which cannot be resolved through 'Polluter Pays' type of charges/levies⁷. This leads to issues in appropriate combination of public and non-public funds and trade-offs in allocation of public funds.

Sanitation promotion for various sub-sectors has different implications for demand, supply and for leveraging resources. For example in rural areas, the main focus would be on demand promotion and developing supply chains. In urban informal settlements the promotion would generally be to resolve the tenure issues backed by community mobilization, and facilitate small private service providers. For urban wastewater and solid waste, promotion needs to focus more on commercial project development for market based resource mobilization, backed by 'Polluter Pays' type of charges. Promotion also includes advocacy with national /local governments.

2. How can this paradigm shift be localized in a country/city context? In reality, achieving the paradigm shift depends on the development of an appropriate public finance strategy that supports sanitation promotion and focuses on leveraging resources. Any design of this type of public finance strategy for sanitation requires attention on six elements (see box 16 for the approach and box 18 for a case study of Uganda). It is important to

realize that this process for public finance strategy development may be used at both national and local government level:

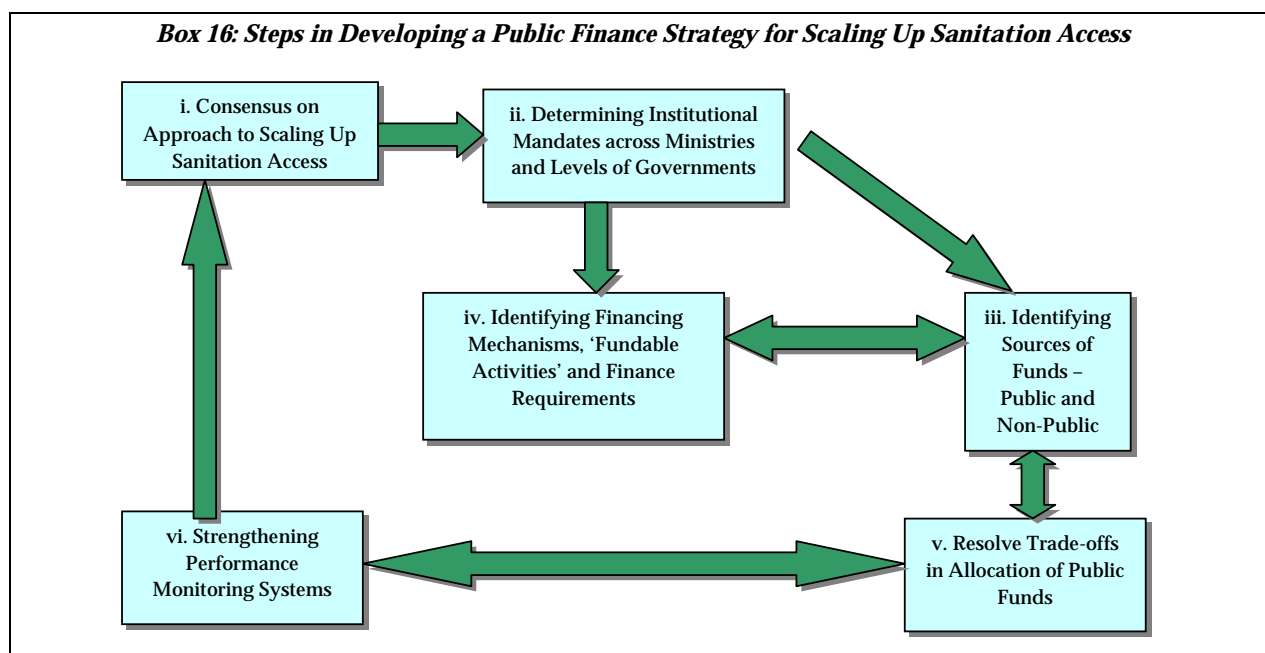
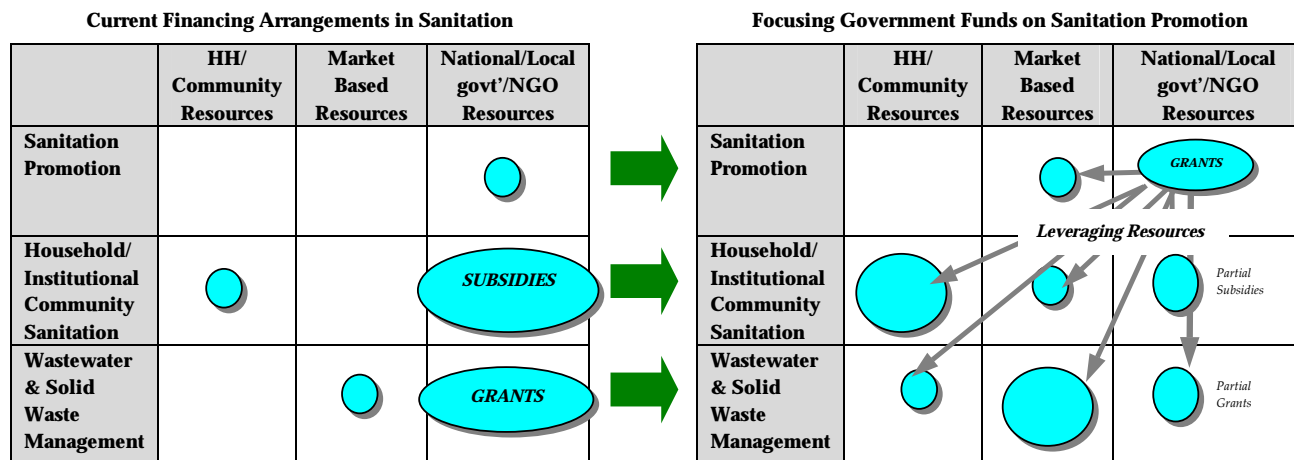
- i. Arriving at a local consensus on methods and approach to be used in scaling up
- ii. Determining institutional mandates at different levels of government
- iii. Identifying sources of finance, both public and non-public
- iv. Identifying fundable activities and related financing mechanisms for flow of funds and incentives
- v. Determining trade-offs in allocation of public funds to sanitation
- vi. Designing a performance-monitoring framework.

In developing the strategy, a key challenge is to resolve institutional fragmentation. Examples from case studies all show the advantages of a lead institution and champion, and clarity on institutional mandates in the context of decentralization and the role of various sector ministries. It should be funded adequately to support policy and strategy development through local consensus, and to design fiscal instruments and appropriate pricing mechanisms.

i. Facilitating local consensus on use of approaches to sanitation promotion. While the critical need for sanitation promotion is universally accepted by all stakeholders and there is considerable emerging global experience in sanitation promotion, two constraints are clear. First there is still *no consensus on the right approach and strategy*, and second, in most cases the *focus is on innovations* and less on accelerated and large scale implementation to achieve country or even citywide coverage. The global experience reviewed earlier does however provide illustrations of the varying approaches being used in different countries. For example, section II identifies a number of different methods, implementation models and approaches to sanitation promotion and its scaling up in rural and urban areas. Similarly a number of methods are possible to facilitate access to market-based resources as illustrated in section III. The first step in a given country/city is to evolve a national/local consensus and identify a suitable mix of approaches. It is also necessary to develop a flexible strategy that allows acceleration along with an emphasis on rigorous

⁷ Similar recommendations are made in UNEP/WHO/HABITAT/WSSCC guidelines on Municipal Wastewater Management and its associated 10 keys for Local and national action on Municipal Wastewater.

Box 15: From Funding Grants and Subsidies to Financing Sanitation Promotion and Leveraging Resources



monitoring, learning and mid-course corrections. While a continuing review and dissemination of global experiences would help in this process, good local practice precedents are critical in generating consensus as well as local procedures and guidelines.

ii. Determining institutional mandates.

Clarification on the institutional mandates is possibly the most critical issue to resolve when designing a public finance strategy for sanitation promotion. Institutional issues that affect the sanitation sector are:

Institutional fragmentation and need for a lead institution and champion. Sanitation lacks a clear

identity as a 'sector' as mandates for different elements often lie with different ministries such as water, education and health as well as at different levels of government and with a range of stakeholders from public, community, NGO and private sectors. This may affect appropriate planning and prioritization. As national resources continue to play an important role in sanitation, an 'institutional champion' is necessary to ensure its prioritization in the national planning and budgeting process. This fragmentation also affects implementation as coordination becomes difficult. Often this is resolved through integrated projects, but as countries move towards using government systems, for example through a SWAp, this issue will need to be addressed.

Decentralization and important role of local governments. In many developing countries, local government becomes the mandated body responsible for sanitation related activities. While this may allow some integration to take place at a local level, it will also require a clear identification of the roles and responsibilities at different levels. Also in many developing countries, local governments often lack the capacity and motivation for sanitation. Thus, appropriate trigger mechanism is necessary through appropriate fiscal incentives from a higher level of government and to provide technical support to local governments and other stakeholders.

Role of autonomous utilities. In Africa and Latin America autonomous utilities are common and their role is important in scaling up sanitation in urban areas. Emphasis is needed on improved governance that will improve utility efficiency and resultant increase in sector revenues and financial viability. Such utilities can then mobilize the needed resources for sanitation promotion as illustrated by the good practice case of the utility in Burkina Faso.

Role of NGOs, CBOs and private sector. Appropriate coordinating and financing mechanisms are also needed to effectively integrate these roles.

Priority for sanitation within integrated financing/project support facilities. Available experience suggests that most finance facilities and those providing project development support are generally allocated to the wider infrastructure sector. The emphasis therefore has to be on finding ways to increase the focus on sanitation within these facilities.

iii. Potential sources and their use in relation to incidence of benefits and costs. Box 17 identifies potential resources for sanitation from households and communities, private sector investments, domestic market borrowings, local government and NGOs, which may be leveraged using the limited national government and donor resources as discussed in section III. Their use across different sanitation sub-sectors essentially depends on the nature and incidence of benefits as well as the need and potential for leveraging resources:

- *Private resources for private benefits:* It is important to maximize use household and community resources when benefits are private and localized. However, use of public resources through appropriate subsidies and

grants is also relevant when: a) there are also public benefits of total coverage or ‘no open defecation’, b) targeted subsidies for the poor and vulnerable, and c) to support access to credit which would help increase affordability. Similarly, limited use of public funds is also relevant in PPPs where private resources are leveraged for sanitation promotion.

- *Relevance of ‘Polluter Pays’ type of charges:* The polluter pays principle is the requirement that the person responsible for pollution should bear the costs required in response to such pollution so that these are internalized rather than imposed on the society as a whole. Originally developed by the Organization for Economic Cooperation and Development (OECD) this principle was also included as principle 16 in the Rio Declaration (Cicin-Sain and Knecht 1998). Its use through economic instruments such as polluter/sewerage charges in the context of sanitation would help provide economic incentives to reduce pollution and generate revenues to meet the costs of sewerage and wastewater treatment⁸.
- *Need for borrowing:* For those investments that have a high incidence of public benefits, use of public funds is justified. However, because of large investments related to such investments, particularly in wastewater treatment, use of public budget allocations is not enough if used only on “pay as you go” basis. This makes it necessary to borrow funds for facilities requiring large investments.

The public finance strategy needs to recognize use of these different sources for activities to scale up sanitation access. The challenges faced in this process include:

- *Appropriate mix of public and non-public resources:* As evident from box 17, for all sanitation sub-sectors, there is mixed incidence of public and private benefits from given activities. This necessitates combining public resources through grants and subsidies with household, community and private resources for specific sanitation activities. Appropriate design of financing mechanisms is essential to ensure

⁸ Refer also to the Brazil case for wastewater treatment where the existence and enforcement of such charges has made it possible to use output-based aid approach to leverage partial funding from public and private utilities.

their efficient and effective use. Appropriate shares of public resources in different activities and transactions represent political choices and tradeoffs within the given public resource envelopes faced by national and local governments. These aspects are discussed further below.

- *Creating reliable and predictable cash flows:* While revenues through sanitation related charges present some opportunities and potential, a key aspect influencing their use in a public finance strategy is to ensure their reliability. Predictable and reliable resources can form a base for medium to long-term strategy essential for scaling up. This requires attention to pricing/tariff rationalization and political commitment to their adoption and

enforcement. When public resources are mobilized through national budgets and used at local levels, predictability gets linked to decentralization and systems of inter governmental fiscal transfers.

- *Appropriate targeting of subsidies and grants:* As use of subsidies and grants appears necessary for different sanitation sub-sectors, public finance challenge is to find mechanisms for their appropriate targeting in terms of poverty levels across households and communities, and across regions and districts within a country (or across poor neighborhoods in large cities) in relation to poverty levels, current status and performance and past investments. Design of policy for household subsidies to provide appropriate incentives may consider timing of

Box 17: Nature of Benefits and Potential Sources for Sanitation Activities

	Nature and Incidence of Benefits	Potential Resources from		
		Household / Community Resources	Market Based Resources (Private, market borrowing)	National / Local Government /NGO/ Donor Resources
Sanitation Promotion	<ul style="list-style-type: none"> – Largely public benefits due to improved returns on WSS expenditure – Helps to leverage resources – Profits for private firms selling products such as soaps 		<ul style="list-style-type: none"> – Private firms for advertising (e.g. soap manufactures / distributors) 	<ul style="list-style-type: none"> – National/ local government budget allocations / donor/ NGO funds for community hygiene promotion, sanitation promotion campaigns, technology research – National/donor funds for supporting development of 'bankable projects'
Household/ Institutional Community Sanitation	<ul style="list-style-type: none"> – Mainly private benefits for households/ communities for improved health, privacy /convenience – Public benefits from 'no open defecation' 	<ul style="list-style-type: none"> – Household / community capital contributions – User charges for public/ community toilets 	<ul style="list-style-type: none"> – Borrowing from MFIs, banks, housing finance companies – Private financing for community / public toilets through BOT, leasing 	<ul style="list-style-type: none"> – Targeted subsidies from national/ local government budgets or NGOs – Partial / full grants for institutional sanitation from national/ local government budgets
Wastewater and Solid Waste Management	<ul style="list-style-type: none"> – Public benefits of improved environment at city /river basin level. – Relevance of the "Polluter Pays" principle – Large investments make 'pay as you go' difficult 	<ul style="list-style-type: none"> – Sanitation surcharge on water bills – User charges for solid waste primary collection – User charges for sanitation services – Polluter charges (e.g. for disposal in rivers) 	<ul style="list-style-type: none"> – Private financing through BOT, lease/ concessions for treatment and disposal – Market borrowing through debt, issuance of municipal bonds 	<ul style="list-style-type: none"> – Partial grants from national/ local governments for sewerage systems and solid waste facilities – Local government / utility allocations from general revenues (e.g. property tax) for recurrent expenditure

subsidies⁹ to ensure demand responsiveness as well as community mobilization for community decided targeting of subsidies. Recent work on subsidies provides guidance on what constitutes a good subsidy and potential options for subsidy instruments such as access subsidies, improved cross subsidies and use of incentive linked subsidies through output-based aid¹⁰. Decentralization literature

also provides some guidance on use of grants but more analysis is needed for sanitation. For these measures to work well, however, a key constraint is the lack of adequate information and performance-monitoring framework as discussed further below.

Box 18: Uganda - Addressing the Challenge of Developing a Public Finance Strategy for Sanitation

The main responsibilities for sanitation related activities in Uganda fall between three line Ministries. Under a Memorandum of Understanding signed in 2001, the Ministry of Water, Lands and Environment (MoWLE) is tasked with planning for investments in sewerage services and public sanitation facilities in towns and rural growth centres as well as for sanitation promotion around new water points. The Ministry of Health (MoH) is responsible for household hygiene and sanitation functions, while the Ministry of Education and Sports (MoES) has the mandate for school latrine construction and hygiene education in schools. The mechanisms for funding sanitation activities are also spread across ministries, making financial planning more complex. Inter-sectoral collaboration is therefore needed from national to Sub-County level for the best use of limited resources. Current arrangements are fragmented with consequent problems for coherent resource allocation and prioritization.

At the national level, the new sector-wide approach to planning (SWAp) offers a potential for improved coordination and resource mobilization for sanitation. To take advantage of this opportunity to scale up sanitation programs through increased public resources, answers have to be found to the following key questions:

- How much public finance is needed for which “fundable activities”?
- How does investment in the sanitation sub-sector contribute to the overall economic and social development agenda (ie. trade offs such as shifting from curative to preventive health)?
- How effectively are the resources currently spent in the sub-sector?

Under the Fiscal Decentralization Strategy in Uganda, local governments are gaining increasing autonomy for resource allocation decisions at the district and municipality levels. Ensuring that resources for sanitation are sufficient and well used is an increasing challenge due to factors such as:

- Primary Health Care, Water and Sanitation, and Education grants from central government are expected to cover all sanitation responsibilities, but other activities related to curative health and provision of water are often given a higher priority at the local level
- There are generally weak mechanisms in place for ensuring that resources get targeted at those areas with the greatest need / poverty levels (both between districts / municipalities and within them)
- There are often poorly developed mechanisms for health, water, community development and education officers to jointly work together
- There has been little effort to identify and lever community and private sector finance for sanitation activities.

To address these and other challenges, Government of Uganda is currently exploring:

- Development of an integrated national sanitation and financing strategy
- Improvement in monitoring systems and more effective information management and dissemination
- Preparation of integrated budget estimates, coordinated by a cross-institutional Sanitation Working Group, to assess overall resource needs and potential sources of funds, and to match these to expected sanitation outputs and outcomes
- Review of resource allocation criteria (e.g. between rural and urban areas, to ensure better targeting)
- Development of local government guidelines for sanitation best operational practices, resource needs and prioritization principles

Sources: Bazeyo et al (2002), Thomson (2004).

⁹ For example subsidies may be during the very initial phase and at the end after having achieved a reasonably high coverage level. This would enable subsidies to be targeted to the very poor who are likely to be left out during the initial phase. Based on ideas in personal communication from Barry Jackson.

¹⁰ For example, see Mehta (2003) – section 2.2 for decentralization related fiscal mechanisms and chapter 4 for details of subsidy instruments.

iv. Financing mechanisms and 'fundable activities'. Use of these resources has to be guided and facilitated by identifying 'fundable activities' that need to be funded through public budgets and properly designed financing mechanisms that are aligned with the country's degree of decentralization and level of financial sector development. Their design should also address the need for predictable and sustainable sources of finance. Issues to be addressed include (see also box 18 on the emerging Uganda experience):

- *Budget channels and 'fundable activities'*: Given the importance of public funds for sanitation, it is necessary to identify the potential of using national and local government budget allocations. Issues to be addressed here include: a) identification of specific 'fundable activities' that are required according to the national/ local consensus on the type of approach that will be adopted for both scaling up and related institutional mandates; b) determining the likely expenditure requirements for each of the key 'fundable activities' based on an assessment of unit costs, the scale of operation during a given year, and cost-sharing policies; and c) identifying national and/or local budgets where the 'fundable activity' could be included. Given the inter-sectoral nature of sanitation, this may require budget lines across the various ministries for national budgets.
- *Links to decentralization and intergovernmental transfers*: In those countries where fiscal decentralization is in progress, financing mechanisms for using national funds at local level will need to be in the context of inter-governmental transfers. Particular emphasis should be given the design of conditional grants and special program funds to match the agreed approaches and institutional mandates. When fiscal decentralization has progressed significantly, emphasis will be needed on measures to support local authorities to prioritize sanitation and related technical assistance.
- *Use of special funds, project development support and credit enhancement*: These vehicles may

continue to be relevant in many countries¹¹ and the emphasis would need to be on getting priority for sanitation. In the context of mobilizing community resources, the experiences of several NGO linked efforts suggest the use of revolving funds for household sanitation credit. When using these funds, the best option would be to work with existing community-based finance institutions. Experience also suggests that access to credit first needs to be backed by grant-based support for sanitation promotion. In addition, market principles for lending should be used for credit to enable future market-based scaling up, and extensive support is needed in the initial stages to enhance the use of credit and market-based resources¹². In most contexts, it would be more appropriate to prioritize or include sanitation related transactions within existing facilities for project development or credit enhancement.

- *Using principle of 'output-based aid'*: When the use of subsidies and grants is justified on the grounds of access for the poor, equity or to realize larger public benefits, it is important to use 'output-based aid' mechanisms which would provide incentives for improved performance as well as help to leverage community, NGO and/ or private resources.
- *Financing mechanisms to work with NGOs*: The review suggests that NGOs appear to play an important role in the sector, both to support innovations and contribute financial resources. As governments develop programs or a SWAP to scale up sanitation, appropriate financial mechanisms need to be developed to maintain the NGO roles while achieving better coordination. These mechanisms will need to address issues of appropriate procurement procedures to respond to the special needs of NGOs while maintaining necessary fiduciary oversight.
- *Mechanisms to protect sanitation revenues*: In cases where sanitation related revenues are mobilized either through a surcharge on water (as in Burkina Faso) or through special "Polluter Pays" type of charges (as in Brazil), it

¹¹ See Mehta (2003) for details of various special fund mechanisms that may be relevant for water and sanitation.

¹² See Mehta (2003) for a review of measures required for such support.

is necessary to protect these resources for use within the sanitation sector. Use of mechanisms such as the Superfund used by the Environment Protection Agency in the United States of America for funding hazardous waste cleanups may be also relevant. Superfund was funded through polluter pays type charges levied as a tax on chemical industries¹³.

v. What trade-offs should be addressed in determining allocation of public funds? A key aspect of any public finance strategy is to consider issues such as trade-offs, local priorities and the potential to leverage other resources. Government priorities are reflected in budgetary allocations in relation to total resource requirements for a given sector and sub-sector. Three aspects of trade-offs may be relevant in terms of the choice of financing mechanisms and allocations across sanitation sub-sectors:

- *Trade-off between public resources for 'basic sanitation' versus 'urban sewerage and solid waste'.* It is often suggested that sanitation MDGs are for basic sanitation with a focus on household and community level sanitation access. However, wider environmental improvements implicit from investments in urban sewerage and solid waste management may contribute to other MDGs. These generally require much larger investments on a per capita basis and constitute trade-offs faced by many countries and governments. Consider the situation where principles of equity suggest apriori emphasis on basic sanitation, especially as those lacking basic sanitation tend to be the poor. However in the larger urban context, city level systems are equally important to scaling up basic sanitation as evidenced from the experiences under the OPP and Parivartan projects in South Asia. The next issue is that improved wastewater treatment in urban areas results in better quality water downstream, which often benefits rural and poorer communities. The result is that this trade-off may be better addressed through improved revenue generation using 'Polluter Pays' principles, and rationalizing pricing of urban water and sanitation services than viewing the issue in the context of 'one versus the other'. On the other hand, promoting basic sanitation

and introducing incentives for the use of cost-effective technology in rural areas may be a higher and more relevant priority in most developing countries.

- *Shifting from curative to preventive health.* There is increasing recognition that improved sanitation plays an enormously important role in preventative health. This then contributes to overall health outcomes but the reality is that the trade-off between curative and preventive measures in health ministries remains likely to be resolved in favor of the former. This probably reflects the long established budget lines and allocations for curative measures whereas, as discussed above, there is still inadequate consensus on sanitation promotion approaches and therefore, in a practical sense, its conversion to 'fundable activities' that are essential in a budgeting process.
- *National versus local priorities.* Although achieving MDGs are generally a national priority, the growing trend towards decentralization in many developing countries shifts the mandate for sanitation access to local government. With enhanced fiscal decentralization, local government will have greater say in determining local priorities. This may imply a trade-off between national and local priorities that may be addressed through continued conditional grants (as in Uganda) or rules for sector shares in intergovernmental transfers (as in South Africa) or special program resources from national government as incentives to local government (as in India). All these measures will need to be considered and consensus reached while addressing issues of capacity building requirements for local governments.

vi. Strengthening information and performance monitoring systems. Overall sectoral allocation for sanitation in the context of a country or a sub-national/local government would be generally within a medium term expenditure framework (MTEF)¹⁴ at national or sub-national

¹³ Based on information on the website of U.S. Environment Protection Agency.

¹⁴ Referred variously as MTEF in Africa or (MTFF) in Asia refers to a medium term planning and budgeting framework in the context of a realistic medium term macro assessment of resource envelope for public funds. This may be used at the national level or sub-national level in case of large federal countries. As a concept it is also valid at the local government level when fiscal decentralization is effective.

level. As the MTEF framework is more oriented to a defined sector backed by clear ministerial / departmental responsibility and output / outcome links, it becomes difficult to identify and determine priority and allocation for sanitation without strengthening its monitoring systems. Continued emphasis and allocations to sanitation from finance ministries depends on an ability to demonstrate improved sanitation outputs and outcomes. This would only be possible if effective and accurate monitoring systems are in place at all levels of government. Monitoring is also needed to determine budget utilization, actual resource flows from different sources, and value for money actually achieved. Despite its importance, while developing performance monitoring for sanitation it is necessary to address constraints related to difficulty in measuring health and hygiene related outcomes and their attribution to sanitation measures. Given the household and community focus in sanitation appropriate institutional mechanisms are also needed for their participation in performance monitoring. Emphasis on performance monitoring is also required because of limited experience in scaling up approaches discussed in section II. Thus, synthesized feedback provided by a good performance monitoring system to policy makers is essential for continuously assessing their effectiveness and making the necessary mid-course corrections.

3. What are the priorities in developing a public finance strategy? In developing a public finance strategy for sanitation promotion, the key challenge is to resolve institutional fragmentation through a lead institution and champion. Clarity is necessary in institutional mandates in the context of decentralization and role of various sector ministries. The lead institution's immediate responsibility would be to facilitate establishment of a formal coordination mechanism for effective inter-ministerial cooperation and to reach consensus on approaches and methods for scaling up. Ensuring adequate and continuous funding of the lead institution is necessary to support policy and strategy development, advocacy to move from subsidies for construction to sanitation promotion, and to design fiscal instruments and appropriate pricing mechanisms.

Global assessment of the cost effectiveness of different approaches is also required. Potential trade-offs need to be assessed in the use of public resources between basic sanitation and urban sewerage / slum upgrading, and between curative versus preventive health. Possibly the most neglected aspect is to evolve a performance monitoring framework that is able to assess outcomes and impacts and apply mid-course corrections.

V. EXPLORING ACTIONS BY DIFFERENT STAKEHOLDERS

Successful financing for scaling up sanitation access will require support from a range of stakeholders including various sector ministries including the finance and planning ministries. National governments and sector donors need to create incentives and opportunities for focusing on sanitation promotion and leveraging additional resources. The role of private financing institutions and NGOs in this process is also important in continuing innovations. Besides providing advocacy and technical design support, global and regional support agencies need to provide support through a continuing review and dissemination of global experiences.

Role of regional and global support agencies and learning institutions is for...

- Advocacy for greater focus on sanitation with governments and in integrated financing and project support facilities
- Continued research and dissemination of global experiences with a focus on providing more evidence on the positive effects of improved sanitation in economic terms which should be linked to both poverty eradication and wealth creation
- Supporting experience sharing opportunities
- Systematic analysis of cost effectiveness analysis of various approaches and resource flow studies for the sanitation sub-sector.

The role of finance, planning and different sector ministries is for...

- Creating credible planning, budgeting, coordination and implementation processes including a performance monitoring system
- Developing consensus on approaches and a national strategy for sanitation promotion
- Creating a 'financing space' for households, communities and market based resources
- Giving more focus to exploring options for leveraging resources for sanitation

- Investing in human resource and skills development to reorient staff for the 'paradigm shift'.

The role of donors and civil society in creating incentives for sanitation promotion and leveraging resources for sanitation is to...

- Provide initial funding support to governments to create an enabling environment for sanitation promotion and development of a public finance strategy for scaling up
- Provide technical assistance to financing/project development/credit enhancement facilities for sanitation transactions
- Support advocacy and consensus building on the importance of sanitation promotion
- Give sanitation its own priority and accept that sanitation promotion needs long term support
- Support "pooling of funds" and "harmonization across donors" to enable comprehensive and consistent promotion programs at scale.

The role of NGOs is to...

- Support advocacy and consensus building on the importance of sanitation promotion
- Continue to spearhead innovation on effective and locally adapted promotion approaches and technologies
- Monitor programs and governments on how effectively government resources are spent.

The role of financial institutions and project support facilities is to...

- Develop transactions for sanitation related projects particularly those related to wastewater and solid waste management
- Support project development for community-based financial institutions and micro-finance institutions to develop linkages with households / communities for sanitation related credit.

BIBLIOGRAPHY

The word 'processed' describes informally reproduced works that may not be commonly available through libraries.

- Andersen, Inger and, David Grey. 2003. "Targeting the MDGs, an Action Plan for Water & Sanitation, Africa." Powerpoint presentation, modified by Knapp, Andreas for presentation during Uganda Sanitation Program Launch. Processed.
- Arif, Hasan. 1997. "Working with Government: The Story of OPP's Collaboration with State Agencies for Replicating its Low Cost Sanitation Programme". City Press. Karachi, Pakistan.
- Baker, L. 2003. "Pooled Finance Model for Water and Sanitation Projects: The Tamil Nadu Water and Sanitation Pooled Fund." Project Note 31. Indo-USAID Financial Institutions Reform Expansion Project.
- Bazeyo, W., J. Colin, G. Howard, and Mike Thompson. 2002. "Environmental Health Scoping Study in Uganda: Capacity building needs assessment and rapid assessment of the broader environmental health profile." WELL resource center. Processed.
- Belgian Development Cooperation and Water and Sanitation Program-Africa 2000. "Manual of Operations for Community Based Water and Sanitation program." Processed.
- Bhatia, Ramesh. 2004. "Community Participation in Sanitation Services for the Urban Poor in Asia, Africa and Latin America: Constraints to Scaling-up of 'Islands of Success'." Draft. Paper commissioned by the Norwegian Ministry of Environment. January. Processed.
- Budds, Jessica, Amaka Obika, Guy Howard, Marion Jenkins, and Valerie Curtis. 2002. "Social Marketing for Urban Sanitation." Literature Review, Revised Version. Processed.
- Burra, Sundar, and Sheela Patel. 2002. "Community Toilets in Pune and Other Indian Cities." Pla notes 44. June.
- Cairncross, Sandy. 1992. "Sanitation and Water Supply: Practical Lessons from the Decade." UNDP-World Bank Water and Sanitation Program, Washington, DC.
- Cicin-Sain, B., and R.W. Knecht, 1998. "Integrated Coastal and Ocean Management: Concepts and Practices." Washington, DC: Island Press.
- Colin, Jeremy. 2002. "The National Sanitation Programme in Mozambique: Pioneering Peri-Urban Sanitation." Water and Sanitation Program-Africa. Blue Gold series.
- Curtis, Valerie. n.d.. "Hygiene promotion." WELL fact sheet.
- Devi, K., and V. Satyanarayana. 2001. "Financial Resources and Private Sector Participation in Solid Waste Management in India." Indo-US Financial Institutions Reform and Expansion Project. Processed.
- Doyen, Jean, and Lukman, Salifu. 2000. "Effective Sanitation Services Delivery in Informal Settlements." Processed.
- EAUDSU (East Asia Urban Development Sector Unit). 2002. "Revolving Funds for Household Sanitation Improvements". Presentation. April. Processed.
- Foster, Vivien. n.d. "Lower Costs with Higher Benefits: Water and Sewerage Services for Low Income Households." Water and Sanitation Program.
- Froehlich, Urs. 1999. "Private Sector-Just a (New) Hope?" Report on the 15th AGUASAN Workshop. SKAT. Processed.
- Government of India. 2004. "Guidelines on Central Rural Sanitation programme; Total Sanitation Campaign." Ministry of Rural Development, Department of Drinking Water Supply.
- Government of Uganda and WSP-AF (Water and Sanitation Program - Africa). 2002. "Proposal on Program of Capacity Building Support in Environmental Health and Sanitation in Uganda." Processed.
- Government of Uganda and WSP-AF (Water and Sanitation Program - Africa). 2004. "Inception Report, Program of Capacity-Building Support in Environmental Health and Sanitation In Uganda". Processed
- GWP (Global Water Partnership). 2000. "Towards Water Security: A framework for Action." Author.
- Heierli, Urs, and Paul Polak. 2000. "The Market Creation Approach to Development." Processed.
- IFC (International Finance Corporation). n.d. "World Bank/IFC Municipal Fund: Global Finance for Local Institutions." Processed.
- Kar, Kamal. 2003. "Subsidy or Self-Respect? Participatory Total Community Sanitation in Bangladesh." Institute of Development Studies.
- Kelhofer, Kyle. 2003. "Mexico: Thalnepantla Municipal Water Conservation Project" IFC's Experience." Powerpoint Presentation. Processed.
- Kentainers Ltd. 2003. "Ecological sanitation in Kenya." Processed.
- Kolsky, Pete. 2003. "Demand and Supply in Sanitation and Hygiene." Powerpoint presentation. Water and Sanitation Program. Processed.
- Lenton, Roberto. 2003. "Background Paper of the Task Force on Water and Sanitation." Millenium Project. Processed.
- Mbuvu, Japheth, and Bernard Njoroge. 2004. "From Hazard to Convenience; Towards Better Management of Public Toilets in the City of Nairobi." Water and Sanitation Program-Africa.
- McLeod, Ruth. 2002. "Research on Bridging the Finance Gap in Housing and Infrastructure and the Development of CLIFF." Interim Paper. Processed.
- Mehta, Meera, and Thomas Fugelsnes. 2003. "Water Supply and Sanitation in Poverty Reduction Strategy Papers in Sub Saharan Africa: A Benchmarking Review of 12 Countries and Exploring the Way Forward." Water and Sanitation Program-Africa.
- Mehta, Meera. 2003. "Meeting the Financing Challenge for Water Supply and Sanitation: Incentives to Promote Reforms, Leverage Resources, and Improve Targeting." World Bank and Water and Sanitation Program
- Mukherjee, Nilanjana. 2001. "Achieving Sustained Sanitation for the Poor: Policy and Strategy Lessons from Participatory Assessments in Cambodia, Indonesia and Vietnam." Water and Sanitation Program, East Asia and the Pacific.
- Muller, Mike. 2002 "The National Water and Sanitation Programme in South Africa: Turning the 'Right to Water' into Reality." WSP-AF. Blue Gold series.
- Ouedraogo, Arba Jules, and Pete Kolsky. 2002. "Partnership and Innovation for On-Site Sanitation in Ouagadougou, Burkina Faso." Water lines, 21:2. October.

- Patel, Sheela, and Meera Bapat. 2004. "Examining the Financial Implications of Minimum Universal Sanitation for the Poor." Processed.
- Pearson, I. 2002. "The National Sanitation Programme in Lesotho: How Political Leadership Achieved Long-Term Results." WSP-AF. Blue Gold series
- Pereira, D.S.P. n.d. "The Brazilian Catchment Restoration Programme." Presented at ANA. Processed.
- Rajiv Gandhi National Drinking Water Mission and WSP-SA (Water and Sanitation Program, South Asia). 2002. "Igniting change for 100 percent sanitation: Mobilizing communities to seek their own solutions to rural sanitation." A newsletter on rural water and sanitation in India.
- Reiff, Suzanne, and Guy Clegbaza. 1999. "Rural Sanitation: The Experience of Non-Subsidized Household Latrines Through Social Marketing and the Promotion of the Small-Scale Private Sector. The Case of the PADEAR Program in Benin." Water and Sanitation Program-Africa.
- Saadé, Camille, Masee Bateman, and Diane Bendahmane. 2001. "The Story of a Successful Public-Private Partnership in Central America; Handwashing for Diarrheal Disease Prevention." BASCS II, EHP, UNICEF, USAID and the World Bank.
- Sakthivel, S. Ramesh, and Roger Fitzgerald. 2002. "The Soozhal Initiative; A Model for Achieving Total Sanitation in Low-Income Rural Areas." Water Aid India Fieldwork Report. Processed.
- SDC (Swiss Agency for Development Co-operation). 2003. "Water and Development: Experiences of the Swiss Agency for Development Cooperation (SDC) in the Water Sector." Bern.
- Sidibe, Myriam, and Valerie Curtis. 2002. "Hygiene Promotion in Burkina Faso and Zimbabwe, New Approaches to Behavior Change." WSP-AF. Blue Gold Series.
- Simpson-Hébert, M., and Sara Wood. 1998. "Sanitation Promotion." Geneva, World Health Organization and Water Supply Collaborative Council WSSCC (Working Group on Promotion of Sanitation). Processed.
- Thomas, Anne, and Valerie Curtis. 2003. "Public-Private Partnerships for Health: A review of best practices in the health sector." WSP, London School of Hygiene & Tropical Medicine, BNWP, World Bank.
- Thomson, Mike. 2004. "Strengthening Budget Mechanism for Sanitation in Uganda." Draft Report for the Uganda Ministry of Health and Water and Sanitation Program, Africa. Processed.
- Turatbekova, M. A., N. Sim, S. Tornquist, G. Aitmurzaeva, and J. de B. Ashworth. 2003. "Delay the Water Project Until the Community's Behavior Changes." Processed.
- UNEP. 2004. "Financing Domestic Wastewater Collection and Treatment in Relation to the MDG and WSSD Target on Water and Sanitation." Background paper. Advance copy. Global Programme of Action. The Hague. Processed.
- Vyas, J. n. d. "Infrastructure Finance as a part of Microfinance to poor self-employed Women: The Sewa Bank Experience with Parivartan. Ahmedabad, India. Processed.
- Wandera, B. 2000. "Strengthening the capacity of water utilities to deliver water and sanitation services, environmental health and hygiene education to low income communities." Tanzania Case Study. Dar es Salaam Water and Sewerage Authority. Processed.
- Winpenny, James. 2003. "Financing Water for All: Report of the World Panel on Financing Water Infrastructure." Panel chaired by M. Camdessus. World Water Council, 3rd World Water Forum and Global Water Partnership.
- World Bank. 2002a. "Revolving Funds for Household Sanitation Improvements." East Asia Urban Development Sector Unit. Presentation at the World Bank Water Week. Processed.
- _____. 2002b. "Fiduciary Arrangements for Sectorwide Approaches (SWAs): Interim Guidelines to Staff." Financial Management and Procurement Sector Boards.
- _____. 2004. "World Development Report: Making Services Work for Poor People." Oxford University Press.
- World Bank and IMF (International Monetary Fund). 2003a. "Implementing the World Bank Group Infrastructure Action Plan" Paper prepared for the Development Committee.
- World Bank and IMF (International Monetary Fund). 2003b. "Water Supply and Sanitation and the Millennium Development Goals: Addendum 3 to Progress Report and Critical Next Steps in Scaling Up: Education for All, Health, HIV/AIDS, Water and Sanitation."
- World Health Organization. 2000. "Global Water Supply and Sanitation Assessment 2000 Report." Joint Monitoring Program for Water Supply and Sanitation. Jointly with UNICEF.
- WSP (Water and Sanitation Program). 2003a. "Presentation at the PSI Conference." Oslo. Power point Presentation. Processed.
- _____. 2003b. "Fiscal Year 2004 Business Plan." Processed.
- _____. 2003c. "ACCESS newsletter," December.
- WSP webpage
- WSP-AF (Water and Sanitation Program, Africa) 2002. "African Background Paper." Processed.
- WSP-EA (Water and Sanitation Program, East Asia and the Pacific). 2002. "Selling Sanitation in Vietnam: What works." Field Note.
- _____. 2002. "Learning What Works for Sanitation: Revisiting Sanitation Success in Cambodia." Field Note.
- WSP-SA (Water and Sanitation Program, South Asia). 2000. "New Approaches to Promoting Sanitation in Rural Bangladesh." Field Note.
- _____. 2002a. "Igniting Change. Tackling the Sanitation Challenge." Jal Manthan 5. April.
- _____. 2002b "Making Sanitation Work." Jal Manthan 7. December.
- _____. 2002c "Sant Gadge Baba Abhiyan: A New Approach to Promotion of Sanitation in Maharashtra." Presentation at the Workshop on Sanitation, Mumbai, India, September. Processed.
- WSSCC (Water Supply and Sanitation Collaborative Council). webpage "African".
- WUP (Water Utility Partnership). 2003. "Better Water and Sanitation for the Poor." Good practice from sub-Saharan Africa.

ABBREVIATIONS

AFR	-	Africa Region
AIDS	-	Acquired Immune Deficiency Syndrome
ANA	-	National Agency of Waters (Brazil)
BASICS II	-	Basic support to child survival project
BOT	-	Build Own/Operate Transfer
CBOs	-	Community Based Organizations
CLIFF	-	Community Led Infrastructure Finance Facility
COBWAS	-	Community Based Water and Sanitation
CRSP	-	Central Rural Sanitation Program
DCC	-	Dar Es Salaam City Commission
DFID	-	Department for International Development
EAP	-	East Asia and Pacific
ECA	-	Europe and central Asia
EHP	-	Environmental Health Project
GWP	-	Global Water Partnership
HSSP	-	Health Sector Strategic Plan
IDA	-	International Development Association
IFC	-	International Finance Corporation
IHHA	-	Increased Health and Hygiene Awareness
KDS	-	Kampala Declaration on Sanitation
LAC	-	Latin American Caribbean
M&E	-	Monitoring and Evaluation
MDGs	-	Millennium Development Goals
MFI	-	Micro-finance institution
MNA	-	Middle East and North Africa
MoES	-	Ministry of Education and Sports
MoH	-	Ministry of Health
MoLWE	-	Ministry of Lands, Water and Environment
MTEF	-	Medium Term Expenditure Framework
NEPAD	-	New Partnership for Africa's Development
NGOs	-	Non Governmental Organizations
NSDF	-	National Slum Dwellers Federation
ODA	-	Overseas Development Assistance
OPP	-	Orangi Pilot Project (Pakistan)
PADEAR-	-	Program 'Support to the Development of Potable Water and Sanitation in Rural Areas' in Benin.
PEAP	-	Poverty Eradication Action Plan
PHASE	-	Personal Hygiene and Sanitation Education
PHAST	-	Participatory Hygiene and Sanitation Transformation
PPA	-	Participatory Poverty Assessment
PPP	-	Public Private Partnerships
SAR	-	South Asia Region
SCGs	-	Savings and Credits Groups
SPARC	-	Society for Promotion of Resource Centres
SSSPs	-	Small Scale Service Providers
SWAp	-	Sectorwide Approaches
TSC	-	Total Sanitation Campaign
USAID	-	United States Agency for International Development
VERC	-	Village Education Resource Centre
WAB	-	WaterAid Bangladesh
WHO	-	World Health Organization
WSP	-	Water and Sanitation Program
WSPF	-	Water and Sanitation Pooled Fund
WSS	-	Water Supply and Sanitation
WSSCC	-	Water Supply and Sanitation Collaborative Council
WU	-	Women's Union
WWT	-	Waste Water Treatment
ZimAHEAD	-	Zimbabwe Applied Health Education and Development

ACKNOWLEDGMENTS

The paper was prepared by Meera Mehta, Senior Financial Specialist, Water and Sanitation Program (Africa) and Andreas Knapp, Associate Consultant, Hydrophil.

It has been peer reviewed by Piers Cross, Peter Kolsky, Aldo Baietti and Jean Doyen. Walter Stottman and Piers Cross provided management guidance. Their continuous feedback during its preparation has helped in developing the analysis and presentations of arguments. We would like to thank the Norwegian Ministry of Environment for providing partial funding support and Hans Olav Ibrekk from the Ministry for providing valuable initial ideas and feedback on the paper.

A special word of thanks is due to the many colleagues and friends who have helped generously with feedback on initial concept, information on case materials and insights regarding experiences from different countries: Vincent Gouarne, John Briscoe, Aldo Baietti, Mukami Kariuki, Smita Misra, Caroline Van Den Berg, Alexander Bakalian, Jonathan Halpern, S. Satish, Luiz Azevedo, Luiz Tavares, Christina Roriz, Juliana Garrido from the World Bank; Richard Pollard, Ousseynou Diop, David Savage, Suzanne A. Reiff, Barbara Evans, Soma Ghosh Maulik, Anthony Waterkeyn, Kameel Virjee, Khawaja Minnatullah from the Water and Sanitation Program; Hans Spruijt from UNICEF; Dinesh Mehta and Ramanath Jha from the Urban Management Program, UN Habitat; Cees van de Guchte of UNEP; Carlos Motta from ANA-PRODES; Dan Salter of IDE; Sheela Patel from SPARC; Belinda Calaguas and Paul Roberts from WaterAid; Barry Jackson from Development Bank of South Africa; V. Satyanarayana, Kirti Devi and Chetan Vaidya from the Indo-USAID FIRE Project; Mimi Jenkins from London School of Hygiene and Tropical Medicine; and Mike Thomson and Ian Palmer, consultants. Needless to say, the responsibility for any errors of omission and interpretation remain with the authors.

Excellent research assistance was provided by Kameel Virjee. The paper has been edited by Melanie Low. Production assistance was provided by Sarah De Villiers Leach, Jecinter Hezron, Vandana Mehra and Norah Osoro.

Africa Region

World Bank Hill Park Building
Upper Hill Road

PO Box 30577

Nairobi

Kenya

Phone: +254-20-322-6306

Fax: +254-20-322-6386

E-mail: wspaf@worldbank.org

WSP MISSION

To help the poor gain sustained access to improved water and sanitation services.

WSP FUNDING PARTNERS

The Governments of Australia, Austria, Belgium, Canada, Denmark, Germany, Italy, Japan, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, the United Nations Development Program and the World Bank.

The paper has been commissioned by the Norwegian Ministry of the Environment. However, the views expressed in this paper are the responsibility of the authors and do not necessarily reflect the views of the Norwegian Ministry of the Environment.

Photograph: Hugo Barnard
Cover Layout and Design: Write Media

**This document is available
online at www.wsp.org**

