

Chapter 5 Financing

5.1 What needs to be financed

Sanitation and hygiene promotion come with a range of costs which can be covered from various sources. The programme has to identify sources of funding for:

- **Enabling Environment** including the costs of programming, monitoring and evaluation, regulation, technical oversight, organizational change, training, coordination with other sectors, and public advocacy (to generate understanding of and support for the sector).
- **Promoting Hygiene Behaviours** based on a solid understanding of what current conditions are, and how they need to change to bring in the anticipated health benefits. Thus financing is required for

assessing the current situation, development of materials, training programmes, staff costs, transport and office overheads along with the ongoing costs of operating in communities and supporting a dynamic change process at local level.

- **Improving Access to Hardware** including **sanitation marketing** (costs include staff, transport, office overheads, preparation of materials, cost of media placement, training, construction of demonstration facilities and other pilot interventions), **capital costs** (of household and shared facilities including materials and labour)ⁱ, and **operation and maintenance costs** (which will vary widely depending on the technology chosen)ⁱⁱ.

5.2 Where will the funds come from?

The financing arrangements for the programme need to:

- be self sustaining (ie have internal integrity so that funds are always available for the key elements of the programme, and funding matches the responsibilities and capacities of different institutional partners);
- provide funds for all the agreed elements of the programme; and
- be consistent with the agreed principles.

In fact, the financing structure needs to be more than consistent with the agreed principles – the financing arrangements are likely to be one of the most powerful programming instruments for *driving* the application of those

principles which is why getting financing arrangements right is such an important step in programming.

Costs may be covered from a range of sources including:

- central government;
- regional / local / urban government;
- large scale private sector;
- shared community resources;
- small scale private sector; and
- the household.

Note however, that any private sector investment will ultimately be repaid from one of the other sources (government, community or household).

5.3 Assigning Programme Costs

Sanitation and hygiene promotion have public and private costs and benefits. As a useful principle, public funds (government funds, external donor funds and so on) should generally be used to maximise *public* benefits; private funds should be used for essentially private elements of the system (soap, individual latrines etc).

While the focus of financial planners may fall on financing household investments in hardware, it is vitally im-

portant that adequate funding is available for all the other elements of the programme and that household investment is not out of scale with other supporting activities. For example, if investments are urgently needed in sanitation for schools, public latrines in market places, and hygiene promotion programmes, these are areas which, almost by definition, need financial support from public sources or explicit policy support to generate private funding (for privately- constructed and managed public

latrines for example). Only once the financial structure of the whole programme has been established, will it be possible to judge whether financial support to household investments are appropriate or can be provided from available sources.

In particular it is worth considering how grant and concessionary funding (available domestically or through external support mechanisms) can be most effectively harnessed to support the programme within the context of wider poverty-reduction goals. The ultimate scale and nature of the programme should be decided on this basis and not in isolation.

Broadly costs might be allocated as follows:

● Enabling Environment

These costs would normally be covered from national government budgets, except in cases where federated states or autonomous urban areas take full responsibility for programmes and have the financial means (through local taxation) to support these costs.

● Promoting Hygiene Behaviours

Because hygiene promotion has a strong “public good” element, it would normally be part of the supporting role of the programme and be covered from government sources at the appropriate level. This is a good area for targeting soft or grant-funding from external sources since these costs are unlikely to be recovered from users.

● Improving Access to Hardware

- **Sanitation marketing** costs may be covered from government sources or from the private sectorⁱⁱⁱ.
- The financing of **capital costs of sanitation hardware** has traditionally been the significant element in many sanitation programmes. What is argued here is that this is counterproductive and in most cases sanitation hardware should be the responsibility of households. However this places a responsibility on programmers to support and promote goods and services which are appropriate. A further discussion of subsidies is included in **Section 6.5**^{iv}.
- In most cases households would be expected to cover operation and maintenance costs^v.

Table 6 illustrates four financing models, not to suggest that these are the only approaches but rather to show how a range of solutions may be employed in different cases.

Table 6: Illustrative Financing Models

Role	Urban, higher levels of subsidy to utility and household	Urban, no household subsidy	Rural, household subsidy	Rural, no household subsidy
Enabling Environment	National government	Urban government	National government	National government
Hygiene Promotion	Urban government	Urban government	Local / regional government	Local / regional government
Sanitation Marketing	Urban government	Utility, repaid by household	Local / regional government	Local / regional government
Capital costs	Utility, repaid by urban government	Utility, repaid by household	Household and local government	Household
Operation and maintenance	Utility with grants for trunk services, Household for household services	Utility with grant for waste water treatment, Household for all other	Household	Household

It is important to note here, that even the “no subsidy” model comes with significant public costs in the shape of administration, regulation, monitoring and evaluation and so on. The public benefits of sanitation and hygiene

promotion (and the corresponding public cost if no action is taken) mean that, whatever financial regime is adopted, government retains significant responsibilities and attendant costs.

5.4 Household self-financing – sanitation

Where demand is sufficiently high, households may be willing to meet the full capital and operational costs of sanitation. Formal willingness-to-pay surveys can provide information about this, but they are expensive and difficult to administer. As a first step, informal discussion, and participatory evaluations can be used to confirm whether self-financing is viable. Some proxy-indicators of appropriate levels of willingness-to-pay include:

- ownership of consumer durables of equivalent value;
- high percentage of private house ownership;
- extremely poor sanitary conditions, linked to high levels of dissatisfaction; and

- general awareness of health problems and the links with poor sanitation.

Where households are expected to finance sanitation the message must be clearly articulated and unambiguously applied. Many households may be reluctant to make the needed investments if they believe that (a) former subsidy programmes are still operating; (b) subsidies are likely to be reinstated; (c) alternative agencies may provide subsidies; or (d) subsidies can be made available if pressure is brought to bear through local politicians.

5.5 Subsidies for sanitation

Relying on household investments for hardware interventions can be problematic where:

- demand is low (due to conflicting demands on household resources, high levels of poverty or low levels of awareness);
- household action will have limited effect due to congested conditions (often in urban areas this problem is exacerbated because the only viable technical option is piped sewerage of some sort); or
- there is a high percentage of rented accommodation – householders may be unwilling to invest in a house which is not their own, owners may be unwilling to invest where tenants are readily available to rent poor quality housing.

In such cases subsidies may be advocated to jump-start latent demand or in the interests of equity – to encourage increased access for targeted segments of society. Many “sanitation” programmes have provided capital cost subsidies which were either available universally (this is always the case for piped sewerage for example), available through means-testing which linked subsidies to “poverty”, or linked to specific levels of service. These programmes have consistently exhibited a set of problems including:

- lack of financial sustainability; a policy which states that certain, usually poor, people are entitled to free or reduced cost services, is meaningless if there are inadequate public funds to support it;

- the relationship between poverty and access is more complex than programmers imagine - there may be many reasons why people do not access services - cost may not be the most important. In this situation subsidies may not increase access;
- subsidised facilities built during a pilot phase may actually suppress demand as other households wait and see if a subsidy will also come their way;
- subsidies often create expectations that cannot be fulfilled in surrounding areas and among other income groups;
- the use of subsidies for construction of “standard” facilities distorts the market and suppresses innovations that might bring down costs;
- substandard construction of “subsidized” latrines may suppress demand;
- subsidies aimed at helping the poorest sometimes associate a certain technology with poverty and the need for assistance further distorting demand;
- means-testing for subsidies is expensive and extremely difficult; and
- requesting a down payment or contribution to assess demand before a subsidy is released may exclude the poorest households.

If subsidies are to be used, programmers need to think carefully and select a subsidy mechanism which is likely to (a) achieve the intended policy outcome; (b) reach the intended target group; (c) be financially sustainable; and (d) be implemented in a clear and transparent manner.

The following general principles should always be applied:

- in the public interest use subsidies to maximise health benefits and increase access specifically to groups who are persistently excluded;
- subsidise the lowest possible level of service to maximise spread and avoid distortions to the market. Leave room for households to make incremental improvements over time;

- base subsidies on solid and rigorous information about what types of service people want and are willing-to-pay for, what is the affordability for the target group, and what can be scaled up in the long term.

The range of sanitation subsidy instruments are summarized in **Table 7** and discussed further in the notes section⁶.

Table 7: Subsidy Mechanisms

Mechanism	Strengths	Weaknesses
Subsidies for latrine construction	Direct link between input and output-Targets those households without access	Expensive and complex Overdesign and high costs Inadequate funds to complete latrines Stifles innovation and the local market Prone to corruption Limited reach
Social subsidies	Lower per-latrine costs. May support latent local suppliers	Targeting may be poor Requires national social policy framework
Consumption subsidies through the tariff (Urban networks)	Uses existing tariff collection and payment system	Poor targeting (does not reach the unconnected) May not overcome access barriers Does not support in-house costs
Access subsidies through the tariff (urban networks)	Addresses access problem directly and may be better targeted	Usually links water and sanitation - may not reach some households who require sanitation alone.

5.6 Supporting self-financing through micro-finance

The alternative to subsidies is the provision of appropriate financing services – commonly credit, but also extending to savings, insurance and so on. Many micro-finance programmes have failed in the past. This is often because financial services were provided by organisations which lacked the appropriate financial skills and failed to offer an appropriate mix of services, or failed to establish their own financial integrity. In addition, provision of financial services can be very difficult in situations where:

- inflation has been or still is very high;
- interest rates are high;
- it is uncommon to borrow money for capital goods;
- legal/ regulatory controls limit the activities of small

scale specialist credit agencies or prohibit lending for “non-productive assets”; or

- many ad hoc financial obligations make planned household expenditures very difficult for low-income households.

If micro-finance is likely to be an important element of the programme then it is important to consider the following possible programming interventions:

- policy / legal / regulatory changes to encourage small scale financial service providers;
- capacity building for financial service providers to assist with a move into infrastructure service provision

- capacity building for non-governmental organisations working in infrastructure to assist with a move into micro-finance;
- provision of seed funds, partial or full guarantees or other financial instruments to encourage on-lending to small scale borrowers;
- pro-active use of concessionary development funds from External Support Agencies to finance or guarantee micro-finance services.

5.7 Generating revenue for sanitation and hygiene promotion

Moving away from the household as the focus of financing, it may still be possible to use cross-subsidy or other mechanisms to generate some revenue which can be used to support hygiene promotion and sanitation investments. Examples of possible tools include:

- levying a surcharge on water bills to finance new connections to sanitation networks, or hygiene promotion activities;

- cross subsidizing from richer households paying for sewer connections, to provide funds for on-site and lower costs public services; and
- building costs of extension of sanitation and hygiene promotion services into general utility tariff structures.

5.8 Financial instruments to promote reform

Financial instruments can also be used to promote reforms which are needed to improve the enabling environment. This can be done, for example, by making funds available in a way that creates incentives for local jurisdictions to change policies and innovate. Examples of these types of instruments include:

- conditional grants (either tied to specific sectors and activities, or granted on a discretionary basis) from higher to lower-tiers of government or departments;
- conditional grants linked to demonstrated improvements in performance;
- social investment funds/ special projects, independently managed and able to provide grants to communities in response to demand;
- community development funds, focused on creating social capital in the poorest communities with operational costs covered through fund income;
- institutional-reform-linked challenge funds^{viii}, to meet the transactions costs of institutional reform;
- sector-wide frameworks within which poverty reduction is linked to overall sector finance strategies – including: the sector-wide approach (SWAp) and Medium Term Expenditure Framework (MTEF) which are linked to debt relief; investment lending (from development Banks) for sector investment and maintenance (SIM) and adaptable program lending (APL); and adjustment lending through sector adjustment loans (SECAL) or poverty-reduction support credit (PRSC).

Reference Box 10: Financial instruments

For more details on some of the available financial instruments

See: Mehta, M., (2003) *Meeting the Financing Challenge for Water Supply and Sanitation: Incentives to Promote Reforms, Leveraging Resources and Improve Targeting* World Bank, WSP Water and Sanitation Program

New Designs for Water and Sanitation Transactions: Making Private Sector Participation work for the Poor WSP Water and Sanitation Program, PPIAF (2002)

Varley, R.C.G. (1995) *Financial Services and Environmental Health: Household Credit for Water and Sanitation* EHP Applied Study No.2, Arlington VA.

Credit Connections: Meeting the Infrastructure Needs of the Informal Sector through microfinance in urban India. Issues Paper and Field Notes, WSP Water and Sanitation Program South Asia

Get these references on the web from:
www.wsp.org or www.whelpdesk.org

5.9 Applying the Principles

Table 8 shows how the principles can be applied when designing financial instruments.

Table 8: Applying the Principles to Financing

Maximising public and private benefits	Achieving Equity	Building on what exists and is in demand	Making use of practical partnerships	Building capacity as part of the process
Use public funds to maximise public benefits; private (household) finance should generally be reserved for private elements of the system (soap, latrines)	<p>Ensure the financial regime is stable and sustainable</p> <p>Use subsidies only where they increase access for the excluded</p> <p>Distribute adequate funds to ensure software support reaches remote and poor regions</p>	Understand what people want and are willing to pay for and promote appropriate goods and services	Involve potential funding partners in programming decisions	<p>Use specialized financial skills in programme design</p> <p>Allocate specific resources to capacity building</p>

5.10 Programming Instruments

Whatever financing mechanisms are chosen, they will need to be established through the programming process. This might require a number of interventions including:

- the development of specific policies backed up with regulations and possibly a regulatory structure for monitoring (this might be the case for subsidies for example);
- the establishment of a specific fund mechanism for handling either programmatic or household financing;
- the strengthening of an existing subsidy or fund mechanism (for example social funds) to enable them to handle the new arrangements for financing of sanitation and hygiene promotion; and
- capacity building.

5.11 Practical Examples from the Field: How will we pay for the programme?

In Lesotho a quiet revolution has been underway for the past twenty years. In that time, the government has successfully increased national sanitation coverage from 20% to approximately 53%. The goal of reducing morbidity and mortality attributable to diseases associated with poor sanitation through health and hygiene promotion and the promotion of VIP latrines appears to be being achieved. During this time the policies of the government of Lesotho have specifically shifted away from subsidizing latrines; much more money is now channeled towards promotion and training.

Key financial aspects of this story include; consistent significant allocation of the regular government budget to sanitation; and earmarking of these funds for promotion, training local artisans, and monitoring. In rural areas, government funds are also used "to supply basic latrine components 'at cost' to households" to keep prices as low as possible. The government also provides a subsidy through its operation of the "loss-making pit-emptying service". No direct subsidies are provided to households. The main challenge of the arrangement appears to

be that the sanitation budget is mainstreamed at district level in the health budget – which means sanitation competes with curative care for allocation of funds and many decision makers view the latter as a priority. The sanitation budget has therefore experienced a decline over recent years. In addition the government separately provides a 50% subsidy to the school sanitation programme. The total investments made by households is estimated to be in the range of 3 to 6 times the government contribution.

In Mozambique the success of the National Sanitation Programme has been attributable in part to the ability and willingness of external support agencies to provide funds for the subsidized provision of the domed latrine slab. A 1999 review of the program estimated that donor funds accounted for a little over 50% of the costs of the programme with users contributing a little less than 40% and the government less than 10%. Nonetheless, the ability of the programme to deliver the direct subsidy in a transparent manner and without massive overhead costs, appear to have resulted in a fairly cost-effective transfer of resources to households. Furthermore, the subsidies appear to have been effective because they were specifically linked to the delivery of the component of hygiene improvement whose cost was the major barrier to many households accessing latrines at all. This understanding, developed through thorough research at the outset of the programme resulted in a well-designed and targeted subsidy, and consequently an effective programme delivered at scale.

By contrast, the high cost of twin-pit pour flush latrines, adopted as a standard technology in India, resulted in the need for a massive subsidy programme. This resulted in “fundamental difficulties of sustainability, bureaucracy and suppression of any real demand for sanitation”.

Micro finance (both credit, savings and insurance) can play a part in supporting household investment in sanitation where there is demand. Micro finance providers in India have conventionally been excluded from providing credit for infrastructure which is not deemed to be a productive asset. Recent efforts by micro finance providers and the government with support from the World Bank have resulted in a realignment of policies and incentives so that provision of services can become more effective. In the isolated cases where investments in household sanitation have been documented, the productive value of the increased safety and convenience afforded by a

household latrine are reported to be significant, particularly for those employed in the informal economy.

In South Africa the long-term reform process has been supported by a consistent allocation of government funds for capital works (mostly, it must be said, expended on water supply). This ability of the government to support investments in parallel with a programming process has had a significant positive effect on the level of support for reform. Investment funds can be used to support reform in other ways too; in India the government is establishing a city challenge fund which will be available to support the activities of cities undertaking difficult local reforms and reorganizing service delivery arrangements. Where public funds are scarce, internal cross subsidies are sometimes used to support sanitation; Burkina Faso applies an internal cross subsidy in the form of a sanitation surcharge on the water bill of all connected water consumers, the resultant resources are earmarked to provide sanitation to excluded populations.

Case Study Box 3: How will we pay for the programme?

The description of the financing arrangements in Lesotho comes from Pearson, I. (2002) *The National Sanitation Programme in Lesotho: How Political Leadership Achieved Long-Term Results* Field Note 5 in the Blue-Gold Series, Water and Sanitation Program – Africa Region, Nairobi

The National Sanitation Programme in Mozambique is described in: Colin, J. (2002) *The National Sanitation Programme in Mozambique: Pioneering Peri-Urban Sanitation* Field Note 9 in the Blue-Gold Series, Water and Sanitation Program – Africa Region, Nairobi and in Saywell, D. (1999) *Sanitation Programmes Revisited* WELL Study Task No: 161 WELL – Water and Environmental Sanitation – London and Loughborough, London.

The analysis of the impacts of India's use of the TPPF latrine is based on Kolsky, P., E Bauman, R Bhatia, J. Chilton, C. van Wijk (2000) *Learning from Experience: Evaluation of UNICEF's Water and Environmental Sanitation Programme in India 1966-1998* Swedish International Development Cooperation Agency, Stockholm

More information on microfinance for infrastructure can be found in World Bank (forthcoming) *Sustainable Private Financing of Community Infrastructure in India Report to the Government of India*, World Bank, DFID. Examples from India are in WSP-South Asia (2000) *Credit Connections: Meeting the Infrastructure Needs of the Informal Sector through microfinance in urban India*. Issues Paper and Field Notes, WSP Water and Sanitation Program South Asia

Reference is made to the city challenge fund in Mehta, M., (2003) *Meeting the Financing Challenge for Water Supply and Sanitation: Incentives to Promote Reforms, Leveraging Resources and Improve Targeting* World Bank, WSP Water and Sanitation Program

For more information on South Africa's Reforms see Muller, M. (2002) *The National Water and Sanitation Programme in South Africa: Turning the 'Right to Water' into Reality* Field Note 7 in the Blue-Gold Series, Water and Sanitation Program – Africa Region, Nairobi and Elledge, M.F., Rosensweig, F. and Warner, D.B. with J. Austin and E.A. Perez (2002) *Guidelines for the Assessment of National Sanitation Policies* Environmental Health Project, Arlington VA p.4

The sanitation surcharge in Burkina Faso is described in Ouedraougo, A.J., and Kolsky, P. (2002) *Partnership and Innovation for on-site sanitation in Ouagadougou, Burkina Faso* Waterlines, Vol21, No2, pp9-11, October 2002

Notes on Chapter 5:

- i Capital costs for construction may be limited in rural areas to household level facilities (although some investment in shared facilities, and for the treatment and disposal of wastewater may be required). In urban areas, in addition to household investments there may be substantial costs associated with connecting to a sewerage network or in formal collection and management of pit and septic tank waste. Labour and materials may be more expensive and attract greater overheads if contractors are involved in construction. Where waste water treatment and disposal is included costs will rise significantly.
- ii For simple rural schemes operation and maintenance costs may be relatively low but they will rise in urban areas and where shared facilities are constructed. In extreme cases with pumped sewerage, costs are likely to be prohibitively high.
- iii In urban areas where there is an autonomous utility the costs of marketing sanitation to all consumers are likely to be covered from the utility budget (public or private). In those rural areas where the potential for local small scale provision is high, these costs may also ultimately be covered by small scales businesses which stand to recoup them through the sale of sanitary goods. In the short term some supporting funding or credit may be needed from government to help private sector providers launch sanitation marketing efforts. Where there is no private sector with the requisite skills and where non-private sector solutions are to be used, then these costs will probably be part of government support to the programme.
- iv Note that in urban areas, there is almost always an element of subsidy, particularly where networked solutions are used. Even in Western Europe no cities fully recover the costs of wastewater treatment from consumers.
- v In rural areas or urban areas with on-site solutions this is easy to organize through direct payment for pit emptying if it is required. In urban areas the situation may become more complicated with some elements of the costs being recovered directly (for example where households pay a fee for emptying of septic tanks or pits), some through the tariff (where households have water connections as well as sanitary services they may pay a surcharge on the water bill for sanitation) and some being subsidized (for example by grant payments from government to a utility which is operating a sewerage system.)

vi **Types of Sanitation Subsidy****Subsidies for latrine construction**

Direct Subsidies for latrine construction have been provided for many years in many countries. In this approach, public funds are usually made available to households to cover all or part of the cost of construction of a “standard” latrine. The funds may be delivered to the household in advance, in installments during construction, or in arrears. Alternatively, the household can apply for a latrine which is then built under the direct supervision of government engineers with no money handled by the householder at all. These subsidy arrangements are characterized by a number of problems. They tend to be: expensive and complex to administer (usually a government engineer needs to certify each latrine, often more than once); prone to cost related problems – standard designs may be over-designed and over-priced, or under-priced because standard rates used in the estimate may be outdated; and unresponsive to the bulk of demand, because costs are too high, or because there is insufficient capacity to respond.

Nonetheless they have proved popular because they deliver a quantifiable product and, particularly in rural areas, are one of the only ways in which many technical departments of government have been able to respond to the sanitation challenge.

Social subsidies

In a very few cases, social subsidies based on overall poverty indicators are available to the poorest households. These can then be spent on whatever services are most needed by the household. These systems (of which Chile has the best known example) have lower per capita costs than dedicated sanitation subsidy schemes and do not distort the market for sanitation goods and services in the same way, as households are free to purchase whatever they require on the open market.

However, such a system is only feasible if there is a national policy framework in place across all the social sectors.

Subsidised Consumption in Urban Areas

In areas with piped water and sewerage, government subsidies are commonly delivered via the tariff. In these cases the subsidy on the use of sanitation is usually achieved by proxy through subsidised consumption of water. The most common form of this is a cross-subsidy linked to overall water consumption (by means of an increasing block tariff). This type of approach only benefits those people already connected to the network – which usually excludes the poor. It also contains a number of inherent biases against poor households who may use less water and thus benefit from a lower proportion of the subsidy, and against poor households who share connections and who may therefore end up paying at the higher rate. It also does little or nothing to help households with the costs of in-house facilities (taps and toilets) which are needed if private health benefits are to be realized.

Subsidised access to piped networks

More interesting approaches have been developed in some cases, to support new customers connecting to the water and sewerage network in urban areas. Historically, the real costs of connecting to urban water and sewerage networks were not borne by consumers. In contrast much or all of the technical costs of connecting may now be transferred to new consumers. This is unfair and contains a strong bias against the poor who are usually the ones who are not yet connected to the network. In view of this, some utilities are attempting to structure subsidies by increasing the general tariff and removing or reducing the one-off connection fees associated with joining the network. This is an important step forward, recognizing as it does, that poverty and lack of access often go hand in hand.

- vii A challenge fund, usually provided by central government, provides financial support to local administrations who show a willingness to reform themselves in line with certain agreed general principles. The funds would usually be used to finance the actual process of institutional reform – including working out what needs to be done, and making the necessary policy, financial and organizational changes.