

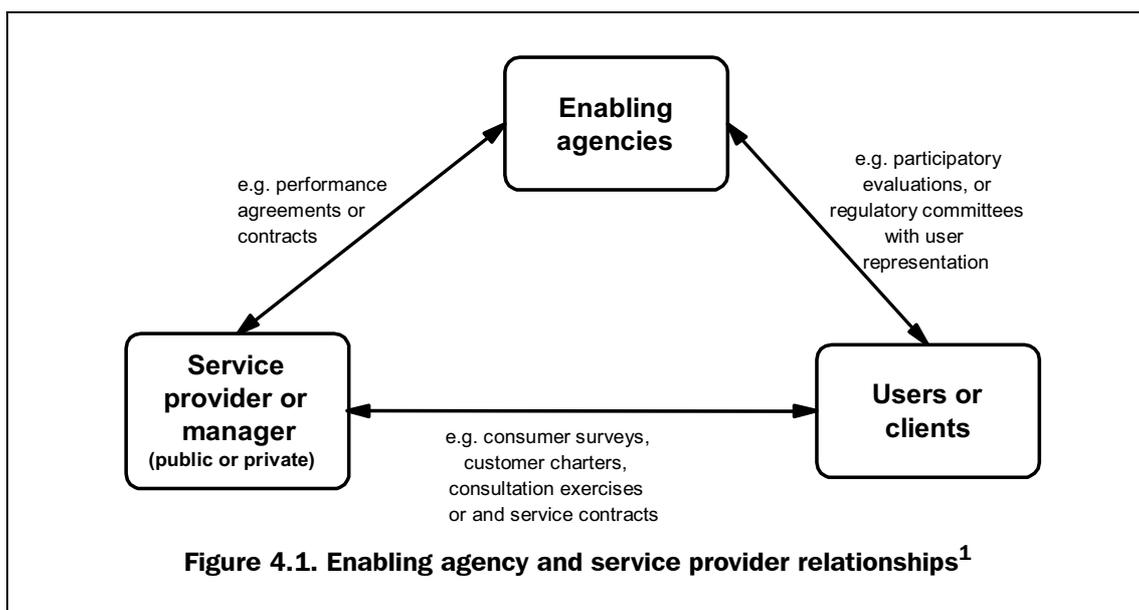
Chapter 4

Government roles in service provision to all consumer groups

4.1 Policy overview

Increasingly governments are realizing that there is a need to develop policies and action plans that address the needs and demands of poor and disadvantaged groups who experience inadequate services. This is evident from national poverty reduction strategy papers and similar outputs in many developing countries. A key question is how to implement such policies? The marketing approach advocated in this document provides a viable means for achieving improved urban water services for the poor and other consumer groups, provided the enabling environment is both supportive and appropriate. This chapter addresses the question of how governments can help to develop such an enabling environment, building on the ideas of increasing incentives in the previous chapter.

Most governments now focus their efforts on 'enabling roles' rather than undertaking service provision themselves. Figure 4.1 depicts the separation of the enabling agencies (government and regulators) from the service provider roles, as well as the relationship with users, as part of the New Public Management approach.

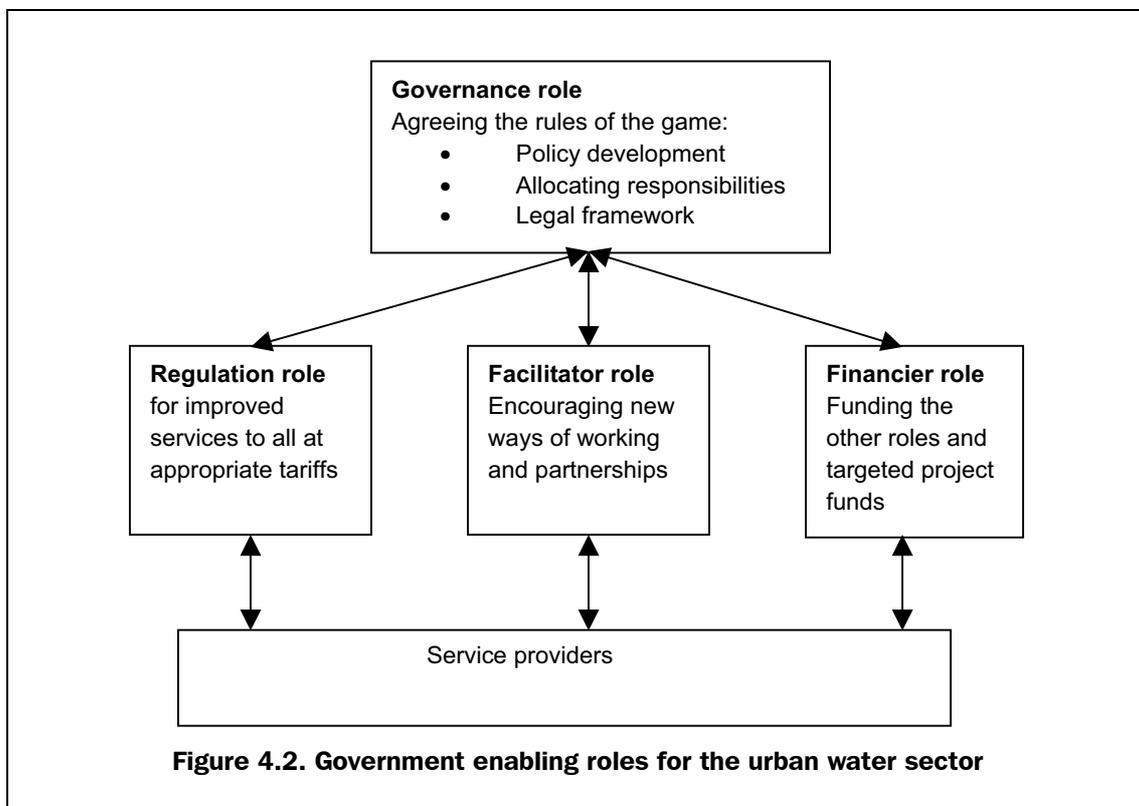


1. Source: adapted from Hobley and Shields (2001)

The enabling agencies can develop performance agreements or contracts with the service provider, but must give them sufficient autonomy to allow them to manage effectively. This encourages the use of more performance-based management. The service provider can develop 'beneficial exchange relationships' with the users or customers, for example a clear message can be: 'We (the service provider) will provide better services if you (the customer) pay higher water charges'.

Experience from around the world shows that the service provider role - such as managing urban water services - is best left to dedicated, autonomous, commercially and consumer-orientated water utilities who collaborate with other stakeholders such as small water enterprises.

The key government enabling roles can usefully be broken down into four main groups: governance, regulation, facilitator and financier, as is depicted in Figure 4.2.



These enabling roles and the associated issues for supporting services to low-income groups are discussed in the following sections.

Governance - agreeing the rules of the game

Policy development

Governments need to regularly review their policies to assess whether they are the best means of improving performance in the sector. Other policy options need to be considered, building on lessons learnt in-country and elsewhere. Relevant policy areas include:

- enabling poverty reduction and improved services to all consumer groups;
- achieving full cost recovery and financial viability of service providers;

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- promoting demand-responsive approaches to service provision;
- sector-wide approaches (SWAp) where donor funding and support contributes to the development of the entire sector and not just individual projects;
- supporting private sector participation (both formal and informal providers);
- supporting community participation in decision-making and flexible management options; and
- decentralization that supports other policy initiatives.

Policy reviews and the policy options that are developed should incorporate the views of key stakeholders and informants. Agreed policies then inform other governance tasks such as allocating responsibilities and legal frameworks, as well as other enabling roles such as the regulation, facilitator and financier roles.

Allocating responsibilities

In many low and middle-income countries, water utilities operate in an environment where the roles and responsibilities of various stakeholders in the water sector are not streamlined or clear. In some instances, the same arm of government acts as a policymaker, facilitator, regulator and service provider at the same time. This situation does not promote efficiency, effectiveness and accountability in the water sector. It is therefore the responsibility of central governments to carry out policy reforms with the aim of creating a conducive legal and policy framework that enables water utilities to provide efficient, sustainable, affordable services to the population, underscored by sound governance, efficient investment management, and cost-effective delivery systems.

Early in the process there is a need to rationalize the roles of various agencies in terms of policy setting, facilitation of capital funds, asset ownership, regulation, setting of standards, and service delivery. Overlapping or fragmented roles and responsibilities can lead to a lack of action and should therefore be avoided.

Allowing water supply organizations or utilities as much organizational and financial autonomy as possible enables them to manage effectively in a consumer-orientated manner, with minimal bureaucratic constraints, so that they can develop and implement strategic marketing or business plans. Providing such autonomy may of course necessitate reallocating responsibilities between different organizations and departments.

With regard to sanitation, there are many benefits in making the water utility responsible for sewerage services, including the advantage of a combined water and sewerage bill, that provides more incentives for payment of sewerage charges. Because of its individual, discrete characteristics, however, on-plot sanitation does not require the skills of a network utility. Traditionally sanitation has also been co-ordinated by Municipal Departments rather than water utilities.

A key consideration is who should undertake the regulatory function (described below). These functions are often done by various government departments, and there is some lack of clarity of roles. Establishing independent regulator(s) for aspects such as improving service levels linked to water and sewerage charges and environmental issues can encourage better accountability, transparency and a more professional approach. Regulators are particularly appropriate when complex PPP contracts are being developed,

such as Lease and Concession contracts. A separate regulator also has potential and similar advantages for overseeing public utilities. Regulators also need to be equipped with the capacity to address services to the poor (WSP and PPIAF, 2002).

The regulator(s) need appropriate objectives, authority and a clear remit or boundaries to their responsibilities. For example, should the regulator implement a Universal Service Obligation (USO) for all consumers? If so it must be clear how this will be funded (ibid). The regulator or government department can encourage the utility to agree yearly targets for service improvements and tariffs for all consumer groups or market segments, including low-income areas. This is a constructive means of gradually achieving a USO. Flexible definitions of coverage and service levels need to be encouraged, so that more choice in service options can be encouraged.

The use of Consumer Services Committees and other similar forums can be an effective means of allowing the views of different consumer groups to be represented when key decisions are being made by utilities and regulator/government departments.

Water sector reform also benefits from strengthening partnerships with various other stakeholders in the water sector, such as civil society institutions, (e.g. NGOs, CBOs and unions) and potentially with vendor or small-scale provider associations, all of whom have a stake in the sector, with the objective of creating improved collaboration and synergies.

The overall allocation of roles and responsibilities for the sector needs to compliment government policies such as moving towards full cost recovery for water services and poverty reduction. The emerging policies and distribution of roles then need to be captured in revised legislation.

Improving accountability and transparency

As policies are developed and responsibilities allocated, an important guiding principle is to improve both accountability and transparency amongst the key stakeholders. Both factors are critical to gain and maintain the trust of users and investors. They are founded on: (i) clear roles and responsibilities; (ii) independent audit and monitoring; and (iii) open disclosure of information.

Accountability is defined as a set of relationships among service delivery actors with five key features (World Development Report, 2004):

- **Delegating:** Explicit or implicit understanding that a service will be supplied
- **Financing:** Providing the resources to enable the service to be provided
- **Performing:** Supplying the actual service
- **Having information about performance:** Obtaining relevant information and evaluating performance against expectations
- **Enforcing:** Being able to impose sanctions for inappropriate performance or provide rewards when performance is good.

Paying careful attention to these five aspects can enable improvements in accountability and hence improve performance. The relevant government departments are normally

responsible for delegating responsibilities to the respective stakeholder institutions, although further delegation to other organizations usually occurs. All stakeholders are concerned with having appropriate information, although a regulator can take a leading role in ensuring that there is a *transparent* exchange of relevant information. Regulators (where they exist) are also expected to undertake the enforcing role in an unbiased manner.

One important means of improving transparency and accountability is through effective performance measurement (which is discussed in Section 3.6), followed by the dissemination of results and key information to concerned stakeholders. Four relationships of accountability have been identified (World Development Report, 2004):

- politicians to citizens or users;
- the service provider to the state;
- the frontline professions to their employer (management); and
- the service provider to the citizens or users.

Transparency and accountability need to be continually addressed for all the four relationships listed above if genuine improvements to services for all consumers are to be achieved.

Legal frameworks

Appropriate legislation needs to be developed or amended to improve services to low-income consumers, covering aspects such as:

a) Allowing private sector involvement and competition

Enabling the private sector to participate in water service provision can introduce much-needed incentives and skills. However, private sector operators should not be given exclusive rights to provide water services, which would prevent alternative providers from offering services in poorly served areas.

b) Water laws and water resources management

Providing a framework is necessary to ensure that adequate water supply is available for current and future needs of all consumers. The use of groundwater and other water sources should not, however, be unduly restrictive, so as to allow people to use alternative sources where it is feasible and where there is a demand.

c) Land tenure issues

The legal framework should support improved services to poor communities who may lack legal title to their land, where governments have a poverty reduction strategy. Flexibility should be encouraged to explore potential solutions such as: regularizing unauthorized settlements, delinking the rights to services from tenure status, or seeking to resettle some people without legal title (WSP and PPIAF, 2002).

d) Services to the poor and subsidies

Improving services to the poor is best achieved by exploring every relevant aspect of the government's and utility's work to determine viable means of making it easier to improve services to each consumer group. Funds available for subsidies are generally diminishing so it is important to prioritize those limited funds. A general principle is to *subsidize*

access not consumption. For example it is better for utilities to subsidize cheaper service options such as water kiosks, standposts or shared connections, that give a reduced level of service compared to in-house private connections.

e) Environmental and health standards

Government legislation in these areas can act as an effective driver for improvements. For example, there could be requirements to clean up polluted watercourses, and activity that often impacts more on informal settlements, which tend to be located in low-lying areas. The requirement of a minimum water supply availability standard such as 20 litres per person per day (WHO water quality standards), can also be used as a basis for service providers to develop new programmes. Such minimum standards should inform selection of priority areas, but new projects are likely to be more sustainable if they are also responding to demand based on consultation with water users.

Regulation

Good regulation is a means of impartially improving accountability and transparency to enable more effective service provision. The regulatory process has to separate policy-maker and provider and preserve its own independence (World Development Report, 2004). Key issues related to regulation and serving poor consumers incorporating marketing approaches that are worthwhile pursuing include:

a) Ensuring responsiveness to consumer needs

Regular well-designed consumer surveys that obtain good quality data from all consumer groups or market segments (see Section 2.5) enable utilities to work towards improved customer satisfaction and hence improved cost recovery. Where expansion and improvement of services are being contemplated, willingness-to-pay surveys and other demand-assessment techniques such as 'PREPP' contribute to the development of better investment programmes that are more likely to be funded when viable financial projections are produced based on the demand assessment. Such survey information is also invaluable for a regulator in agreeing performance and tariff levels.

b) Flexible technical and service standards

To allow incremental improvements to water services to a greater number of consumers, flexibility in service standards should be encouraged to allow the development of appropriate service, shared management, and payment options that meet the needs and preferences of different consumer groups, as discussed in Chapters 1 and 2. This is likely to require re-viewing national and regional technical standards and policies to ensure that they do not unduly inhibit the introduction of such viable options.

c) Performance planning and monitoring

To encourage effective planning and monitoring of utility activities for all consumer groups, the use of appropriate indicators for assessing progress and setting reasonable targets is recommended. Typical indicators are set out in Sections 2.8 and 3.6, including the use of market segments as a means of assessing performance in all groups including the poor.

The use of strategic marketing plans can enable utilities to plan and monitor all their work in a more comprehensive and demand-responsive manner on a sustainable basis. Where such documents are well developed they can provide an invaluable basis for well-informed regulation.

d) Safety net regulations for the poor

Poor consumers often pay high prices for water from vendors, or they incur high coping costs in terms of the time they spend collecting water, or dealing with the adverse effects of poor quality water. So rather than insisting on very low tariffs for poor consumers - which will limit the incentives for utilities to serve low-income communities - it is better for a regulator or government to encourage utilities to collect data on services, experiences and perceptions in poorer areas, with a view to expanding services on a sustainable basis, with some cross-subsidization between different service options.

e) Development of essential infrastructure

Supplying new or poorly served areas with adequate piped water supplies invariably requires investment in new treatment, transmission and distribution infrastructure. A regulator and the concerned government department needs to satisfy themselves that the utility (private or public) is developing and implementing adequate and viable plans to service such areas. A strategic marketing approach is a way of developing plans that are sufficiently comprehensive.

f) Promote asset serviceability and efficiency over time

To achieve adequate and sustainable services in the long term, utilities should be encouraged to have good asset management arrangements that ensure that the condition and performance of the infrastructure assets is maintained. This is particularly important when the end of a PPP contract is approaching, so that adequate maintenance, rehabilitation and re-placement occurs throughout the contract.

g) Support for Asset Management Plans

Encouraging and supporting water utilities to develop and adhere to Asset Management Plans (AMP) enables good information on the location, condition and performance of utility assets in all areas of a city or town to be stored and retrieved. This is an important component of providing adequate and sustainable services to all consumer groups.

h) Agreeing projected water and sewerage tariff policies

This is a key area for regulation and needs to be linked to service improvements. Allowing utilities to charge cost-recovering tariffs is not only necessary for sustainable services, it provides the basis for investing to meet future demands and population growth. These issues are discussed further in Section 4.5.

Whether a separate regulator is established, or this work is done by designated sections in government departments, it is beneficial if their functions are carried out both comprehensively and impartially. Strengthening of the regulatory regime is important and can be done through activities such as:

- sub-dividing functions such as water and sanitation performance and tariff regulation, as well as environmental and water quality regulation;
- strengthening technical capacity for the different functions of regulation;
- ensuring the independence of the regulator through an open and publicly account-able process of recruitment and publication of studies and decisions;
- backing up the regulatory process with the necessary legal framework;
- funding of the regulatory activities through a dedicated budget; and

- considering forming a multi-utility regulatory framework, where applicable.

Such measures can improve the accountability and transparency of the regulatory functions and thus contribute to effective development of the sector.

Facilitator and financier roles

A government can usefully act as a 'facilitator' to encourage key sector stakeholders to improve social inclusion (Bosch et al., 2001) and to pursue innovative options for collaboration and management with key partners. Some typical 'facilitator' activities include:

- Arranging national/regional surveys of the roles and capacities of different 'actors' in the sector, including utilities, government departments, small-scale providers, CBOs, NGOs, consultants, donors, and contractors with a view to improved collaboration.
- Supporting the development of a comprehensive performance measurement programme, including consumer surveys, to inform future policies and investment decisions.
- Co-ordinating the development of policies and strategies for improving water and sanitation services to low-income urban areas, amongst key stakeholders at all levels, that lead to effective action plans that are implemented. This is discussed further in Section 4.3.
- Agreeing potential roles for the different stakeholders and the implications of new or revised roles.
- Assessing capacity development requirements for different sector 'actors' so that the agreed policies and strategies can be implemented.
- Co-ordinating sector development projects or programmes, that may be pilot projects or state/nationwide initiatives. Such programmes may have some donor funding from a Sector Wide Approach (SWAp) or from discreet programmes.
- Seeking the collaboration of other ministries and government departments in supporting the development of the water sector and services to poor consumers.
- Monitoring and evaluating the implementation of strategies to improve services in low-income urban areas, providing timely feedback to partners.
- Supporting service expansion and negotiations for grants and soft loans.
- Supporting sector research activities, particularly to determine lessons from new approaches.

Government and donor funds for development projects are limited and need to be carefully targeted, as utilities will hopefully move towards full cost recovery for service provision. Governments therefore need to be selective in their 'financier' role to maximize value for money and to enable other stakeholders to fulfil their roles. Potential areas for funding that support a pro-poor enabling environment include:

- sector studies and policy development;
- funding of the 'facilitator' role activities listed above;

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- targeting limited capital funds on services for low-income areas, provided there is clear demand for those service/management options that are on offer;
- capacity development for different partners and stakeholders, particularly where they take on new or revised roles;
- supporting regulation activities where they are not funded by PPP contracts; and
- supporting sector research activities.

Funding of capacity development is important during a reform process. Where capacity building is required for different stakeholders such as utilities, NGOs, consultants and private contractor/operators, it is preferable if those stakeholders at least provide some funding for their training so that they demonstrate their commitment to participate in the reform process.

4.2 Supporting private sector participation

If private sector participation is to be developed on a substantial basis that benefits all consumer groups, it will be necessary to develop an enabling environment at city, state and national level, addressing key constraints. Some countries see private sector participation as a key part of their strategy to improve services. For example, refer to Box 4.1 for a summary of Uganda's urban water sector policies.

Box 4.1. Uganda's urban water sector policies

The policy of the Government of Uganda is to limit the role of government in water sector to that of policymaker, facilitator and regulator, thus leaving service delivery to the private sector as much as possible. Consequently, a water sector reform study was commissioned in 1999, and mandated to advise on the reform process, using the following sector objective as a guide:

- Service coverage - to achieve universal coverage for safe water and appropriate sanitation by the year 2010
- Sustainability - to achieve sustainability of service delivery. This includes reduction of government subsidies if they remain necessary, or improving the efficiency of such subsidies. The successful introduction of public-private partnerships is a cornerstone to this goal
- Affordability - to ensure that a basic adequate level of service is affordable via low-cost delivery and implementation of a subsidy and tariff framework that is equitable and beneficial to the poor
- Water as a social and economic good - water should be managed in the best way, bringing consequent benefits such as improved health to the citizens, as well as infrastructure and economic development.

In addition to the general reform and policy initiatives described in this chapter, specific measures to develop private sector participation (PSP) that benefits all consumer groups include:

- **Studies to identify the most suitable PSP strategy** and type of contract, that is based on good quality information on '*where the utility and services are now*', given the prevailing internal and macro-environment, and where the utility(s) want to be in the future.

- **Making the contracts work for the poor** needs to be considered at all stages of contract development, including providing appropriate incentives and funding for the private operator to extend services to low-income areas. Further guidance is provided in *PSP and the Poor* (Sohail et al., 2003) and *New designs for water and sanitation transactions - making PSP work for the poor* (WSP and PPIAF, 2002).

For those organizations contemplating private sector participation, they can refer to the World Bank 'Toolkits for Private Sector Participation in Water and Sanitation' (1997), which provides comprehensive guidance on the range of PSP contracts. For those utilities or municipalities contemplating smaller Service and Management contracts, *Contracting Out Water and Sanitation Services - Guidance Notes for Service and Management Contracts in Developing Countries* (Sansom et al., 2003) provides practical information on contract development and monitoring.

4.3 Translating policies and strategies into actions

In order to accelerate water supply and sanitation service provision to low-income settlements in urban areas, there should be both technological and institutional innovations and new approaches at various levels. A key step in this process is the formulation of national policies and strategies that need to incorporate the concerns of the various stakeholder groups. Box 4.2 shows extracts from a national policy on service provision to low-income settlements developed by the Government of Zambia.

In order to build on what is already being done and to capture broad support, it is important to involve all key stakeholders in the provision of services to low-income settlements such as water authorities, government departments, municipal councils, active non-governmental organizations, community-based organizations, small-scale independent providers, donors, consultants, contractors/operators and training providers. Figure 4.3 is a flow chart of a typical participatory process that can be followed in the development of national policies and strategies and that leads to effective action plans. Note that there are feedback loops in the process, in recognition of the fact that it is an evolving iterative process, where improvements can be made over time, based on lessons learnt.

It may also be necessary to review policies in the light of implementation experiences. Key activities in the national action plan for peri-urban areas developed in Zambia in 2001 are set out in Box 4.3.

It is worth noting that Zambia has an independent water regulator, the National Water Supply and Sanitation Council (Nawasco), to support utility and municipal improvements in services to the poor. Action plans such as that summarized in Box 4.3, are useful in creating an enabling environment at the national level, but further policies and plans are also required at the city level, and this is discussed in the next section.

Box 4.2. National policy for peri-urban water and sanitation in Zambia ¹

The Ministry of Local Government and Housing in Zambia, with the support of the Water & Sanitation Pro-gram (WSP), has developed a national strategy on peri-urban water and sanitation. Key elements in the strategy are highlighted below.

Overall development goal of the strategy: **'adequate, accessible, sustainable and safe water supply and improved sanitation services are available and effectively used in all peri-urban areas in Zambia'**.

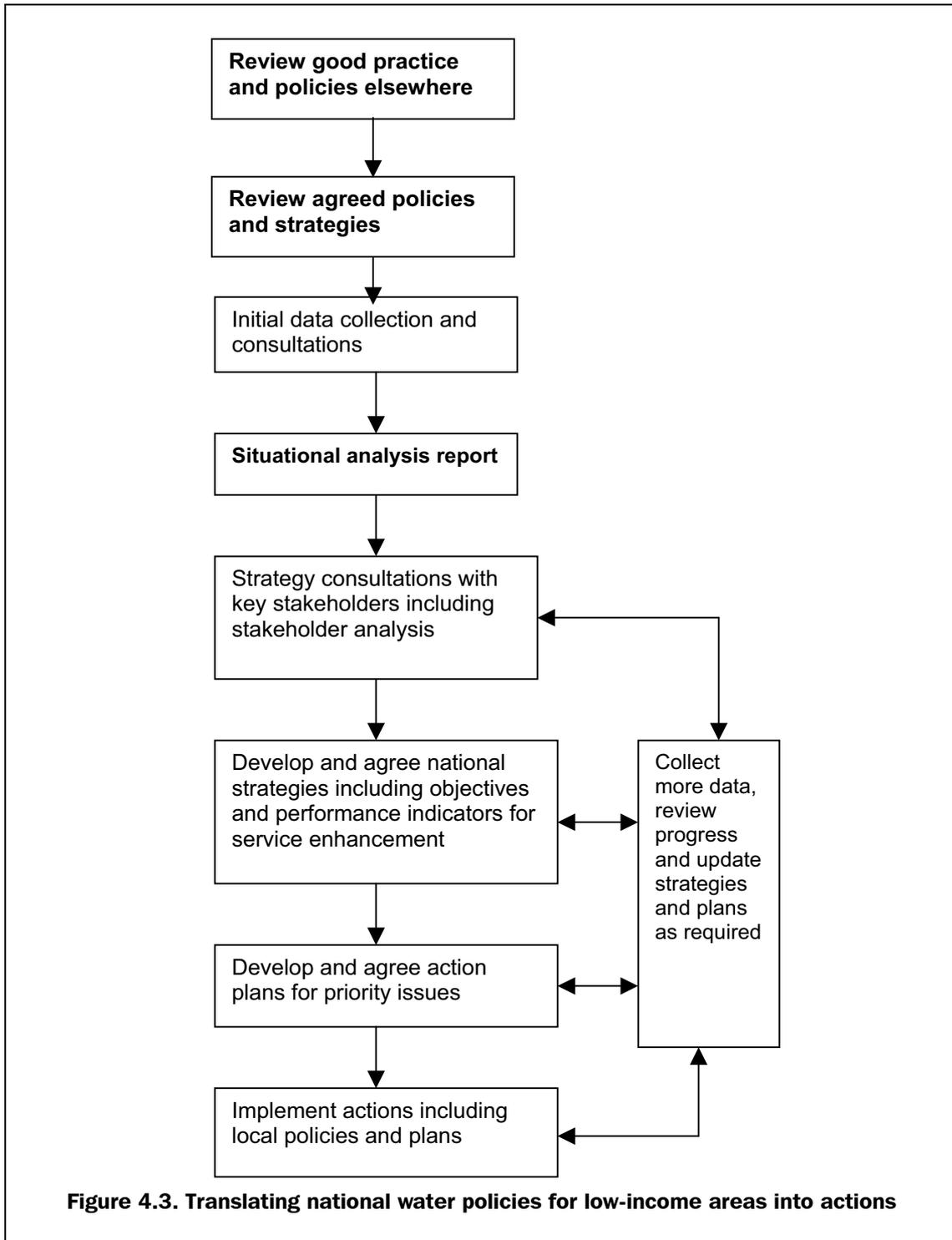
The target for the minimum level of water service is 30 litres per person per day up to a walking distance of 200m. To achieve these goals will require careful planning and management of services. The 'strategy objective' to achieve these goals is therefore: **'to establish a framework for effective and efficient planning, implementation and management of water supply and sanitation in peri-urban areas'**.

Policy measures in the strategy include:

- Services shall be provided on the basis of a *demand/responsive approach* in partnership with community organizations and the community itself.
- *Sanitation and hygiene promotion* shall be integrated into water supply projects in order to give greater emphasis to sanitation.
- *Water utilities are to have overall responsibility* over WSS systems in peri-urban settlements within the local authority areas under their jurisdiction.
- *Selection of communities to be assisted* shall be on the basis of expressed demand for better services and a willingness by the communities to make contributions (cash or in kind) to investments and to bear full running costs.
- *Community participation and management* shall be encouraged in partnership with NGOs and community groups.
- *The interests of women, children and the vulnerable* shall be considered and protected in the design and management of services.

The strategy also included priority actions which were later developed into a 'Peri-Urban WS&S Action Plan'. The key actions are summarized in Box 4.3.

1. Source: Ministry of Local Government & Housing, Zambia (2001)



Box 4.3. National action plan for peri-urban water and sanitation in Zambia¹

The Ministry of Local Government and Housing in Zambia, with the support of the Water & Sanitation Pro-gram (WSP), has developed a 'Peri-Urban WS&S Action Plan' that was derived from the national strategy on the same subject (see Box 4.2). Key action points are summarized below:

Key issues for action:

Policy and legal framework

- Revision of the *national water policy* to include the unique characteristics of peri-urban areas.
- Develop guidelines for supporting community participation and management.
- Develop national programme for *regularization and legalisation of informal settlements* including *publicizing the regularization process* in order to involve communities in all stages of planning and execution of the programme.
- *Ownership of community WS&S facilities* to be clarified. Community ownership to be at least in pro-portion to the level of their contributions.

Institutional issues

- Establish a properly resourced *unit in the Ministry to facilitate and co-ordinate WS&S programmes* in peri-urban areas.
- Establish *stakeholders' forum* to co-ordinate overall peri-urban development including NGOs and donors.
- The *legal and institutional framework for the various community-based institutions* shall be reviewed and revised.
- Formulate guidelines to *clarify roles of utilities, local authorities and community organizations* for service provision.
- *Community-level institutional support* including capacity building, effective administration, information flows and monitoring and evaluation systems for use by communities. Draw lessons from existing community-managed schemes.
- Establish and maintain *databases of WS&S and socio-economic information* for specific peri-urban areas.
- Establish and maintain a database of *technology options* to improve choice.

Financial issues

- Develop guidelines for *remuneration and incentives scheme* for community members.
- Formulate/collate guidelines for willingness/ability-to-pay surveys and tariff setting.
- Establish a 'capital revolving sanitation fund' for funding higher levels of WS&S services.
- Establish 'revolving sanitation fund' with initial grant funding.
- Harmonize the flow of funds to peri-urban WS&S projects.

Note action points concerning policy measures listed in the previous box on the national strategy are not repeated here. Responsibilities were allocated for each action point to specific organizations, with a time-frame for the completion of the activity.

1. Source: Ministry of Local Government and Housing, Zambia (2001)

4.4 Agreeing the utility's objectives

Corporate objectives are at the heart of the strategic marketing process, since they describe the direction, priorities and the relative position of the organization in its market. The objectives help to create guidelines for marketing plans, since the output of the corporate planning process acts as an input into the marketing planning process (Brassington and Pettitt, 2000). Specific objectives are normally presented in terms of different kinds of targets. A common objective of progressive water utilities is to improve service provision to customers while meeting the utility's financial objectives. Many utilities in developing countries will be operating in an environment where large proportions of the potential customer base, especially the low-income customers, are currently not served. There will be a need for the utility's top management to review and agree the utility's objectives, particularly with regard to serving the apparently 'less profitable' poor.

Organizations often summarize their objectives in the form of mission statements. Examples of two mission statements from African water utilities are provided in Box 4.4.

Box 4.4. African utility mission statements

The mission statement for the National Water Conservation and Pipeline Corporation (NWPC) in Kenya (NWPC, 1999):

The corporation is committed to providing high quality water to its customers at an affordable price and at a reasonable profit to the corporation.

Mission statement for National Water and Sewerage Corporation (NWSC) in Uganda (Kayaga and Sansom, 2001):

To be financially a self-sufficient organization developing and providing water supply and sewerage to customers at an affordable price.

It is interesting to note from those mission statements from utilities in Kenya and Uganda that they only refer to their customers. But what about the people who are not their customers - the people who do not have their own pipe connection? Potential utility objective statements are set out in Box 4.5. Mission statements will also need to take account of current government policies and the current state of services in the utility's service area.

Box 4.5. Potential utility objectives

Key strategic marketing objectives for progressive water utilities:

- Provide adequate and reliable water and sewerage services whilst improving customer satisfaction through continuous service enhancements to all consumer groups.
- Through the development of cost-reflective tariffs and targeted subsidies achieve a reasonable return on the capital employed as an efficient provider.

A summary of key provisions of the Lusaka Water and Sewerage Company's policy in 2001 that emerged after the national policies and action plans for serving peri-urban areas

is provided in Box 4.6. Other cities, with different working environments, may develop quite different local policies.

Box 4.6. Lusaka's policy on water and sanitation in peri-urban areas¹

Lusaka Water and Sewerage Company (LWSC) have developed a document that sets out its policy on water and sanitation in peri-urban areas, settlements or 'compounds' that are categorized as low-income and high-density. They were encouraged to do so following the agreement of the national strategy on the same subject. The rationale of the LWSC document is:

'Due to the multiplicity of public and private agencies, as well as the presence of numerous donors and NGOs, co-ordination of water and sanitation services is required to derive the greatest benefits from limited budgets in an area where the challenges are very great. The LWSC is one of the major actors in this field, and it has therefore taken the initiative in preparing this document.'

The key areas covered by the document are:

(a) Statutory legal responsibilities of LWSC - including the provision of water and sewerage services in the area of jurisdiction of Lusaka city council and to exercise control over water sources.

(b) The institutional framework - including:

- the specified wards where peri-urban informal settlements are located;
- agreed ToR for resident development committees (water committees);
- listing of the peri-urban areas and their legal status;
- listing of the water and sanitation service providers in Lusaka
- a summary of the roles that LWSC will undertake, including: O&M of water distribution up to the meters, collaboration with community groups, bulk supply of water to edge of some peri-urban areas, training of plumbers for community management of water distribution, etc.; and
- the roles of other institutions such as the city council who deal with sanitation aspects other than sewerage.

(c) Options for service provision Details and sketches are provided.

1. Source: LWSC (2002)

4.5 Water tariff and subsidy review

Water utilities in many low-income countries are often unable to collect enough revenue to cover both operation and maintenance costs and the capital funds required to improve the system. The level of water tariffs are often too low to meet all the utility's full costs. Another common problem is that tariff structures penalize some consumer groups unfairly.

Approval of the water tariff is generally the responsibility of the central or state governments in many low-income countries. Therefore the onus is on governments to regulate water utilities to improve revenue collection through viable water tariffs, hopefully through an independent regulatory regime. Increasingly, efficient urban water utilities in low-income countries are applying tariffs designed to cover return on investments and major capital expenses. The following text provides guidance on tariff setting and the provision of subsidies.

General principles

The determination of tariff policies should seek to address both commercial and social welfare concerns. It is beneficial if revised tariff levels can be finalized based on mutually agreeable principles. The simple but comprehensive 'AESCE' principles (which we pronounce 'ace') are outlined in Box 4.7.

Box 4.7. Developing tariff policies using the 'AESCE' principles

When considering appropriate tariff policies, AESCE is a useful memory aid:

Adequate. The average tariff should be cost reflective, which means it should cover the cost of 'OPEX' - operating costs, 'CAPEX' - capital maintenance (infrastructure renewals and depreciation) and the cost of capital - to ensure that loans can be repaid and future investment financed whilst the existing system is maintained.

Equitable. The required level of revenue should be allocated between customer groups in a fair and equitable for manner both for the poorer members of the community and the different levels of service options, relative to the costs they impose on the system and to reflect social welfare objectives to achieve public health.

Simple. The tariff structure should be simple for the utility to administer and easy for customers to understand. Customers usually display greater willingness to sustain payment of water bills when they understand the bills.

Conserving. The tariff structure should influence consumption in such a way that customers are able to purchase enough water to meet their needs without being wasteful.

Enforceable. The utility should be able to enforce the tariff through viable sanctions such as court action, disconnections, etc. Tariffs that cannot be enforced are unlikely to be sustainable.

To ensure adequate tariff levels are achieved, calculations need to include proposed future loans and investments. *Book 2* provides some guidance on calculating tariffs using the Average Incremental Costs (AIC) approach based on future investment proposals.

In many countries rising block tariffs have been introduced to try to ensure that consumers of small amounts pay less per kilolitre than larger consumers, as well as to encourage the conservation of water. In practice problems have emerged with this system, as is described in Box 4.8.

So rising block tariffs do not always achieve the 'equitable' component of the 'AESCE' principles, as described in Box 4.8. Some more specific ideas for tariff setting and subsidies are:

- a) Get the tariff level and the tariff structure right to help all consumers, including the poor.
- b) Subsidize access (*or lack of access*), not consumption.
- c) Subsidy delivery mechanisms should be targeted, transparent and triggered by household indications of demand.

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- d) New information is often required to evaluate whether a proposed tariff or subsidy will hurt or help poor households.
- e) Because tariffs and subsidies require modifications over time, decisions that must be made about social equity concerns should be incorporated in the tariff and subsidy revision process.

Source: Water and Sanitation Program and PPIAF (2002) and Whittington (1992)

A brief case study from Manila in Box 4.9, highlights how tariff increases can help the poor by providing more funds for extending services to unserved areas.

Box 4.8. Block tariffs to subsidize the poor?¹

Many urban water utilities use a block system of tariffs for metered households. The principle is that families using less water pay less per kilolitre up to a threshold consumption per month. More affluent households who use more than the threshold, pay more per kilolitre of water consumed above that threshold, in accordance with the next tariff 'slab'. This is in recognition of the fact that water is a social as well as an economic good. Problems can arise in developing countries where a number of poor families use the same metered connection, illegally or otherwise, and they use more than the threshold amount, thus paying more for their water. Under such circumstances poor families can pay more with a block tariff system than if there was a flat tariff per kilolitre consumed. Such disparities can encourage a climate of not paying. In Santiago, Chile they have dealt with this problem by not subsidizing the poor through lower water charges, e.g. with block tariffs, but providing instead separate well-targeted subsidies. Other cities who suffer water shortage problems wish to retain the block tariff system to send economic signals to consumers to conserve water. In which case they will need to carefully design and market service options and tariff levels to ensure equity for multi-family pipe connections.

1. Source: DFID (1998)

Box 4.9. Hiking tariffs to help the poor in Manila¹

Winnie Flores, one of about 5 million people without access to piped water in Manila, pays 900 pesos a month for 6 m³ of water from small water enterprises, while many connected to piped water pay about 160 pesos a month for 30m³. It would be much cheaper for her to have a piped connection. With the introduction of private sector participation in 1996, the winning bids of the two successful companies who won the concession contracts were 57 per cent and 26 per cent of the pre-bid Manila water utility tariff. The contract conditions encouraged keeping the tariffs low, but did not have provisions for increasing access to piped water to the poor. For a couple of years the government resisted the tariff increases that would enable extension of the piped network to serve poor areas. The government finally capitulated and allowed the necessary tariff adjustments in order to extend services to unserved areas. The clear lessons are that tariff increases can help the poor, and that it is important to get the policies right for all consumer groups.

1. Source: Summary of a case study in Asian Water Supplies - Reaching the Urban Poor by A.C. McIntosh (2003)

When negotiating tariff levels there are a number of key issues to be borne in mind, which are summarized in Table 4.1.

Table 4.1. Key issues for setting tariffs

Issue	Potential impact on tariff policy
National policy priorities	National or state policy might impact on tariff setting. For example, if government policy is to move to full cost recovery, including capital costs, this should impact on tariff increases.
Cross subsidization of poorer communities	If an aim is to improve equity, tariffs can be set at different levels for different user groups and service options.
Consideration of the cost of water supply and sewerage	As populations and demands increase, utilities invariably have to consider using more distant water sources. The full costs of using such sources, as well as the bulk water supply and distribution networks, need to be included in the tariff calculation. Sewerage and appropriate wastewater treatment is invariably higher in cost than water supply. Where sewerage programmes are envisaged, the full costs should be considered in determining tariff levels.
Willingness to pay of communities	This is an important factor and is becoming increasingly accepted as a key element of tariff setting. Tariffs can be raised for those individuals / communities who are willing to pay more for water supply.
Willingness to charge	Policymakers/politicians may often be unwilling to increase water charges because they perceive that tariff increases are likely to be unpopular with the public. Orientation of policymakers is often required to demonstrate the benefits to all stakeholders of generating adequate funds through increased tariff levels.

New medium term tariff levels need to be considered when doing financial projections for future investments. Where substantial tariff increases are required, they should preferably be within the willingness-to-pay levels derived from surveys. Increases are best done on an incremental basis that are acceptable to key stakeholders. Addressing the 'willingness to charge issue' mentioned in the above table is critical, so careful thought is required in developing a strategy for advocating tariff increases.

Agreeing tariffs for different service levels

By offering different options to different customer groups there are opportunities to set lower water prices for options that are less convenient to consumers, or where options cost the utility less to provide, or where subsidies to the poor are proposed. For example, a water kiosk that is managed by a community group has less operational costs for a utility than a kiosk managed by the utility itself. Trickle feed supplies are cheaper than full water pressure, so tariffs can be lowered accordingly to capture people's willingness to pay. A simplified calculation for balancing projected income for each service option with utility costs is set out below:

Let us assume that the average calculated tariff for financial sustainability for a city is, say, US\$1.00 per cubic metre and that the average consumption per household is 10 cubic metres a month. For 50,000 paying households in a city, the total domestic water income for the utility will be:

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$\$1.00 \times 10 \text{ cubic metres} \times 12 \text{ months} \times 50,000 \text{ households} = \mathbf{\$6 \text{ million}}$

(Average tariff X Water volume sold = Total domestic water sales income)
(excluding connection charges, etc.)

If the total expected income from commercial/industrial and other institutions in the city is \$2 million at the same tariff level, then the total projected yearly income for financial sustainability is:

$\$6 \text{ million} + \$2 \text{ million} = \mathbf{\$8 \text{ million}}$

The tariff levels for each service option offered will need to be adapted to generate this same level of income (\$8 million) as is shown in the simplified calculation in Table 4.2 below. Note the tariffs can be adjusted to match the WTP of customers for each option offered, as well as reflecting the reduced costs of provision for the different service levels offered to poor or unserved communities.

Table 4.2. Balancing service option tariffs with income

Service option	Proposed option tariff (\$ per cubic metre)		Projected sales volume (cubic metres of water)		Projected income from each option
Utility-managed water kiosks	\$0.80	X	300,000	=	\$0.24 million
Community-managed water kiosks	\$0.60	X	400,000	=	\$0.24 million
Yard connection with storage tank and trickle feed	\$0.80	X	500,000	=	\$0.4 million
Individual house connection with 12 hours supply to roof tank at full pressure	\$1.00	X	4.8 million	=	\$4.8 million
Commercial/ industrial users	\$1.16		2 million	=	\$2.32 million
			Total income		\$8.0 million

Such an approach allows for some limited cross subsidization between different service options; that is, subsidizing the lack of access and not consumption. The figures in Table 4.2 do not include sewerage charges which would need to be added for household supplies where on-plot disposal is not feasible. The calculation is rather simplified, as demand for water will vary with price, but it offers a basic approach to differentiating service options at appropriate prices, in order to maximize both income and the number of satisfied customers.

Other important issues that need to be considered in the setting of water charges are:

- Where possible, good quality water meters should be provided, read and used to determine water bills, as this encourages water conservation and it is a fair means of determining water charges.
- Water bills should include any sewerage charges, preferably reflecting the full sewerage costs.
- Whether to charge full connection charges up front, or to spread the recovery over a period of time, so that connection fees may not be prohibitive to the prospective customer, particularly in low-income communities.
- To charge a monthly service fee to cover some of the services such as reading of meters, instead of charging a minimum charge, which if too high can encourage wastage of water.
- To charge a disconnection/reconnection fee that is not prohibitive, because high fees can encourage illegal water usage.
- Regular yearly tariff increases are recommended to move towards full cost recovery and to allow for inflation, using appropriate formulae.

4.6 Government support for revenue collection

High outstanding water bills that have accumulated over a long period of time is a common problem. In some cases, the revenue collected may not even be sufficient to cover operation and maintenance activities. In most cases, the revenue collected does not provide for capital funding. The government can support the utility's revenue collection drive in a number of ways. Examples are given below:

- Government departments and institutions consume a significant proportion of water supplied by urban water utilities in low-income countries. It is common for government departments and institutions to be the largest debtors to the water utilities. If the government pays for water services promptly it sets a good example and improves water utility revenues. The process of payment may be simplified further by creating a central coordination unit to receive, verify and process water bills for all government departments and institutions.
- Wastage of water supplied to government departments and institution is common, due to poorly maintained installations. When the water supply installation is maintained well, water that would otherwise have gone to waste is channelled to other needy people.
- Government should strengthen public health byelaws and create a conducive legal environment to enforce the byelaws that prohibit operation of businesses and residence in urban centres without suitable water supply and sanitation provisions.
- Government should support efforts by water authorities to disconnect water supplies of commercial/industrial premises and residential properties for perpetual non-payment of water rates.

4.7 Government support for service expansion

The central government may support water utilities to improve their infrastructure and increase service coverage in a number of ways. In addition to the marketing approaches advocated, a few examples are mentioned below:

- **Responsibility for historical loans:** Many urban water utilities previously took on loans for infrastructure improvement. These loans carry grace periods during which investments were supposed to have been completed, prior to the completion of the pay-back period. However, due to various factors, the investments carried out may not have realized the benefits envisaged in the original investment plans. These factors may range from poor design, poor construction, lack of investment balance between production capacities and distribution networks, political interferences, and/or poor organizational policies and structures. As a result, some water utilities may not be capable of dealing with their loan portfolio. In order to keep to the overall objective of providing services to all consumers, it is recommended that governments participate in any negotiations for restructuring those loans.
- **Acquisition of grants and soft loans for expansion of services:** To maximize funding for poor or un-served areas, governments should seek to acquire more donor grants for water utilities to expand their service coverage. They can also assist in negotiating for soft loans on good terms from international banking institutions, and provide a guarantee. The strategic marketing approach can assist in making a case for such grants and loans. Furthermore, it would be beneficial for governments to waive the requirement of on-lending the grants and soft loans to water utilities at higher interest rates.
- **Use of international debt relief funds from the HIPC Initiative for expansion of services to the urban poor:** These funds are available for countries that fall under the category of Highly Indebted Poor Countries (HIPC), which are exclusively meant for poverty alleviation. These funds can be accessed and used for improving service coverage to urban low-income settlements. These funds could be used for tertiary pipeline ex-tensions, storage expansions, and for subsidizing house connections for the benefit of low-income families.
- **Performance contracts/agreements with utilities/municipalities:** Whether an independent regulator is in place or not, it is beneficial to have a performance contract/agreement between the regulator or government and the utility, to ensure financial viability of the utility and improving services to all consumer groups, in line with agreed targets. The contract/agreement would typically include key objectives, performance against key targets and the tariff policies. To achieve a poverty reduction focus, the performance contracts can be used to track improvements to services in low-income areas.
- **Well-designed PPP contracts** that have specific provisions to encourage the operator to extend services to new areas and customers. It will be necessary to have agreed investment plans for service extension that compliment the performance requirements in the contract.

4.8 Research and dissemination of lessons

The task of ensuring that there is universal service coverage in urban areas of low-income countries is substantial. If this task is to be fulfilled, there is a need to bring about changes at the sector utility and community level, and at the household level. The challenge is greater for water utilities as far as provision and extension of services to low-income settlements is concerned. There is a need to carry out research and develop low-cost and technologically appropriate service options that are acceptable to the consumers. Research activities demand significant investments, which the service providers may not

always be able to afford. Government can therefore provide a framework and funds for such research activities. Examples where further research funding is required are:

- implementing poverty reduction strategies in the urban water and sanitation sector;
- lessons for institutional reforms that enable more of a focus on improved services to low-income areas, including regulation and government's facilitatory roles;
- benchmarking activities to evaluate and map out best practices in other low-income countries, including the process of documentation and dissemination of information to the various stakeholders; and
- research in the use of low-cost water supply and sanitation service options suitable for and acceptable by low-income communities.

Governments can usefully co-ordinate local research activities conducted by various stake-holders to ensure that all key areas of concern are being addressed. It will be beneficial to report on further lessons learnt from using marketing approaches in different water and sanitation sector contexts. Key findings should be disseminated both locally and internationally. By continuing to share the important lessons from the use of marketing approaches and serving all consumer groups, wider take up of these ideas and increased benefits can be expected.