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Getting the Incentives Right:

Incorporating Strategies for Improving Services to Low-Income Consumers within PSP Water Sector Contracts -

Inception Phase

September 2003

EXECUTIVE SUMMARY

Many developing countries are turning to the private sector to provide water supply and sanitation services to urban consumers as a means to improve efficiency and increase investment in the sector. However, involving the private sector has proved contentious and there is concern that these contracts do not adequately address the needs of low income groups (LIGs) within the urban and peri-urban areas. Experience has shown that many private operators have been unable or unwilling to improve or expand services to LIGs. The underlying assumption is that the private sector has little incentive to extend services to low-income areas due to a variety of issues.

This report presents the findings from the inception phase of the DFID funded project "Getting the Incentives Right: Incorporating Strategies for Improving Services to Low-Income Consumers within PSP Water Sector Contracts". This phase examined the issues and constraints that prevent Low Income Groups (LIGs) being served under PSP frameworks.

Part 1 of the report examines the background to the issue, looking at the social context (section 3), the types of PSP contracts typically used (section 4) and the typical water sources used by people in LIGs (section 5). A key issue is the lack of understanding of poverty and the current conditions in LIGs. The nature of poverty in these areas is very complex, and attention must be given to accurate analysis of the LIGs if appropriate interventions are to be designed. The complexity of the poverty in many LIGs makes it very difficult to come up with a clear and accurate contract definition for these groups. A framework has been developed to help understand how certain environmental, community, household and individual criteria affect delivery of water services.

Recent trends have been away from large –scale urban PSP under traditional contract modes to newer forms. Key aspects of this include phasing in of Operator responsibility and risk, contracting on a more local level and more emphasis on local partners and solutions.

Part 2 examines the main constraints to serving LIGs and suggests possible areas of intervention. It is important to consider the whole water sector restructuring process and not look narrowly at PSP contracts only. Many of the constraints relate to overall policy decisions made at the early stages of the process. The discussion on the constraints has been split into 5 sections – Legal and Regulatory, Economic and Commercial, Technical, PSP Process and Community Education. The key constraints that have been identified are:

- Lack of involvement of LIGs at an early stage to gain an understanding of poverty issues
- Inadequate understanding of poverty issues
- Lack of good quality information on existing situation to measure baseline and set realistic targets. Includes both social condition and technical condition of assets
- The operator is reluctant to expand into areas where payment culture is uncertain
- The legal system does not support pro-poor agenda – LIGs not recognised
- Legal standards (service levels, technology and workmanship) prevent innovative low cost methods being used
- Weak regulatory capacity makes it difficult to regulate social issues
- The physical location of many LIGs makes service more expensive

- Connection fees and tariffs are high, particularly in relation to incomes
- The cost of supplying LIGs is comparatively more, and consumption is less
- Specific risks to serving LIGs, including: low collection rates; low consumption rates; increased safety risk; and increased vandalism and hence increased maintenance costs
- Exclusivity limits options to serve LIGs
- No consideration of 'software' (e.g. hygiene education)
- Tendering process does not allow for consideration of LIG issues
- No obligation to serve LIGs specifically set out in the contract
- Inadequate attention given to community liaison and education, as it requires proportionally more investment than other consumers

The key areas to focus any interventions on are:

- Make allowance for substantial surveys of LIGs at early stage of reform
- Better studies of Ability and Willingness to pay on LIGs will help reduce risk of non-payment
- Allow involvement of SSSPs in providing services
- Develop locally appropriate standards tailored to work with LIGs
- Promotion of a variety of service levels and low cost technology
- Better targeted subsidies (and possible use of Output Based Aid – OBA)
- Promote flexible methods of payments in terms of timing, location and method of payment
- Establish a unit (in government and utility) focusing on needs of LIGs
- Contract to have a specific focus on LIGs – with separate targets
- Allow more time to focus on LIG issues in preparation of tender package and in assessing tenders and awarding contract
- A stronger focus on customer liaison and education

Part 3 briefly explains how future phases of the project will examine these issues and develop possible interventions, by looking at case studies in Ghana, Tanzania and Malawi. It is hoped to develop a 'toolbox' of practical interventions and contractual mechanisms that provide incentives for private operators to improve water supply services to low income groups.

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LIST OF ACRONYMS

ADB	Asian Development Bank
BPD	Business Partners for Development
DFID	Department For International Development
DMWS	Durban Metro Water Services
GIS	Geographical Information System
KAR	Knowledge and Research
LIC	Low Income Consumer
LIGs	Low Income Groups
NGO	Non-Governmental Organisation
O&M	Operation and Maintenance
PPIAF	Public Private Infrastructure Advisory Facility
PSP	Private Sector Participation
SSSP	Small Scale Service Provider
UNDP	United Nations Development Program
WSP	Water and Sanitation Program
WUP	Water Utility Partnership

PART A BACKGROUND

1 BACKGROUND AND TERMS OF REFERENCE

1.1 Introduction

This report describes the findings of the inception phase of the Department for International Development (DFID) funded research project entitled "Getting the Incentives Right: Incorporating Strategies for Improving Services to Low-Income Consumers within PSP Water Sector Contracts".

Dependant on the outcome of this inception phase and the availability of DFID funding, DFID has indicated its willingness to consider a longer term research project that would extend this analysis.

1.2 Project Background

Many countries, both developed and developing, are turning to the private sector as potential partners in providing water supply and sanitation services to customers. The private sector is seen as a potential source of the expertise, efficiency and capital which are required to improve and expand service, but which are often lacking in the public sector. In many cases, the private sector has been able to successfully partner with public utilities to the advantage of consumers.

As the experience with private sector participation (PSP) deepens, however, new issues are emerging that require analysis and mitigation. The pace of water transactions has slowed and many contracts (Atlanta, Buenos Aires, Jakarta, Manila, Ghana, Maputo) have run into problems or been terminated. It is not prudent to over-generalize the issues, but it can be said that there is often an inherent conflict in water PSP between the public and private expectations. That is, the public sector enters a partnership with the private sector because it believes that the private sector has more ready access to the tools and resources needed to meet objectives. Yet the private sector, being accountable to shareholders and others, cannot make these tools and resources available without proper compensation and risk management. In exploring resolutions to this tension in water PSP, there has been additional concern that the Low Income Groups (LIGs) are most likely to suffer and least likely to benefit from PSP.

Experience has shown that many private operators have been unable or unwilling to improve or expand services to LIGs. The underlying assumption is that the private sector has little incentive to extend services to low-income areas due to the high cost of providing the service and low profits due to a variety of factors. Concerns regarding the appropriateness of PSP are often voiced through a range of NGOs and representatives of civil society who may not have the full range of technical and commercial data at their disposal. However, more recent experiences are showing that, if structured properly, the PSP contract should be able to provide adequate incentives to the private sector, involve the LIGs and balance the financial and social risks and rewards to all stakeholders.

As a result, many organisations have launched studies and produced documents investigating whether, in fact, the LIGs are benefiting from PSP and, if so, in what ways; the degree to which benefits might be better quantified and disseminated; and how

PSP might be better tailored to the needs of LIGs. This report furthers the latter stream of analysis.

The question of how to improve service to LIGs has become a priority area for DFID and other donors such as The World Bank, Asian Development Bank (ADB) and other bilateral and development aid agencies. There has been considerable research to date which the Consultant has reviewed and reflected. This project does not attempt to recap other reports, but to draw from the store of information to develop some practical guidelines for developing pro-poor transactions.

1.3 Goal, Purpose and Outputs of Inception Project

The Purpose of the Inception Project is to identify the specific issues and constraints to providing a reliable water supply to LIGs under a PSP framework, and to develop a viable research proposal to investigate if these constraints can be alleviated through contractual mechanisms and other arrangements in the context of PSP. The key output of the Inception Project is this Inception Report.

The ultimate Goal of the Inception Project, as expressed in the logical framework, is to develop practical contractual mechanisms in order to produce workable PSP contracts (specifically leases/affermages) that provide incentives for operators to improve services to LIGs, balance the risks and rewards between stakeholders, and are applicable with a range of economic, legal, and social situations. This corresponds to the purpose of the proposed follow on full research project.

If this research proposal is accepted for further funding by DFID, the subsequent study would examine the issues in more depth and work to develop practical interventions for use by Operators, Transaction Advisors, Donors, Civil Society and Governments. These interventions would provide a toolbox for those who do not see private sector participation and social responsibility as mutually exclusive, but as different parts to a successful partnership.

1.4 What the overall project is to achieve and why

The ultimate aim of the overall project is to improve the water supply and sanitation services to urban LIGs by developing a 'toolbox' of practical interventions and contractual mechanisms that provide incentives for private operators to improve water supply services to low income groups. The project will focus on a number of key aspects within the contractual framework that hinder the private operator from providing the service to the LIGs, as identified in this inception phase.

In the course of this Inception Phase it has become clear that there is much less experience in the delivery of sanitation services under a PSP framework, and the issues surrounding it are not as developed as for water supply. It is difficult to examine both together as sanitation provision is quite different from water supply, and merits being researched separately. Therefore while the importance of work in this area is acknowledged, this project focuses on water supply provision, and considers implications for sanitation provision where relevant.

2 METHODOLOGY

2.1 Literature and contract review

Private Sector Participation in the water sector is a contentious topic with an evolving body of literature. The initial perspective on water PSP was that it presented a type of panacea – an opportunity to introduce much needed efficiencies and capital to what has traditionally been the domain of political interests and public sector bureaucracies. Private operators were keen to obtain strategic contracts that allowed them to gain a foothold in emerging markets. The first wave of interest and activity in water PSP was accompanied by literature (to generalize) about contract types, how to develop contracts and how to implement contracts.

This first wave of activity yielded a variety of water PSP contracts and bid packages and revealed a host of new issues and considerations. Once the initial enthusiasm for this market had subsided, the private sector's analysis of water opportunities (together with the financial results of certain contracts) opened questions about the complexity of sector issues, the investment requirements, and the risks of the sector. The private partners refocused on issues of realistic pricing, adequate return on investment, and risk reduction.

A second wave of analysis emerged from civil society and stakeholders, who were having difficulty in assessing and quantifying the degree to which PSP was resulting in benefits to the population overall. While certain efficiency gains could be quantified, it was more difficult to assess the degree to which the benefits of PSP were being felt by the full range of stakeholders and whether, in fact, there was a net positive benefit. In particular, questions were raised as to whether the poorest populations (essentially those without a network connection) could benefit at all from water PSP. This legitimate concern was compounded by misinformation and/or a lack of information regarding PSP. It became apparent that it was important for the proponents of PSP to provide timely and reliable information about the objectives, process and expectations of PSP and to engage stakeholders in an open discussion of the motivation and expected outcomes.

A third wave of analysis and literature has been unfolding in the last two years or so. Different entities have looked more closely at how to align the interests of the private and public sectors within the context of water PSP. The discussion therefore is being refocused on how to better tailor reform initiatives, including the tool of PSP, to be responsive to the goals and requirements of the sector. Rather than allow the debate to be polarized between pro-PSP and anti-PSP or pro-poor and anti-poor, it is more instructive to recommit to the overall benefits of reform in the water sector and to then examine all the available tools (including PSP) to identify improvements.

This has entailed work on several streams of analysis:

(i) Acceptable pricing and regulatory regimes;
(ii) Development of productive partnerships, expanded to include NGOs, local government etc.;
(iii) Assessment of the degree to which LIGs benefit, or might benefit, from properly designed PSP.

This Project falls within this constructive approach and draws upon analysis of all these streams as well as consideration of earlier analysis. Appendix A lists all the documents and reports that have been considered.

From this information, a framework was developed identifying all the issues and constraints that hinder service to LIGs. A summary of the framework is contained in Appendix B.

This report, then, is meant to bring together much of the current analysis on PSP and LIGs, identifying types of constraints, ways in which constraints may be removed and incentives created for more constructive partnerships with specific benefits to low income groups.

2.2 Stakeholder Consultation

To complement the literature search, the inception phase also included consultation with stakeholders. We developed a questionnaire based around the framework of issues, and actively sought the input of a range of stakeholders.

The consultation included the following stakeholder groups:

- Water Authorities and Regulators.
- International private operators
- International NGOs
- Other researchers
- Donors
- Lawyers
- Other interested parties

A copy of the blank questionnaire is contained in Appendix C. The results of the questionnaires have been reflected in this Inception Report and provide the basis for further analysis.

2.3 Field visits/ WUP conference

As part of the consultation process we were made aware of the August 2003 meeting of the Africa Water Utility Partnership (WUP). This was held in Maputo, Mozambique, and was hosted by the Mozambique Water Regulatory Council.

This event provided an opportunity to continue the discussion with a variety of African stakeholders, some of whom had previously responded to the questionnaire, and to assess how well our findings fitted with current thinking on these matters. It also afforded us a chance to publicise this project to the delegates, to present some preliminary points from the Inception Phase and to develop links for future phases of the project.

3 SOCIAL AND POVERTY CONSIDERATIONS

This report is concerned with service to Low Income Groups (LIGs) in urban and peri urban areas of developing countries. However, it is important in any water reform to have a clear picture as to who the poor actually are and to consider the social and socio-economic context of these groups before considering how they can best be served. Studies have shown that a common shortcoming of government responses to poverty and interventions in poor urban areas is the lack of understanding of the nature and dynamics of poverty, and the opportunities and constraints facing the poor[1]. This inadequate understanding of the poor can easily result in environmental improvements by-passing their intended beneficiaries.

3.1 Low Income Groups – Who do we mean?

There is no single definition of low income groups, or indeed poverty, within a country or between countries. Low income groups differ in many significant respects, which affect their needs and priorities for water. Low income itself is only one among several factors which affect how the poor relate to basic service provision. One of the problems when dealing with poorer communities is that we cannot easily define who and where the low income groups actually are, because of a lack of both quantitative and qualitative data on urban poverty. Surveys such as household surveys rarely provide sufficiently disaggregated information at the urban, peri-urban and municipal levels.[2] Censuses are typically very out of date, and would require complex secondary data analysis to provide useful information on different low income groups within urban areas. Furthermore, a census rarely includes questions about income.

The difficulty in defining who low income groups are, and where they are located, poses problems for governments, aid agencies and the private sector alike. In most countries, it would be impossible to define total numbers of low income groups according to different characteristics or by geographical location. This means that when government set targets for increasing access to water by low income groups, the targets can only be approximations of the numbers currently not served. Ideally, a geographical information system (GIS) is required, to inform planning and improve customer management.[3] However, a GIS is costly. It would perhaps make sense for governments to introduce GIS for all planning purposes, but not for one private sector service provider to do so.

Qualitative research on low income groups highlights the complex nature of poverty and vulnerability. For instance, referring to the characteristics of poverty in India, Loughhead et al find that "for individual women, men and children, poverty is experienced differently according to their gender, age, caste, class and ethnicity".[4] Social development analysts have increasingly recognised the need to understand the related concept of vulnerability, given that some poor households have been able to move out of poverty through targeted programmes of assistance, while others have not.

[1] Municipalities and Community Participation: A Sourcebook for Capacity Building, Janelle Plummer, DFID, 1999.
[2] Water Supply and Sanitation in Luanda: Informal Sector Study and Beneficiary Assessment, Development Workshop, June 1995
[3] This point is made, for instance, by the Durban Metro Water partnership project (BPD Kwa Zulu Natal) and Development Workshop's water and sanitation project in Luanda, Angola
[4] Urban Poverty and Vulnerability in India, S Loughhead, O Mittal and G Wood, DFID, August 2001,

DFID and most other development agencies recognise that poverty is not just about lack of access to services and livelihoods, but also lack of involvement in governance structures and systems. Hence, for instance, the very involvement of poor women in designing and managing service delivery projects is often recognised as a key means of reducing poverty because it ensures that services address their needs and constraints. This involvement needs to be part of a process, rather than a one-off exercise in setting the right contractual conditions.

Various studies have identified multi-variable classifications of the poor. One such poverty index, which was developed by DFID in Kerala, is based on nine risk factors reflecting family poverty. The factors are verified by the neighbourhood community group.

If the family faces four or more risk factors, it is deemed to be poor below the poverty line. The nine factors of poverty index covers:

- sub standard (thatch) house
- no latrine
- there is only one employed person in the family
- there is only one educated/literate person in the family
- at least one child under 5 years
- at least one person is in the habit of taking intoxicated substances
- unavailability of drinking water within a radius of 500ft or 150m
- family belonging to scheduled caste/scheduled tribe
- family consuming two or fewer meals a day

Further modifications have been made to include vulnerable groups such as female headed households and people with disabilities. It should be noted that land tenure security is not included, but the proxy measure is shelter.

Because of the complex nature of poverty, most international development agencies prefer to use a combination of socio-economic and demographic criteria to assess levels of poverty (such as the UNDP's Human Development Index), rather than income related measures of poverty (per capita GDP). For the purposes of this research, we are using the term low income groups as a generic term. While income is important as it relates to the affordability of any system (in cash terms), it must be remembered that income is only one defining factor of poverty.

3.2 The importance of understanding Low Income Groups

The lack of understanding and knowledge of poverty (who the poor are, why they are poor, how poor they are, where the poor are located and the nature of their poverty) and the difficulty in investigating and defining this, has many implications for water sector reform. It means governments are severely restricted in their ability set out clear policy statements and service targets based on the true situation on the ground. This results in unreliable and unrealistic policies and targets, which often impact negatively on the working of any PSP contract later on. In addition, without adequate information on the relevant characteristics of LIGs, transaction advisers and others cannot tailor interventions to suit them. It is very much an issue of first define the problem, then try and resolve it. These points are crucial, as inaccuracies or preconceptions in this understanding can result in reforms not adequately serving the people they are meant to.

Other important reasons for requiring this information is in the working of the contract. If targeted interventions are to be enforced by means of a contract, then a contract definition is needed. This must be based on local conditions and LIG characteristics if it is to be accurate and thus relevant in the contract. In addition, it is usual for results to be measured in a contract, and for this a clear baseline condition must be established. Properly constructed and tested, initial surveys can provide the information needed for such a baseline.

3.3 Analysis of Low Income Groups

Poverty is multi-faceted and a dynamic condition, which means that it is difficult to predict how different low income groups would react to specific contractual areas and clauses, without first going out to investigate these questions. The complex nature of poverty also makes it very difficult to investigate and understand the true social and socio-economic situation in any given low income community. Social development analysts have promoted the widespread use of participatory poverty assessments, in addition to more focused qualitative studies such as impact and beneficiary assessments, to inform policy and development programmes. However, the level of analysis is rarely sufficiently detailed to provide clear planning directions for water and sanitation service providers. For instance, Loughhead's analytical framework for meeting the needs of the urban poor shows that the poorest (defined as the declining and coping poor) are said to require free health care, while the improving poor need affordable health care. This type of analysis tells us very little about how each group might perceive key issues related to the key contractual areas in water delivery, namely, price, expansion and service levels.

A further refinement in the methodological quest to understand the needs of the poor and so design programmes more effectively, has been the introduction of sustainable livelihoods approaches. A livelihoods approach is one where the household-centred methods of analysis play a central role in developing an understanding of livelihood strategies and in programme and project planning and evaluation.[5] A sustainable livelihoods approach combines both quantitative and qualitative methods (based on participatory and contextual approaches and analysis).

Adopting a sustainable livelihoods approach in the water sector has clear attractions. There has been, in the developmental literature, a historical move away from the idea of water as a 'social' good (principally related to its public health benefits), to water as both a social and 'economic' good'.[6] In this sense, water is both a good, which has costs attached (in delivery and disposal), and an asset in household productive processes (such as watering animals, supplementing small plot irrigation, producing local drinks for sale or other micro-industrial products, and re-selling water for a profit to other households).

The implications of adopting an approach which sees water as both social and economic good, is that the relationship between supply and demand may be partly contingent on different 'returns' to household productive activities within diverse livelihood strategies. Households engage in an assessment of the relative costs and benefits of different livelihoods strategies, in which water plays a greater or lesser role. Water is just one of a range of natural assets available to households, in addition to

[5] Methods for Understanding Urban Poverty and Livelihoods, de Haan, Drinkwater, Rakodi and Westley, in Urban Livelihoods: A People-Centred Approach to Reducing Poverty, Earthscan, London, 2002.
[6] Adopting a Sustainable Livelihoods Approach to Water Projects: Implications for Policy and Practice, Alan Nicol, ODI Working Paper 133, 2000.

human capital, social capital and economic capital assets. The household asset relationship is very complex. Water is a consumption need, which must be paid for with revenue generated from economic activities (or in time spent in collecting water). Water is also an asset, which can produce certain types of income in combination with other assets.

However, there are constraints to adopting a wholesale sustainable livelihoods approach.[7] From the perspective of development agencies, the approach demands a greater quantity and quality of knowledge about households and their livelihoods strategies than other method, making the approach costly in terms of time and money. Secondly, the structure of sustainable livelihoods knowledge is multi-disciplinary (including politics, sociology, anthropology and economics), which may not fit with existing institutions responsible for implementation and divisions between sectors (especially, water, health and agriculture). Thirdly - and particularly from the perspective of private sector water providers - it may be inappropriate for the private sector to make linkages (as per the sustainable livelihoods approach) between water sector practice and policy, and a range of parallel socio-economic and policy issues, including decentralisation, political representation and accountability.

Whatever the analysis methodology, it is clear that each community, and indeed to a certain extent each household, will have a slightly different socio-economic situation, leading to a different view on demand for water and ability and willingness to pay for it. This means that there are no straightforward answers to questions relating to water use (e.g. how much water do LIG households purchase, how frequently, how satisfied they are with current systems of water provision and how could these be improved) and an analysis of each LIG is necessary.

3.4 Social, Institutional and Economic Context

In addition to the detailed household level analysis that is needed, the broader social, institutional and economic context needs to be well understood if private sector organisations are to be successful in operating in low income communities.

The main social issues in a given country or urban environment, as discussed above, are:

- who are the poor?
- how are they currently excluded from basic service delivery?
- how are they getting water now and at what cost/ effort?

Among the key economic issues are:

- how many different operators provide water and at what rates (and at what margin)?
- with what level of service and efficiency do they serve the poor?

Political, policy and institutional questions include:

- who represents the needs of the poor?
- does national policy (e.g. poverty reduction strategy and sectoral strategy) lay down a commitment to serving the poor?
- has government promised free or subsidised or reduced tariff rates for the poor?

[7] A Nicol, 2002, op cit

The legal framework in which the private sector operates can also have a positive or negative impact on the scope for providing services to poorer communities. This is discussed in section 6.1

Making contracts work for the poor involves identifying how the contract design affects the operator's delivery of water. The poor tend to have three major concerns, namely, price (low as possible), expansion of system (new connections in previously unconnected neighbourhoods), and service levels (quality of water, hours of service, speed of response to service calls, nature of administration services e.g. billing, connection applications). Each of these main concerns will carry different weight among low income groups, depending on different degrees of poverty, but these concerns are no different to any other customer, regardless of their socio-economic circumstances. The challenge is to find the right service solution tailored to this class of customer, and this is dependant on the type and degree of poverty experienced in any LIG.

Many studies stress the importance of providing several options in any context, in terms of cost and level of service[8]. Different low income groups have different needs within any one geographical location and over time (for instance, according to seasons which experience severe climatic conditions). These issues are discussed in detail in chapters 8 and 10.

3.5 Poverty Characteristics and water delivery

While the necessity of carrying out surveys of LIGs is clear, these surveys should be guided by some basic findings and understanding about the nature and extent of poverty and the sorts of needs related to service delivery in general which have emerged from experience elsewhere.

Table 3.1 shows how various factors and criteria defining poverty affect water service delivery. It shows that households and individuals, experiencing various degrees of poverty, have different needs and priorities with regard to water provision. The characteristics are grouped into: environment, community, household and individual levels.

[8] Public Private Partnerships and the Poor, M. Sohail Ed. Halcrow Management Sciences, Loughborough University, 2002. Also: Impact Evaluation Report of Community Water Supply and Sanitation Project (Sri Lanka, Credit 2442-CE), World Bank Operations Evaluation Department, 1998

Table 3.1 Poverty factors and water delivery

Key factors/ criteria	Differences among low income groups	Impact in terms of water delivery
i. Environment		
1. Geographical location	Low income groups live in a range of locations, including urban (with piped water in the neighbourhood), peri-urban (no or limited piped water available), 'recognised' slums or informal settlements (likely to have few publicly provided basic services) and 'non recognised' or illegal squatter settlements (also likely to have no services)	Formal and informal regulation/provision of water might vary according to each location. [Initial capital costs of laying networks will be higher in areas with more poor, where there is no basic service infrastructure.] It might be impossible to provide water to illegal settlements, where some of the poorest are likely to live.
2. Population density	High population density is a rough proxy measure of severe poverty, coupled with lack of basic services	High density context may limit options for water delivery. Sanitation likely to be a severe public health concern to municipal authorities, who might have an interest in the operator providing both water and sanitation facilities.
3. Demographic variables	Poorest are more likely to be recently arrived residents and possibly economic migrants or war displaced; less poor are more likely to be longer term residents.	More temporary residents or recent arrivals are likely to have fewer rights to land, so public water provision might be more suitable than household connections.
4. Season/climate	Heavy rains and other severe climate conditions affect poorer people's needs and priorities.	The poorest who are unable to afford private connections can find that the distance to the public standpipe across flooded roads constitutes a greater opportunity cost. Conversely, alternative sources of water might be more contaminated during heavy rains.
ii. Community		
5. Community characteristics	Strength or weakness of social capital is usually correlated with different degrees of poverty. Poorest have fewer networks. Social capital is typically weak in conditions where adults and children work long hours in informal sector; where there is poorly integrated community with social tensions.[9]	More difficult to include the poorest (those lacking social capital) in design and implementation of water delivery. Higher social capital in rural communities has been associated with better performing 'community contracting' schemes in water and sanitation.[10]
6. Ethnicity	The extent of ethnic heterogeneity may be linked with greater conflict in the community.	Involving the community in aspects of water provision (e.g. management of water standpipes or O&M) might exacerbate social

[9] Luanda Urban Poverty Programme, 2002
[10] Impact Evaluation Report of Community Water Supply and Sanitation Project (Sri Lanka, Credit 2442-CE), World Bank Operations Evaluation Department, 1998

Key factors/ criteria	Differences among low income groups	Impact in terms of water delivery
		divisions. This process would need careful facilitation by an experienced NGO.
7. Religion	Water is an important part of cleansing rituals in some religions.	Certain groups might be interested in water being provided near religious places (and this could help reduce other social or community tensions mentioned above).
iii. Household		
8. Household characteristics	Households could be classified as more or less poor according to a number of factors, e.g. sub-standard housing materials; lack of latrine; lack of drinking water within 'x' metres; family consumes two or fewer meals a day.	Depending on the degree of poverty, households may place more or less importance on a range of services being provided (e.g. water and sanitation).
9. Individual socio-economic characteristics	The poorest heads of households are less likely to be in formal employment; and more likely to be in informal sector; the most vulnerable might be in highly precarious informal sector (including illegal activities).	Some of the slightly better off poor could be providers/sellers of water, who might be threatened by the PSP contract (especially if it is set up as a monopoly). The scarcity of information on informal sector water provision can make it difficult to include it within the financial modelling exercise.[11]
10. Vulnerability criteria	Conditions within a household (focus on elderly, orphaned children, dying, chronically ill or disabled) and influences from outside (tenure status, labour markets, social capital) determine a household's capacity to cope, improve or decline. Households can be seen to move between these three states.	According to the classification of improving (better off), coping and declining (poorest) poor, the better off could pay for 'affordable' water, while the poorest might need to be subsidised or there might be special safety net provision/regulation for the private operator to respect/address.
iv. Individual		
11. Gender	Women are usually the primary collectors of water, and have most interest in ensuring that water services are designed to meet their needs.	The safety and security of women might be compromised when water is provided in certain locations. Water located in public places such as markets can be highly beneficial to women. The private sector contract might threaten men's livelihoods as sellers of water. This could impact negatively on women.

[11] M Sohail, op cit

Key factors/ criteria	Differences among low income groups	Impact in terms of water delivery
12. Young children	Children are affected by the availability and quality of water at home and in public places, especially schools.	The availability of water at school is often cited as a concern among poor parents.

The information gathered from the twelve factors in the table above, combined with the prevailing situation as outlined in section 3.4, should provide adequate information to develop appropriate supply systems and to establish a baseline on which future monitoring and impact assessment can be based. It should be noted that this does not constitute a full analysis of the poor, but a simpler investigation to obtain relevant information for water PSP concerns.

3.6 Gender Analysis

The sustainable livelihoods approach incorporates gender analysis by focusing on intra-household power structures and inequalities. Again, gender analysis within sustainable livelihoods approaches is complex because it needs, ideally, to be conducted at the micro (intra-household and community), meso and macro levels. Some of the key gender issues in terms of water provision are discussed in this section.

There is a high prevalence of female headed households in urban areas throughout the world. Research findings differ as to whether female-headed households are more likely to be poor and vulnerable to economic shocks than male-headed households.[12] Women's access to other assets, such as land title, may play a significant role in their livelihood outcomes, and the extent to which water can play a meaningful role in increasing household productive activities (thereby producing income to pay for water).

The widespread impact of HIV/AIDS carries a significant gender dimension, because women (and young girls) are more likely than men to look after AIDS orphans and other sick family members who are unable to work. Thus, in urban areas with high HIV/AIDS prevalence rates, female headed households may be more vulnerable than in other contexts. Correspondingly, they may be less able to pay for water.

Both gender and generational dimensions characterise family migration patterns. In Africa, the Middle East and South Asia, it has been mainly men who have migrated to urban centres, whereas it is mainly women in Latin America, the Caribbean and South East Asia. The outcomes of recent migration patterns affect the livelihood strategies of households, because they are less likely to have recourse to many social capital assets (through knowing the community). This affects their ability to take advantage of other assets, including natural assets.

In urban areas where there is a flourishing informal sector, women tend to establish a greater diversity of livelihoods. However, in many countries there are regular or periodic crackdowns on the informal sector (as governments try to bring the informal sector more firmly into revenue raising strategies), and women tend to suffer most, since their work tends to constitute the most visible aspect of the informal sector (e.g. as street sellers and market women). In this sense, macro policy towards the informal sector can influence women's use of water and other assets as part of their livelihoods strategies.

[12] Households, Livelihoods and Urban Poverty, J Beall and N Kanji, ESCOR Paper, London School of Economics, 1999

Just as there are gender dimensions to household access to assets including water, so there are also gendered impacts of changes in the availability of water. Increased access to water can create greater demand for labour power, especially for women and girls' labour. Girls may spend more time collecting water as a result of improved access (in terms of proximity and/or cost), and engaging in productive activities which use water. In this respect, increased access to water may lead indirectly to girls spending less time in education.

Overall, the sustainable livelihoods approach increases our understanding of the anticipated impacts of water policy and practice at a household level, and the motivation of households to participate in community schemes to pay for the service.

3.7 Conclusion

It is clear that that the understanding of the social issues surrounding any LIG is critical to developing effective and efficient water supply services to that community. However, poverty is extremely complex and developing a realistic understanding of it is difficult. This complexity also makes it extremely difficult to clearly define LIGs in any target or contract document. Analysis of the types mentioned in this section can help in understanding how different aspects of poverty might impact upon different types of service delivery.

4 OVERVIEW OF PRIVATE SECTOR PARTICIPATION

In assessing how to structure PSP activities to be responsive to the requirements of low income groups in particular, it is important to revisit the fundamentals of private sector participation in water. Specifically, in this section of the report we recap the context of PSP, the typical forms of PSP and the evolution of PSP.

4.1 The Context to PSP

Private sector participation is one tool available to decision-makers in reforming the water sector. PSP is most effective when it is accompanied by other reform activities that bolster the role of the private sector and that encourage sustainable improvement. Thus it is important in designing a PSP process and selecting a form of PSP to consider the reform objectives, policy environment, the legal and regulatory framework, the institutional framework, financing requirements and resources of the sector, and the political constraints and stakeholder concerns. Private sector participation will be an effective tool to address some, but probably not all, sector issues.

In relation to the debate on how best to provide LIGs with water, it is important again to examine the context to PSP activities. Water sector reform is likely to be of broad benefit to the population overall through the introduction of efficiency improvements, the rationalization of roles and responsibilities, attention to pricing and access issues, and the process of discussion and analysis.

As a component of a reform package, PSP can be tailored to address specific reform objectives. The PSP process and contract can therefore be tailored more or less to the requirements of LIGs to the degree desired and feasible.

4.2 Different PSP Options

While private sector participation is a process, the heart of the process is the enactment of a contract with a private entity to undertake specific services. A variety of contracts have been implemented between public and private partners in the water sector. These contract types include:

- Service Contracts
- Management Contracts
- Lease/Affermage
- Concession

Each of these contract types has defining characteristics related to the depth of private sector participation and autonomy and the level of risk assumed under the contract. The general characteristics of the contract types are summarised in the Table 4.1 at the end of this chapter. In addition, each of the contract types has inherent incentives and disincentives for the Operator to provide service to Low Income Groups.

To summarise the main characteristics of the contract types relevant to PSP and service provision to the poor:

4.2.1 Service and Management Contracts

Service and Management Contracts provide compensation to private Operators in return for discrete, but sometimes high level, services. The compensation is typically a blend of fixed and variable payment based on the inputs and outputs expected of the Operator. The Operator has no responsibility to finance operations or to invest in the system and full payment is not tied to the amount of tariff revenue collected. Thus these contracts are considered lower risk. Incentives can be incorporated into the variable payment scheme that encourage service to LIGs, but only if the cost of such service is secure and readily accessible through the public sector. That is, all resources apart from specific expertise are provided by the public sector, and the Operator can only make best use of those resources provided.

As the Operator has no responsibility to invest in the system, ,these contracts, by their very nature, cannot require an Operator to extend or provide service to Low Income Areas. However, the contracts can require expertise in social issues and in the development and implementation of any funded low income strategies.

4.2.2 Lease and Affermage Contracts

Under the Lease and Affermage models, both the level of responsibility and the compensation terms are different to a concession. Leases and affermage contracts are slightly different to each other but essentially the Operator collects the tariff from customers (or an agreed fee based on a volume of water sold) and remits a specific portion to the public owner of the assets in return for their use. The amount remitted is meant to cover the “rental” cost of the system assets as well as other agreed costs. The public sector remains responsible for the extension of the system and financing of any new assets while the Lessee takes on operating and financing responsibility for the existing system. It is possible to structure compensation incentives into a lease that encourage the provision of service to Low Income Groups within the served area. However, extension of the system into unserved areas remains with the public sector (or as negotiated) and may not be a priority for either public or private sectors. If the low income areas fall within the existing service area, the operator may be motivated to provide service for the sake of increasing tariff revenue or remuneration. However, these areas may be a lesser priority that other consumer groups within the service area.

4.2.3 Concessions

Concessions provide the operators with an inherent incentive to provide service to as many customers as possible. Under the compensation scheme of a concession, the operator is allowed to keep most or all of tariff revenue at an agreed rate (or formula) for a unit of water. The Operator thus is motivated to sell as much water as possible, potentially to LIGs as well as others. However, the Operator also has an incentive to keep operating costs as low as possible in order to maximize the profit margin. The Operator will thus seek low cost ways to provide service and may be reluctant to expand the network, particularly into areas that are geographically challenging or where the culture of payment is uncertain.

Related to the compensation issue is the scope of a concession. Under this contract type, the Operator typically has the obligation to finance and operate not only the existing system, but any expansion of the system. Relevant to LIGs, the Operator would have to determine through cost benefit analysis that expansion to unconnected areas will generate a sufficient return on investment. If the government wants a concessionaire to prioritize expansion to low income areas, this should be specified in the contract or an incentive should be provided.

In order to incentivise the Operator to serve Low Income Groups under a concession it is vital to consider low cost means of providing service, pricing structures that encourage customer payment, low cost financing for system extension, and other contract mechanisms relevant to the specific characteristics of the low income population.

4.2.4 Recent Trends

Important to note is that to be successful any PSP contract has to be implemented within a supportive environment. Ideally, in the case of LIG service, this environment would include an acceptable definition of LIGs, a policy and legal framework to support services to LIGs, funding available to implement the agreed interventions, and support for the enforcement of any agreed payment mechanisms. It is further important to note that PSP contracts are increasingly hybrid. That is, they incorporate the most applicable features of each contract form.

The recent trend has been away from the large-scale urban PSP under traditional (as above) contract modes. The relatively few major international water companies with an interest in emerging markets have become increasingly risk averse as their domestic fortunes have turned and as the international challenges have mounted. As a consequence newer model PSP forms have evolved from the traditional models, but are more realistic about market risk and potentially more locally responsive. Some of the more recent trends in PSP include:

- A phasing–in of responsibility and risk for the Operator. This phasing approach is used most often when, due to data gaps, the Operator is reluctant to assume a high level of risk. Instead the Operator prefers to deepen its involvement as it collects system data, understands the operations firsthand, and is able to quantify the risk. This approach is relevant to LIG service; in cases where LIG issues have not been dealt with as part of the transaction preparation, it may be possible to phase in such service as the necessary information is collected.
- Contracting on a more local level. This is reflective of the trend toward decentralization and the potential for inaction at a national level. The scale of opportunity may be more realistic with the potential for subsequent scaling-up.
- Emphasis on leveraging all forms of available finance including donors and national funds, local government funds and the local private sector rather than a reliance on accessing international capital.
- Increased emphasis on local partners and solutions. This includes the incorporation of small scale independent providers, franchise opportunities, and partnership with NGOs.

These trends are inherently conducive to solutions for LIGs and can be blended with some of the more traditional contracting mechanisms to produce good results for populations overall.

4.3 Selection and Tailoring of a PSP Option

The selection of an appropriate PSP option is based on a diagnosis of:

(i) **Stakeholder objectives**
(ii) **PSP options available**
(iii) **Sector issues specific to the country**

Sector issues include:

- **Legal, regulatory and institutional.** The legal environment for the water sector must be analyzed in order to confirm which entities have legal responsibility for service provision or oversight and the degree to which any rights and obligations can be conveyed to the private sector. Any such limitations may preclude the use of certain contract types. The analysis of the regulatory framework provides information important for the development of a successful PSP option. Given that water provision is an essential public service, it is important that the interests of the public be safeguarded, particularly when service is provided through a private entity. The regulatory analysis helps determine the appropriate framework within which the private sector might play a role. In public-private partnerships, it is critical to have a clear delineation of roles and responsibilities within the contract. Both the legal and regulatory analysis and the review of the institutional framework provide input for this delineation.

- **Technical**. The technical reviews associated with a PSP Study provide the overview of the technical constraints facing the utility and generally provide quantified information on the investment requirements of the utility either for rehabilitation, service improvement or expansion of service. Should a utility decide to contract the private sector to undertake a particular responsibility, it is critical to define that responsibility fully and to ensure that the operator has the resources to fulfil that responsibility. The required resources may include operating capital, investment capital, expertise, and authority to employ capital and expertise as required to improve performance. The resources may be obtained either from the private partner or the public partner or a combination.

- **Commercial**. This review examines the commercial performance of the utility and forecasts the performance and prices required to satisfy the investment requirements. The commercial review provides information on the level of risk associated with the operation of the utility. The level of risk, in turn, helps determine the degree of private sector participation. The commercial review can help pinpoint the degree to which private equity can be required while still maintaining affordable tariff levels.

- **Interest of potential partners.** The potential contract and the overall opportunity must be attractive to potential private sector partners. Market analysis provides information on the historical interest of potential partners as well as the level of interest on the specific scheme proposed. The partners to be surveyed may be local, regional and international and their interest may be limited to the provision of expertise or to include a financial commitment.

- **Affordability and willingness to pay of current and potential customers**. If one of the goals of sector reform is to improve the access of LIGs to a safe water supply, affordability studies help to determine affordable tariff ranges, define at risk low-income consumer groups, and mechanisms to service those. This information helps determine whether targeted subsidies or phasing in of cost recovery tariffs may be required to stay within affordable price ranges.

The methodology of a PSP Study entails determining which of the available options can best be adapted to satisfy the prioritized needs of the sector while attracting the private sector. The primary objectives driving the reform process should also influence the selection of a PSP option and the way in which that option is tailored and implemented.

As the sector diagnosis (above) is conducted, each stream of analysis will offer opportunity to identify and design interventions targeted toward the augmentation of service to the poor. Some of these interventions may be embedded in the PSP contract itself and others should be addressed through the overall reform process and might require institutional, legal, financial, or policy actions.

In the section that follows we identify some of the ways in which LIGs currently receive water and the improvements in service that might be achieved through a reform process that includes a contract with the private sector.

Table 4.1 Comparison of typical PSP models

	SERVICE CONTRACTS	MANAGEMENT CONTRACTS	LEASE CONTRACTS	CONCESSIONS	BOT/BOOT
Scope	Multiple contracts for a variety of support services such as meter reading, billing, etc.	Management of entire operation or a major component	Responsibility for management, operations and specific renewals	Responsibility for all operations and for financing and execution of specific investments	Investment in and operation of a specific major component, such as a treatment plant
Duration	1-2 years	2-5 years	10-15 years	25-30 years	Varies
Level of Risk Assumed by Private Sector	Minimal	Minimal/moderate	Moderate	High	High
Compensation Terms	Unit prices	Fixed fee, preferably with performance incentives	Portion of tariff revenues	All or part of tariff revenues	Mostly fixed, part variable related to production parameters
Competition	Intense and on-going	One time only; contracts not usually renewed	Initial contract only; subsequent contracts usually negotiated	Initial contract only; subsequent contracts usually negotiated	One-time only; often negotiated without direct competition
Special Features	Useful as part of strategy for improving efficiency of public water company; Promotes local private sector development	Interim solution during preparation for more intense private participation	Improves operational and commercial efficiency; Develops local staff	Improves operational and commercial efficiency; Mobilizes investment finance; Develops local staff	Mobilizes investment finance; Develops local staff
Problems and Challenges	Requires ability to administer multiple contracts and strong enforcement of contract laws	Management may not have adequate control over key elements, such as budgetary resources, staff policy etc.	Potential conflicts between public body which is responsible for investments and the private operator	How to compensate investments and ensure good maintenance during last 5-10 years of contract	Does not necessarily improve efficiency of on-going operations; May require guarantees

5 CURRENT SERVICE TO LIGS

In order to make water sector reform responsive to the requirements of LIGs, it is important to consider the existing source of the domestic water supply to the poor living in low income areas, in order to evaluate what type of service the people are used to. The importance of this relates to issues around customer care as described later in section 10, and managing the customer expectations during the change in the water supply.

Current service generally falls under three main headings described below.

5.1 Utility Based Services

This describes the group of supply options where the water source is from the municipal water utility. Within this group are various supply options:

Network connection Some houses in Low Income Areas may have an existing house connection or yard tap but with a very poor quality of service (e.g. only operational a few hours a day, very low pressure). Some or all domestic water may be obtained this way. Each house connection is likely to be billed separately. In some cities a number of these connections may be illegal or simply not on the billing system of the utility, and hence the water may, by default, be provided free of charge.

On selling People without a house connection but who live in an area served by a network sometimes buy water from a neighbour who has a working private connection. This is common in many cities, and results in one 'household' connection supplying many families. This is one reason why block tariffs are unpopular as the one utility customer is put in the high usage bracket and charged at the corresponding high tariff band.

Standpipes A common source of domestic water supply, particularly in many peri-urban areas, is through standpipes. These serve the people living in the area, and may be operational all or only part of the day. The utility normally charges for water discharged at the standpipe, and the community organises itself to pay this bill, usually through everyone contributing a standard amount per day. In some cases a standpipe can operate as a kiosk, with the kiosk owner charging people for water, and paying the utility the bill for the bulk supply to the standpipe.

5.2 Private Vendors

Intermediary sellers Very often the only supply option available to people in Low Income Areas is to buy water from private water vendors, usually in small (i.e. 5 – 20 litre) containers. These individual vendors sometimes termed as Small Scale Service Providers or SSSPs) may transport water in tankers, or in small containers carried on bicycles or on handcarts. From the point of view of the customer, these are private systems, disconnected from the utility, hence their inclusion in this section. However, in practice, the source of water is often from a utility connection (sometimes illegal), and so they could also be viewed as a utility based service.

Stand Alone Systems In areas unserved by the local utility, individuals sometimes set up their own private system, often using a borehole as the water source. They then

allow people to collect water, either directly or via some sort of a piped system to a standpipe or individual house connection, charging for this through some sort of billing system (e.g. monthly charge or metered reading). An important feature is that the whole operation is outside the official municipal system, and that very often little or no regulation of these systems takes place. This kind of service is more common in peri-urban areas. See section 8.5 for more details on private vendors.

5.3 'Free' Water

In some urban areas (e.g. Kampala, Kathmandu), a number of local springs exist and are used as sources of domestic water. This falls outside any general water system, and typically the water can be collected without charge.

Rainwater Harvesting can be employed in some areas with adequate roofing and storage to collect water for domestic consumption.

As a final option, some people may use some surface water source (river, lake or pond) to collect water from. This is usually a last resort in urban areas due to the poor quality of this water. Where other supply options described above fail, people can have no options but to resort to this method of supply.

5.4 Impact of Current Service

The type of service which LIGs are receiving is important as it will impact on what PSP arrangements are suitable. An understanding of the current source will help inform what level of service communities may want, what they can afford, and what level of customer education will be needed. For example, if people are used to obtaining water for free, it is likely to require significant effort for them to accept paying for water.

Different current forms of service provide different challenges in the event of PSP. Part of the challenge comes in managing the change and the customers expectations during that time. Some sources will need to be eliminated (e.g. 'free' water, certain SSSPs), some will need to be integrated (e.g. stand alone systems, some SSSPs, and the existing utility) and others will require specific attention within the contract or process (e.g. involvement of private vendors). The timing if each of these is also critical, as in some cases the change should occur in the short term, and in others it will probably wait a number of years.

PART B INITIAL FINDINGS: PRO-POOR INTERVENTIONS IN THE CONTEXT OF PSP

6 LEGAL AND REGULATORY CONSIDERATIONS AND INTERVENTIONS

The analysis of the literature and discussions with stakeholders identified key legal and regulatory issues that impact the ability of a PSP exercise to adequately respond to the needs of LIGs. The issues are discussed below.

6.1 Pro-poor provisions in the legal framework are inappropriate.

The legal framework has two major aspects:

- The legal framework for provision of water services to the poor, either through establishing universal service obligations or specifying coverage;
- Clear and transparent procurement rules and competition regulation, which allows flexible service levels and permits small scale operators to compete with the main operator.

The identified issue is that legal and/or policy frameworks do not adequately define or support a pro-poor agenda, with any pro-poor provision either missing, not sufficiently detailed or standards are set too high. For example, legal frameworks may not provide for pro-poor policies such as water and sewerage services as a basic human right.[13] In other cases, key legal tenets may actually impede service to the poor through service restrictions (such as a linkage to land ownership or tenure) or unrealistic service requirements. High technical requirements have had the effect of making water services prohibitively expensive and depriving LIG of alternative and differentiated water supply options that are more suited to meet their specific need. Furthermore, legal provisions in relation to universal services, lack *inter alia*: a definition of areas which fall within the coverage of a universal service; for example, if universal service obligations extend to illegal and spontaneous settlements.

Ideally, the legal framework within which the water sector operates would facilitate services to the poor. WSP[14] identified 24 guiding principles for making legal frameworks more pro-poor, which, they say, would need to be tailored to a local context. However, in many countries these principles are not yet embedded in the legal framework and would be difficult to enact without actual changes in the law. Given that such changes may require extensive consultation and may not even be achievable, there may be greater scope to negotiate pro-poor clauses in the specific contracts.

A clearly articulated policy toward LIG service, supported by the appropriate legal instruments, will be easier to reflect in a PSP process and in the contract documents. It is important however that legal provisions are not overly prescriptive but allow bidder innovation, flexible solutions based on actual characteristics of consumers, and an evolving solution as the population evolves. Likewise, it is important that any legal provisions be accompanied by the mechanisms for implementation and enforcement.[15]

[13] e.g. at the International Colloquium on legal rules in water supply & sanitation in Paris, on 29th October 2002 organised by Academie de l'Eau, UNESCO, Vicendi and Suez.
[14] PPIAF, WUP (2002): New Designs for Water and Sanitation Transactions. Making Private Sector Participation Work
[15] Questionnaire 010.

This includes, for example, the allocation of responsibilities (and resources) between different stakeholders, the definition of obligations of each stakeholder, determination of funding mechanism as well as penalties for non-compliance and the development of specific processes that are required to implement policies and requirements.

One solution is to develop locally appropriate, minimum standards for service, quality and possibly technologies. Such standards satisfy government's safety, health and environmental concerns objectives, but are tailored to work within the characteristics of the low income groups.

6.2 Linkage of service provision to land tenure.

The poor often reside in spontaneous housing areas and illegal settlements. In some cases the utility is legally prohibited from serving these settlements as a deterrent to formalizing the settlement. This can be addressed through legal changes to the utilities' charter or to planning policies. More typically, however, the character of these settlements deters network service from either a public or private provider. The challenges include technical challenges of serving unplanned areas in often undesirable locations; the population's reluctance to make a relatively long term investment in a connection given the possible impermanence of the settlement or the individual's location; and the commercial challenges of billing and collecting in such areas.

A possible solution is to understand, in advance of a PSP process, the government's intention toward illegal or informal settlements before a transaction involving a private investor.[16] It should be determined whether the Government:

- would be prepared to regularize illegal residents;
- would agree to disconnect the right to service from tenure status;
- has any plans to resettle illegal settlements.

This information would clarify for any potential Bidders the degree to which these low income groups will constitute part of the potential customer base and would require financial and technical consideration. Agreement should be sought on the Government's policy regarding illegal settlements. In case of reversals of the agreed policy, compensation would be granted to the water service operators, for example, if served illegal settlements are displaced or abolished by the public authorities.

6.3 The regulator's mandate is too narrow.

It may be argued that regulatory regimes lack the mandate, skills and information to address social concerns and that they are more narrowly focused on financial and economic aspects of regulation. There is a perception that if sectoral goals are set for pro-poor service and those targets are shared with a private operator, then the regulator requires mechanisms to assess and oversee progress against those goals and targets.

[16]PPIAF, WUP (2002): New Designs for Water and Sanitation Transactions. Making Private Sector Participation Work, p. 14

On the other hand, regulatory regimes are often designed to separate the regulator from political influence. This is to isolate regulatory decision making from short term political interference. For this reason, it is often argued that distributional issues should be tackled through more general welfare policies and therefore should not be of concern for the regulator[17].

Second, regulators are bound to respect strict norms and rules and, thus, are only able to act within their mandate. The reduction of 'flexibility' in regulatory decision making is important to private investors, who will require a certain level of predictability. As a result, granting responsibility for distributional concerns can represent a great challenge for a regulatory agency and creates a risk of regulatory instability. Furthermore, in many countries it is a priority to maintain coherent poverty reduction initiatives over sector specific social assistance. While it may not be possible in countries with weaker administrative capacity to move towards government welfare and cross sector poverty alleviation policies, granting a sector regulator responsibility for distributional concerns would undermine these efforts in those countries where government welfare policies are feasible.[18]

On balance, a solution appears to be to limit the role of the regulator in regard to broader social responsibilities, but to ensure that the regulator and the other stakeholders have the information required to make informed decisions as needed. Specifically once the social obligations have been defined through government policy or objectives, there should be an allocation of those obligations to those most able to fulfil them including the private sector. For this purpose, the following institutional arrangements might be appropriate to inform social policy and progress:

- Establishment of a pro-poor unit within the regulatory authority which advises on the impact of regulatory decisions on low income consumers (LICs);
- Establishment of an independent pro-poor unit outside of the regulatory agency to ensure that low income groups benefit from the contractual arrangements with the private sector (e.g. the Urban Low Income Group UGLIWU in Ghana).
- Establish a low income consumer unit within the utility to advise on low income consumer issues and to help serve as advocate (e.g. Zambia).

[17] A renowned British economist, for example, argued that the 'advantages of regulators having to pursue distributional ends are outweighed by disadvantages of capture, influence activities, uncertainty and unaccountability' Vickers, J. (1998), Regulation, competition and the structure of prices in: Competition in Regulated Industries edited by Dieter Helm and Tim Jenkinson, Oxford University Press.

[18] Chile has been one of the countries where social policies have been successfully designed and integrated in the general welfare policy. It is however, the Ministry of Planning (MIDEPLAN) and not the water regulator, who determines the number of subsidies allocated to each region (which is then distributed by the municipalities in each regions).

7 ECONOMIC AND COMMERCIAL CONSIDERATIONS AND INTERVENTIONS

In this section we discuss some of the main economic and commercial issues with a direct impact on the low income consumer's ability to access and afford water and the private utility's incentive to serve them.

7.1 Connection fees.

There is a well evolved body of information on the difficulty that low income consumers face in paying connection fees and consumption charges. While it is documented that non-network consumers often pay higher rates for water through intermediaries, they still find it difficult to pay regular monthly bills for a connected supply and to generate the cash for a connection fee. The reasons include:

- Low income households have limited cash flows;
- The stream of cash income (if any) is not constant but varies according to the source of income (e.g. after harvest, work season);
- Given the risk and the physical difficulty of connecting some low income neighbourhoods, a cost-recovery connection fee may be relatively high;
- Initial cash required for a connection or reconnection might exceed available cash or access to external finance.

The solution therefore must be linked with structuring or reducing these payments to facilitate access. This can be accomplished through the use of appropriate technologies and service options to reduce connection and service costs; application of subsidies on access or consumption; and instalment payments or flexible payment options.

Newer output based aid programmes can also be effective in stimulating access to the network. Under an output based aid arrangement, public funding could be made available as a fixed amount to be paid to the private operator (or SSSPs) to compensate for each new water connection installed in poor neighbourhoods. A crucial element will be to determine the cost that is required to subsidize the new connection. One mechanism (often referred to as auction) is to invite bids with minimum subsidies for the service provision to low income areas in a public tender (either separately or as part of the main contract). The attraction of output based aid schemes is their relative administrative simplicity as well as the economic incentive they provide to operators. However, the scheme should be designed to prevent use of funds for more profitable consumers and to ensure adequate services after the connection has been installed.[19]

Elements of output based aid are often used in social connection programmes. Under some arrangements households are able to access a subsidised connection to water and sewerage service or shared standpipes in peri-urban areas. The (private) utility can access funds for this program though a specific fund (upon approval by a government official) which is capitalised:

[19] See Marin, P. (2002): Output based aid: possible application for the design of water concessions, pp 15 on potential pitfalls of output based aid concepts.

- by a fee levied on all existing consumers with high level consumers paying a higher contribution;
- by special grants from donors and governments.

While these programmes have been shown to increase connection rates significantly, it is less clear that LICs have been direct beneficiaries. The eligibility criteria for these programmes may be more broad than a strict definition of low income consumers or eligible consumers may live beyond the allowable distance to the network or otherwise not fulfil legal tenure requirements. Finally, under such a scheme connected LICs effectively help subsidize the connections of other low income consumers. Depending on the nature of the LIC's connection (i.e. shared) and the tariff structure (i.e. rising block) the LIC may pay a disproportionate amount of the subsidy.

7.2 Consumption costs.

LICs often share connections either by preference, necessity or due to high connection costs. While the tariff structure may allow for a concessional rate for the lowest band of consumption, the implication of the shared connection is that actual consumption may be above that band. As a result, the low income consumer may find himself paying higher water rates within the higher tariff block. As a result, tariff regimes that have originally been designed to reduce the burden on lower consumption groups (which are likely to be poorer) unintentionally have had an adverse effect on poor households.

Much attention is therefore paid to the design of effective tariff structures and subsidy schemes. Cross subsidies, for example, while designed to ease the cost of service to the low income consumer, can create a disincentive to the private operator to provide service. Furthermore, depending on the elasticity of demand, those who pay the higher prices may reduce consumption or even switch to individual solutions (e.g. industrial consumers drilling their own wells) with a significant impact on revenues of the private operator as well as the potential for future cross subsidies.

Thus limitations to cross subsidies and progressive tariffs have been identified. In response to these challenges practitioners have identified the following issues as best practice principles in subsidy design.[20] [21]

- Targeting the subsidy to ensure that within an administratively simple system, households in need (and demanding assistance) are included and wealthier consumers are excluded.
- Preserving economic incentives to send the right price signals and avoid wastage e.g. by subsidising less than 100% of total costs and requiring a contribution of the beneficiary.
- Ensuring administrative simplicity to match prevailing administrative capacity.
- Coverage of a reasonable percentage of the population.
- Setting the size of the subsidy in relation to willingness to pay.
- Considering price thresholds for strong consumers such as industrial companies to switch to alternative suppliers.

[20] Mehta, M. (2003): Meeting the financing challenge for water supply and sanitation. Incentives to promote reforms, leverage resources and improve targeting. The World Bank and the Water and Sanitation Program, pp. 82.

[21] PPIAF, WUP (2002): New Designs for Water and Sanitation Transactions. Making Private Sector Participation Work, p. 50.

- Subsidising access rather consumption to increase the coverage of subsidy scheme.
- Considering provision of subsidies directly to consumers rather than through the utility.

The question on how tariffs are adjusted over time is crucial to any tariff regime. Tariff adjustment methodologies are commonly defined by their scope of providing incentives to increase its efficiency and as such, can be classified into two broad categories: cost-plus and incentive-compatible methodologies. Other than incentives, different tariff adjustments provide different effects on the volatility in profits, prices and revenues and the allocation of risks.

Finally, tariff adjustment methodologies can potentially have an effect on the incentives of the operator to expand services to unconnected areas. Tariff adjustment methodologies such as price caps offer the greatest potential for linking the private operator's incentives to pro-poor targets (e.g. increased demand is linked to operators revenue).

7.3 Commercial considerations.

Certainly an appropriate pricing structure will encourage low income consumers to connect to the network. Likewise, the operator will be seeking to minimize its risks and costs in offering that connection. Yet operators identify specific risks and costs associated with provision of service to low income consumers including:

a) Collection rates are often found or assumed to be lower for LIG than for other consumer groups. As previously noted this may be attributable to affordability, rigid payment modalities, or a general 'culture of non-payment' which may not be specific to LIGs.

b) Experience shows that LIGs' consumption levels are significantly lower than for other consumer groups. LIGs are extremely conservative in their use of water given the relative proportion of water costs within their household budgets. For example, low income household are more likely to use alternative water sources (e.g. rivers or wells) for different activities such as dishwashing or laundry and to limit the consumption of high quality water to drinking purposes.

c) 'Regularisation' of areas where work has been carried out without supervision of the operator entails more maintenance work than for other areas;

d) There can be a higher safety risk to certain low income areas, necessitating additional supply security;

e) Facilities in these areas deteriorate more rapidly and suffer more vandalism and theft, resulting in higher on-going costs.

To address these commercial constraints to serving poor customers, there are a number of interventions that might be incorporated into a PSP contract or addressed through the PSP Process. Key among these is development of mechanisms to facilitate payment. That is, in addition to how much the LIGs pay, there should be consideration of how they pay. For example, there are instances where the water kiosks may be managed by less-than-scrupulous attendants who either limit access to water or cannot be held accountable for receipts. Likewise, it may be difficult to reach payment points in some countries, or the amount of a monthly bill might exceed typical cash flow. Many solutions have already been identified in regard to payment mechanisms and employed with success. These include pre-paid cards, establishment

of multiple payment points (including within shops etc.), instalment payment of connection fees.

In the event that there is a history of free water or difficulty in developing a culture of payment, there may be scope for an initial debt forgiveness and an enforced policy of disconnection.

The Operator would also be seeking the flexibility to develop the right mix of price and service to respond to the requirements of the low income consumer. A number of interventions have been proposed (and implemented) to reduce the cost of providing service. For instance, governments and the private sector have gradually acknowledged the importance of local NGOs, SSSPs and community based organisations in managing services in low income settlements. These organizations can contribute to the delivery of services in different ways:

- Delegation of management for a standpipe to a private individual or a community group. The management of the standpipe pays a periodic charge to the main operator (including a deposit or a tax) and receives payment from customers (e.g. Senegal standpipe program).
- Water wholesaling: in the case of water wholesaling a meter is installed at the inlet to an area and an invoice is sent to a local organisation in charge of collecting payments from the households (e.g. NGO or community association). This mechanism has often been used for low income areas with limited consumer information, safety risk and high risk of non-payment
- Identifying and mobilizing support for low cost solutions;
- Organization of condominial labour contribution;
- Encouraging neighbourhood resale to achieve an effective level of competition between different service providers.

Community involvement is also key to developing a system of peer pressure that encourages payment.

8 TECHNICAL CONSIDERATIONS AND INTERVENTIONS

This section discusses some of the main technical issues relating to the provision of particular levels of service to low income consumers, and to the sustainability of those services provided.

Technical issues by themselves are seldom a major cause of PSP failure to serve LIGs. However, as technical factors are often what the customer experiences, such issues often have knock on effects on economic or legal matters, as discussed earlier. In the same way, solutions to many other issues discussed in this chapter can often be found through technical issues.

8.1 Physical Location

One of the obvious issues facing operators serving certain LIGs is simply their physical location. Many low income communities live in peri-urban areas on the edge of cities, far from the end of the municipal system, making it costly to extend the system. In addition, many low income communities (be they in urban or peri-urban areas) live in marginal areas, for instance low lying ground that is very wet and marshy, or on rocky outcrops. In these places the physical terrain makes provision of a reliable piped distribution system to these people more difficult, and more expensive.

Obviously there are no easy solutions to this – these people cannot move elsewhere as they live in the marginal areas through lack of choice. However, many of the issues relating to service level (see below) are relevant to this issue of physical location.

8.2 Service Levels

8.2.1 Affordability v Service Level (Technology)

A key issue often quoted in the reviewed literature is the provision of *sustainable* service levels. In order to provide a sustainable water service to any community, the costs of providing that service must be recovered in some way (be it through tariffs or subsidies). For any service to be sustainable and economically viable, a balance must be found between the cost of providing the service, and its affordability (i.e. cost recovery).

An important factor in this is the Operator's desire to sell water. The choice of service level for the operator in strict commercial terms is not what service will serve many people, but what service will cause more water to be used (i.e. sold). High levels of service are more costly, but each customer tends to use more water – assuming they can afford it.

A key factor in the cost of any service is the technology employed and the level of service provided. If those responsible for extending services to LIGs do not take this into account, it can result in high (and unaffordable) charges for the consumer, who will then either not use it or find illegal ways of doing so. Therefore, in order to reduce the cost to an affordable level, appropriate technology and service levels need to be considered. Decisions on this are generally based on a balance of the following items.

Levels of Service

Generally speaking, the higher the level of service, the more expensive that service will be to construct and operate. Therefore allowing a reduced level of service can have beneficial impacts on the cost. Possible options are discussed later, but can include communal standpipes instead of house connections, and bulk supply for distribution by tanker or small scale providers.

It should be noted that approving such a policy can often be politically difficult, as it can be deemed to legitimise a two-tier standard to water supply, with the rich getting one standard and the poor getting a lesser standard. However those in favour would argue that it is better to get a lower quality of service than none at all.

Appropriate technology

There has been much discussion on defining an appropriate technology. Minimising the cost of the infrastructure may be possible by using smaller pipes, lower pressure, different materials etc. in line with an appropriate service level. However this has to be done with full consideration of safeguarding an appropriate service quality and with regard to possible future developments. The method of connection to the distribution network also plays a significant factor.

Lower technology options may contain risks however (e.g. easier to make illegal connection and lower return for the operator due to low consumption). The formal involvement of small scale service providers (SSSPs) can help, with the operator only billing the SSSP.

Quality standards

In considering the appropriate service level and technology, minimum quality standards (e.g. convenience, reliability of supply, water quality) need to be safeguarded.

Customer management

Another aspect to consider is what level of customer management will be required for a particular level of service and technology. In addition to the operator requiring quality information on the community, the community will need to be informed and educated regarding service availability and billing systems. These issues are dealt with in more detail below and in sections 8 and 10.

When setting expansion targets these aspects should be considered. In general, the higher the service level and the greater the level of technology employed, the more time consuming it is to install. Simpler technology and lower levels of service often can be constructed quickly, thereby making ambitious expansion targets more achievable.

8.2.2 Giving the Community the Choice of Service Levels

Practically speaking, obtaining the correct balance of all the above considerations involves giving LIGs a range of technical options to choose from and involving community based organisations in the planning process. However community participation in this way is very different to the usual method of providing piped water to well off communities, and the inexperience in this, coupled with the additional cost of doing so, makes serving LIGs less attractive to some operators.

Many studies stress the importance, in any context, of providing several options in terms of cost and level of service[22]. However, this makes the definition and regulation of clear standards and options for LIGs difficult as they have to cover so many options. In addition, this can make it very difficult for a private operator to provide sustainable services to communities whose needs and abilities are very diverse, as a wide range of services will all be wanted. This also reduces the attractiveness of such schemes as the operator needs economies of scale, for its financial viability, and providing several service levels simultaneously can reduce this.

In order to select appropriate systems for LIGs, an understanding of the social and institutional context of these groups is needed (see Section 3). However, a common constraint, as discussed earlier, is the lack of adequate information on LIGs, hampering the effective design and implementation of appropriate systems.

Where flexibility in the service levels is allowed, issues can arise over exactly how the supply options and levels of service are chosen for any given area. Communities need to be organised and informed if they are to decide on a service option. Moreover, very few communities are homogeneous, and disputes can arise within and between communities when comparing different service options. Such issues are discussed more fully in section 10.

The problems of maintaining suitable economies of scale while providing flexibility of service is difficult to address. However, what can be achieved, as shown in Figure 8.1, is a tailored customer–operator interface. A level of service is chosen, by consensus, by the community, but the detailed method on how each customer uses the service (e.g. details of billing) is adapted to each household's needs.

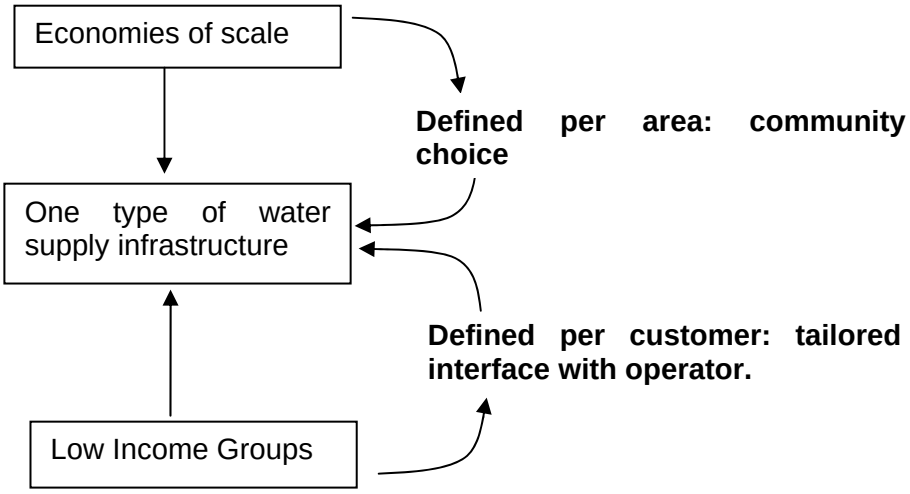

Figure 8.1 Flexibility of service proposed to LIGs

8.2.3 Possible Service Levels

As discussed above, most commentators agree that solutions for serving LIGs must propose a range of technical options and involve community based organisations. Options that can be considered include standpipes, condominium systems and

[22] Public Private Partnerships and the Poor, M. Sohail Ed. Halcrow Management Sciences, Loughborough University, 2002. Also: Impact Evaluation Report of Community Water Supply and Sanitation Project (Sri Lanka, Credit 2442-CE), World Bank Operations Evaluation Department, 1998

involvement of SSSPs. A full table of options, and the considerations to take into account for each option, is shown in Appendix D.

Providing a range of technical options does not however mean every household has its own level of service. Box 1 shows a variety of service levels that were provided throughout Durban (South Africa) by Durban Metro Water Services (DMWS), and illustrates the fact that flexibility in service levels enables greater numbers to be served.

Box 1 Examples of levels of water services in South Africa:
1. Piped distribution (case of Durban Metro Water Services – now Ethekwini Water Services)

1.1 Group / community connections:
Public standpipes – 1 standpipe for approx. 200 households, either operated by a bailiff or tanks drip-filled.

1.2 Individual house connections:
Low pressure – ground tanks, where water consumption is limited to 200l/capita/day. Water is for free.
Medium (semi) pressure – roof tanks, where water consumption is unlimited (but lower flow). Consumption can be limited, at customers wish, using a flow limiter device. If consumption below 200l/capita/day water is free. Above that consumers must pay the whole bill.
High pressure – consumption is unlimited. Consumption usually above 200l/capita/day so consumers pay.

2. Non-piped distribution (not Durban) in other cities:

2.1 Tanker trucks:
Water delivered in bulk to standpipe operator / water committee and sold on to consumers. Found in very remote and often informal communities.

2.2 Small scale service providers:
All sorts of service available, but water is delivered to customers' houses.

8.3 Construction Standards

One major obstacle to the provision of different technologies and service levels is the standards quoted in the relevant national legislation and technical regulations. Many countries have stipulated a "one size fits all" (also called universality of service) approach, which provides for one (high) standard of service. In addition many countries employ technical standards that prohibit use of lower technology and levels of service (e.g. shallow trenches or surface pipes). While these high technical and service standards are desirable, and are perhaps the ultimate long term objective, they make the cost of such provision prohibitive for the private operator as it is likely to be unaffordable for low income customers.

Obviously the solution to this is to change the relevant technical standards, but this may require changes in legislation which is very time consuming and is outside the scope of a PSP contract. In addition, as mentioned above, approving different standards can have difficult political implications. However, even if restrictive standards do exist, this has been 'overcome' in some cases by transgressing the

standards on the agreement/ assumption that no action will be taken against the operator if lower level of service is provided than what the standards allow for[23].

8.4 Billing systems

Proposing a variety of water supply (and sanitation) options to LIGs also means having to provide a variety of payment mechanisms to suit these options. Where a community chooses a particular water supply services (e.g. public standpipes, yard taps or house connections) the operator will need to have a billing system, hence a customer management system, which can accommodate different payment mechanisms for different households. This management intensive process has resulted in operators rejecting this practice and failing to serve LIGs adequately.

8.4.1 Metering

It has become almost standard practice for a private operator to install meters on every connection in order to record the water used and to bill accordingly. This is obviously beneficial as it enables the operator to accurately bill for the water used. However, there has been much debate on the technical accuracy of these meters, particularly at low flow rates. The cost of installing the meters is also high, and it is argued that this cost is uneconomical for LIGs, increasing the cost of provision to prohibitively high levels, and that other methods of calculating bills should be employed in these areas. In order to serve LIGs effectively and efficiently, the operator should consider whether meters are indeed the correct option when discussing appropriate service levels.

8.4.2 Timing of Billing

An important feature of people living in LIGs is the lack of any cash reserves and the cash flow issues this presents. As a result, the non-payment of bills is sometimes due to cash flow issues rather than more serious long term inability to pay. As discussed in section 7, flexible payment systems can assist this. Another option is the selling of water tokens or stamps, that people can buy anytime and use when paying water bills. Prepayment meters can also help this as people can buy more credits when they have more money. However, this is contentious as in times of crisis when they have no money, it can be very difficult to access water.

8.4.3 Method of payment

An important consideration for LIGs is the ease with which customers can pay their water bill. If customers are used to paying independent providers, suddenly having to pay for water at a completely separate location, at a time set by others, can be very confusing and create resentment, particularly if inadequate attention has been paid to customer education. The location where customers pay their bill is important, with more people failing to pay their bill the further the payment point was from their house. Consideration should be given to allowing people to pay bills at local shops. However, this obviously creates separate management and administration issues.

Another important consideration is the punitive legislation in force to take action against customers who do not pay their bills. A clear and enforceable policy for this (e.g. disconnection and action in the courts) is essential as it gives confidence that non payment will be tackled. It also encourages customers to pay their bills as the

[23] WSP, 2001, Case Study on Durban Metro Water, pp 7

consequences of not doing so are clear to others. Where there is no such policy, non payment of bills can escalate.

8.5 Formal Involvement of Small Scale providers

Recently more focus has been given to the involvement of small scale service providers (SSSPs) as a key link in improving and expanding coverage to LIGs. The involvement of SSSPs fills a gap in the service provided by the main utility, and their involvement can be seen as a legitimate technique of supplying water. However, their involvement raises a number of issues.

8.5.1 Exclusivity

In the past, most concessionaires were granted the exclusive right to provide services in their concession areas. However, LIGs may suffer as a result of this because exclusivity illegalises and suppresses alternative small scale service providers, from whom many LIGs obtain their water. Our consultation process revealed a common agreement between participants that exclusivity arrangements should be avoided and that the encouragement of SSSPs and resulting competitive pressure would result in increased supply of water to low income consumers.

8.5.2 Involvement of SSSPs

The method of formally involving SSSPs is not straightforward as SSSPs encompass a wide variety of types and sizes of providers. At a small scale, SSSPs can work with an operator to manage communal standpipes or operate water kiosks. The bulk of SSSPs however are individual vendors who take water from the network and transport water in tankers, or in small containers carried on bicycles or on handcarts. Not formalising their involvement and leaving it to the free market should bring competition, but makes it difficult to ensure adequate quantities of water are available from the network. Competition[24] between SSSPs is often ineffective, shown by the high prices and low service levels provided in many locations. Formalising SSSPs is difficult, but can be done through licensing arrangements and provision of specific water collection points and the allocation of areas to supply to. Limited competition within this system is possible.

Another scale of SSSP is the stand alone system, normally supplied from a private borehole. These operate in peri-urban areas beyond the main utility network. Encouraging such systems will increase coverage but raises issues such as regulation (in terms of quality, cost and of groundwater abstraction) and the relationship with the main utility.

A key issue in the involvement of SSSPs is how to involve them as much as possible in the short term (in order to serve more people quickly) but still provide an incentive for the main utility to expand its network to these areas.

8.5.3 Regulation of SSSPs

The involvement of SSSPs raises some regulatory issues. In the case that SSSPs rely on the main network provider as the main source of water supply for retail, it is

[24] Some would also consider neighbourhood resale arrangements as an additional form of competition with households selling water to other households as an additional competitor

important to guarantee that small scale service providers are allowed fair access to the main network, both in terms of cost and availability of water. This is particularly relevant if there is direct competition between the main network operator and SSSPs. Regulation should also ensure that prices of small scale service providers are reasonable. One participant of the consultation process proposed, for example, that regulators should have a role in increasing the transparency in the market.[25] Finally, if SSSPs are to be a formal part of the water delivery mechanism, then regulation should ensure that safety, environmental and public health concerns are met. While these benefits of regulation are clear, our literature survey and our consultation process demonstrates that there is common agreement that regulation should not prevent SSSP from offering their services and thus, regulation of small scale service providers needs to be light handed.[26]

8.6 Other considerations

An important consideration often overlooked is the reason for wanting to provide people with an improved water supply. A recent study by Tearfund[27] showed that in many PSP contacts, basic development theory was ignored. Usually the main reason for improved water supply is for improved public health. Generally, when water services are improved, consumption increases. Public Health improvements are rarely seen (and can indeed worsen) if drainage and sanitation issues are not also addressed. This is an argument for considering sanitation alongside water supply. However, as discussed at the start of this report, there are considerable differences between delivery of water supply and sanitation, and this report focuses only on water supply.

In most PSP contracts, focus is given to the 'hardware', to provision and operation of the physical infrastructure. Very little attention is given to the 'software' side – to hygiene and sanitation education. Studies have shown that the quality of water can be much worse at point of consumption in people's houses than at the point of delivery (or collection), mainly due to storage techniques. Without adequate training, the health impact of improved water supply will not be fully realised.

[25] We would note, however, that it seems unlikely that the regulator or any other authority would have sufficient and timely information of a market that is as diverse and non-transparent as the market for SSSPs.
[26] B.Baker, S.Tremolet (2000): Regulation of quality of infrastructure services in developing countries, seminar documents for the conference: Infrastructure for Development: private solutions and the poor (May 2000 in London).
[27] Tearfund/ WaterAid (2003) – new rules, new roles, Does PSP benefit the poor.

9 PSP PROCESS CONSIDERATIONS AND INTERVENTIONS

As previously noted, there are specific contract clauses that might be adopted to ensure that the contract with the private sector makes reasonable provision for low income groups. In addition, it is possible to identify specific stages in the PSP process that provide an opportunity to tailor the process to be more responsive to low income issues and more conducive to the implementation of such clauses.

9.1 Initial Discussions and Stakeholder Objectives

A key part to a PSP design is to work with a government and a utility to identify and prioritize the objectives of PSP. Frequently, the top objectives of PSP include a desire to reduce Government subsidy to the sector and a desire to extend service. A specific objective of serving LIGs may not be cited as a top priority or, if included, may be at odds with other priorities. Very often the LIGs are politically marginalized and without an active voice in the PSP process. As a result, when Government officials want to be able to demonstrate early successes of the process, they will be more intent on seeing service improvements to the politically active middle class. In particular, if extension of the system is a priority, the first extensions may be made to housing estates rather than peri-urban areas or informal settlements. In addition, while government may want to reduce its costs through PSP, LIG service improvement may require government to absorb some costs. For instance, if the major constraint to LIG connection is either the water tariff or the connection cost, this may be an appropriate area for government subsidy. In aggregate, the improved access to safe water is likely to save the government money in terms of improved health and productivity of the population, but this can be a difficult equation to quantify and explain publicly.

Recent transaction design has placed more emphasis on the early discussion of LIG service as part of the options analysis. Unless, however, that discussion is complemented by reliable data, it is difficult to reach conclusion on the viability of those objectives. The more desirable sequence then is to embark on the studies of LIGs (as The World Bank has recently done for Sri Lanka, Peru and Honduras) with the stated intention of developing analysis that will directly contribute to the design of pro-poor transactions. If such data is in hand, Government is better positioned to make a relative prioritization of its LIG goals and its financial goals.

9.2 Preparatory Work and Emphasis

In some cases, the importance of serving LIGs, even if objectives have been defined, is not reflected consistently in the framework and documents of the transactions. Ideally the Government's goals for LIG service would be pre-defined in consultation with stakeholders in advance of PSP. The goals would then be reflected in a range of documents and activities including policy statement, regulatory mandate, Terms of Reference for advisors, scope for preparatory studies, and the actual Bid Package. Once the Government has established its realistic objectives in terms of LIGs in the context of PSP, it must work to ensure that attention remains on the issue and that all stages of the transaction are consistent in approach to LIGs. It may be prudent to establish a small office or working group within the Ministry or utility to champion these issues as has been done in Zambia and, to some degree, in Ghana. This office may have an enduring role in the monitoring of performance against LIG targets, may help

administer any specific intervention such as subsidies, and plays a key role in the consultation process.

9.3 The Consultation Process

Related to the point above and discussed further in subsequent sections, consultation is key to successful contract design for LIGs. Even if the appropriate preparation studies of LIGs have been undertaken, NGOs and community associations and others should be included in the dialogue. Invariably there are trade-offs to be made during the design and transaction and stakeholders need to understand the basis of those trade-offs. It can also be beneficial for LIG stakeholders to hear from the private sector regarding the technical, financial and other challenges to service provision and form a realistic understanding of the constraints. It should be noted that this is different to public awareness which is more of a one-way process. The consultation required would involve the collection of qualitative and quantitative date and a transparent discussion of the practical implications of the data. The goal would be to have all parties informed of each others' positions and requirements and, through consultation, reach agreement on the most acceptable path.

9.4 Qualifications of the Bidders

An underlying justification for water PSP is that additional expertise is needed by the country seeking the private partnership. Yet, given the relatively new focus on LIGs in the context of PSP, the private Operator may not have in-depth, readily accessible expertise regarding LIG services. In the contract design stage it would be appropriate to determine the degree to which dedicated expertise is required for LIG issues and the credentials sought for this role. Likewise, it may be appropriate to encourage partnership with local NGOs and small scale providers. In countries where the number of qualified NGOs is few, it may be appropriate to allow such team members to be included in a bid consortium on a non-exclusive basis. In addition to the inclusion of NGOs on consortia, bid packages should specify the LIG targets, request cvs of LIG service personnel, and request any specific strategies. However, the requirements should not be prescriptive but should accept innovation on the part of the Operator. It may well be that the Operator has experience gleaned from another country that is not only applicable but an improvement over current practice or suggested strategy. Bidders should also, in the context of the Site Visits, be provided an opportunity to visit key LIG service areas.

9.5 Setting of Operator obligations

There are certain requirements that may be set within the contract that can have a direct impact on low income consumers. These include:

9.5.1 Coverage Targets

A key part of the contract and bid design may include identification of the level of service coverage and service standards acceptable for LIG populations. While it would seem fundamental to set a coverage target for LIG populations, several constraints should be anticipated including the difficulty in determining the baseline low income population. This is particularly challenging when the population is transitory and/or

includes large numbers of refugees. Without agreed baseline numbers, it can be difficult to difficult to agree on coverage targets with the private partner. In addition, two definitions are key to the contract – the definition of low income as already discussed and the definition of coverage. For instance, coverage may be defined as access to water within certain distance parameters, or it may be strictly defined as network connection. The definition will have a financial impact on the transaction and should be agreed with Bidders and with stakeholders.

To develop appropriate service target levels (coverage or other) in the absence of acceptable baseline data, it may be appropriate to set aside time in the beginning of the contract for benchmarking data against pre-determined targets – through cooperation of the Operator, utility and others. The bid package may specify the target area and the percentage improvement required by year. At the conclusion of the first year the actual values would be incorporated.

Once the targeted population is identified, the operator will require mechanisms and incentives to serve the population including:

- Identification of geographically disaggregated and phased targets to prioritize areas with a high number of poor households (e.g. Dakar, Buenos Aires and Manila);
- Incorporation of clear definition of the target population such as categories of dwellings to reflect household size and wealth and related targets (Jakarta);
- Bonus payment for each new consumer in certain designated areas who meet certain criteria or full compensation to the operator for free connection of poor households;

9.5.2 Service Standards

Related to the topic of coverage, the way in which water is to be made available to LIGs must also be agreed. LIGs may interpret any access less than full network connection to be substandard service. It is important to provide LIGs with an understanding of the service options available given their income levels and their housing profile.

9.5.3 Exclusivity and appropriate service

Traditionally it had been assumed that a private Operator required exclusive rights to serve the identified population of the service area. Exclusivity is often justified as a way of attracting private operators by reducing revenue risk and increasing profitability of the proposed PSP contract.[28] Clearly, the Operator needs to be able to estimate the volume and certainty of the revenue stream. However the need for strict exclusivity meant that small scale operators (water vendors, tankers etc), who are often a key water source for the unconnected LIGs, were no longer allowed to operate even when the network or mechanisms were not yet in place to connect the LIGs

Private Operators are often amenable to using reliable SSSPs as virtual extensions of their distribution network, until such time as LIGs can be more formally connected. LIGs are also open to this solution provided that it is not presented as either unmonitored or long term. Key to this approach is an ability to ensure that the pricing and quality of the service provided through SSSPs can be "regulated" in some way.

It may also be important for the Operators to work in tandem with a local NGO to provide appropriate service. As there may be only a limited number of qualified NGOs

[28] Vivendi Environment (2000): a modern partnership for municipal water services.

in a country, it may be appropriate to relax any bidding requirement that requires certain consortium members to participate on an exclusive basis. This allows the few qualified NGOs to participate widely in the bidding process and ensures that the winning bidder will have an appropriate local teaming partner for LIG activities.

A counter argument to the relaxation of exclusivity arrangements is the potential for industrial and high volume consumers to opt out of the network. This has an impact on overall revenues in the system as well as the potential for cross subsidies. Exclusivity or non-exclusivity clauses thus have to be carefully crafted to achieve the intended effect.

9.6 Measurement of results

Ideally at least part of a private operator's compensation would be based on results achieved. As noted above it can be difficult to determine the appropriate target for service to LIGs and even more difficult to identify a target that is measurable. Measurement would be dependant on all the definitions being agreed, the baseline data being accepted and on the method and cost of measurement being agreed. Given the characteristics of Low Income Groups and the possible service options, results measurement might include a follow household survey and it should be agreed who will bear the cost and how this might be performed objectively.

9.7 Development of capacity

Ideally a PSP process will include a focus on the development of local capacity necessary to extract the greatest benefit of the exercise. In order to also ensure that PSP is developed and implemented with regard for Pro-Poor issues, another level of capacity building is required. Specifically, there is an additional need to cultivate an understanding of the benefits to pro-poor transactions - economically, socially, and politically - and an understanding of the techniques that might be employed.

10 EDUCATION AND COMMUNICATION ISSUES

10.1 Background and definitions

User participation and communication is a normal business attitude, as a business will want to ensure its products and services actually correspond to the needs of it's customers. In the case of community water supplies, NGOs have traditionally carried out some form of customer liaison to ensure there is enough capacity and ownership within the community to operate a (usually small) water supply scheme. Even for services provided by municipal departments, where formal customer participation is not as widespread, the customers still have a say through their link to the council. Therefore the concept of liaising with the users is not alien, and can be regarded as a normal attitude to service delivery.

By contracting the management of water and sanitation services to a private operator, governments seek to improve the efficiency of the water authority, and its effectiveness and sustainability. The area's private operators usually focus on are customer management, operational management and financial management. Most operators will want to improve the interface with the customer, in order to improve payment rates. However, not all are successful because they misunderstand the complexities of this in low income environments.

There is no fixed formula for community participation other than the setting up of a system that allows for multi-stakeholder communication at various levels. It must be remembered that different communication is needed for different groups, and that relationships, and hence communication, are not static and are likely to change and evolve as communities become better able to manage their own affairs.

What is community liaison?
It is the art of showing respect to a community by talking to the right people at the right time, and saying the right things, and listening to and acting on, the community's views.

What is customer participation and *education?*
The art of making all members of a community feel they are an important link in the setting-up, improvement and day-to-day running of water and sanitation services that the whole community will benefit from.

10.2 The Impact of Inadequate Communication

In previous sections the failure of PSP contracts has been attributed in part to the lack of adequate available information on LIGs and the consequent unrealistic targets often set to provide them with a service they will be able, or want to, use and help sustain. This lack of information gathering can result in the policies and approaches outlined in the overall framework not being suitable for the LIGs in the contract area.

It is essential that the public is informed of the overall PSP policy so as to manage expectations. A lack of communication (as opposed to teaching) between service provider and customers at this stage can result in the level of service provided not fitting the needs and abilities of the communities. It can also result in slow decision-making and reduction in service effectiveness and efficiency.

The lack of communication can result in various adverse consequences, as outlined below. When they occur they may appear to be all the fault of the community, but the cause can often to traced back to bad communication with the operator. Ultimately these all lead to poorer service to the community.

- Operator's staff and/ or representatives such as plumbers, trench diggers and meter readers are rejected or sometimes even attacked because the community has not been notified. This can escalate into dangerous and often difficult deadlock situations.
- The infrastructure assets such as standpipes, connection pipes and meters are damaged and vandalised.
- The new services do not meet the needs and abilities of poor communities to sustain the water service.
- Network problems such as illegal connections, leaks and pipe bursts are not reported, increasing unaccounted-for-water as well as increasing health risks to the community.
- Community representatives (councillors, development committee members) do not facilitate the service provider's work with the community. Councillors can exert political pressure on particular service providers.
- Project progress can be hindered by the bad customer – service provider relationship due to misunderstanding and lack of cooperation.

Communication is also vital with other relevant stakeholders (e.g. municipal departments) whose work may impact on the delivery of water services. When a water company proposes activities through it's own communication and education channels to the community representatives, these can be postponed or jeopardised considerably by other underperforming municipal department activities. A typical example affecting the delivery of water services to poor communities, and which has been discussed previously, is that of ownership of land. Water companies are often reported to be slowed down in their expansion by administrative processes requiring land ownership from customers.

In addition to discussing with LIGs about a preferred supply option, it is also necessary to provide some customer education on how it operates. A new water or sanitation service requires a new behaviour from the customer. Customer education in the use of this new service is therefore essential to it achieving the desired socio-economic and health objectives and in ensuring it is sustainable. This should include basic factors such as how to use the system, a clear explanation of billing mechanisms, including how the bill is calculated and how it should be paid, and more general education on the overall operation and tips on water efficiency and the impact of illegal connections, leaking taps etc.

However, often there is a lack of education of low income customers, which leads to the following:

- Customers not being satisfied with the level of service, and either tampering with or not using it.
- Low level of payment because customers do not know that they need to pay for the water service – they view water as free, not understanding the cost of treatment, storage and distribution.
- High water wastage, not only through unreported leaks and illegal connections but also through taps simply left open.
- High bills issued to customers who do not understand, for example, how meters are read, how bills are produced and how they can, themselves, limit their consumption.

- The health objectives from improved water supply not being fully met because of insufficient attention given to hygiene and sanitation.

10.3 Successful customer information and education

There is no single way of carrying out liaison and education campaigns. Many private companies usually contract the liaison and education project components to local NGOs that have considerable field experience and established links with poor communities.

Traditional liaison and education components include –

- Meeting community representatives such as the Councillor and the development committee.
- Informing the committee what activities will take place and when (e.g. expanding the network, plumbers repairing leaks or meter readers going round properties) and making them want to get involved.
- Organising development committee meetings to discuss the involvement of local community facilitators (for instance to update customer database).
- Having open meetings or availability of operator staff to answer questions.

Interaction platforms can be set-up to increase the frequency and flow of information going to and from the community. This can include customer management centres, where customers can pay their bills, see education posters, attend seminars, contract community plumbers if they have a leak and report leaks to the operator

Different places and methods can be used for conveying messages, such as projects in different schools, street theatres at weekends, amending part of school curricula to include hygiene or water related topics and training local community members to become facilitators (representatives of the municipality and/or the operator). Another way to help involve the community and ensure they understand the scheme is to set up groups within the community to monitor and evaluate the progress of different issues as well as the overall project. Members of these groups can be made accountable to the community. These groups can become formal links between the operator and the customers.

As discussed in section 8, a key aspect is to be flexible to the needs of the customer. While all people in an LIG will be served by the same system (for reasons of economy of scale), each customer can have a tailored interface with the operator (e.g. flexibility in bill payment, limited credit when required).

10.4 Reasons for inadequate communication

The importance of good customer information and education is clear, but the reasons for it not being carried out are not so obvious. Many factors in the whole process affect how an operator can supply a service to the LIG, and explaining this to an uneducated person can be almost impossible. Figure 10.1 below shows the difficulty in carrying out effective customer liaison. The community sees only the customer facing staff and facilitators (sometimes contracted to an NGO), who describe the project and explain to them the roles and responsibilities of the operator as well as their roles as customers. They cannot see the link between all the other factors behind this interface. All administrative or political, social and technical problems affect the relationship (and therefore the risk taken by the operator) between customers and service providers

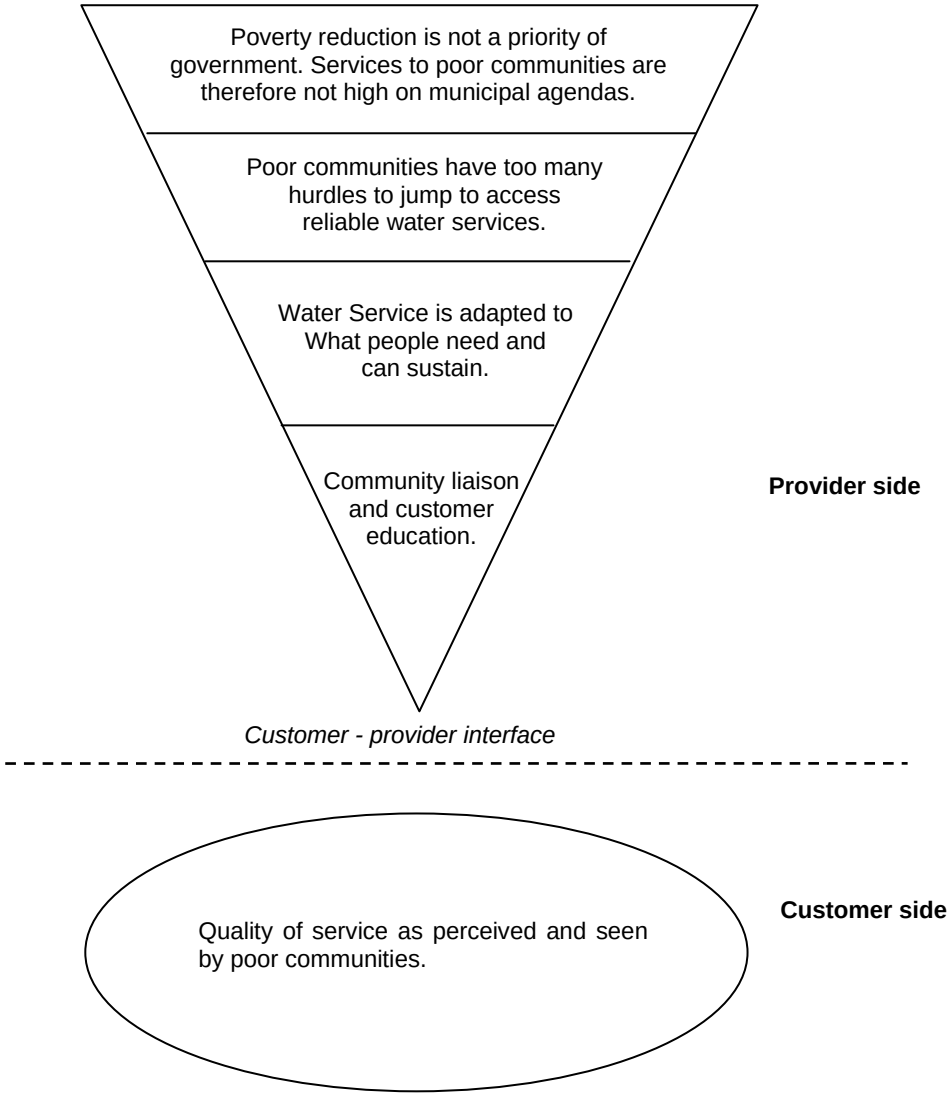

Figure 10.1 Factors affecting Community Liaison

Another key issue is that often the customer has no direct link to the operator, and, in contractual terms, any dispute can only be resolved via the regulator. Therefore when operational issues arise, the operator may not be obliged to listen to the customer complaints.

Finally, a major constraint in carrying out customer communication and education is the operating costs involved. These costs can be significant and be a real hindrance to effectively communicating with LIGs. However, they are important if a service is to be sustainable and should be viewed as normal operation costs. Making allowances for this when discussing appropriate types of service and affordability issues should allow a suitable solution to be found.

11 SUMMARY OF KEY CONSIDERATIONS AND POTENTIAL INTERVENTIONS

This Inception Report has identified and reviewed the prevailing issues and constraints to serving Low Income Groups under a PSP framework and shown how they impact on the PSP process. In addition, possible pro-poor interventions aimed at overcoming these issues have been suggested. A key aspect is the fact that a contract with the private sector is typically a component within an overall reform package designed to improve sector performance. Some of these issues and related interventions may be incorporated into a PSP contract while others will need to be addressed in legal or regulatory reform in the context of PSP.

The issues identified have been organized into the following broad categories.

- Legal, Policy, and Regulatory
- Economic and Commercial
- Technical
- PSP Process and Contract
- Educational

The report was organised this way for ease of understanding, and they should not be considered as firm, clear cut sections. For example, the technical standards cover both legal and technical issues; affordability issues cover technical and economic issues and lack of information covers all sections to some degree. Many of the issues are complex, overlapping two or more sections of the report. Other constraints may seem quite straightforward, but are fundamental and require complex solutions involving consideration of various aspects. This cross over illustrates the complexity of all the issues relevant to serving LIGs.

A brief summary of the key main constraints and possible interventions, and the sections where they are discussed is given below. More detail is given in the lists of identified issues in Appendix B.

Table 11.1 Summary of key constraints

Key Constraints	Section
Lack of involvement of LIGs at an early stage to gain an understanding of poverty issues	3; 9.2
Inadequate understanding of poverty issues	3; 10.2
Lack of good quality information on existing situation to measure baseline and set realistic targets. Includes both social condition and technical condition of assets.	3; 8
Operator reluctant to expand into area where payment culture is uncertain	4.2; 7.3
Legal system does not support pro-poor agenda – LIGs not recognised	6
Legal standards (service levels, technology and workmanship) prevent innovative low cost methods being used	6.1; 8.3
Weak regulatory capacity makes it difficult to regulate social issues	6.3
Physical location making service more expensive	7.1; 8.1
High connection fees and tariffs, compared to incomes	7; 8.4
Cost of supplying LIGs is comparatively more, and consumption is less	7.3

Key Constraints	Section
Specific risks to serving LIGs, including: low collection rates; low consumption rates; increased safety risk; and increased vandalism and hence increased maintenance costs	7.3
Exclusivity limits options to serve LIGs	8.5; 9.5
No consideration of 'software' (e.g. hygiene education)	8.6
Tendering process does not allow for consideration of LIG issues	9.4
No obligation to serve LIGs specifically set out in the contract	9.5
Inadequate attention given to community liaison and education, as it requires proportionally more investment than other consumers	10

Table 11.2 Summary of possible interventions

Possible Interventions	Section
Make allowance for substantial surveys of LIGs at early stage of reform	3; 9.2
Better studies of Ability and Willingness to pay on LIGs will help reduce risk of non-payment	3; 7.3
Allow involvement of SSSPs in providing services	7.3; 8.5
Develop locally appropriate standards tailored to work with LIGs	6.1; 8.2
Promotion of variety of service levels and low cost technology	8.2; 8.3
Better targeted subsidies (and possible use of Output Based Aid – OBA)	7; 8.4
Promote flexible methods of payments in terms of timing, location and method of payment	7; 8.4
Establish a unit (in government and utility) focusing on needs of LIGs	9.2
Contract to have a specific focus on LIGs – with separate targets	9.5
Allow more time to focus on LIG issues in preparation of tender package and in assessing tenders and awarding contract	9.5
A stronger focus on customer liaison and education	10

Subsequent phases of this research project will explore, in depth, the specific issues identified, and for each identified constraint we will suggest possible remedies. Where possible, these remedies will take the form of contract clauses that might be embedded in a contract or a bid package. In some cases we may identify that a remedy cannot be appropriately included in these documents and is more effectively addressed through another instrument of sector reform.

PART C FUTURE RESEARCH

12 DESIGN OF THE NEXT PHASE – THE MAIN RESEARCH CONTRACT

12.1 Implications of initial findings

Following the results of the Inception Phase research, two major issues arise that impact on future work.

Our analysis has indicated that a number of the serious issues which prevent a private operator serving LIGs are as a result of decisions made in the earlier stages of restructuring and not just at the stage of developing and operating a PSP contract. While our work will focus on contract clauses, it will be important to refer to other parts of the process Therefore, in order to overcome these issues, focus should be given to 'upstream' issues, and the full process of water sector restructuring in addition to contract design.

The literature review resulted in very few references to sanitation, indicating, as expected, that discussions on how the private sector can be involved in sanitation services are not as developed as for water supply. This was reinforced at the WUP workshop, where sanitation issues were not discussed and only mentioned in passing. While the importance of sanitation provision is recognised, the differences between the provision of sanitation and water supply services are significant and cannot be readily examined in one project. Sanitation issues will require a separate analysis and study. In order to maintain clarity in the future research, it should focus solely on water supply issues.

12.2 Review of purpose and outputs of proposed project

The purpose of the project, as previously stated, was to "provide practical approaches for municipalities in developing countries to adopt within PSP contracts to ensure that the private sector have the appropriate incentives to expand services to LIGs."

As discussed in section 12.1 above, we believe the project should focus on water supply and not sanitation, and to include reference to 'upstream' issues of reform prior to contract design. Therefore we propose to amend the purpose to allow for this aspect and the new purpose should read:

"Provide practical approaches for municipalities in developing countries to adopt within water supply PSP contract design and processes to ensure that the private sector have the appropriate incentives to expand services to LIGs."

The outputs will remain the same as follows:

1. Issues and options report - recommending approaches for incorporating provisions for improving water services to LIGs
2. Initial base study done in three case study areas.
3. Case Studies Review on PSP Contract Provisions for LIGs – update after year 2.
4. International workshop held in one of the case study countries
5. Final case studies showing effect of PSP – update after year 3.
6. User friendly final handbook incorporating suggestions for enhanced LIG inputs.
7. Review of Service to case study LIGs

12.3 Description of overall methodology for remainder of project

The project will start by developing output 1, the issues and options report. Based on the work done in the Inception Phase, this will examine any additional relevant literature and a further review of existing contracts. Drawing on this, and any early information from the case studies, we will develop a list of key aspects that affect the delivery of service to the LIGs. For each aspect we will identify possible practical approaches to be adopted in a PSP process and evaluate them within the "Four-R" framework to provide the decision makers with a clear understanding of the economic and social implications of each approach for each stakeholder. In this framework, we will evaluate:

Who is Responsible? This identifies the responsibility of each of the parties (the operator, the regulator, the government, the LIG) in implementing the approach and how the obligations should be set out in the contract.
Who bears the Risk? This evaluates the allocation of risk between the government, the private operator, other parties (e.g., small providers), and the LIGs.
Who is Rewarded? This evaluates the benefits that accrue to each party (financial and service quality) to each party and determine if it is in line with the risks.
What are the expected Results? This evaluates whether the mechanism succeeds in achieving the goals of expanding services to LIGs.

The issues and options report will primarily be aimed at governments and their advisers (including transaction advisers) involved in water sector restructuring involving PSP. We also intend to produce a short companion document aimed at LIGs and bodies acting on their behalf. This will be designed to assist them to lobby for inclusion of pro-poor issues in PSP contracts.

A major part of the study will focus on three case studies. These will look at the water sector restructuring process and the development and operation of the PSP processes in Ghana, Tanzania and Malawi. For each case study, we will produce an initial report, a mid project update, and a final review and prepare an in-depth case study report providing an analysis of each in relation to the project objectives.

The approach for the case studies will be to identify how far LIGs have been involved in PSP processes, both in terms of process (participation in the project cycle) and substance (identifying pro poor clauses). A local NGO or researcher will be contracted for the surveys because of their knowledge of low income groups and communities, and demand side factors for basic service provision.

The case studies will assess the extent to which the contract meets the needs and interests of low income groups. This will involve examining how LIGs interests were investigated and represented in the contract, and how those representing the interests of LIGs managed to ensure their interests were implemented; assessing to what degree LIGs are specifically mentioned in the contract and if they have any specific role to play; assessing the extent to which the PSP contract has been adapted to the needs of the LIGs; reviewing how the LIGs have changed with regards to becoming customers of a service and measuring any improvement in service to the LIGs under the PSP contract.

The framework presented in section 3 (Table 3.1) will be used to guide the project in identifying the main relevant social issues in any area. It will enable us to identify and select different low income groups in the case study areas and it will help us to assess the extent to which the PSP water contract meets the needs and interests of low income groups.

12.4 Review of the project team

The project team will remain as originally proposed, namely

Roger Sawdon	Atkins	Project Director
David Hall	Atkins	Project Manager – case study leader and benchmarking
Heather Skilling	S&W	PSP/ Contracts Expert
Mike Woolgar	Atkins	Project Reviewer
Tim Walsh	Atkins	PSP Contracts review and analysis
Guillaume Patricot	Atkins	Support on issues report and case studies
Anja Koenig	S&W	Socio-economic evaluation
Ann Condy	Independent	Social Specialist

13 MONITORING, EVALUATION AND UPTAKE STRATEGY

13.1 Dissemination of Results

A key dissemination method is in the consultative way the project will operate. During the Inception Phase we have consulted widely with many interested parties, utilising existing networks and channels such as WUP. These links will continue throughout the project and allow greater consultation and feedback during the project and allow dissemination of the results. The case studies will also afford an opportunity to link with international NGOs, and we will use these links to disseminate the project results.

The findings of this project will be presented in two basic documents: the Handbook and Case Studies. These will be prepared in a user-friendly format and distributed in hard copy and on the Internet through relevant links (e.g. the KAR site, DFID, WUP, World Bank). Copies of the Handbook will be made available to the Water Companies and key government agencies in our case study countries and to other interested parties (e.g. transaction advisers, lawyers, donor agencies) whom we come into contact with during the project and the companion booklet, aimed at LIGs and bodies acting on their behalf, passed to NGOs.

To ensure that the Handbook is presented in a format that is appropriate and useful, we will maintain a consultation process with the case study governments and Operators/ Agencies and identify a core group for a peer review. Where appropriate, we will present the findings at suitable conferences during the project, in addition to that planned as part of the project.

13.2 Monitoring of Progress

The progress will be monitored in line with the project proposal and log frame, which is copied below.

LOGICAL FRAMEWORK

	Narrative summary	Measurable indicators	Means of verification (MoVs)	Important assumptions
Goal	Raise the well-being of the rural and urban poor through cost effective improved water supply and sanitation	Coverage figures for water supply Quality of water supply service	JMP and other coverage/quality data	No input required.
Purpose	Provide practical approaches for developing countries to adopt within PSP contracts to ensure that the private sector have the appropriate incentives to expand services to LIGs	Impact of measures in improving services to LIGs – end of year 3. Degree to which recommended measures are incorporated into new PSP contracts	End of Project Reports Surveys carried out at end of project	(Purpose to Goal) Continued support to developing countries to carry out PSP type contracts.
Outputs	1. Issues and options report - recommending approaches for incorporating provisions for improving water services to LIGs 2. Initial base study done in three case study areas. 3. Case Studies Review on PSP Contract Provisions for LIGs 4. International workshop held in one of the case study countries 5. Final case studies showing effect of PSP. 6. User friendly final handbook incorporating suggestions for enhanced LIG inputs. 7. Review of Service to case study LIGs	1. Report produced by end year 1 2. Base study reports produced by end of year 1 3. Case study review report produced by end of year 2. 4. Workshop report produced 5. Case study final report produced end year 3 6. Final handbook produced at end of project 7. KPIs as developed during initial case studies	1. Report available for use in hard format and on internet 2. Case study report available on Internet 3. Case study report available on Internet 4. Workshop report available in hard format and on internet 5. Case study report available in hard form and on Internet. 6. Handbook available for use in hard format and on internet 7. Final case study reports	(Output to Purpose) Delay in progress of PSP contracts in case study areas, such that effect of PSP contract cannot be measured.

	Narrative summary	**Measurable indicators**	**Means of verification (MoVs)**	**Important assumptions**
Activities	1.1 Compile existing contracts & supporting data to evaluate 1.2 Identify contractual issues and experiences 1.3 Prepare initial Handbook 1.4 Distribute handbook to various parties 2.1 Confirm location for case study 2.2 Consultation with local NGO's 2.3 Carry out baseline studies 2.4 Prepare Baseline Report 3.1 Conduct Mid-term reviews on case studies 3.2 Prepare Mid-term Report 4.1 Arrange Workshop 4.2 Attend and run workshop 4.3 Write up workshop report 5.1 Conduct final studies 5.2 Prepare final case study report 6.1 Re-evaluate "pro-poor" approaches based on case study results 6.2 Review other experiences during research period 6.3 Revise handbook based on findings	<u>Milestones and Budget</u> Inception Report produced under a separate commission (R8166), prior to commencement of this project 2. Production of Issues and Options report (by month 12) 3. International Workshop (by month 28) 4. Production of final Handbook (by month 37)		*(Activity to Output)* Residents in case study areas willing to take part in the study Additional funding available where required to support African delegates attend the workshop
				Pre-conditions Inception project proceeds and is accepted by DFID